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**CONTRACT
FOR
CLASSROOMS FOR THE FUTURE**

THIS CONTRACT for the supply and delivery of products and services for the Classrooms for the Future project ("Contract") is entered into this 17th day of November 2006, by and between the **Commonwealth of Pennsylvania**, acting through the Department of General Services ("DGS"), and Apple Computer, Inc. ("**Contractor**").

WHEREAS, DGS issued a Request For Proposals for Classrooms for the Future, RFP No. CN00019758 ("RFP"); and

WHEREAS, Contractor submitted a proposal in response to the RFP; and

WHEREAS, Contractor revised its proposal in response to DGS' request for clarifications; and

WHEREAS, Contractor's proposal was selected for the Best and Final Offer ("BAFO") phase of the RFP process; and

WHEREAS, in response to DGS' BAFO request, Contractor submitted BAFO Price and Disadvantaged Business submittals; and

WHEREAS, DGS determined that Contractor's revised proposal was the most advantageous to the Commonwealth for Lot B (Macintosh) ("MAC") after taking into consideration all of the evaluation factors set forth in the RFP and selected Contractor for contract negotiations; and

WHEREAS, DGS and Contractor negotiated this Contract as their final and entire agreement in regard to the supply and delivery of MAC products and services for the Classrooms for the Future project to the Commonwealth.

NOW THEREFORE, intending to be legally bound hereby, DGS and Contractor agree as follows:

1. Contractor shall, in accordance with the terms and conditions of this Contract, supply and deliver MAC products and services for the Classrooms for the Future project to all Pennsylvania schools that receive Classrooms for the Future funding from the Commonwealth of Pennsylvania.
2. Pennsylvania schools shall procure their requirements for Classrooms for the Future MAC products and services in accordance with the terms and conditions of this Contract.

3. DGS and Contractor agree to be bound to the Special Terms and Conditions attached hereto as Exhibit A.
4. Contractor agrees to supply and deliver the Classrooms for the Future MAC products and services, at the prices listed for those items, listed in its Final Price Sheet, which is attached hereto as Exhibit C and made a part hereof.
5. Contractor agrees to meet and maintain the commitments to disadvantaged businesses made in its BAFO Disadvantaged Business Submittal, which is attached hereto as Exhibit D. Any proposed change to a disadvantaged business commitment must be submitted to the DGS Bureau of Minority and Women Business Opportunities ("BMWBO"), which will make a recommendation as to a course of action to the Contracting Officer. Contractor shall complete the Prime Contractor's Quarterly Utilization Report and submit it to the Contracting Officer and BMWBO within ten (10) workdays at the end of each calendar quarter that the Contract is in effect.
6. This Contract is comprised of the following documents, which are listed in order of precedence in the event of a conflict between these documents:
 - a. The Special Terms and Conditions set forth in Exhibit A, attached hereto and made a part hereof.
 - b. The revised Contract Standard Terms and Conditions attached hereto as Exhibit B and made a part hereof.
 - c. The Final Price Sheet, which is attached hereto as Exhibit C and made a part hereof.
 - d. The BAFO Disadvantaged Business Submittal, which is attached hereto as Exhibit D and made a part hereof.
 - e. The RFP, including all of the referenced Appendices and as revised by all Addenda issued thereto, which is incorporated by reference herein as Exhibit E and made a part hereof.
 - f. Contractor's Technical Submittal, which is incorporated by reference herein as Exhibit F and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract the day and year first above written.

ATTEST:

By: _____
(Assistant) Secretary

Printed Name/Date

Apple Computer, Inc.:

By: 
(Vice) President Senior Manager

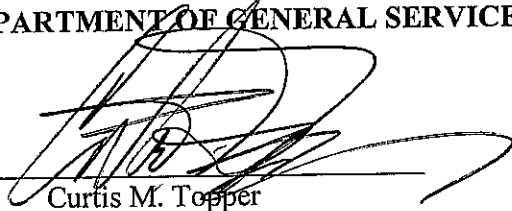
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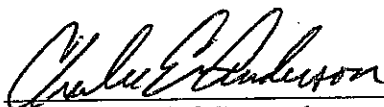
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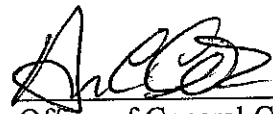
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES

By: 
Curtis M. Topper
Deputy Secretary for Procurement

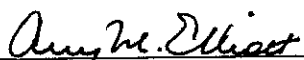
APPROVED AS TO FORM AND LEGALITY:

 11/08/06

Office of Chief Counsel Date

 11.15.06

Office of General Counsel Date



Office of Attorney General Date



January 12, 2006

CERTIFICATE OF AUTHORITY

I, Elinora S. Mantovani, Assistant Secretary of Apple Computer, Inc. ("Apple"), a California corporation, do hereby certify that Preston Patton, Senior Manager of Bids and Contracts Management, has signature authority for Apple for all bids and for K12, Higher Education, government, and commercial contracts for the sale or service of Apple products.

A handwritten signature in dark ink, reading "Elinora S. Mantovani", is written over a horizontal line.

Elinora S. Mantovani
Assistant Secretary

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EXHIBIT A TO CLASSROOMS FOR THE FUTURE CONTRACT
SPECIAL TERMS AND CONDITIONS

These **SPECIAL TERMS AND CONDITIONS** shall be a part of the Contract for the supply and delivery of MAC products and services for the Classrooms for the Future project between the Commonwealth of Pennsylvania ("Commonwealth"), acting through the Department of General Services ("DGS"), and Apple Computer, Inc. ("Contractor").

1. CONTRACT SCOPE/OVERVIEW:

This Contract (identified here and in other documents as the "Contract") will cover the requirements of the Commonwealth for Classrooms for the Future MAC products and services, as more fully described in RFP No.CN00019758.

2. TERM OF CONTRACT:

This Contract shall not be a legally binding agreement until it is fully executed by the Commonwealth. The term of this Contract will commence on the Effective Date (as defined herein) and will have a term of three (3) years. The Effective Date shall be fixed by DGS after the Contract has been fully executed by the Contractor and all approvals required by Commonwealth contracting procedures have been obtained. The procurement of all Classrooms for the Future products and services will expire at the end of the contract term.

3. OPTION TO RENEW:

The Contract may be renewed annually by mutual agreement between the DGS and the Contractor, contingent upon future funding of the Classrooms for the Future project by the PA General Assembly and the PA Department of Education ("PDE"). If the Contract is renewed, except for product and price adjustments which may be negotiated, the same terms and conditions shall apply.

4. PRICE GUARANTEE:

Contractor's pricing for the products and services listed in its Final Price Sheet (Exhibit C to the Contract) shall remain firm for the three-year term of the contract.

5. SUBSTITUTION OF PRODUCTS:

- a. If the production of an item being acquired under this Contract is permanently discontinued, the Contractor is not obligated to provide the item after written notification of discontinuance is received by the Commonwealth. The Contractor agrees to provide

the Commonwealth the maximum possible advance notice of OEM decisions to cease production.

- b. Notwithstanding the provisions of subsection a. above, the Contractor is required to make available substitute products for the item being discontinued. The substitute product shall at a minimum include the salient characteristics and major functional capabilities as well as meet or exceed the rated performance characteristics of the item being replaced.

6. NEW TECHNOLOGY:

- a. The items being acquired under this Contract were compiled based upon current Commonwealth needs. This configuration was used to obtain pricing for the current state of technology level, rather than rigid product configurations. It is required that the Commonwealth be able to continue paying the contracted pricing obtained for this technology level even as the standard product configurations for this level adjusts with changing technology and market pricing.
- b. When a standard product configuration has reached the end of its life cycle and/or as new product features are incorporated into the technology level, Contractor will work with the Commonwealth to develop a plan for a smooth transition to a new product configuration. As part of this plan, Contractor will make a good faith effort to help the Commonwealth transition to a new standard product configuration at a point in the product life cycle where the price of the new configuration is comparable to the price of the prior configuration.
- c. As technology changes, an updated list of option/upgrade items may be more appropriate for the Commonwealth. Any changes in technology to warrant these changes will be evaluated and prices negotiated between the Commonwealth and the Contractor.
- d. The Contractor, DGS and PDE will meet on a quarterly basis to discuss technology upgrades, model changes, new technology and price adjustments based on current market conditions.

7. SOFTWARE VERSIONS:

The Contractor must include current and upgraded versions of the office and operating system software through the term of the Contract in order to maintain usability with upgrades and enhancements to educationally relevant software.

8. ADDITIONAL FUNDS:

Purchasers may purchase products from this Contract utilizing any appropriate sources of funds in addition to the Classrooms for the Future grant funds made available by the Commonwealth.

9. CONTRACTING OFFICER:

The Contracting Officer for this Contract is:

Contract Officer:

Dennis J. Fellin
Commodity Manager
IT & Communications
Commonwealth Of Pennsylvania
Dept of General Services
717-346-2675
717-783-6241 (fax)
defellin@state.pa.us

PDE Project Officer:

Holly Jobe
Office of Elementary/Secondary Education
Bureau of Teaching & Learning Support
Division of Middle & Secondary Education
8th Floor, 333 Market Street
Harrisburg, PA 17126

Contractor shall direct all notices or inquiries to the Contracting Officer.

10. PROJECT DESCRIPTION:

The parties agree that the supply and delivery of MAC products and services for the Classrooms for the Future project shall be performed in conformance with the Project Description outlined in Attachment 1, attached hereto and incorporated herein. Modifications to the Project Description may be made in writing by mutual consent of the parties and will automatically become a material part of this Exhibit and the Contract, without the necessity of any further instrument.



ATTACHMENT 1 TO EXHIBIT A TO CLASSROOMS FOR THE FUTURE CONTRACT
PROJECT DESCRIPTION

Laptop Specifications

- MacBook
- 1.83GHz or 2.0GHz Intel Core Duo
- 13.3-inch (diagonal) 1280x800 TFT glossy widescreen display
- Apple Remote with Front Row
- 512 MB memory (1 GB upgrade available)
- Intel Graphics Media Accelerator 950
- Slot-loading optical drive
- 60GB hard drive
- Built-in 54-Mbps 802.11g AirPort Extreme wireless
- Analog and digital audio in and out
- Built-in FireWire 400, USB 2.0, and gigabit Ethernet ports
- iLife '06, Mac OS X Tiger (10.4.7)

Software Applications

Writing Software:

Mail, from Apple; *Office 2004*, from Microsoft; *NeoOffice*; *Inspiration*, from Inspiration Software; *Dictionary* and *Thesaurus*, in Mac OS X.

Data analysis

Grapher, from Apple; *GRASS GIS* (freeware).

Presentations and publishing:

iWork '06, from Apple, include *Keynote 3* and *Pages 2*; *iWeb*, from Apple (part of iLife '06); *SiteSucker*.

Multimedia creation:

iLife '06, from Apple, includes *iMovie HD*; *iPhoto*; *iDVD*; *GarageBand* and *iWeb*; *iTunes*, from Apple; *GNU Image Manipulation Program*; *Audio Recorder 3.0* (freeware).

Research:

Safari, from Apple; *Spotlight*, from Apple; *Sherlock*, from Apple; *QuickTime*, from Apple; *iChat AV* & *iSight*, from Apple; *Java*.

Other software included in Mac OS-X:

Dashboard, from Apple; *iCal*, from Apple; *Grab*, from Apple; *Preview*, from Apple ; *Universal Access*, from Apple; *ClamXav*.



Stand-alone

Each MacBook will be set up with a local student account and a local administration account. When students use a MacBook they will be able to securely login to the computer using a student password, and use any of the applications that students have been given permission to use.

Software Restore

Each MacBook will ship with a restore DVD that has the base operating system image. A supplemental DVD will also be provided that restores all custom software and custom imaging options for both students and instructors.

Additional Peripherals

Apple's proposed solution fully supports existing USB- and FireWire-based peripherals that schools may have already invested in

Local Network and Access

Wireless Coverage

Apple will expand the network coverage to the necessary instructional and administrative areas with AirPort Extreme Base Stations. Apple will provide onsite assistance and consultation regarding wireless security as needed. Apple recommends that administrative areas should remain with wired access because of the sensitive nature of student data that is often transmitted in administrative systems. Wireless is not recommended for situations where sensitive student data is frequently exchanged.

Wireless Access

Apple's AirPort Extreme Base Stations provide the optimal wireless solution and by setting our base station to the combined 802.11(b) and 802.11(g) modes, Apple ensures that any schools that seek to retain their existing 802.11b devices will be able to use them while the new MacBooks are capable of leveraging the higher 802.11g speeds.

Wireless Bandwidth

Apple will install the wireless networks based upon scheduling information provided by the schools. AirPort Extreme Base Stations will be installed in a physical configuration that ensures compliance with this requirement.



Internet Access

Apple will continue to support the open standards of the Internet as well as to work with schools to identify networking issues such as bandwidth availability, bottlenecks, and IP address allocation.

Growth

The Apple solution will be designed for any expected expansion and growth.

Print Services

The MacBooks are capable of printing to LPR, IPP, Windows XP, USB, AppleTalk, LocalTalk, Bluetooth, and FireWire printers.

Remote Network Access Portability

MacBooks support standards based networking from the physical layer down to the protocol layer. Apple will work with the individual schools as needed to ensure access.

Functional and Asset Security

Theft

Mac OS X offers a secure and unavoidable login screen that can be customized to show State or Institutional ownership with appropriate contact information. The MacBooks NVRAM will be embedded with information identifying the device as part of the program and can contain PDE contact information. The desktop image (wallpaper) can display an image that identifies the device as part of the program and give information on how to contact PDE if found. Precautions will also be made to make it difficult for non-PDE personnel to erase the information embedded in software that marks the device as a PDE device.

Schools will also receive a complete inventory of the devices they are issued which will include hardware details about the device such as Ethernet address and serial number. Apple will also work with State law enforcement officials so that these markings are well known and easily identifiable.

Asset Tags

Asset tagging, imaging, and other pre-deployment services will be completed under the direction of the Project Manager as described in Purchase Orders issued by Purchasers and accepted by Apple.

Asset tags will be affixed to all computers, whiteboards, laptop carts, and printers. Information on the asset tags will include:

- Asset #
- Customer Name
- Apple Order #
- Purchase Order #
- Purchase Date

Apple will maintain complete database of Assets with additional information such as serial numbers, etc.

Curriculum Integration and Professional Development

Apple incorporates both leader-led (on-site) and on-line training resources, providing a blended approach to professional development. Leader-led training incorporates elements such as collaboration, project-based learning as well as interactivity, facilitation and reflection. On-line resources incorporate elements of just in time tutorials and ongoing asynchronous support, learning, opportunity for reflection and connection between educators in and outside of Pennsylvania.

The following leader-led (on-site) training will be provided:

**Teachers**

- 2 day Out of the Box (OOTB) and introductory iLife Training for all teachers in the program.
 - Apple's online Professional Development Tools, including:
 - The Learning Center
 - Apple Learning Interchange and iLife lesson plans
- www.apple.com/education/ilife

Administrators

The same training and resources available to teachers will be made available to administrators, as well as:

- Leadership Training for up to 4 participants per school (Principal and 3 others of his/her choosing) to properly support, nurture, plan for, and implement technology into the fabric of their curriculum day.
- Three 2-day sessions spread out throughout the school year. These trainings will be held at local Intermediate Units or a host school and will include no more than 4 schools staff simultaneously.
- Principal Leadership Series (see Value Add Submittal).

As part of the OOTB and/or Leadership Training, Apple will also provide the Teacher Technology Profile (see below).

Lead and Keystone Teachers

- Two day Building Capacity (T3) and Train the Trainer Institutes conducted strategically around the state and held at local Intermediate Units or a host school.
- The frequency of these classes will be determined by the number of schools selecting an Apple solution. We expect this to be approximately one two-day institute per participating school.



In addition to leader-led training, Apple will also provide the following on-line Professional Development and Instructional Resources:

The Apple Learning Interchange www.ali.apple.com

The Apple Learning Interchange (ALI) is an online environment that combines learning events, digital field trips, stories, photos, movies, and audio and text files developed and submitted by educators.

The Learning Center

Included on every teacher laptop, The Learning Center is a collection of tutorials that covers the fundamentals of the Mac OS X operating system and the iLife and iWork applications that come installed on the MacBooks.

Program Evaluation and Assessment

Apple will cooperatively work with the Pennsylvania Department of Education to evaluate the effectiveness of the program by providing recently developed evaluation and assessment tools and one day of orientation and consultation on the tools to the PDE within one month of selection. The usage of the tools will be at the sole discretion of the PDE.

These tools will allow local schools to measure their progress.

- **The Program Evaluation Toolkit**, developed with SRI International (an independent, non-profit research and policy institute, www.sri.com) provides for surveys, observation tools, and organization and analysis protocols.
- **Apple Teacher Technology Profile** is designed to gather information on the technological skill and competence of a school or district's educators, and to use this as the basis for a comprehensive plan for professional development and to provide evidence of a teacher's progress in effective use of technology within the day-to-day instructional process.

Support and Maintenance

Custom AppleCare Protection Plan for Apple Branded Products

This support and maintenance plan includes:

- Three year coverage
- Onsite, next day hardware repair performed by certified Apple technicians using genuine Apple parts
- Help desk services at a toll-free telephone number
- 24-hour-a-day Internet support: www.apple.com/support
- Fixes and updates for software and firmware
- A dedicated AppleCare Strategic Account Manager (AC-SAM).

The AppleCare Protection Plan covers all repair costs due to defects in materials and workmanship, including replacement parts and labor charges.

Battery Coverage

The AppleCare Protection Plan does not cover consumable parts, such as batteries, unless failure has occurred due to a defect in materials and workmanship.

Technical Support

- For the Classrooms for the Future project, Apple will provide phone support (1-800-800-2775) from 6:00 a.m. to 9:00 p.m. Local Time, Monday through Friday and from 9 a.m. to 9 p.m. Local Time, Saturday and Sunday.



Break/Fix Process

The Break/fix process is as follows:

Step 1

- Customer calls 1-800-800-2775.
- Apple technicians provide troubleshooting and, if it is determined that the unit requires hardware repair, Apple notifies the Direct Dispatch Service Provider (DDSP) of Direct Service Dispatches via Direct Dispatch Web Site as well as courtesy e-mail to the DDSP location.

Step 2

- Once Apple has submitted the notifications, the DDSP calls the school to schedule service. DDSP's are goaled to schedule an onsite appointment within four (4) business hours from Apple dispatch notification.

Step 3

- DDSP should attempt onsite repair the following business day if the receipt of the Apple dispatch notification occurs before 3 p.m. Local Time.

Preventative Maintenance

Apple defines preventative maintenance as fixes and updates for software and firmware, which are available at no charge at www.apple.com/support/

Non-Apple Branded Products

Non-Apple-Branded products are covered under their respective manufacturer's warranty. The following outlines Apple's process when calls are received from customers requesting service or technical support for non-Apple-branded products:

- Customers contact Apple Help Desk at 1-800-919-2775 and are prompted to enter their PIN to access Apple Tech Support. This PIN will identify them as Commonwealth customers.
- Apple representatives will assist the customer in contacting the manufacturer and, if necessary, stay on the line until the call is connected.
- If the problem is not resolved, the Apple Project Management team will be engaged to ensure a satisfactory resolution.

Project Management and Implementation

Apple Computer will use the Project Management Institute (PMI) standards for managing this project.

Project Plan

Upon award, Apple will finalize a project plan that will provide clear deliverables and objectives for all of the aspects of the implementation. Apple will provide project plans and review updates with PDE on a regularly scheduled basis.

Project Staffing

Based on both the volume of purchasing, and on the number and location of participating schools, Apple reserves the right to assign, reassign and substitute personnel at anytime at its sole discretion. Personnel assigned, reassigned, or substituted and working within schools shall have undergone a background check as required by Act 34 and Act 151. Apple shall make commercially reasonable efforts to provide Services on a timely basis, subject to availability of qualified personnel and the difficulty and scope of the Services.

Apple will provide the following in-state staff to support this project: one Project Manager, one Technical Service Consultant, one Education Specialist, and one part-time Office Manager.

The responsibilities of each staff member are:

Project Manager:

- Overall Responsibility
- Contract Management



- Contractor/Third Party Management
- Coordination and Communication
- Issue Escalation

Technical Service Consultant/Engineer:

- Software Restore Image Creation
- Technical Support
- AppleCare Liaison
- Hardware Issues Escalation
- Software Issues Escalation

Education Specialist:

- Professional Development Programs
- Coordination with Apple Professional Development
- Assessment Planning and Coordination
- Coordination of PDE with other DOE Programs

Office Manager:

- Office Operations
- Tracking Assets
- Tracking Shipments
- Meeting Minutes

Network Connectivity and Infrastructure

Apple will provide consultative services with each school on an as-needed basis.

Building Readiness

Apple will work with PDE to provide guidelines to schools for the minimum building readiness specifications. Schools will be asked to provide building data. Apple will provide onsite assistance and consultation as needed. Apple will then work with the schools to recommend and if appropriate, facilitate upgrades and improvements that minimize financial and operational impact. Priority status will be given to those schools that complete the readiness checklist quickly and do not have abatement issues or other health hazards.

Coordination with Schools

Apple will work with PDE and the schools to schedule any site visits including site surveys, hardware installations, and training

Apple and its subcontractors will finalize scheduling of all consultation, services, and training in consultation with the school in order to both move the project along as quickly as possible and also minimize disruption to the school environment.

Validation Testing

Apple will work with PDE to determine the metrics by which the validation testing will be judged. An implementation plan will be followed for up to 8 schools and validation will be completed in accordance with the requirements.



Upon completion of the Installation and Implementation/Roll Out phase at each of the 8 schools, Apple will conduct system testing to confirm that the solution meets or exceeds all functional requirements. We will use a checklist template to verify the functionality of the individual components. System tests will verify the following:

- Power up laptops, ensure all are fully charged and operational.
- Check network connectivity and interoperability of all peripherals—conduct handshake tests to ensure everything is integrated.
- Test wireless coverage, access and bandwidth—test strength of signal by setting appropriate channels for student and teacher use.
- Ensure internet connectivity by testing existing routing hardware.
- Check remote printing services by running test page.

Once system tests are complete, initial Out of the Box and Care & Feeding onsite training will begin and satisfaction surveys will be distributed. Apple will provide each school with a customer signoff packet, including warranty information, help desk information, and product manuals. Basic troubleshooting training will also be delivered to technical staff.

Formal acceptance of working systems will be accomplished by signature on the customer signoff packet by the School Project Manager. The methodology described above will not only take place in the pilot launches but will occur on every deployment throughout the life of this program.

Pilot testing will include PDE and up to **eight** schools and must be successfully completed no later than **four** weeks after issuance of notice to proceed and mutual acceptance of the implementation plan. Apple will not be liable for deviations from this target resulting from purchasing delays, scheduling conflicts, or other delays at an individual school and beyond Apple's reasonable control.

Project Management Reporting

Apple will provide monthly reports and will work with PDE to examine desired changes to the content. These reports will include the activities completed during the performance period, upcoming activities for the following performance period, and any issues or concerns. Apple's monthly reports will address any problems identified during the performance period. Problems will be assessed and a course of action will be recommended.

All reports are due quarterly and Apple is to provide all reports no later than the 10th day after the end of each calendar quarter. Apple shall e-mail usage reports to ra-itspurchases@state.pa.us and the PDE Project manager. Each report shall indicate the name and address of Supplier, contract number and period covered by the report.

Sales Reports

- Usage Reports: Include the following elements: School District, School Name, Address, City, State, and Zip Code, Item no. (If applicable), Material Code (If applicable), Description. Quantity, Unit price, Total Cost, Date of Installation, Date of Acceptance.
- Customer Report: A listing of all CFF customers including contact information.

Service Reports

- Service Response Time: Include the following elements: Date of call, name and full address of caller, item description, serial number, customer problem, resolution, time call opened, time customer issue resolved, type of call (land-line, web report).
- Repeat calls: Number of repeat calls on a rolling 30-day basis including detail of each product.

Other Reports

- Progress/Problem Identification Report: Covers activities, problems and recommendations. The report should describe the problem and its impact on the overall project and on each affected task. It should list possible courses of action with advantages and disadvantages of each, and include Apple's recommendations with supporting rationale.



- Project Management Reporting. Include setup, deployment and installation, and summary information such as: PO turnaround times, trends, remediation needed, unresolved issues, recommended improvements and other factors necessary to ensure a successful project.
- Performance Metrics Report: Apple will provide reports on order status and tracking, software license tracking, invoice tracking and management, contact information for account managers and other Apple personnel, and other performance metrics determined by PDE and Apple to ensure a successful project.

Educational Conferences and Meetings

Apple agrees to participate in at least 30 mutually agreed upon educational conferences or meetings annually in conjunction with the Pennsylvania Department of Education, the intent of which is to help inform the educational community of the project plans and to maintain communication and ongoing relationships with the participating schools.

Apple will use the appropriate staff to participate in the agreed-upon educational conferences conducted in Pennsylvania.

During the first month of the project, the Apple Area Development Manager will meet with representatives from the Department to establish a public relations plan. This cooperative plan will be established to clearly define a communications and public relations strategy that benefits both the State of Pennsylvania and Apple. Discussions of involvement in local and national conferences along with communication to press organizations, and school visitation strategies will be explored. The goal of this plan will be to clearly articulate the positive outcomes of PDE to an international audience and bring deserved recognition to the State of Pennsylvania.

PRODUCT AND WARRANTY SCHEDULE

Manufacturer	Device Type	Manufacturer Part Number	Model Number	Warranty
Apple	Student Laptop	MA254LL/A	Macbook	Three year custom warranty: AppleCare Protection Plan, 3-year next business day onsite repair
Apple	Teacher Laptop	MA255LL/A	Macbook	Three year custom warranty: AppleCare Protection Plan, 3-year next business day onsite repair

- Intel Core Duo Processor (1.8 GHz for Student, 2.0GHz for Teacher)
- Mac OS 10.4.7
- 13.3-inch TFT 1280x800 glossy widescreen Display
- 512MB 667MHz DDR2 SDRAM
- Student: Combo Drive (DVD-ROM, CD-RW) (Teacher laptop has 4x SuperDrive DVD RW, CD-RW Drive)
- 60GB Serial ATA
- Intel graphics Media Accelerator 950, 64MB of DDR2 SDRAM
- 6 Cell, 55-watt-hour lithium polymer battery with integrated charge indicator LED. Up to six hours on a single charge depending on usage.
- One Built in Firewire IEEE 1394 port
- One Built in 10/100/1000 (gigabit) BASE-T Ethernet
- Built in AirPort extreme (Wi-Fi 802.11b/g) Built in Bluetooth 2.0+EDR
- 5.2 lbs

PRODUCT AND WARRANTY SCHEDULE

	Device Type	Manufacturer Part Number	Model Number	Warranty
HP	Printer/All in one	TK619LL/A	Photosmart C6180	1 year, 5 business day exchange depot
Apple	Web Cam	Built in to MacBook	iSight built in	Covered as part of laptop warranty.
Harman Kardon	Computer Speakers	TB998LL/A	JBL Duet 2.0	1 year warranty, parts depot
Apple	Access Points	M9397LL/A	Airport Extreme	Covered as part of laptop warranty.
Epson	Projector	TE892LL/A	Power Light 82C	2 year warranty, parts depot
Bretford	Notebook Cart	TH152LL/A	32 Laptop Mobility Cart	12 year parts depot
Canon	MiniDV Camcorder	TH648LL/A	ZR600	1 year parts depot
Casio	Digital Still Camera	TJ380LL/A	Exilim EX-S600	1 year parts depot
Polyvision	Interactive White Board	TF912LL/A	TS600	5 year NBD parts

Appendix 1: Classrooms For The Future Project Plan

Executive summary

- The purpose of this document is to provide an initial plan of Apple's execution of the Classrooms for the Future initiative.
- Each functional component of this project, identified below, will have a detailed sub plan describing the scope of work and tasks. Some of these sub plans will need to be evaluated and further developed during the planning phase prior to implementation.
- This document is considered a living document that will grow over the life of this project.
- Changes to this plan, and all associated sub plans, will be controlled by this Project Plan and documented by our Project Manager in coordination with the PDE Project Manager.

Project Management

The implementation of the Apple portion of the Classrooms for the Future project will be performed under an Apple Project Manager's direction. The Project Manager is the primary point of contact for the Commonwealth and participating districts, and will manage the project scope from initiation through implementation to closure. This person will organize the project, integrate resources, and manage project scope, schedule, quality, communications, risk, change, and lessons learned. Scope of work includes building readiness survey, creation of custom images, imaging and configuration of laptops, inventory, mobile cart setup, white board installation, and teacher orientation and distribution.

The Apple Project Manager will be assigned to this project for the period of one year beginning with contract award (see note below for exception). At the end of one year, a second audit of the program will be conducted to establish the status and future needs of the project. Allocation of time dedicated to the project will be evaluated and adjusted according to budget and need.

Below is an outline of our project management plan. This plan outlines the roles and responsibilities that our PM will be engaged in over the course of the project. More project detail will be included in each subsequent phase description. Apple considers our detailed plans, including charts and Work Breakdown Structures, to be proprietary and confidential. This plan will commence upon contract award.

Note: The Apple Technical Service Consultant and the Apple Project Manager will be two separate and full time dedicated resources once the unit count exceeds 5,000 units. If the total unit count is less than 5,000 units, the Apple Project Manager and Apple TSC will be equivalent to one full time resource.

The major milestones include:

Milestone 1: Project Initiation

- Project kickoff Meeting.
- Develop deployment plan with PDE staff.
- Provide schools with Building Readiness checklist(s) and provide appropriate consultation.
- Meet with each School Principal and staff to finalize deployment schedule/plan.
- Work with individual schools to identify Depot Manager.
- Schedule Training for School staff.
- Agree on project meeting schedule and reporting.
- Determine date for P.O.'s to be issued.

Milestone 2: Pre-Deployment

- Apple and PDE work together to provide specification for image.
- Local Apple team works with PDE to create image specification.
- Local Apple team works with PDE to approve the image.

- Apple manufactures MacBooks.
- Apple images computers and affixes asset tags.

Milestone 3: Installation - Implementation/Roll Out

- Deliver MacBooks, carts, and all accessories to each school as per pre-determined schedule.
- Install whiteboards and affix asset tags.
- Setup mobile carts with MacBooks, printers and AirPort Base Station and affix asset tags.
- Assist with Roll out.
- Report assets to PDE.
- School acceptance/sign off of installation phase.

Milestone 4: Implementation/Ramp Up

- The Apple PM will work with the PDE Classrooms for the Future staff to approve a training and ramp-up schedule.
- The Apple PM will work with the Principal and School Project Manager at each school to develop an implementation plan specific to the unique needs of each school.
- Assess the effectiveness of each school's ramp-up phase and develop an ongoing support and training plan.

Milestone 5: Post Implementation support

- The Apple PM will continue to work with the PDE Classrooms for the Future staff on a regular basis and provide reporting and attend regular meetings.
- Continued scheduling of Apple resources assigned to the project.

Apple Technical Services Consultant (TSC)

The Apple Technical Services Consultant (TSC) will be responsible for working with the Apple Designated Project Manager, Apple team, selected schools and designated integrators, to understand the project and implementation and deployment plan, and to be a part of the on-going Apple team assigned to work with schools/end-users, and is part of the customer facing interface for schools and designated integrators.

The Apple TSC is to perform the following tasks, while working with the PDE, schools, integrators and Apple team:

- Will be assigned to the PA PDE
- Will participate in planning meetings prior to the Implementation Phases
- Will assist in conducting and evaluating site surveys
- Will assist in monitoring all installations completed by assigned integrator
- Will assist with PD assessment of all school-based learners for future trainings
- Will assist in providing Depot training to schools
- Will be available for hands on training while in the schools (out of the box training)
- Will be available to assist, if required, with any facet of the asset management process and Depot process
- Will be part of all team meetings
- Will provide to PM a written weekly status report to include activities performed and any issues/concerns uncovered

The Apple TSC will be assigned to this project for the period of one year beginning with contract award (see note below for exception). At the end of one year, a second audit of the program will be conducted to establish the status and future needs of the project. Depending on budget and a needs assessment, the TSC may remain dedicated to the project, or may decrease his commitment.

Note: The Apple TSC and the Apple Project Manager will be 2 separate and full time dedicated resources once the unit count exceeds 5,000 units. If the total unit count is less than 5,000 units, the Apple Project Manager and Apple TSC will be equivalent to one full time resource.

Project Initiation

The Project Initiation Phase of the Classrooms for the Future Project will begin when Apple is informed that they have been awarded a contract for this initiative. Apple will quickly move to demonstrate its commitment to the Classrooms for the Future initiative and exhibit our expertise in managing education projects of this scope and size. This will begin a series of rigorous meetings, evaluations, and preparations. The Apple PM and TSC along with other members of the Apple team will request a kick off meeting with the Classrooms for the Future Staff to discuss the project and move forward with building level meetings and planning sessions. We expect the planning stage to last 3 to 4 weeks from the time we are awarded the contract until the time we receive any purchase orders. [Note: matches usage elsewhere] Some of the details to determine during the early stages of the Planning phase are:

A. Kick off Meeting

- i. Determine team members
- ii. Determine communications
 1. Email
 2. Phone
 3. Meetings
 4. Frequency - Daily, weekly, monthly
 5. Who is part of the Critical Communications Path
 - a. Apple Team
 - b. Classrooms for the Future Staff
 - c. School Staff
 6. Who is part of the Non-Critical Communications Path
 - a. Apple Team
 - b. Classrooms for the Future Staff
 - c. School Staff
- iii. Determine potential risks/obstacles to success
 1. Information flow
 2. Access to facilities and resources
 3. Clear understanding and articulation of roles and responsibilities
- iv. Determine and discuss customer requirements
 1. Classrooms for the Future Administration must appoint a project PM to act as the single point of contact for the Apple Project Manager
 2. Provide schools with Building Readiness checklist(s) and any necessary onsite consultation
 3. Schools "customer requirements" are listed below
- v. Determine and discuss quality standards and time lines
 1. Certifications
 2. Training
 3. Assessments
 4. School/Teacher Participation
- vi. Discuss logistics and details of this project plan

- vii. Discuss plan for meeting with each School and the desired outcomes and commitment
- viii. Revise and reach consensus on project plan
- B. Meet with each School to develop plan for phase II and III and to gain commitment from School Principal on customer requirements.
 - i. Meet with Critical staff to discuss roll out and ramp up
 - 1. Principal
 - 2. Depot Manager
 - 3. Representative of Custodial Staff
 - 4. Apple PM
 - 5. Apple TSC
 - ii. Gain commitment from School Project Manager on customer requirements
 - 1. The School Project Manager must work with the Apple PM to have a “Ready Plan” for the “just in time” delivery of the schools assets. This plan will be completed on site, but will include at a minimum:
 - a. Date for installation
 - b. School based team ready to accept delivery
 - c. A plan for accepting, installing, and storing the MacBooks
 - d. A deployment plan for classroom logistics
 - e. A power/recharge plan to maximize battery life (details and assistance to follow)
 - 2. School must appoint a dedicated School Project Manager. The School Project Manager is to be the primary contact for all technology issues related to the Classrooms for the Future project. The SPM provides on-site computer technical support to faculty, students and staff. Their essential task is to return units to service by performing initial troubleshooting and resolving issues at the school or facilitating a repair through the PDE AppleCare process. Responsibilities of the School Project Manager may include, but are not limited to:
 - a. Know and perform applicable duties in support of the Classrooms for the Future Service and Support program (to be defined).
 - b. Act as the technical leader for the school.
 - c. Address basic hardware and software issues.
 - d. Possess basic diagnostic capabilities.
 - e. Interface with Help Desk.
 - f. Facilitate Repairs as required.
 - g. Report all activity to the Apple PM.
 - h. Interface with Apple TSC and PM on a weekly basis.
 - i. Manage the re-imaging process when required.
 - j. Act as the point of escalation to Apple, third-party vendors, and PDE.
 - 3. The school must commit to a training schedule that will be developed jointly with the Apple PM. This plan is designed to give teachers, staff and technical resources the skills, tools and confidence to be successful in the Classrooms for the Future environment.
- C. Meet with Classrooms for the Future staff to discuss plans for the roll out and the ramp up project phases. Ensure all schools have complied with requirements and that the timelines and content meet with the approval of the administration.
- D. Finalize Planning stages and communicate current revision of the Project plan to all Classrooms for the Future stakeholders.

Pre-Deployment Phase

The Pre-Deployment Phase of the Classrooms for the Future Project will include planning the laptop image, building the image and manufacturing the laptops with the specified image. The Image Creation process includes:

1. Apple and PDE work together to provide specification for image.
2. Local Apple team and Apple Custom Software Solution team (CSS) works with PDE to create image specification.
3. Image is built by Apple CSS as specified. Includes setting permissions, preferences, and DVD region code to North America, and software bundled with Apple's Classrooms for the Future solution.
4. Apple tests image to ensure it is compatible with hardware.
5. PDE tests and approves final image.
6. Apple releases image to Apple factory.
7. Duration is approximately 4 weeks.

This phase is expected to take five weeks from the time we are awarded the contract and receive a purchase order.

Installation/Implementation/Roll Out

The Installation Phase of this project will be a well-coordinated exercise as a result of the pre-planning meetings that will take place in Phase One of the project. This phase includes:

- Deliver all equipment to the school on a pre-determined schedule;
- Unbox and test MacBooks;
- Unbox and assemble mobile carts;
- Unbox, connect, and test printers;
- Unbox and install the whiteboards;
- Unbox and configure AirPort Base Stations; and
- Connect MacBook classroom environment to the local area network, if available.
- Complete validation testing and satisfaction surveys.

We expect this phase to last approximately two weeks from the time a P.O. is issued to Apple.

Implementation/Ramp Up

The Implementation/Ramp Up phase is the most important phase to teachers and staff in the life of this project. It is a time when expectations are set and first impressions are made. It is for that reason that Apple will bring its most experienced team to the project in order to assist the School staff in setting off in the right direction. The exact implementation will rely heavily on each Principal and School's individual plan and tolerance for change. We expect this phase to last up to two weeks for Apple to manage and execute after the installation is complete. During this phase we will work as a single team to execute the training plan that was developed between Apple and PDE Classrooms for the Future Team. As a team, we will develop a flexible and aggressive plan to ensure that we give each constituent of the Classrooms for the Future school an opportunity to attend an appropriate training. We expect those constituents to include:

- Administrators
- Teachers
- Principals
- Assistant Principals
- Depot Managers
- Tech Coordinators

Each of these constituents will receive a base level out of the box training. Based on this training we will attempt to conclude a baseline assessment for the teachers in the program. We will share our metrics with teachers during the

initial out of the box trainings and consult with them on where they may reside on the Professional Development continuum. To accomplish this goal we will be using a tool called the Teacher Technology Profile (TTP). We will share our training schedule and allow them to choose the level that is right for them. We may recommend and advise a level to a teacher, Administrator or Principal, but in the end, it is their decision as to which level training courses to attend.

The goal of the project team in this phase is to prepare all of the constituents in this phase to be ready for their journey through the 5 phases confidently. Below is a list of the training classes, beginning with the basic Out of the Box training that will be available to all audiences. All of the training will be provided as mutually agreed upon by each individual school and Apple. Some of these classes will be taught at different levels to accommodate the audience.

- Care & Feeding training
- Out of the Box training
- “A day in the life of a teacher” training
- OS training
- Basic Classrooms for the Future/File manipulation training
- Access/Storage Admin training
- Basic troubleshooting/repair/image restore training
- Peripheral connectivity training
- Advanced application usage in the classroom to include iLife training

This training will be offered in a variety of levels and at multiple times and places over the two weeks of this phase so that we can accommodate any Classrooms for the Future School member that would like to attend. After the two week Ramp Up phase, this training will be made available for the life of project through our local Apple teams and can be scheduled with our Project Manager.

This training is also available in an online component complete with multimedia and self paced modules. It is the perfect compliment to the onsite training given by the Apple team.

In addition to the training that is available to the entire Classrooms for the Future population, we have developed courses specifically for Students and Parents. In a document entitled “Getting to know your MacBook” we cover the basics every student and parent needs to know to begin exploring with their new computer. We will hold multiple classes, at times decided upon by the Principal and staff at each school, for both students and parents that will last about 20 minutes.

Power Management training is included in many of the classes and if decided by the project team, can be a class unto itself and taught to any of the audiences. The School Project Manager will receive individual instruction on this topic and will act as the expert in the school. Depending upon implementation and adherence to proper battery management techniques, a six-hour battery life, which should encompass a full school day, is possible. Apple will focus on this topic during specific teacher training.

School Project Managers

The Apple project team will focus on the specific needs of School Project Managers. These people will be the champions in each school and will be crucial to ensuring success. The profile and tasks associated with this position are listed in the planning section of this document. In order to assist the School Project Manager, Apple has created a specific training regimen with additional training for these people. This instruction will begin during the planning phase and continue through the life of the project. Instruction will come from the Apple PM, TSC, Phase II Ramp Up team and from AppleCare. Apple will perform flexible training for the School Project Managers with one on one training performed with the Apple TSC, group training with Apple trainers and online Apple Certification training.

Below is a sample of the initial training a School Project Manager can expect:

Sample Training Course Objectives:

Initial Course A

- Getting to know the foundations of Mac OS X
- Apple Service and Support Resources
- Basic Troubleshooting processes and procedures

- Do-it-yourself (DIY) processes and procedures
- Using the Imaging Station
- Mac OS X Troubleshooting
- How the Support System Works

Initial Course B

- Getting to Know the Mac OS X user interface
- Learn Mac OS X basics
- Learn to customize system-wide preferences and user preferences
- Learn how common applications integrate with each other
- Learn to manage multiple applications and multiple windows within applications
- Learn to use the Mac OS X help system
- Learning to Manage your Mac
- Learn the basic principles of file sharing, command line administration, working with multiple users
- Learn to install applications from disk images
- Learn basic troubleshooting techniques

In addition to the training Apple intends to provide as part of the Classrooms for the Future initiative, it is recommended that the School Depot Managers pursue additional formal training that will enable them to become more proficient and valuable to their school and the project while enhancing their own abilities.

Post Implementation support

This phase of the project will consist of the ongoing support of the Apple PM and Apple TSC, as well as the local Apple Education team, other Apple trainers, engineers, and support personnel as required. For the duration of the first year of the Project, the Apple Project Manager and TSC will be dedicated resources. They will carry out their responsibilities in supporting this initiative as described in previous sections.

The Project Manager's focus will be to conduct regular status meetings with Principals and other administrators to keep the Classrooms for the Future community informed of all project developments, successes, and failures. The PM will be focused on communicating best practices and sharing of knowledge between schools in this project and from around the country. The PM will highlight pods of excellence and will work to bolster areas of weakness with additional support. The PM will conduct audits of the project at the two month point as well as at the one year mark.

During this phase, the Apple PM will work with the Classrooms for the Future Administration to evaluate the health of the program and to share tools that the PDE can use to assess their progress through the project.

The Apple TSC will be the Tech lead for the School Project Managers, other Classrooms for the Future technical resources and teachers. The TSC will spend his time understanding the needs the schools. The TSC will be focused on uptime for all teachers and students during this phase. The TSC's goal while maximizing uptime will be to help make each school independent by mentoring them through issues to resolution and by supporting the Depot Manager.

The Apple TSC will be conducting training classes at each individual school as well as in the local Intermediate Units. These classes will include all previously mentioned classes as well as any new material that may be appropriate. The TSC will offer classes at multiple levels and will adjust the pace and level of the class while ensuring that all schools receive the same core content.

A meeting will be conducted after the first year audit is complete. At this time the Apple team will work with the Classrooms for the Future team to evaluate our role and refresh our priorities in the program. If additional funds are allocated to continuing the dedicated status of these individuals, they will continue based on the year end evaluation. If funds are not made available to continue the dedicated status of these positions, then they may phase the time obligation to the project to a lower level while maintaining their focused commitment.

**EXHIBIT B TO CLASSROOMS FOR THE FUTURE CONTRACT
REVISED CONTRACT STANDARD TERMS AND CONDITIONS**

1. PURPOSE OF CONTRACT

The Department of General Services ("DGS") is establishing this Contract ("Contract") for the use of Pennsylvania public schools that receive *Classrooms for the Future* funding from the Commonwealth of Pennsylvania, Department of Education. ("Purchasers") in accordance with the requirements of Act 77 of 2004, amending Section 1902 of the Commonwealth Procurement Code, 62 Pa. C.S. § 1902.

2. PURCHASERS UNDER THE CONTRACT

a. The Contractor understands that it will not be providing any items directly to DGS or to any Commonwealth agency under the Contract. DGS is acting as a facilitator for the Purchasers, who may wish to purchase supplies under the Contract.

b. Purchasers who participate in this Contract and issue purchase orders ("POs") to the Contractor are third party beneficiaries who have the right to sue and be sued for breach of this contract without joining the Commonwealth or DGS as a party.

3. TERM OF CONTRACT

The term of the Contract shall commence on the Effective Date (as defined in this Section 3) and shall end on the Expiration Date identified in the Contract, subject to the other provisions of the Contract.

a. The Effective Date shall be:

1) the date the contract is fully executed and all approvals have been obtained as required by Commonwealth contracting procedures, or

2) the date identified in the Contract Special Terms and Conditions ("Special Terms and Conditions"), whichever is later. The Contract shall not be legally binding until after DGS sends the fully-executed Contract to the Contractor.

b. The Contractor shall not start performance under this Contract, nor shall the Contractor represent to any prospective Purchaser that the Contractor is authorized to provide supplies under this Contract, until the Effective Date has arrived and the Contractor has received a copy of the fully-executed Contract from DGS. The Contractor understands and accepts that a Purchaser has no obligation to pay the Contractor for any supply furnished, work performed, or expenses incurred under this Contract at any time, unless a PO from a Purchaser is received and accepted by Contractor, which shall trigger any delivery and obligation to pay under this Contract.

c. DGS reserves the right, upon notice to the Contractor, to extend the Contract or any part of the Contract for up to three months upon the same terms and conditions. DGS will extend the Contract only to prevent a lapse in Contract coverage for Purchasers, and only for up to three months, until DGS enters into a new contract covering the Contract items.

4. PURCHASE ORDERS

Purchasers may issue POs against the Contract either directly using the Contractor's dedicated website ("online orders") or through any other means acceptable to the Contractor. Each PO will incorporate the terms and conditions set forth in the Contract.

Any PO delivered or transmitted to the Contractor after 4:00 p.m. will be considered received the following business day.

For electronically-issued POs, the following terms apply:

a. Upon receipt of a PO, the Contractor shall in return promptly deliver or transmit an acknowledgement to the Purchaser. A PO shall not give rise to any Contractor obligation to deliver or to any Purchaser obligation to receive and pay for delivered products, unless and until the Purchaser has received a Contractor acknowledgement of the PO.

b. The parties agree that no writing in addition to the PO and acknowledgement shall be required to make the PO legally binding, notwithstanding contrary requirements in any law. The parties agree not to contest the validity or enforceability of an electronic PO or acknowledgement under the provisions of a statute of frauds or any other applicable law relating to whether certain agreements are required to be in writing signed by the parties. A printed record of any electronic PO or acknowledgement will be admissible as evidence in any judicial, arbitration, mediation, or administrative proceedings to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of POs or acknowledgements under either the business records exception to the hearsay rule or the best evidence rule on the basis that the PO or acknowledgement were not in writing or signed by the parties. A PO or acknowledgment shall be deemed to be genuine for all purposes if it is transmitted to the location designated in these Terms and Conditions for such documents.

c. Each party will immediately take steps to verify any document that appears to be garbled in transmission or improperly formatted, including re-transmission of any such document.

5. INDEPENDENT CONTRACTOR

In performing the required Contract obligations, the Contractor agrees that it will act as an independent contractor, and not as an employee or agent of the Commonwealth, DGS, or any Purchaser.

6. THIRD PARTY BENEFICIARIES

The Contractor understands and acknowledges that there is no guarantee that any prospective Purchaser will place a PO under this Contract, and that it is within the sole discretion of the Purchaser whether to procure from the Contract or to use another procurement vehicle.

a. The selection of a particular contractor to provide a Contract item to a particular Purchaser will be based upon best value or return on investment, within the sole discretion of the Purchaser. The Contractor shall have no right to protest Purchaser's selection of a contractor under this procurement or any other contract.

b. The Contractor agrees that any dispute concerning a particular PO will be resolved between the Contractor and the Purchaser, without DGS participation.

7. COMPLIANCE WITH LAW

The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in the performance of this Contract.

8. ENVIRONMENTAL PROVISIONS

In the performance of this Contract, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

9. CONTRACTOR DEDICATED WEBSITE

DGS strongly encourages the Contractor to provide a dedicated website for Purchasers ("Contract Website"), including a complete listing with Contract pricing for all items required under the Contract, product and customer support information, and the capability for Purchasers to place online orders for

Contract items. If the Contractor provides a Contract Website, the Contractor agrees to permit DGS to provide a link from the DGS website to the Contract Website to facilitate access by prospective Purchasers.

10. PRICING, COMPENSATION, AND INVOICES

The Contractor shall be required to furnish the awarded item(s) to Purchasers issuing POs under this Contract at the price(s) quoted in the Contractor's bid for the term and any and all renewals of this Contract, as further specified in this Section 10. After delivering the Contract item(s) to the Purchaser, the Contractor shall promptly send an invoice, including the PO number and itemized by line item, to the Purchaser's address specified in the PO. The invoice should include only those amounts due under the PO for items timely and satisfactorily delivered to the Purchaser.

a. The Contractor may offer voluntary price reductions and provide Contract items at prices lower than the Contractor's Contract prices for the items. The Contractor shall be compensated only for item(s) delivered to and accepted by the Purchaser.

b. The pricing for each Contract item shall include the cost of delivery to any destination within the Commonwealth of Pennsylvania as may be further limited by the Special Terms and Conditions, and there shall be no minimum order for shipments qualifying for F.O.B. delivered prices.

c. Because some smaller Purchasers may not have readily available Internet access, awarded Suppliers will also be required to provide hard copies of pricing information via fax or mail to any Purchaser requesting such information within five (5) working days after receipt of the Purchaser's request.

d. The Contractor's price shall include the warranty specified in Paragraph 13 below.

11. PAYMENT

Purchasers electing to participate in the Contract will order items directly from the Contractor and be responsible for payment directly to the Contractor. DGS shall require the Purchaser to put forth reasonable efforts to make payment by the Required Payment Date, defined as (a) the date on which payment is due under the PO terms, (b) 30 days after a Purchaser receives a completed invoice for items the Purchaser has accepted at its "Bill To" address on the PO if no payment date is specified in the PO, or (c) any later payment date specified on the invoice.

a. The Purchaser may delay payment if the invoice amount is greater than the Contract price(s).

b. The Contractor shall not construe any payment as the Purchaser's acceptance of any Contract item(s).

c. DGS, on behalf of the Purchasers, reserves the right for any Purchaser to conduct testing and inspection after payment within a reasonable time after delivery, and for that Purchaser to reject any or all Contract item(s) if such post payment testing or inspection discloses any defect or failure to meet Contract specifications.

d. The Contractor agrees to accept any Purchaser payment made through the use of a VISA card or MasterCard.

12. TAXES

A Purchaser may be exempt from excise taxes imposed by the Internal Revenue Service, Pennsylvania state sales tax, local sales tax, public transportation assistance taxes, and fees and vehicle rental taxes. A Purchaser may be registered with the Internal Revenue Service to make tax-free purchases. DGS will require each Purchaser claiming any tax exemption to complete the appropriate areas on the PO form to notify the Contractor of the applicable tax exemptions. The Pennsylvania Department of Revenue's

regulations provide that exemption certificates are not required for sales made to governmental entities and no such certificates are issued.

13. WARRANTY

The Contractor warrants that all item(s) furnished by the Contractor, either itself or through its agents and subcontractors, shall be free and clear of any defects in workmanship or materials.

a. The Contractor shall pass through to the Purchaser the manufacturer's warranty for all Contract Items. The Contractor shall correct any problem with the Contract Item(s) and/or replace any defective part with a part of equivalent or superior quality, without additional cost to the Purchaser.

b. The Contractor warrants that all Items to be provided under the Contract meet the requirements set forth in Part IV of the RFP.

c. The warranty period for a Contract Item shall commence upon delivery of the Contract Item to the Purchaser at the Purchaser's specified address.

14. DELIVERY

The Contractor shall deliver all item(s) F.O.B. Destination to the address specified on the PO.

a. The Contractor shall deliver all items ordered from this Contract within the time period specified in the Contract, and, if no time period is specified, within a reasonable time, not to exceed 30 calendar days after acceptance of any order, unless the Contractor and the Purchaser shall otherwise agree in writing. Time is of the essence in the performance of this Contract and, in addition to any other remedies, the Purchaser may terminate any PO for failure to make delivery as specified in this Contract and the PO.

b. The Contractor agrees to bear the risk of loss, injury, or destruction of the item(s) ordered prior to the Purchaser's receipt of the items. The Contractor also agrees that such loss, injury, or destruction shall not release the Contractor from any of its contractual obligations to the Purchaser or DGS.

15. PATENT, COPYRIGHT, AND TRADEMARK INDEMNITY

a. The Contractor shall hold the Commonwealth and any Purchaser harmless from any suit or proceeding which may be brought by a third party against the Commonwealth or any Purchaser, their departments, officers or employees for the alleged infringement of any United States or foreign patents, copyrights, or trademarks, or for a misappropriation of trade secrets arising out of performance of this Contract, including all work, services, materials, reports, studies, and computer programs provided by the Contractor, and in any such suit or proceeding will satisfy any final award for such infringement, including costs. The Commonwealth agrees to give Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act 71 P.S. § 732-101, et seq., the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under the terms it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits. No settlement which prevents the Commonwealth from continuing to use the products provided in the Contract shall be made without the Commonwealth's prior written consent. In all events, the Commonwealth shall have the right to participate in the defense of any such suit or proceeding through counsel of its own choosing. It is expressly agreed by the Contractor that, in the event it requests that the Commonwealth provide support to the Contractor in defending any such claim, the Contractor shall reimburse the Commonwealth for all expenses (including attorneys' fees, if such are made necessary by the Contractor's request) incurred by the Commonwealth for such

support. If OAG does not delegate the defense of the matter, the Contractor's obligation to indemnify ceases. The Contractor will, at its expense, provide whatever cooperation OAG requests in the defense of the suit.

b. The Contractor agrees to exercise reasonable due diligence to prevent claims of infringement on the rights of third parties. The Contractor certifies that, in all respects applicable to this Contract, it has exercised and will continue to exercise due diligence to ensure that all works produced under this Contract do not infringe on the patents, copyrights, trademarks, trade secrets or other proprietary interests of any kind which may be held by third parties. The Contractor also agrees to certify that work produced for the Commonwealth under this contract shall be free and clear from all claims of any nature.

c. If the defense of the suit is delegated to the Contractor, the Contractor shall pay all damages and costs awarded therein against the Commonwealth. If information and assistance are furnished by the Commonwealth at the Contractor's written request, it shall be at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written authorization.

d. If, in the Contractor's opinion, the products, materials, reports, studies, or computer programs furnished hereunder are likely to or do become subject to a claim of infringement of a United States patent, copyright, or trademark, or for a misappropriation of trade secret, then without diminishing the Contractor's obligation to satisfy any final award, the Contractor may, at its option and expense, substitute functional equivalents for the alleged infringing products, materials, reports, studies, or computer programs or, at the Contractor's option and expense, obtain the rights for the Commonwealth and any Purchaser to continue the use of such products, materials, reports, studies, or computer programs.

e. If any of the products, materials, reports, studies, or computer programs provided by the Contractor are in such suit or proceeding held to constitute infringement and the use or publication thereof is enjoined, the Contractor shall, at its own expense and at its option, either procure the right to publish or continue use of such infringing products, materials, reports, studies, or computer programs, replace them with non-infringing items, or modify them so that they are no longer infringing.

f. If the Contractor is unable to do any of the preceding, the Contractor agrees to pay the Commonwealth and any Purchaser:

- (1) any amounts paid by the Commonwealth or any Purchaser less a reasonable amount based on the acceptance and use of the deliverable;
- (2) any license fee less an amount for the period of usage of any software; and
- (3) the prorated portion of any service fees representing the time remaining in any period of service for which payment was made.

g. The obligations of the Contractor under this Section continue without time limit and survive the termination of this contract.

h. Notwithstanding the above, the Contractor shall have no obligation for:

- (1) modification of any product, service, or deliverable provided by the Commonwealth or any Purchaser;
- (2) any material provided by the Commonwealth or any Purchaser to the Contractor and incorporated into, or used to prepare, a product, service, or deliverable;
- (3) use of the product, service, or deliverable in other than its specified operating environment;
- (4) the combination, operation, or use of the product, service, or deliverable with other products, services, or deliverables not provided by the Contractor as a system or the

combination, operation, or use of the product, service, or deliverable, with any products, data, or apparatus that the Contractor did not provide;

- (5) infringement by (i) a Contractor-branded product for which the Commonwealth or any Purchaser has not paid a separate fee or charge and that is freely available to the general public for download without charge at Contractor's websites, or (ii) a product sold by Contractor that does not bear Contractor's brand and that Contractor did not manufacture or develop for sale under this Contract, unless the infringement results from a contemplated use of such non-Contractor product with a product otherwise within Contractor's indemnity obligation.
- (6) the Commonwealth's or any Purchaser's distribution, marketing or use beyond the scope contemplated by the Contract; or
- (7) the Commonwealth's or any Purchaser's failure to use corrections or enhancements made available to the Commonwealth or any Purchaser by the Contractor at no charge.

i. The obligation to indemnify the Commonwealth and any Purchaser, under the terms of this Section, shall be the Contractor's sole and exclusive obligation for the infringement or misappropriation of intellectual property.

16. OWNERSHIP RIGHTS

Each Purchaser issuing a PO under this Contract shall have unrestricted authority to reproduce, distribute, and use any submitted report, data, or material (not to include hardware, software, documentation for hardware or software, or other intellectual property in which Contractor has a preexisting interest) and any documentation associated with such report, data or material that is designed or developed and delivered to the Purchaser as part of the performance of the PO.

17. ASSIGNMENT OF ANTITRUST CLAIMS

The Contractor and DGS recognize that in actual economic practice, overcharges by the Contractor's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Purchaser under each Contract PO. As part of the consideration for the award of the Contract, and intending to be legally bound, the Contractor assigns to each Purchaser issuing a Contract PO all right, title and interest in and to any claims the Contractor now has, or may acquire, under state or federal antitrust laws relating to the supplies and services which are the subject of the Contract PO.

18. HOLD HARMLESS PROVISION

a. The Contractor shall hold the Commonwealth and any Purchaser harmless from and indemnify the Commonwealth and any Purchaser against any and all third party claims, demands and actions based upon or arising out of any negligent activities performed by the Contractor and its employees and agents under this Contract, provided the Commonwealth gives Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act (71 P.S. § 732-101, et seq.), the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under such terms as it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits. If OAG does not delegate the defense of the matter, the Contractor's obligation to indemnify ceases. The Contractor will, at its expense, provide whatever cooperation OAG requests in the defense of the suit.

b. Notwithstanding the above, neither party shall enter into any settlement without the other party's written consent, which shall not be unreasonably withheld. The Commonwealth may, in its sole discretion, allow the Contractor to control the defense and any related settlement negotiations.

19. LIMITATION OF LIABILITY

a. The Contractor's liability to the Commonwealth under this Contract shall be limited to an amount not to exceed one million dollars (\$1,000,000). This limitation will apply, except as otherwise stated in this Section, regardless of the form of action, whether in contract or in tort, including negligence. This limitation does not, however, apply to damages for:

- (1) bodily injury;
- (2) death;
- (3) intentional injury;
- (4) damage to real property or tangible personal property for which the Contractor is legally liable; or
- (5) the Contractor's indemnity of the Commonwealth for patent, copyright, trade secret, or trademark protection.

b. Contractor's liability for the cost of procurement of substitute goods or services shall be limited to an amount equal to twenty-five percent (25%) of the contract cost of the goods or services being substituted.

c. In no event will the Contractor be liable for incidental, consequential, special or indirect damages (including, without limitation, claims for lost profits, lost revenue, lost savings, interruption in use, unavailability of data, or for punitive or exemplary damages). The Contractor will not be liable for damages due to lost records or data, however, the Contractor shall provide reasonable assistance to the Commonwealth in restoring such lost records or data to their most recent backup copy. This Limitation will be effective even in the event Contractor is informed in advance of the possibility of such damages.

20. AUDIT PROVISIONS

DGS and its designees, including without limitation any Purchaser issuing a PO under this Contract, shall have the right, at reasonable times and at a site DGS may designate, to audit the Contractor's books, documents, and records to the extent that such books, documents, and records relate to costs or pricing data for the Contract. The Contractor agrees to maintain records that will support its prices charged and costs incurred for the Contract.

The Contractor shall preserve books, documents and records that relate to costs or pricing data for the Contract for a period of three (3) years from date of final payment. The Contractor shall give full and free access to all records pertinent to the performance of the Contract to DGS, Purchasers who have issued Contract POs, and/or their authorized representatives.

21. INSPECTION AND REJECTION

a. No item(s) received by any Purchaser issuing a Contract PO shall be deemed accepted until the Purchaser has had a reasonable opportunity to inspect the item(s). The Purchaser may reject any item(s) discovered to be defective or failing to conform to the Contract specifications upon initial inspection or at any later time if the defects contained in the item(s) or the noncompliance with the specifications were not reasonably ascertainable upon the initial inspection. The Contractor shall have the duty to remove rejected item(s) from the Purchaser's premises without expense to the Purchaser within fifteen (15) days after notification. Rejected item(s) left longer than fifteen (15) days will be regarded as abandoned, and the Purchaser shall have the right to dispose of the item(s) as its own property and shall retain that portion of the proceeds of any sale that represents the Purchaser's costs and expenses for the storage and sale of the item(s). Upon notice of rejection, the Contractor shall immediately replace all such rejected item(s)

with other non-defective items conforming to the specifications. If the Contractor fails, neglects, or refuses to do so, the Purchaser shall then have the right to procure a corresponding quantity of such item(s), and deduct from any monies then or later due to the Contractor, the difference between the price stated in the Contract and the actual cost of the item(s) to the Purchaser.

b. Notwithstanding subsection a. above, acceptance will occur at forty-five (45) days from the date of installation, unless the product is rejected by the Purchaser prior to the end of the 45 day period.

22. DEFAULT

a. DGS or any Purchaser may, subject to the provisions of Section 23 of this Contract ("Force Majeure"), and in addition to its other rights under this Contract, declare the Contractor in default under the Contract as to DGS, or under any PO issued under the Contract as to the issuing Purchaser, by written notice to the Contractor. DGS may terminate (as provided in Section 24 of this Contract, "Termination Provisions") the whole or any part of this Contract, or in the case of any Purchaser, terminate a PO issued under this Contract, for any of the following reasons:

1. Failure to deliver the awarded item(s) within the time specified in the Contract or PO or as otherwise specified;
2. Failure to provide an item or items conforming with the specifications referenced in the Invitation For Bids;
3. Failure or refusal to remove and replace any item(s) rejected as defective or nonconforming within fifteen (15) days after notification;
4. Insolvency or bankruptcy;
5. Assignment made for the benefit of creditors;
6. Failure to protect, to repair, or to make good any damage or injury to property; or
7. Breach of any provision of this Contract or any PO.

b. In the event that any Purchaser terminates a PO as provided in Subsection a. of this Section 22, any Purchaser may procure, upon such terms and in such manner as it determines, on item(s) similar or identical to those in any PO so terminated, and the Contractor shall be liable to Purchaser for any reasonable excess costs for such similar or identical item(s) included within the terminated part of the Contract.

c. If the Contract is terminated in whole or in part as provided in Subsection a. above, a Purchaser, in addition to any other rights provided in this Section 22, may require the Contractor to transfer title and deliver immediately to the Purchaser in the manner and to the extent directed by the Purchaser, such partially manufactured or delivered item(s) as the Contractor has specifically produced or specifically acquired for the performance of such part of the PO as has been terminated. Except as provided below, payment for any partially manufactured or delivered item(s) accepted by the Purchaser shall be in an amount agreed upon by the Contractor and the Purchaser. The Purchaser may withhold from amounts otherwise due the Contractor for such partially manufactured or delivered item(s), such sum as the Purchaser determines to be necessary to protect the Purchaser against loss.

d. The rights and remedies of DGS and the Purchaser provided in this Section 22 shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

e. Failure to exercise any rights or remedies provided in this Section 22 shall not be construed to be a waiver by DGS or the Purchaser of any rights and remedies in regard to the event of default or any succeeding event of default.

f. Following exhaustion of the Contractor's administrative remedies against DGS as set forth in Section 25 of this Contract, the Contractor's exclusive remedy against DGS shall be to seek damages in the Board of Claims.

g. In the event a Purchaser terminates a PO under this Contract, the Contractor's exclusive remedy shall be against the Purchaser and not against DGS. The Contractor shall seek remedies against any Purchaser under a PO under the laws of the Commonwealth of Pennsylvania as they relate to contract disputes against non-Commonwealth parties, unless the Purchaser is subject to the jurisdiction of the Board of Claims, in which event the Contractor's exclusive remedy shall be to seek damages against the Purchaser before the Board as provided in Title 63 Pa. C.S. Part II, Subchapter C.

23. FORCE MAJEURE

No Purchaser will incur any liability to the Contractor, and the Contractor shall not incur any liability to any Purchaser, if its performance of any obligation under this Contract is prevented or delayed by causes beyond its control and without its fault or negligence. Causes beyond the control of the Contractor or Purchaser may include, but are not limited to, acts of God or war, changes in controlling law, regulations, orders or the requirements of any governmental entity, severe weather conditions, civil disorders, natural disasters, fire, epidemics and quarantines, general strikes throughout the trade, and freight embargoes.

The Contractor shall notify the Purchaser and the DGS Commodity Specialist orally within five (5) days, and in writing within ten (10) days, of the date on which the Contractor becomes aware, or should have reasonably become aware, that such cause would prevent or delay its performance. Such notification shall (i) describe fully such cause(s) and its effect on performance, (ii) state whether performance under the contract is prevented or delayed and (iii) if performance is delayed, state a reasonable estimate of the duration of the delay. The Contractor shall have the burden of proving that such cause(s) delayed or prevented its performance despite its diligent efforts to perform and shall produce such supporting documentation as the Purchaser and the DGS Commodity Specialist may reasonably request. After receipt of such notification, the Purchaser and the DGS Commodity Specialist may individually elect either to cancel the Contract or PO, as applicable, or to extend the time for performance as reasonably necessary to compensate for the Contractor's delay.

In the event of a declared emergency by competent governmental authorities, the Purchaser and DGS, by notice to the Contractor, may suspend all or a portion of the Contract or PO, as applicable.

24. TERMINATION PROVISIONS

DGS has the right to terminate this Contract, and any Purchaser shall have the right to terminate a PO issued under this Contract, upon written notice to the Contractor, for any of the following reasons:

a. DGS shall have the right to terminate this Contract, and any Purchaser shall have the right to terminate any PO issued under this Contract, for its convenience if DGS or the Purchaser, as applicable, determines termination to be in its best interest. The Contractor is entitled to complete any PO initiated prior to the effective date of the termination for which the Purchaser receives delivery of a satisfactory product, but in no event shall the Contractor fill any POs received after the termination date of this Contract.

b. (1) DGS shall have the right to terminate this Contract, and any Purchaser shall be entitled to terminate any PO issued under this Contract, for Contractor default as defined in Section 22 of this Contract, or for any other cause specified in this Contract or by law upon written notice to the Contractor. Purchasers shall have no ability to terminate the Contract.

(2) DGS or the issuing Purchaser must provide Contractor with thirty (30) days advance written notice of intention to terminate this Contract as to DGS, or any PO issued under the Contract as to the

issuing Purchaser, due to the Contractor's default. In the event that the default is not cured or an acceptable plan for curing the default is not in place within 30 days, DGS may terminate the Contract or the issuing Purchaser may terminate the PO.

(3) If it is later determined that DGS or the Purchaser erred in terminating the Contract or PO for cause, then, at the discretion of DGS or the Purchaser, as applicable, the Contract shall be deemed to have been terminated for convenience under Subsection a. of this Section 24.

25. CONTRACT CONTROVERSIES

a. In the event of a controversy or claim arising out of this Contract (except when the claim relates to a specific PO, as specified in Subsection d. of this Section 25) the Contractor must, within six months after the cause of action accrues, file a written claim with the DGS contracting officer for a determination and, in the case of a claim involving a PO, with the Purchaser. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum.

b. The DGS contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.

c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

d. In the event of a controversy or claim arising out of a PO, the Contractor shall file a written claim directly with the Purchaser.

26. ASSIGNABILITY AND SUBCONTRACTING

a. Subject to the terms and conditions of this Section 25, the Contract shall be binding upon the parties and their respective successors and assigns.

b. The Contractor shall not subcontract with any person without DGS's prior written consent, which consent shall not be unreasonably withheld.

c. The Contractor may not assign, in whole or in part, this Contract or any rights, duties, obligations, or responsibilities under this Contract without DGS's prior written consent, which consent shall not be unreasonably withheld.

d. Notwithstanding anything else in this Contract, the Contractor may, without DGS's consent, assign its rights to payment under this Contract or any PO issued under this Contract, provided that the Contractor provides written notice of such assignment to the DGS Commodity Specialist and the Purchaser together with a written acknowledgement from the assignee to DGS that any such payments are subject to all of the terms and conditions of this Contract.

e. For the purposes of this Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor, provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.

f. DGS's consent to any assignment, other than an assignment of payment as specified in subsection d. of this Section 26, shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all Contract terms and conditions and to assume the Contract duties, obligations, and responsibilities being assigned.

g. Any Contractor change of name that does not change the Contractor's federal identification number shall not be considered an assignment of this Contract. The Contractor shall give the DGS Commodity Specialist and the Purchaser written notice of any such change of name.

27. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of the Contract, Contractor agrees as follows:

a. In the hiring of any employees for the manufacture of supplies, performance of work, or any other activity required under the Contract or any subcontract, the Contractor, subcontractor or any person acting on behalf of the Contractor or subcontractor shall not by reason of gender, race, creed, or color discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

b. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work or any other activity required under the Contract on account of gender, race, creed, or color.

c. The Contractor and subcontractors shall establish and maintain a written sexual harassment policy and shall inform its employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.

d. The Contractor shall not discriminate by reason of gender, race, creed, or color against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

e. The Contractor and each subcontractor shall furnish all necessary employment documents and records to and permit access to its books, records, and accounts by the contracting officer and the Department of General Services' Bureau of Minority and Women Business Opportunities for purposes of investigation to ascertain compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause. If the Contractor or any subcontractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting officer or the Bureau of Minority and Women Business Opportunities.

f. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.

g. The Commonwealth may cancel or terminate the Contract, and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

28. CONTRACTOR INTEGRITY PROVISIONS

a. For purposes of this Section 28 only, the words "confidential information," "consent," "contractor," "financial interest," and "gratuity" shall have the following definitions.

1. **Confidential information** means information that is not public knowledge, or available to the public on request, disclosure of which would give an unfair, unethical, or illegal advantage to another desiring to contract with the Commonwealth.

2. **Consent** means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this agreement.

3. **Contractor** means the individual or entity that has entered into the Contract with the Commonwealth, including directors, officers, partners, managers, key employees and owners of more than a five percent interest.

4. **Financial interest** means:

A. Ownership of more than a five percent interest in any business; or

B. Holding a position as an officer, director, trustee, partner, employee, or the like, or holding any position of management.

5. **Gratuity** means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind.

b. The Contractor shall maintain the highest standards of integrity in the performance of the Contract and shall take no action in violation of state or federal laws, regulations, or other requirements that govern contracting with the Commonwealth.

c. The Contractor shall not disclose to others any confidential information gained by virtue of the Contract.

d. The Contractor shall not, in connection with this or any other agreement with the Commonwealth, directly, or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any officer or employee of the Commonwealth.

e. The Contractor shall not, in connection with this or any other agreement with the Commonwealth, directly or indirectly, offer, give, or agree or promise to give to anyone any gratuity for the benefit of or at the direction or request of any officer or employee of the Commonwealth.

f. Except with the consent of the Commonwealth, neither the Contractor nor anyone in privity with him or her shall accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of work under the Contract except as provided therein.

g. Except with the consent of the Commonwealth, the Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material on this project.

h. The Contractor, upon being informed that any violation of these provisions has occurred or may occur, shall immediately notify the Commonwealth in writing.

i. The Contractor, by execution of the Contract and by the submission of any bills or invoices for payment pursuant thereto, certifies, and represents that he or she has not violated any of these provisions.

j. The Contractor, upon the inquiry or request of the Inspector General of the Commonwealth or any of that official's agents or representatives, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to the Contractor's integrity or responsibility, as those terms are defined by the Commonwealth's statutes, regulations, or management directives. Such information may include, but shall not be limited to, the Contractor's business or financial records, documents or files of any type or form that refers to or concern the Contract. Such information shall be retained by the Contractor for a period of three years beyond the termination of the Contract unless otherwise provided by law.

k. For violation of any of the above provisions, the Commonwealth may terminate this and any other agreement with the Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all expenses incurred in obtaining another Contractor to complete performance hereunder, and debar and suspend the Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or nonuse of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

29. CONTRACTOR RESPONSIBILITY PROVISIONS

a. The Contractor certifies, for itself and all its subcontractors, that as of the date of its execution of the bid/contract, that neither the Contractor, nor any subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid, a written explanation of why such certification cannot be made.

b. The Contractor must also certify, in writing, that as of the date of its execution of the bid/contract, it has no tax liabilities or other Commonwealth obligations.

c. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

d. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

e. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth, which results in the suspension or debarment of the Contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

f. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the internet at <http://www.dgs.state.pa.us> or contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No. (717) 783-6472

30. AMERICANS WITH DISABILITIES ACT

a. Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Contract or from activities provided for under this Contract on the basis of the disability. As a condition of accepting this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.

b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of subsection a above.

31. HAZARDOUS SUBSTANCES

The Contractor shall provide information to DGS and any Purchaser under this Contract about the identity and hazards of hazardous substances the Contractor may supply or use in the performance of this Contract. The Contractor must comply with Act 159 of October 5, 1984, known as the "Worker and Community Right to Know Act" (the "Act") and the regulations promulgated at 4 Pa. Code Section 301.1 et seq.

a. Labeling. The Contractor shall insure that each individual product (as well as the carton, container, or package in which the product is shipped) of any of the following substances (as defined by the Act and the regulations) supplied by the Contractor is clearly labeled, tagged, or marked with the information listed in Paragraph (1) through (4):

1. Hazardous substances:

- A. The chemical name or common name,
- B. A hazard warning, and
- C. The manufacturer's name, address, and telephone number.

2. Hazardous mixtures:

- A. The common name or, if no common name exists, the trade name;
- B. The chemical or common name of special hazardous substances comprising .01% or more of the mixture;
- C. The chemical or common name of hazardous substances comprising 1.0% or more of the mixture;
- D. A hazard warning; and
- E. The manufacturer's name, address, and telephone number.

3. Single chemicals:

- A. The chemical or common name;
- B. A hazard warning, if appropriate; and

C. The manufacturer's name, address, and telephone number.

4. Chemical Mixtures:

A. The common name or, if no common name exists, the trade name;

B. A hazard warning, if appropriate;

C. The manufacturer's name, address, and telephone number; and

D. The chemical or common name of either the top five substances by volume or those substances comprises 5.0% or more of the mixture.

A common or trade name may be used only if such a name more easily or readily identifies the true nature of the hazardous substance, hazardous mixture, single chemical, or mixture involved.

Container labels shall provide a warning as to the specific nature of the hazard arising from the substance in the container.

The Contractor shall give the hazard warning in conformity with one of the nationally recognized and accepted systems of providing such warnings, consistent with one or more of the recognized systems throughout the workplace. Examples are:

- NFPA 704, Identification of the Fire Hazards of Materials.
- National Paint and Coatings Association: Hazardous Materials Identification System.
- American Society for Testing and Materials, Safety Alert Pictorial Chart.
- American National Standard Institute, Inc., for the Precautionary Labeling of Hazardous Industrial Chemicals.

Labels must be legible and prominently affixed to and displayed on the product and the carton, container, or package so that employees can easily identify the hazardous substance or mixture present.

b. The Contractor shall provide Material Safety Data Sheets (MSDS) with the information required for each hazardous substance or hazardous mixture by the Act and regulations. The Contractor must provide an appropriate MSDS to the Purchaser with the initial shipment and with the first shipment after an MSDS is updated or product changed. For any other chemical, the Contractor shall provide an appropriate MSDS if the manufacturer, importer, or supplier produces or possesses the MSDS. The Contractor shall also notify the Purchaser when a substance or mixture is subject to the provisions of the Act. The MSDS may be attached to the carton, container, or package to be delivered to the Purchaser at the time of shipment.

32. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract on any agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies the Contractor may maintain for the purpose of securing business. For breach or violation of this warranty, the Commonwealth shall have the right to terminate this Contract without liability.

33. CONTRACTOR'S REPRESENTATIONS

All of the Contractor's information and representations made in the proposal are material and important, and the Commonwealth has relied upon the contents of the proposal in awarding this contract. The Commonwealth shall treat any intentional misstatement, omission or misrepresentation in the inducement as fraudulent concealment of the true facts relating to the proposal submission, punishable pursuant to 18 Pa. C.S. § 4904.

34. APPLICABLE LAW

This Contract shall be governed by and interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania, waiving any claim or defense that such forum is not convenient or proper. The Contractor agrees that any such court shall have *in personam* jurisdiction over it, and consents to service of process in any manner authorized by Pennsylvania law.

35. INTEGRATION

The RFP, any Addenda and exhibits thereto, the Contractor's Technical, Cost, Disadvantaged Business and Value Add (if applicable) proposals and any other referenced documents in the Contract, as well as the applicable provisions of the POs issued by the Purchasers, constitute the entire agreement between the parties. No agent, representative, employee, or officer of DGS or the Contractor has authority to make, or has made, any oral or written statement, agreement, or representation which may in any way be deemed to modify, add to, detract from, or otherwise change or alter the terms and conditions of, this Contract. No negotiations between the parties, nor any custom or usage, shall modify or contradict any of the terms and conditions of this Contract. No modifications, alterations, changes or waiver to the Contract or any of its terms shall be valid or binding unless accomplished by a written amendment signed by both parties or by a DGS- signed change order on the appropriate Commonwealth form.

36. CHANGES

DGS reserves the right to make changes at any time during the term of this Contract, including any renewals or extensions:

- a. to increase or decrease the quantities resulting from variations between any estimated and actual quantities;
- b. to make changes to the supply within the scope of the Contract;
- c. to notify the Contractor that the Commonwealth is exercising any Contract termination, renewal, or extension option; or
- d. to modify the time of performance so long as the modification does not alter the scope of the Contract or extend the Contract completion date beyond the Expiration Date specified in the Contract, including any renewals or extensions.

Any such change shall be made by the contracting officer shown on the Contract form, by notifying the Contractor in writing. The change shall be effective as of the date of the notification of change, unless the change specifies a later effective date. Such increases, decreases, changes, or modifications will not invalidate the Contract. The Contractor agrees to provide the supply to all subsequent Purchasers in accordance with the change. Any dispute by the Contractor in regard to the performance required by any notification of change shall be handled through Section 24 of this Contract ("Contract Controversies"). Purchasers shall have no ability to modify the Contract.

BEST AND FINAL OFFER:
DISADVANTAGED
BUSINESS
SUBMITTAL



Classrooms for the Future
RFP CN00019758



Submitted by
Apple Computer, Inc.



II-9 | BEST AND FINAL OFFER : Disadvantaged Business Submittal

Reference	Requirement	Apple Response
II-9. a.	Disadvantaged Business Information	
II-9. a. i)	To receive credit for being a Small Disadvantaged Business or a Socially Disadvantaged Business or for entering into a joint venture agreement with a Small Disadvantaged Business or for subcontracting with a Small Disadvantaged Business (including purchasing supplies and/or services through a purchase agreement), an Offeror must include proof of Disadvantaged Business qualification in the Disadvantaged Business Submittal of the proposal, as indicated below:	These requirements are not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. a. i) 1)	A Small Disadvantaged Businesses certified by BMWBO as an MBE/WBE must provide a photocopy of their BMWBO certificate.	
II-9. a. i) 2)	Small Disadvantaged Businesses certified by the U.S. Small Business Administration pursuant to Section 8(a) of the Small Business Act (15 U.S.C. § 636(a)) as an 8(a) or small disadvantaged business must submit proof of U.S. Small Business Administration certification. The owners of such businesses must also submit proof of United States citizenship.	
II-9. a. i) 3)	All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must attest to the fact that the business has 100 or fewer employees.	
II-9. a. i) 4)	All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must submit proof that their gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax return or audited financial statement.	
II-9. a. ii)	All businesses claiming status as a Socially Disadvantaged Business must include in the Disadvantaged Business Submittal of the	These requirements are not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or



Reference	Requirement	Apple Response
	proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person's color, ethnic origin or gender. The submitted evidence of prejudice or bias must:	Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. a. ii) 1)	Be rooted in treatment that the business person has experienced in American society, not in other countries.	
II-9. a. ii) 2)	Show prejudice or bias that is chronic and substantial, not fleeting or insignificant.	
II-9. a. ii) 3)	Indicate that the business person's experience with the racial or ethnic prejudice or cultural bias has negatively impacted his or her entry into and/or advancement in the business world.	
II-9. a. iii)	In addition to the above verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:	These requirements are not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. a. iii) 1)	The name and telephone number of the Offeror's project (contact) person for the Small Disadvantaged Business.	
II-9. a. iii) 2)	The business name, address, name and telephone number of the primary contact person for each Small Disadvantaged Business included in the proposal. The Offeror must specify each Small Disadvantaged Business to which it is making commitments. The Offeror will not receive credit for stating that it will find a Small Disadvantaged Business after the contract is awarded or for listing several businesses and stating that one will be selected later.	
II-9. a. iii) 3)	The specific work, goods or services each Small Disadvantaged Business will perform or provide.	
II-9. a. iii) 4)	The estimated dollar value of the contract to each Small Disadvantaged Business.	
II-9. a. iii) 5)	Of the estimated dollar value of the contract to each Small Disadvantaged Business, the percent of the total value of	



Reference	Requirement	Apple Response
	services or products purchased or subcontracted that will be provided by the Small Disadvantaged Business directly.	
II-9. a. iii) 6)	The location where each Small Disadvantaged Business will perform these services.	
II-9. a. iii) 7)	The timeframe for each Small Disadvantaged Business to provide or deliver the goods or services.	
II-9. a. iii) 8)	The amount of capital, if any, each Small Disadvantaged Business will be expected to provide.	
II-9. a. iii) 9)	The form and amount of compensation each Small Disadvantaged Business will receive.	
II-9. a. iii) 10)	For a joint venture agreement, a copy of the agreement, signed by all parties.	
II-9. a. iii) 11)	For a subcontract, a signed subcontract or letter of intent.	
II-9. a. iv)	The Offeror is required to submit only one copy of its Disadvantaged Business Submittal. The submittal shall be clearly identified as Disadvantaged Business information and sealed in its own envelope, separate from the remainder of the proposal.	
II-9. a. v)	The Offeror must include the dollar value of the commitment to each Small Disadvantaged Business in the same sealed envelope with its Disadvantaged Business Submittal. The following will become a contractual obligation once the contract is fully executed:	These requirements are not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. a. v) 1)	The amount of the selected Offeror's Disadvantaged Business commitment;	
II-9. a. v) 2)	The name of each Small Disadvantaged Business; and	
II-9. a. v) 3)	The services each Small Disadvantaged Business will provide, including the timeframe for performing the services.	
II-9. a. vi)	A Small Disadvantaged Business can be included as a subcontractor with as many prime Offerors as it chooses in separate	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or



Reference	Requirement	Apple Response
	proposals.	Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. a. vii)	An Offeror that qualifies as a Small Disadvantaged Business and submits a proposal as a prime Offeror is not prohibited from being included as a subcontractor in separate proposals submitted by other Offerors.	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. b. Enterprise Zone Small Business Participation		
II-9. b. i)	To receive credit for being an enterprise zone small business or entering into a joint venture agreement with an enterprise zone small business or subcontracting with an enterprise zone small business, an Offeror must include the following information in the Disadvantaged Business Submittal of the proposal:	These requirements are not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. b. i) 1)	Proof of the location of the business' headquarters (such as a lease or deed or Department of State corporate registration), including a description of those activities that occur at the site to support the other businesses in the enterprise zone.	
II-9. b. i) 2)	Confirmation of the enterprise zone in which it is located (obtained from the local enterprise zone office).	
II-9. b. i) 3)	Proof of United States citizenship of the owners of the business.	
II-9. b. i) 4)	Certification that the business employs 100 or fewer employees.	
II-9. b. i) 5)	Proof that the business' gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax return or audited financial statement.	
II-9. b. i) 6)	Documentation of business organization, if applicable, such as articles of incorporation, partnership agreement or other documents of organization.	
II-9. b. ii)	In addition to the above verifications, the	These requirements are not applicable to Apple's



Reference	Requirement	Apple Response
	Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:	proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. b. ii) 1)	The name and telephone number of the Offeror's project (contact) person for the Enterprise Zone Small Business.	
II-9. b. ii) 2)	The business name, address, name and telephone number of the primary contact person for each Enterprise Zone Small Business included in the proposal. The Offeror must specify each Enterprise Zone Small Business to which it is making commitments. The Offeror will not receive credit for stating that it will find an Enterprise Zone Small Business after the contract is awarded or for listing several businesses and stating that one will be selected later.	
II-9. b. ii) 3)	The specific work, goods or services each Enterprise Zone Small Business will perform or provide.	
II-9. b. ii) 4)	The estimated dollar value of the contract to each Enterprise Zone Small Business.	
II-9. b. ii) 5)	Of the estimated dollar value of the contract to each Enterprise Zone Small Business, the percent of the total value of services or products purchased or subcontracted that each Enterprise Zone Small Business will provide.	
II-9. b. ii) 6)	The location where each Enterprise Zone Small Business will perform these services.	
II-9. b. ii) 7)	The timeframe for each Enterprise Zone Small Business to provide or deliver the goods or services.	
II-9. b. ii) 8)	The amount of capital, if any, each Enterprise Zone Small Business will be expected to provide.	
II-9. b. ii) 9)	The form and amount of compensation each Enterprise Zone Small Business will receive.	
II-9. b. ii) 10)	For a joint venture agreement, a copy of the agreement, signed by all parties.	



Reference	Requirement	Apple Response
II-9. b. ii) 1)	For a subcontract, a signed subcontract or letter of intent.	
II-9. b. iii)	The dollar value of the commitment to each Enterprise Zone Small Business must be included in the same sealed envelope with the Disadvantaged Business Submittal of the proposal. The following will become a contractual obligation once the contract is fully executed:	These requirements are not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
II-9. b. iii) 1)	The amount of the selected Offeror's Enterprise Zone Small Business commitment;	
II-9. b. iii) 2)	The name of each Enterprise Zone Small Business; and	
II-9. b. iii) 3)	The services each Enterprise Zone Small Business will provide, including the timeframe for performing the services.	

TECHNICAL SUBMITTAL



Classrooms for the Future RFP CN00019758



Submitted by
Apple Computer, Inc.



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Introduction

About Apple

Company Background

Apple Computer, Inc. designs, manufactures, and markets personal computers and related software, services, peripherals, and networking solutions. Apple's products and services include the Macintosh line of desktop and notebook computers, the iPod digital music player, the Xserve G5 server and Xserve RAID storage products, a portfolio of consumer and professional software applications, the Mac OS X operating system, the iTunes Music Store, a range of peripherals that support and enhance the Macintosh and iPod product lines, and a variety of other service and support offerings. Apple sells its products worldwide through its online stores, its own retail stores, its direct sales force, and third-party wholesalers, resellers, and value added resellers. Apple also sells a variety of third-party products that are compatible with Apple's Macintosh and iPod product lines, including computer printers and printing supplies, storage devices, computer memory, digital camcorders and still cameras, personal digital assistants, iPod accessories, and various other computing products and supplies through its online and retail stores.

"We were very pleased with our education business results, generating the highest quarterly revenue through our U.S. education channel in over 10 years, and shipping more Macs than in any other June quarter in the company's history."

Apple CFO Peter Oppenheimer
Announcement of FY03 third quarter financial results
July 19th, 2006

Business Strategy

Apple is committed to bringing the best personal computing and music experience to students, educators, creative professionals, businesses, government agencies, and consumers through its innovative hardware, software, peripherals, services, and Internet offerings. Apple's business strategy leverages its unique ability, through the design and development of its own operating system, hardware, and many software applications and technologies, to bring to its customers new products and solutions with superior ease-of-use, seamless integration, and innovative industrial design. Apple believes continual investment in research and development is critical to facilitate innovation of new and improved products and technologies. Besides updates to its existing line of personal computers and related software, services, peripherals, and networking solutions, Apple continues to capitalize on the convergence of digital consumer electronics and the computer by creating innovations like the iPod and iTunes Music Store. Apple's strategy also includes expanding its distribution network to effectively reach more of its targeted customers and provide them a high-quality sales and after-sales support experience.

Education

For 29 years, Apple has focused on the use of technology in education and has been committed to delivering tools to help educators teach and students learn. Apple believes effective integration of technology into classroom instruction can result in higher levels of student achievement, especially when used to support collaboration, information access, and the expression and representation of student thought and ideas.

Apple creates solutions that enable new modes of curriculum delivery, better ways of conducting research, and opportunities for professional development of faculty, students, and staff. Apple has designed a range of products and services to help schools maximize their investments in technology. These products and services include the iMac™, and the MacBook®, video creation and editing solutions, wireless networking, high-quality curriculum and professional development solutions, wireless Mobile Learning Labs, and 1 to 1 Learning solutions. Apple is continuously improving development and implementation practices for wireless education technology deployments and the total environment for digitally infused learning.



Hardware Products

Apple offers a range of personal computing products including desktop and notebook computers, server and storage products, related devices and peripherals, and various third-party hardware products. Apple's entire line of Macintosh® systems, excluding servers and storage systems, features Apple's Mac OS® X Version 10.4 Tiger™ and iLife® suite of software for digital photography, music, movies, and music creation.

Software Products and Computer Technologies

Apple offers a range of software products for education, creative, consumer and business customers, including Mac OS X, Apple's proprietary operating system software for the Macintosh; server software and related solutions; professional application software; and consumer, education and business oriented application software.

Product Support and Services

Professional Services Apple Education Professional Services is composed of four core offerings: Professional Development and Technical Training, System Services, Project Management Services, and Customized Services and Solutions.

Each of the four Apple Education Professional Services is a highly effective, complete offering. These services are designed to complement the others. Schools using these services together benefit from the program's efficiency and synergy.

AppleCare AppleCare offers a range of support options for Apple's customers. These options include assistance that is built into software products, printed and electronic product manuals, online support including comprehensive product information as well as technical assistance, and the AppleCare Protection Plan. The AppleCare Protection Plan is a fee-based service that typically includes three years of phone support and hardware repairs, dedicated web-based support resources, and user diagnostic tools.

Number of years in business

Apple was incorporated in the State of California on January 3rd, 1977. As of the submission of this proposal, Apple has been in business, and providing education technology solutions, for over 29 years.



Apple's Experience in the Education Market

For 29 years, Apple has led the way in providing educators with powerful, easy-to-use technologies to advance learning and teaching. School officials can rely on Apple as a solid, stable company with proven and unmatched education credentials.

Along the way, by listening and interacting with education customers, Apple has learned that achieving results requires several factors, including:

- Leadership and vision must be present to ensure that the goals are fulfilled
- Students and teachers must have routine access to “best of class” technology.
- Teachers must be provided with consistent and sustained professional development and technical support.
- Schools must establish shared and measurable goals for student achievement
- Selected Technology must be aligned with curriculum, instruction, and assessment

Apple has always made it a priority to commit resources to education and to collaborate with educators to better understand the needs and challenges of teaching. Apple's education solutions and programs demonstrate our continuing commitment to develop the tools and resources that schools require.

1980	With the innovative Kids Can't Wait program, Apple donates 10,000 Apple II computers to California schools.
1986-1998	Apple Classrooms of Tomorrow (ACOT), a pioneering research and development collaboration, studied the relationship between education and ubiquitous technology access at home and at school.
1992-present	Apple Professional Development provides exceptional, research-based professional development that is continually revised to meet the changing needs of education.
1996-present	The global Apple Distinguished Educator program brings together a select group of expert educators who contribute lesson plans, ideas, and other resources.
1998-present	Apple Learning Interchange is launched, providing an online forum for educators to showcase innovative teaching strategies.
1999	Apple introduces the first integrated wireless notebook computer—the original iBook—designed with education in mind and now the most popular notebook for student learning in K-12 schools.
2001	Apple begins offering iBook Wireless Mobile Labs to provide greater and more affordable access to technology in classrooms.
2002	Apple introduces the eMac, the all-in-one desktop computer developed specifically for education.
2003	iLife launches the integrated suite of digital creation tools. The iLife Educator Awards contest is created to recognize the most innovative uses of iLife in the classroom.
2001 - Present	Apple launches the 1 to 1 Learning Program featuring a wireless iBook computer for each student and teacher, and continuously improves the total solution including professional development and support services, curriculum and content and tools for student learning.
2005	Apple introduces the Mac mini—an affordable option for bringing Mac computers into the learning environment.



2004 - Present	Apple develops Accessibility features including VoiceOver into the OS for helping all students access content and tools for learning
2004 - Present	Certification opportunities for students using the creative industry standard applications, allowing students to develop skills for future careers.
2005 - Present	Apple launches podcasting, enhanced podcasting, and video distribution publishing within iTunes.
June 2005	Apple announces it will begin using Intel microprocessors beginning in 2006.
2006	Apple launches iTunes U, allowing Education institutions to distribute content using the iTunes infrastructure.
January 2006	Apple unveils the first of its Intel processor-based desktop and notebook computers.
May 2006	Apple unveils the new MacBook, featuring Intel Core Duo processors. Up to five times faster than the iBook and up to four times faster than the 12-inch PowerBook, the new MacBook completes Apple's Intel-based portables lineup and replaces both the iBook and the 12-inch PowerBook.



Apple's Education Vision

Apple envisions a world where all students reach their full potential and discover their own special talents, and its education programs are designed with this in mind. To advance this vision, Apple embraces three key principles: **Innovation, Involvement and Responsiveness.**

Innovation

Apple is well known for its culture of innovation. For the last several years, Apple has provided leadership and innovation in the music industry by creating the distribution and access of digital music, audio and video files. Apple is working with education customers and leaders to create innovative education environments utilizing this ecosystem for authoring, distributing and accessing education content.



Visuals have always been important in education, but today's students are immersed in a highly visual world. They need to become informed consumers, communicators, and composers/producers of digital media. Visuals also serve an important role in understanding complex academic concepts and problem solving.

iLife

Apple understands that the development of high school curriculum is dependent upon the creation of challenging integrative and exploratory learning opportunities that will address the cognitive and non-cognitive needs of high school students. Apple's technologies help to provide educators with the tools needed to not only advance student learning but to foster environments designed to engage high school students.

To respond to the needs of this highly visual world, in 2003, Apple launched the initial suite of iLife applications. Today, iLife takes digital authoring and publishing to another level with the integration of podcasting and web publishing. Students using these tools can increase their communication, literacy and communication skills. The applications included in this proposal provide the opportunity for students to author and manage photos, music, movies, audio files and text seamlessly.



This table shows the integration and design of Apple's digital content toolset from creation to publishing.

	Photos	Movies	Music	Voice	Text
Input					
Create					
Collect					
Share					
Publish					

iTunes U

Apple is collaborating with a select group of higher education institutions – including The Pennsylvania State University, Stanford University, Duke University, the University of Michigan, the University of Missouri, and Brown University – in using the iTunes infrastructure to manage, distribute, and control access to audio and video content within each institution.

Apple is planning to evaluate similar solutions within the K12 environment, and would welcome the opportunity to discuss this exciting technology with the Commonwealth.

The following chart depicts this ecosystem between authoring, distribution and access of digital content.





Involvement

Apple's Education Leadership is deeply involved with national and international leadership organizations dedicated to learning, teaching and maximizing student achievement. Our principal strategic objective is to be the most credible, informed, and trusted education partner and voice of innovation in creating technology infused learning environments.

Our focus has been on how technology can be utilized to enhance learning, elevate teaching quality, and increase student achievement - with a particular focus on ubiquitous computing.

Examples of Apple's involvement include:

International Society for Technology in Education (ISTE)

ISTE in 2004 awarded Apple its prestigious Seal of Approval recognizing its Professional Development program. Apple currently serves on the elected ISTE Board of Directors and holds the following leadership posts:

- Executive committee of the ISTE Board of Directors
- Co-Chair of the "ISTE 100" (private sector council)
- Co-Chair of the Public Policy & Advocacy Committee
- Co-Chair of the Ad Hoc Strategic Planning Committee

Consortium for School Networking (CoSN)

Apple is a corporate member and organizes its legislative advocacy program and member "fly - in" to Washington, DC. Apple participates in the following projects and initiatives to advance achievement through technology:

- Emerging Technologies initiative - identifying and scaling leading-edge innovations in learning.
- Accessibility initiative - identifying innovations and best practices for students with disabilities.
- Student Help Desk initiative - offering guidance on organizing student technology support.
- Data-driven Decision-making initiative - advancing tools to effectively measure learning and achievement.
- Total Cost of Ownership initiative - helping districts understand the value of their learning technology investments

ISTE/CoSN Education Technology Action Network (ETAN)

ETAN is the largest national grassroots network of learning technology advocates organized to ensure national and state-level support for technology integration in teaching and learning. Apple serves on ETAN's Steering Committee, guiding its policy positions and actions.

Software & Information Industry Association (SIIA)

Apple serves on the elected board of the Education Division, and on its Education Policy and Workforce Development Committee. Apple helps organize SIIA's annual legislative events and regularly speaks on SIIA conference panels.

School Interoperability Framework (SIF)

Apple is a member of SIF, an important education and industry collaborative that is developing the electronic protocols and standards necessary to connect district-wide instructional resources and student/management information systems into a coherent and cost-effective framework.

State Education Technology Directors Association (SETDA)

Apple annually participates in SETDA's Emerging Technologies Forum, often facilitates SETDA's issue-based workshops and advises SETDA members on its public policy initiatives.

**Partnership for 21st Century Skills**

Apple is a founding Board member and vice chair of a significant national education and industry partnership that is developing the essential curriculum frameworks around learning expectations in the 21st Century. Apple was a leading contributor in major Partnership reports focused on learning transformation, 21st Century skill development and assessment, and related public policy. Apple is a frequent speaker at national and regional events focusing on 21st Century skills.

National Coalition for Technology in Education & Training (NCTET)

Apple has chaired a national advocacy coalition advocating increased technology investment in teaching and learning at the Federal level. Members of the Coalition include: the National Education Association, National Association of State Boards of Education, National School Boards Association, Council for Exceptional Children, Association of Educational Service Agencies, Council of Chief State School Officers, State Education Technology Directors Association, International Society for Technology in Education, Consortium for School Networking, Software & Information Industry Association, National Commission on Teaching and America's Future, and EDUCAUSE.

National School Boards Association (NSBA)

Apple assists NSBA in organizing annual school board and administrator site-visits to leading technology-using districts around the U.S. Apple also participates in NSBA's national and regional conferences and is a contributor to NSBA's new Center for Public Education.

American Association of School Administrators (AASA)

Apple has sponsored the AASA President's Technology Award Program recognizing the nation's top superintendents who have integrated technology effectively into teaching, learning, and administration.

Council of Chief State School Officers (CCSSO)

As a corporate member, Apple participates in the national and regional meetings of commissioners and deputies facilitating discussions around technology usage to advance student achievement and make better data-driven decisions.

National Governors Association (NGA)

As a corporate member, Apple works closely with NGA on its education initiatives, specifically in the area of high school reform and technology use.

National Council of State Legislatures (NCSL)

Apple serves on a special task force focused on assisting state lawmakers in crafting effective school technology investment legislation.

The Committee for Education Funding (CEF)

CEF represents 100 top preK-12 and higher education organizations dedicated to increasing federal funding for education, including Title I, Head Start, special education, vocational education, student financial aid, and education technology. Apple is CEF's leading corporate member.

U.S. Department of Education (ED)

Apple routinely works with senior ED officials overseeing the implementation of the No Child Left Behind Act to ensure technology literacy and integration remain top priorities. Apple also worked with ED's Office of Educational Technology to develop the 2005 National Education Technology Plan and participated in ED's technology forums and summits on the plan.

U.S. Congress

Apple works closely with top House and Senate lawmakers in Washington who oversee preK-12 education policy. Apple participates alongside national education leaders in Capitol Hill forums, individual congressional meetings, and policy development activities geared toward technology and student achievement. Apple has also testified before Congress' Web-based Education Commission on the promise of digital media and learning.



Responsiveness

Apple has a number of systems in place to continuously gather input from its education customers and incorporate it into research and development efforts, allowing us to better respond to the needs of schools, students, teachers, and staff.

- Apple dedicates considerable business and human resources to education, employing Education account executives and technical services consultants in virtually every state across the nation. **Apple has fifteen (15) employees living in Pennsylvania who are directly responsible for working with educational institutions. In addition, three (3) of these employees were former Directors of Technology with two (2) holding advanced degrees in education as well as PA Instructional Technology Specialist Certification.**
- The field-based teams of Education Account Executives, Development Executives, and Systems Engineers all have a direct line into the field-based **Education Consulting Engineers**. The Consulting Engineers are responsible for providing customer experience and feedback directly to each **Apple Product Manager**.
- Apple maintains education-specific business units in its Sales, Operations, Marketing, Professional Services, Finance, and AppleCare divisions
- Apple employs many professionals with prior experience in the classroom, providing firsthand knowledge of instruction.

Additionally, in 1994 Apple began The **Apple Distinguished Educator (ADE) program**, a community of exceptional educators who serve as advocates, advisors and content developers. They are teachers and administrators, many of whom are in ubiquitous computing environments in schools across the country, and who provide leadership at a local, state and national level. Each year, the Apple Distinguished Educator Summer Institute, provides an opportunity for feedback, new learning and collaboration. ADE's also participate in an online community based environment, allowing feedback and collaboration to occur all year long. There are ten active ADE's living in Pennsylvania and working in the schools and universities of the Commonwealth.

Apple's **Executive Briefing Center** hosts hundreds of executive briefings each year. During Executive Briefings, Apple ensure that customer input is well documented and communicated:

- Product Development and Engineering teams participate in education briefings to listen to the needs of customers and to engage in technical discussions.
- Customer feedback and feature requests are collected, collated and distributed to 155 of Apple's Senior Executives.



II-1 | Statement of the Problem

DGS Requirement State in succinct terms your understanding of the problem presented or the service required by this RFP.

Apple Response The Partnership for 21st Century Skills “Results that Matter” report highlights a need for change in the high schools of America. The Classrooms for the Future initiative in Pennsylvania represents an opportunity to utilize technology as a tool to go beyond what can be measured with traditional assessment instruments. The effective use of technology in the classroom can help our students to become critical thinkers, problem solvers, and effective communicators in the 21st century. To reach all learners, technology should provide for differentiated instruction, increased feedback, visualization, and simulation. The technology should be accessible to all students, including those with special needs. Access to virtual communities and experts from around the globe should be a part of everyday classroom activity. We must empower our students to be producers of knowledge, and not simply consumers of content delivered by their teachers.

Recognizing the importance of the “Results that Matter” and other studies, the Classrooms for the Future is a significant step in delivering the change called for in the 21st Century Skills report. Since its announcement, the Classrooms for the Future Initiative has garnered a high degree of interest and conversation. On its surface, the initiative could be viewed as a major expenditure of funds to simply increase the number of computers in classrooms. However, the underlying desire of the State to fundamentally change the instructional methodology and address the skills highlighted by the “Results that Matters” report is clearly evident and will have a much more profound impact than simply changing the student to computer ratio. While it is necessary to provide access to the technology, the desired change will not occur without software, technical training and coordinated professional development all supported by the broad range of programs, initiatives and partnerships developed by education focused departments at the State level. The vendor(s) selected can not just sell recipients of grant funds technical devices but must clearly demonstrate they understand the broader instructional goals for the initiative and are willing to support the program through partnership and value added resources. The Classrooms for the Future grant promotes innovation that will help students acquire the skills that are necessary in an ever-changing global workforce that is constantly challenged by international pressures.



II-2 | Management Summary

DGS Requirement Include a narrative description of the proposed effort and a list of the items to be delivered or services to be provided.

Apple Response Apple is pleased to respond to the Request for Proposals for the Commonwealth of Pennsylvania's Classrooms for the Future project (CN00019758). Apple has been a leader in Educational technology since igniting the personal computer revolution in the 1970s. Apple has unmatched experience and ability to deliver success in large-scale educational technology laptop deployments – including state wide deployments. This proposal is grounded in Apple Education's key principles– **innovation, involvement, and responsiveness**. Through this proposal, Apple seeks to build a solid, ongoing partnership that goes well beyond a typical commercial relationship in order to achieve the vision set forth in the RFP: namely, to transform high school classrooms across the State in order to prepare students for a 21st Century educational and work environment in an increasingly competitive and "flat" world. Apple seeks to build on the existing successes and relationships with the Pennsylvania Department of Education, its educational partners (for example, Intermediate Units, Keystone Teachers, and higher education institutions), as well as districts across the state.

Apple's proposal is comprehensive in scope and addresses the key components of any successful educational technology integration project, including:

- Innovative and education-appropriate hardware solutions
- Best in class software tools to enable digital expression, curriculum content, and collaborative learning environments
- Comprehensive professional development (for both administrators and teachers)
- Robust professional services and training offerings
- Customized service and support options to ensure sustainability and maximize uptime
- Value Added resources for all stakeholders: administrators, teachers, students, and the communities they serve

Hardware

Apple's proposal features the new MacBook. Designed with education customers in mind, the MacBook offers a glossy widescreen display, an Intel Core Duo processor, fast DDR2 memory, enhanced graphics capabilities, flexible optical drive options, built in wireless, gigabit Ethernet, USB 2, FireWire (IEEE 1394), and Bluetooth connections. It also includes a built in iSight camera and a lithium-polymer battery designed to provide a typical student up to 6 hours of battery life. The MacBook has no external latches or hinges and utilizes a unique MagSafe power connection to minimize the chance of accidental damage. Finally, the MacBook is also designed for faster, easier servicing of key components such as keyboards, hard drives, etc. in order to maximize uptime.

The MacBook is one of the first products on the market featuring Intel's dual core processor technology. Dual core is not simply a hardware platform change but rather an enormous technological leap that will influence the industry for years to come. One of the key advantages of dual core processing is that it allows for true multitasking, permitting the core system processes to work in the background and thereby dramatically increasing efficiency to allow teachers and students full access without waiting for background tasks. Another advantage of the Intel processor technology is that it allows the MacBook to run multiple operating systems – including Windows XP – using third party virtualization solutions such as



Parallels (see below) which will be included on the standard hard drive image for the “Classrooms for the Future” project.

***Note:** Apple reserves the right to exclude Parallels software from the proposed solution should Apple provide similar functionality in any subsequent OS updates. Apple will provide adequate notice of this change to participating schools.*

Apple’s proposal also includes outstanding third party products to fully equip a “Classroom for the Future” including PolyVision whiteboards, Toshiba projectors, Bretford laptop carts, external speakers, digital cameras and camcorders, as well as AirPort Extreme Base Stations, Apple’s flexible and configurable wireless 802.11b/g solution to provide reliable, high throughput wireless network access.

Software

Apple’s proposed solution provides a full suite of software solutions for both teachers and students.

Mac OS X 10.4 Tiger is the world’s most advanced operating system. Built on a stable, secure, and reliable UNIX foundation and industry standard file, networking, and communications protocols, the intuitive and user-friendly OS X interface (Aqua) Tiger allows both students and teachers an unprecedented balance of power and simplicity. Mac OS X 10.4 Tiger also incorporates over 200 new features including a powerful search engine, sophisticated power management, and a wealth of built in capabilities and applications for communication, collaboration, and accessibility.

In addition to standard productivity tools such as Microsoft Office and FileMaker Pro, Apple’s solution includes iLife’06, an unmatched integrated suite of applications that allows teachers and students to be not just “consumers” of digital content, but active and proficient “producers” as well. The iLife’06 suite includes iPhoto, iMovie HD, iWeb, iDVD, and GarageBand and is complemented by iTunes, the ideal tool for managing digital audio and video content. iWork’06 (including Pages for word processing and Keynote for presentations) and Apple Remote Desktop for classroom and asset management are also included.

In addition to Apple software titles, the proposal also includes complementary curriculum and instructional tools. Apex Learning ClassTools and Beyond Books course materials and subscriptions provide each laptop with a flexible, comprehensive suite of standards-based resources for math, science, English, and social studies in grades 6 to 12. VitalSource Library is also included, providing an interactive portable library of original source materials to further enable “anytime-anywhere” learning. NoteShare from AquaMinds is an ideal collaboration tool for students, teachers, and administrators working on classroom-based team projects that include media-rich content. Finally, the vast resources of the Apple Learning Interchange – and its community of educators and students – will be available to Classrooms for the Future participants, along with over 100 educator-created iLife lesson plans.

Professional Development

An often overlooked aspect of large educational technology deployments – but one that is critical for success – is comprehensive Professional Development designed to enable teachers to be “facilitators, guides, and co-investigators” while helping students become “producers, apprentices, and co-explorers”. Also important to success is assisting educational leaders (including administrators) to develop and embrace the “vision” in order to recognize the benefits of truly integrating technology with teaching and learning. A primary objective of Apple’s proposal is to assist the Pennsylvania Department of Education and local school administrators to build capacity, leadership, and support for a pedagogical environment that effectively utilizes digital resources to support 21st century learning in classrooms throughout the State.



Apple's Professional Development approach is built on extensive research, practice, and experience in how technology integration alters teaching and learning roles and environments as well as the typical stages encountered when moving from a traditional instructional model to technology integration constructivist model. A blended approach – using a complementary mix of both face-to-face training and online tools – enables Apple to deliver optimal solutions, customized to the needs of each stakeholder. The proven success of Apple's Professional Development offerings will be further strengthened through collaboration and coordination with existing PDE programs such as the Keystone Teachers and other partners in the project such as Intel.

Professional Services, Training, and AppleCare Service and Support

The Achilles' Heel of many education technology projects is not in conception or intention but rather in the deployment and development of reliable, sustainable models for ongoing training, service, and support. Apple's unmatched experience and expertise in both statewide and district-wide projects assisted greatly in the development of solutions for the "Classrooms for the Future" proposal.

Three groups within the Apple Education will contribute to the overall success of this project as it relates to this area. They are Apple Professional Services, World Wide Customer Training, and the AppleCare service and support organization.

The Professional Services team will include both a designated Project Manager and a Technical Services Consultant/Engineer, with plans for additional team members to be added as the project evolves and grows. These dedicated resources will supplement the existing field sales, engineering, and development teams already living and working in Pennsylvania. The current Apple Pennsylvania team is comprised of 15 core team members, including three former school IT directors, two of whom have advanced degrees and experience in educational administration. The Project Manager will be the primary point of contact for the project and will manage, coordinate, and monitor all aspects of the project, including scope, schedule, quality, communications, risk, change, and lessons learned. Apple's proposal includes a detailed, preliminary Project Implementation Plan along with a provisional timeline, including benchmarks for sequential phases of the initiation, deployment, and ongoing management of the project.

World Wide Customer Training is critical to the success of any deployment, particularly at the local level. Basic frontline training for IT support staff is included in the cost of the proposal and may be supplemented by additional training resources and programs (see Value Add section). Advanced training is also available to program participants for an additional fee.

Finally, AppleCare, Apple's award winning service and support division, has developed customized and comprehensive solutions for the "Classrooms for the Future" initiative. In order to provide maximum flexibility Apple is proposing two service and support options: one featuring the AppleCare Protection Plan and onsite repair, and a second based on a Self Servicing Account model. Both provide a robust solution and have many features in common, including a dedicated AppleCare project management, four-year warranty coverage, and software updates. The primary difference is the degree of participation by districts in terms of developing local repair capability and the potential cost savings realized as a result. Training and certification options, costs, and resources are outlined.

While the technical solutions presented in the "Classrooms for the Future" proposal are complete and adequate, sufficient flexibility and adaptability is built in so that unanticipated challenges can be successfully addressed through the close collaboration of the Project Manager, the State, individual school districts, and the Apple teams identified here. Where possible, Apple has noted areas of potential cost-savings depending on the scope of the hardware, software, services, training, and/or support that may be desired.



Value-Adds

As a long time educational partner in Pennsylvania, Apple recognizes and appreciates both the opportunity and challenge posed by the “Classroom for the Future” initiative. If selected as a participant in the initiative, Apple is therefore prepared to provide the Commonwealth of Pennsylvania and participating schools the following: (see Value Add Submittal for additional information).

Apple is uniquely positioned to provide these, given the large number of Apple field team members already living and working in Pennsylvania. The key lies in leveraging and building on longstanding partnerships with Pennsylvania Department of Education-sponsored programs (such as the Keystone Teachers), individual school districts through the state, and ongoing collaboration with higher education institutions.

In addition to our current, ongoing support of Education, and educators, in Pennsylvania as outlined in the Introductory section of this submittal, if selected, Apple intends to provide the following:

Principal’s Leadership Institute

Apple, through a cooperative effort with Intel, will provide a Principals/Leadership Institute for all schools involved in the “Classrooms for the Future” initiative, regardless of the computing platform that they select. Apple and Intel will fund this conference for principals from all 100 high schools selected to receive the grant, within the first six months of contract commencement, in order to build baseline capacity for a successful project.

Parent Training

Apple and Intel will also jointly fund the development of parent training materials and will create necessary agendas, slideshows, templates, handouts and materials for the lead teachers to provide parents with training and information. These materials will be developed and provided to the PDE within the first three months of contract commencement. This training will be designed to support the goals and objectives of the initiative and build community support.

Research and Evaluation

Apple will cooperatively work with the Pennsylvania Department of Education to evaluate the effectiveness of the program by providing recently developed evaluation and assessment tools and one day of orientation and consultation on the tools to the PDE within one month of contract commencement. The usage of the tools will be at the sole discretion of the PDE.

Select Student Training

Apple has found success in training student teams to assist in the support of classroom technology. Examples include the iTeam Program in Maine and the AppleCorps at Kutztown Area School District. Apple will provide student training materials to the PDE within the first three months of contract commencement. These materials will support training in hardware and software support, technical updates (i.e. podcasting, multimedia tools, and Internet resources) and technology trends, and strategies for supporting their teachers and their peers. The PDE may develop student teams to provide frontline technical support, parent training, or assistance to teachers in the utilization of technology.

Conclusion

Apple looks forward to partnering with the Pennsylvania Department of Education and participating school districts across the Commonwealth in order to successfully achieve the visionary and ambitious transformation of high school education articulated so clearly in the “Classrooms for the Future” Request for Proposals.





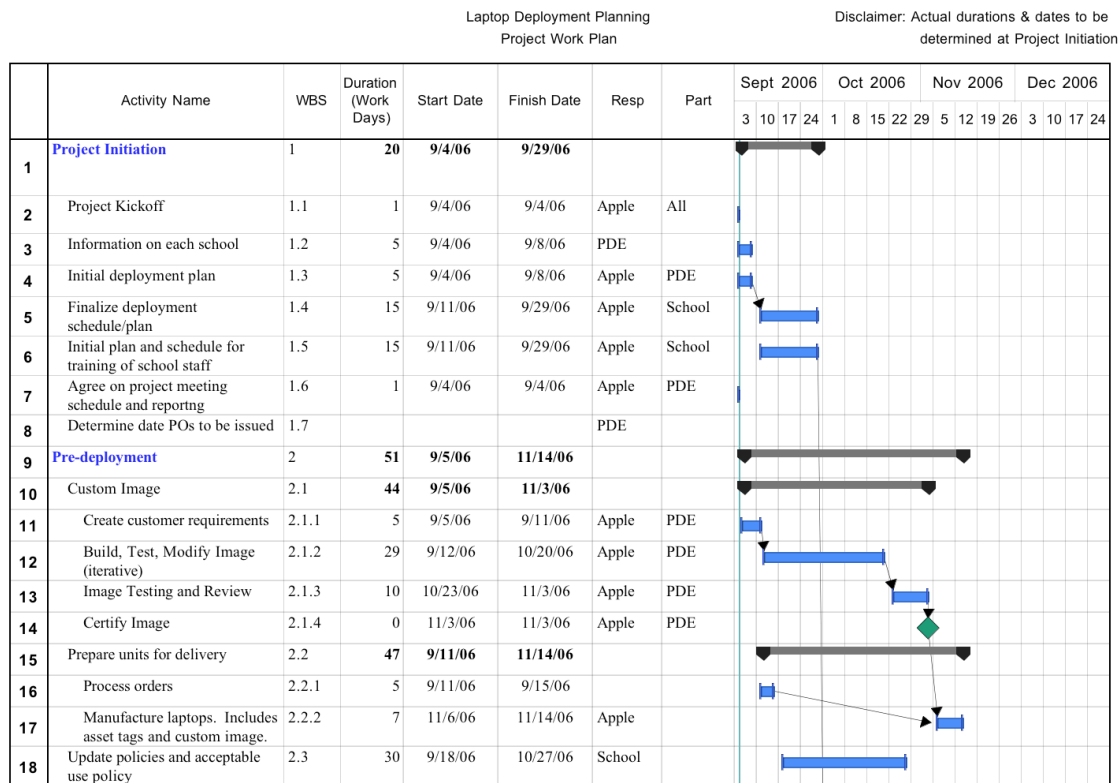
II-3 | Work Plan

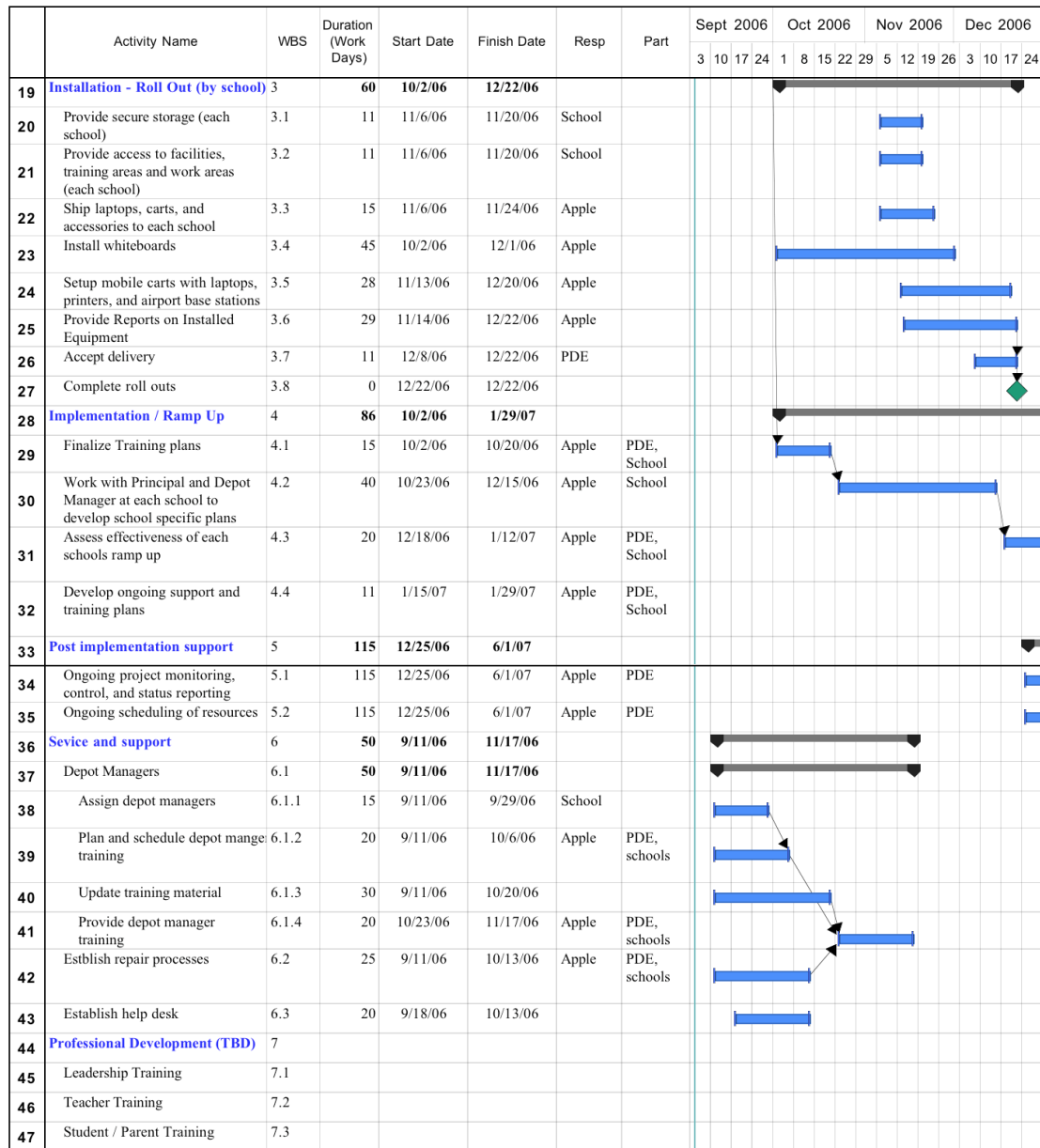
DGS Requirement Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in Part IV of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task.

Apple Response Please see Appendix 1: Classrooms for the Future Project Plan.

DGS Requirement Include a Program Evaluation and Review Technique (PERT) or similar type display, time related, showing each event. If more than one approach is apparent, comment on why you chose this approach.

Apple Response See sample Project Work Plan charts below.







IV-2. Objectives

NOTE: Apple has hereunder responded only to those Section IV-2. objectives that seem to require a response from the Offeror.

Reference	Requirement	Apple Response
IV-2. b.	Scope of Procurement: Wireless Classroom Solution	
IV-2. b. ii)	The awarded Offeror must provide a solution that is both functionally complete and cost-effective.	Apple's proposed solution complies with this requirement.
	The Offeror must demonstrate the ability, capacity, and flexibility to collaborate successfully and actively with PDE and Commonwealth public high schools and AVTS/CTCs.	Please refer to the following areas of Apple's proposal for evidence of Apple's ability, capacity, and flexibility: • Technical Submittal: Introduction • Technical Submittal: Section II-4 (Prior Experience) • Technical Submittal: Section II-5 (Personnel) • Technical Submittal: Section II-7 (Financial Capability) • Technical Submittal: Appendix 2 (Pennsylvania Success Stories) • Value Add Submittal: Apple's Value Add Resources for Classrooms for the Future • Value Add Submittal: Demonstrated Effectiveness response (Additional References) • Value Add Submittal: Organizational Capacity response (org chart) • Value Add Submittal: Value Add response
EXHIBIT B		
Minimum Mac Laptop Specifications:		Apple Proposed Specifications:
1.33 GHz PowerPC G4 or equivalent		Student: 1.8GHz Intel Core Duo Teacher: 2.0GHz Intel Core Duo
512 MB memory (DDR333 SDRAM)		1GB 667MHz DDR2 SDRAM
MAC OS 10.4		Mac OS 10.4.7
14-inch TFT Display 1024x768 resolution		13.3-inch TFT 1280x800 glossy widescreen



Reference	Requirement	Apple Response
	ATI Mobility Radeon 9550 32MB DDR video memory	Intel graphics Media Accelerator 950, 64MB of DDR2 SDRAM
	60GB Ultra ATA hard drive	60GB Serial ATA
	Combo Drive (DVD-ROM/CD-RW) (Teacher PC must have DVD-CDRW Drive)	Student: Combo Drive (DVD-ROM, CD-RW) Teacher: 4x SuperDrive (DVD±RW, CD-RW)
	6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	6 Cell, 55-watt-hour lithium-polymer battery with integrated charge indicator LED. Up to six hours on a single charge depending on usage.
	Built-in Firewire IEEE 1394	One built-in FireWire IEEE 1394 port
	Built-in Ethernet (10/100/1000)	One built-in 10/100/1000 (gigabit) BASE-T Ethernet port
	Software: FileMaker Pro	FileMaker Pro 8.5 included on base image (see below)
	Built-in AirPort Extreme (802.11 g)	Built-in AirPort Extreme (Wi-Fi 802.11b/g)
	Built-in Bluetooth 2.0+EDR	Built-in Bluetooth 2.0+EDR
	Scrolling Trackpad	Solid-state scrolling trackpad for precise cursor control; supports two-finger scrolling, tap, double-tap, and drag capabilities
	4 year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries.	In order to provide the Commonwealth with maximum flexibility, Apple is proposing the following two service and support options: Option A: AppleCare Protection Plan with onsite repair and Option B: Self-Servicing Account Program Option A Apple's standard warranty does not cover consumable parts, such as batteries, except in respect of battery coverage under AppleCare Protection Plan for iPod or unless failure has occurred due to a defect in materials and workmanship. The proposed MacBooks include one primary and one additional battery. Option B The AppleCare Parts Agreement does not cover Consumable parts, such as batteries, unless damage has occurred due to a defect in materials and workmanship. The proposed MacBooks include one primary and one additional battery.



Reference	Requirement	Apple Response
	7 pound maximum weight limit	At 5.2 pounds the MacBook delivers the perfect balance between size and weight.
	Minimum Classroom Package:	Apple Proposed Specifications:
	<u>Printer/Scanner</u> All-in-One - Multifunction (scanner & printer) - 19200dpi scanner, 30ppm (mono) / 24ppm (color), 1 USB, 1 Ethernet, must include initial set of ink cartridges (Black, Cyan, Yellow, and Magenta) and connectivity cables. 4 year, on-site Warranty to include Next Business Day replacement of parts.	HP Photosmart 3210 All-in-One, with breakthrough speeds of up to 31 pages per minute in color and 32 in black. It provides advanced printing, scanning, copying at up to 19200dpi, and one-year warranty (four-year warranty not available from manufacturer).
	<u>(Instructor) Productivity Software</u> Adobe Creative Suite Premium (Includes Adobe Photoshop® CS2 (image editing), Illustrator® CS2 (paint), InDesign® CS2 (Desktop publishing), GoLive® CS2 (Webpage creation), and Acrobat® 7.0 Professional (Create and manipulate PDFs software), Microsoft Office Professional Version, Inspiration, Include 4 year upgrade	Included in Apple's proposed base image for Instructor laptops: • Microsoft's Desktop School Bundle provided to "Classrooms for the Future". This includes: – Microsoft Office Professional – Core Client Access Licensing – Free access to all updates, upgrades, and version changes for a period of four (4) years. • Adobe Creative Suite 2 Premium with 4-year upgrade • Inspiration with 4-year upgrade
	<u>Web Cam</u> 640x480 video resolution, high-quality 1.3 megapixel photo resolution, zoom in or out, even pan and tilt to get the right shot, Compatible with USB 2.0 and 1.1. 4 year, on-site Warranty to include Next Business Day replacement of parts.	Built-in iSight camera with 640-by-480-pixel resolution. Perfect for multi-way video with iChat AV, movie creation with iMovie, image capture and manipulation with iPhoto and Photo Booth. Building this into the MacBook eliminates the management and theft issues associated with external peripherals such as webcams.
	<u>Student Software</u> Microsoft Office Professional Version plus upgrades, Inspiration	Included in Apple's proposed base image for Student laptops. Microsoft Office 2004 for Mac, Professional Edition and Inspiration version 8.0a, with upgrades, included.
	Minimum Classroom Instructional Tools:	Apple Proposed Specifications:
	<u>Interactive Whiteboard Solution</u> Interactive Whiteboard 65 1/4" W × 49 1/2" H × 5 1/8" D (165.7 cm × 125.7 cm × 13.0 cm), 77" diagonal, Touch resolution of	Apple proposes the Polyvision TS600 ET 4'x6' (78" diagonal) Touch Sensitive interactive whiteboard with 8000 x 8000 resolution, Webster software, 20 foot Serial cable, USB to Serial adapter and a mobile stand with shelf.



Reference	Requirement	Apple Response
	4000 × 4000, USB 2.0 includes floorstand and/or wall mount if interactive whiteboard solution requires it. Must also include all cables for connecting the device to the computer. The solution may also have the ability to convert an existing whiteboard into an interactive whiteboard. 4 year, on-site Warranty to include Next Business Day replacement of parts.	System includes 5 year warranty with Next Business Day parts support. The Polyvision TS board is a touch sensitive interactive. The Webster® software allows the operator to save notes to your computer, re-display and modify your notes, email notes, print copies, control your computer, write in virtual ink over any image displayed by your computer, and save those images as well. The Easiteach software is also provided as a part of the package containing additional tools and resources for the classroom. The TS Series allows for real-time data collaboration and exploring the Internet. The TS Series can be wall-mounted using the standard mounting brackets provided or mounted on the adjustable mobile stand that contains a shelf.
	<u>Projector</u> 2000 ANSI lumens, DLP/LCD Projector, Native resolution to support VGA (640x480), SVGA (800x600), and XGA (1024x768) at a minimum, 2000:1 contrast ratio, 3000 hrs of Lamp life; internal 5 watt speaker. The device should have the ability to accept various types of inputs and outputs such as S-Video, USB, SVGA, XGA, composite (RCA) audio/video and be HDTV compatible. Minimum of two computer/component video inputs and RS232C. 4 year, on-site Warranty to include Next Business Day replacement of parts.	Toshiba TDP-T95U Projector is a sleek and travel-friendly projector designed for presenters who expect and demand quality, flexibility and performance at a tremendous value. The TDP-T95U features incredible brightness with 2,200 ANSI lumens, brilliant XGA (1024 x 768) resolution, a razor-sharp 2000:1 contrast ratio, and two-year warranty (four-year warranty not available from manufacturer). Thirty-degree digital keystone correction automatically engages without manual adjustments. The Toshiba TDP-T95U Projector supports TV (NTSC, PAL, SECAM), HDTV/DTV, and RGB signal inputs. Input terminals include 2-video (1-RCA, 1-S-Video), 5 audio (1x stereo mini-jack, 2x RCA for Video, 2x RCA for S-video), and 2 RGB for multiple input sources.
	<u>PC Multimedia Speakers</u> 3.6 Watt, 2.5W RMS/ch, volume control, On/Off switch with LED indicator and headphone jack warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.	JBL Duet 2.0 Speakers deliver 6 watts of smooth, accurate sound for any computer or portable music player. For a truly exceptional classroom experience the optional iPod Hi-Fi is a beautiful, compact sound system with an integrated iPod Universal Dock and auxiliary headphone jack. Rich, audiophile-quality sound will fill any classroom with clear, distortion free audio. The integrated iPod dock connector allows any teacher or student to connect their iPod and share their content quickly and easily. An infrared remote gives teacher control of power, volume and track selection. The speakers feature a one-year warranty (four-year warranty not available from manufacturer).



Reference	Requirement	Apple Response
	Minimum Laptop Related Items: <u>Laptop Storage Cart</u> Stores and charges up to 30 notebook computers in individual compartments. Includes two UL-Listed, 15-outlet electrical units and a three-outlet electrical unit. Top shelf is a non-slip rubber with 2 grommet holes for cord management. Doors, rear and side panels are perforated to provide for adequate ventilation. All doors come with individual locking mechanisms. 4 year, on-site Warranty to include Next Business Day replacement of parts.	Apple Proposed Specifications: Apple's response includes the Bretford 32 Laptop Mobility Cart, which is exclusively designed for schools to keep Apple hardware safe, secure, flexible and organized. In addition to the MacBook, they also store printers, projectors, iPods, cameras, keyboards and more. The Bretford 32 Laptop Mobility Cart supports up to 32 laptops. <u>Key features are:</u> • Compact and easy to move • Adjustable compartments for flexible storage options • 3-point locking system on doors for maximum theft protection and asset management • Organized cable management and power outlets on the front of the cart for easy access • Two storage bins keep important accessories organized • Each cart ships completely assembled with pre-installed charging outlets for each laptop and four extra outlets for accessories. • 12-year warranty.
	<u>Wireless Access Point (2 per classroom)</u> 54Mbps 802.11g Wireless access point, DHCP support, Manageable, IPX/SPX, TCP/IP, Ethernet 10Base-T/100Base-TX, 128-bit WEP, 152-bit WEP, 64-bit WEP. 4 year, on-site Warranty to include Next Business Day replacement of parts.	AirPort Extreme is the wireless networking solution from Apple. Based on the high-speed wireless technology called 802.11b/g. AirPort Extreme Base Stations support AirPort-enabled and AirPort Extreme-enabled Mac computers, as well as Windows PCs with Wi-Fi certified 802.11b/g cards installed. All Apple Wireless Access Points support industry standard protocols and security: WPA, WEP configurable for the standard 64 and 128-bit encryption, MAC address filtering, NAT firewall and RADIUS authentication, 802.1X, PEAP, LEAP, TTLS, and TLS. (152-bit WEP is specific to 802.11a and therefore not consistent with the 802.11g requirement of this RFP) It is Apple's recommendation, based on many large education deployments, that one access point per classroom would offer the best coverage, performance and cost model. It is also our recommendation that a single DHCP server be available on the network and not enabled at each classroom access point.



Reference	Requirement	Apple Response
	<u>Additional laptop battery and charger</u> External system to charge batteries outside of laptop. 4 year, on-site Warranty to include Next Business Day replacement of parts.	Apple specifically designed the new MacBook to provide a typical student with all day use without the need to swap-out and manage extra batteries and charging stations. The carts used in our solution will allow for the MacBooks to be charged in-place if needed. MacBooks use the new MagSafe Power Adapter, a magnetic connection instead of a physical one. So tripping over a power cord won't send your shiny new MacBook flying off a table or desk; the cord simply detaches, without damage to either the cord or the system. This also means less wear on the connectors. Due to this innovative new connector there currently is not a charging station that is compatible but Apple is working with third party manufacturers to offer this option in the future.
	Minimum Peripherals Per Building:	Apple Proposed Specifications:
	<u>Video Cameras – 4 per building</u> Mini DV Digital camcorder, 200x Zoom, NTSC, MJPEG, Built-in flash, Digital photo mode, LCD display - TFT active matrix - 2.5 in - Color, 1 x IEEE 1394 (FireWire/i.LINK), 1 x USB, 1 x Composite video/audio (input/output), 1 x Microphone, 1 x DC power input, 1 x S-Video input / output. 4 year, on-site Warranty to include Next Business Day replacement of parts.	Apple's proposed solution exceeds the stated requirements for this component. Canon ZR600 MiniDV Camcorder. The ZR600 packs a powerful combination of performance and features. It comes with a 25x optical zoom, Canon's longest ever. It also comes with features found on more expensive camcorders such as: an easy-to-read menu system; an omni-selector joystick that lets you easily operate playback, focus, exposure and menu options; a big 2.7" LCD viewscreen; Smooth Zoom Control; Level Shot Control; and one-year warranty (four-year warranty not available from manufacturer).
	<u>Digital Still Cameras – 4 per building – 1 per content area:</u> 5.0 megapixels, 24x total zoom (4x optical, 6x digital), 1.8" color image display, 32MB memory, expandable with memory cards, In-camera red-eye removal, panorama preview, image enhancement, Includes Camera Dock Series 3. 4 year, on-site Warranty to include Next Business Day replacement of parts.	Apple's proposed solution exceeds the stated requirements for this component. The Kodak EasyShare Z650 6.1MP Digital Camera with 10x Optical Zoom offers the following features: • 6.1 MP for prints up to 20 × 30 in. (50 × 75 cm) • 10X SCHNEIDER-KREUZNACH VARIOGON Optical Zoom Lens • 2.0 in. (5.0 cm) indoor/outdoor color display • Picture enhancing features • KODAK Color Science Chip • Auto options and manual modes With each camera, Apple will include a Camera Dock Series 3.



Reference	Requirement	Apple Response
IV-2. b. iii	Services Provided by Other Entities	
IV-2. b. iii) 1)	<u>Building Preparedness</u> Each local school unit that participates in this program will be responsible to ensure minimum building readiness for the installation of the proposed solution. The public high school or AVTS/CTC will address structural issues, construction/renovation, abatement, and electrical wiring needs, based on specifications supplied by the Offeror. The proposed solution should be designed to minimize necessary costs and provide basic consultative services for building preparation.	Apple's proposal complies with this requirement. It is Apple's intention to consult with each individual school district as needed.
IV-2. b. iii) 2)	<u>Professional Development</u> PDE has comprehensive resources and partnerships to support the leadership and professional development for teaching and learning. Beyond the scope of this RFP, a variety of resources will be utilized to meet the identified needs for curriculum and technology integration. However, in support of or in complement to the activities that may be undertaken by PDE, the Offeror should describe its interest, capacity, and approach for providing resources, services or consultation on professional development and technology integration.	The successful integration of Apple technology into the PDE Classrooms of Future unlocks and nurtures the desire, creativity and imagination of learners. The growing success of these projects throughout the nation confirms that an effectively designed collaboration between public schools and Apple can lead to profound advancements in education and student achievement. Apple will approach this project from multiple angles. Apple Professional Development experts will work directly with the following constituents to provide the appropriate level of Professional Development: Teachers Our Project Team will work with each school to arrange and schedule Out of the Box Training that will be the initial care and feeding of your notebook for all teachers in the program. This will be a two day training that will open the door for all participant teachers to a an exciting and proven method for incorporating technology into the infrastructure of their every day instruction. Depending on the size of the school and number of participants, this training may take place at either the school location or a local Intermediate Unit. Additional professional development will be made available to teachers in the project utilizing Apple's online Professional Development tools. Administrators Our Professional Development Team will work directly with each schools administration to conduct Leadership Training. Apple's experience is that this training is a crucial element to the



Reference	Requirement	Apple Response
		success of all large initiatives. We will instruct the administration of each participating school to properly support, nurture, plan for, and implement technology into the fabric of their curriculum day. This training will include up to 4 participants from each school. The 4 participants will include the Principal and 3 others of his/her choosing. These should be people who will be looked at to set direction and be the force that will drive each school to excel. This training will consist of 3 separate 2 day training classes spread out throughout the school year. These trainings will be held at local Intermediate Units or a host school and will include no more than 4 schools staff simultaneously. In addition to this training, Apple will conduct a Principal Leadership Series that will help enrich the overall experience for all of the participants of PDE's Classroom of the Future Project. Lead Teachers Our Curriculum Specialist will work with PDE Trainers to build capacity by conducting Train the Trainer sessions. The area of focus for these sessions will be: • Support structures • Mentoring and coaching • Celebration and Communication • Re-visiting the Vision • Change strategies • Measuring Success These sessions will be conducted strategically around the state to help provide continuing support to Apple-based Classrooms for the Future participants throughout PA. They will be two-day institutes and will be held at local Intermediate Units or a host school. The frequency of these classes will be determined by the number of schools that choose an Apple solution. We expect this to be approximately one two-day institute per participating school. IT Directors/Depot Managers Our Project Manager and technical experts will work with the IT Directors and technical staff at each school to recommend the proper level of training and instruction to match their schools current and growing environment. The content and frequency of the technical training will be established based on the needs of the individuals at each participating school.



Reference	Requirement	Apple Response
		Additional detail on items in this section can be found in the Project Plan appendix and Value Add Submittal.
IV-2. b. iii) 3)	<u>Content, Assessment and Integration</u> The Commonwealth is a “local control” state with regard to curriculum and selection of instructional materials. Pennsylvania’s statewide standards describe what children should know and be able to do at each grade span. Although the Offeror may include options for services regarding content, assessment tools, and other materials, any such services should be aligned to Pennsylvania’s state standards and assessment anchors as well as support a system of locally developed and selected curriculum, instruction and assessment.	Apple’s proposed solution complies with this requirement. Apex Learning Correlations to State and National Standards As a publisher of comprehensive online curriculum for secondary education, Apex Learning® has recognized the importance of content standards. The scope and sequence for each Apex Learning course has been developed to align to relevant state and national standards. Apex Learning has worked with an independent team of curriculum experts to develop detailed correlations for each course. Correlation reports are available both by subject and by course for specific standards. Correlations by Subject allow you to select specific PA standards, a grade level, and a subject. The correlations report indicates how Apex Learning’s courses align to each element of the standards selected. For each element, you can also view which Apex Learning courses address the standard. In addition, you can view the specific activities in a course that correlate to a particular content standard. See section IV-4. n. for additional detail.
IV-2. b. iii) 4)	<u>Program Evaluation and Assessment</u> PDE will make provision outside the scope of this RFP for outside analysis and evaluation of the impact and success of the Classrooms for the Future project. The Offeror should be prepared to support that effort.	Apple will cooperatively work with the Pennsylvania Department of Education to evaluate the effectiveness of the program by providing recently developed evaluation and assessment tools and one day of orientation and consultation on the tools to the PDE within one month of selection. The usage of the tools will be at the sole discretion of the PDE. These tools will allow local schools to measure their progress. • The Program Evaluation Toolkit, developed with SRI provides for surveys, observation tools, and organization and analysis protocols • Professional development works best when it is designed around the needs of teachers. The Apple Teacher Technology Profile is designed to gather information on the technological skill and competence of a school or district’s educators, and to



Reference	Requirement	Apple Response
		use this as the basis for a comprehensive plan for professional development and to provide evidence of a teacher's progress in effective use of technology within the day-to-day instructional process. The survey instrument is grounded in more than a decade of research funded by the National Science Foundation and published in leading educational journals, as well as in Apple's three decades of experience integrating technology into schools.



IV-4. Requirements

Reference	Requirement	Apple Response
IV-4. a. Device Specifications		
	The minimum specification for the device is listed on Part IV, Section IV-2. ii). The devices (as defined in the detailed specification chart) will support the latest technology for example: The minimum specifications on Part IV, Section IV-2b.ii) were designed so that the mobile computing device will have sufficient processor speed, RAM, optical drives and hard disk storage to function in a classroom throughout the life of the contract. As per 2005 PA Technology Inventory, the school districts, AVTS/CTC utilize 87% PC and 13% MAC. Please prepare your proposal accordingly.	Apple's proposed solution complies with this requirement: • MacBook • 1.83GHz or 2.0GHz Intel Core Duo • 13.3-inch (diagonal) 1280x800 TFT glossy widescreen display • Apple Remote with Front Row • 1GB memory • Intel Graphics Media Accelerator 950 • Slot-loading optical drive • 60GB hard drive • Built-in 54-Mbps 802.11g AirPort Extreme wireless • Analog and digital audio in and out • Built-in FireWire 400, USB 2.0, and gigabit Ethernet ports • iLife '06, Mac OS X Tiger (10.4.7)
IV-4. b. Device Connectivity		
	The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device will be able to connect to the wireless network and also be able to also access the school's pre-existing local network, and the Internet, either wirelessly and wired within the school. The Offeror must describe its connectivity solution in detail. The system must support wireless Internet and WLAN access using the 802.11g standards.	Apple's proposed solution complies with this requirement. The MacBook comes with built-in AirPort Extreme wireless networking. Based on the IEEE 802.11 b and g wireless standard, AirPort Extreme delivers data at speeds up to 54Mbps. Gigabit Ethernet (10/100/1000 BASE-T, RJ-45 connector) comes standard for times when wired connectivity is the preference. And the included Bluetooth 2.0+EDR module allows schools to connect wirelessly to a wide range of peripheral devices such as wireless keyboards, mice and printers. See Exhibit C for additional detail.
IV-4. c. Device Portability		
	The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device will	Apple's proposed solution complies with this requirement.



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	be able to be carried conveniently and easily by students and teachers. The portable computing device shall be lightweight.	At 5.2 pounds the MacBook delivers the perfect balance between size and weight. Measuring just 12.78 inches wide by 8.92 inches deep by 1.08 inches thin, about the size of a textbook. It's one of the most lightweight and compact full featured laptop on the market and is well suited for student and teacher use. The MacBook is designed with Education in mind. There are no external latches, hinges, or doors that can be damaged or lost. In addition, key components such as wireless card, FireWire and iSight web cam are built-in, fully integrated components of the MacBook.
IV-4. e.	Device Power	
	The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The portable computing device will have a battery(s) that will allow the device to be used throughout a standard school day. The battery will need to have the ability to be recharged through a type of multi-unit re-charger at the school, and will need to be able to be recharged overnight or sooner. The device shall also be able to be powered by a standard electrical plug. The Offeror must specify the recharge time, electrical load, battery life, and other relevant electrical specifications of its solution	Apple specifically designed the new MacBook with a 55-watt-hour lithium-polymer battery to provide a typical student with up to 6 hours of use on a single charge depending on usage. Each MacBook comes with a power adapter that can be used to recharge the MacBook from any standard electrical outlet or from within the cart itself. MacBooks use the new MagSafe Power Adapter, a magnetic connection instead of a physical one. So tripping over a power cord won't send your shiny new MacBook flying off a table or desk; the cord simply detaches, without damage to either the cord or the system. This also means less wear on the connectors. Due to this innovative new connector there currently is not a charging station available, but Apple is working with third party manufacturers to offer this option in the future. Recharge Time When the system is in sleep mode or shut down, the battery takes up to two hours to charge to 80% and four hours to fully charge. Please note battery life depends on many environmental variables, included but not limited to, room temperature, storage location before laptop's use, type of activity for which the device is being used, if or for how long the laptop was charged before use. AC Adapter Features and Electrical Load Colored LED lights show battery-charging status. An amber light indicates that your battery is recharging, while a green one tells you that you



Reference	Requirement	Apple Response
		have a full charge. The 60W adapter also includes retractable hooks for cable management. Instant Battery Status MacBook users can tell at a glance the status of the computer's battery. Five LED's on the bottom of the battery indicate the battery charge level. A simple press of the button next to the LED's shows the amount of charge. Furthermore, while charging these LED's glow continuously, showing the percentage charged.
IV-4. f.	Software and Function	
IV-4. f. i)	<u>Applications</u> The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The solution must, at a minimum, provide the students and teachers with software to facilitate the following educational needs: writing (e.g., word processing, journaling, email, etc.), data analysis (e.g., spreadsheet, graphing and charting, GIS, etc.), presentations and publishing (e.g., slide shows, web authoring, etc.), multimedia creation (e.g., manipulation of digital images, audio, video, etc.), information management (e.g., database, concept mapping, etc.), research (e.g., Internet browsing with the ability to access and utilize multimedia and interactive content like streaming audio/video, javascripting, java applets, flash/shockwave, etc). This software is further defined in the detailed specification chart. While the Offeror is not required to provide educational content, it is encouraged to do so as a Value Added option. It will be considered Value Added, if the content is aligned with tools and resources with Pennsylvania's standards and assessment anchors. The most cost effective licensing options should be provided through the Microsoft Select plus software assurance and School Agreement programs. Schools will own the	Apple's proposed solution complies with this requirement. Apple's Classroom for the Future laptops will come with an advanced, integrated set of productivity and multimedia applications, empowering teachers and students with the most proven and innovative tools for teaching and learning. In addition to the required minimum applications listed in section IV-2. b, Apple is delivering a collection of learning tools that equip teachers with powerful presentation, publishing, and communication applications, and equipping students with the most creative tools for acquiring, organizing, and displaying their knowledge. Please refer to Section IV-4. n. and Apple's Value Add Submittal for additional details. Writing Software (e.g., word processing, journaling, email, etc.)  Mail, from Apple Take control of your correspondence with Mac OS X Tiger Mail 2, now featuring Spotlight search technology. Find email instantly and accurately, organize messages using Smart Folders and share, save or view emailed images easily.



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	Laptops during the course of the four-year lifecycle with the option to buy-out the software at the end of the four years. Please address licensing options to support.		Office 2004, from Microsoft Office 2004 Professional Edition provides presentation, spreadsheet, word processing and e-mail software from Microsoft. Files are stored in a format that allows for document portability across the Office product line.
			NeoOffice NeoOffice is a full-featured office productivity suite including word processing, spreadsheet, presentation, vector drawing, database, and macro functionality. It can be used as a free alternative to Microsoft Office for Mac. You can exchange documents with Microsoft Office and OpenOffice.org users, even on other platforms.
			NoteShare, from AquaMinds NoteShare is a powerful desktop application for creating, publishing and sharing media rich, multi-page notebooks. Users can instantly share their notebooks with other NoteShare users for presenting, viewing and editing information. NoteShare can be used in the same room, same building and same planet for connecting anytime, anywhere.
			Inspiration, from Inspiration Software Inspiration's integrated diagramming and outlining environments work together to help students comprehend concepts and information. Educators use Inspiration to customize instruction, achieve standards, assess student progress, and energize learning. Use Inspiration to brainstorm ideas, plan, organize, structure an outline, create diagrams, and write reports.



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		Dictionary & Thesaurus, in Mac OS X What's in a word? Mac OS X includes a new built-in dictionary and thesaurus application so you'll never be at a loss for words again. You'll have full access to both the New Oxford American Dictionary (2nd Edition) and the Oxford American Writers Thesaurus (1st Edition). Data analysis (e.g., spreadsheet, graphing and charting, GIS, etc.) Grapher, from Apple Included in Mac OS X, Grapher is a graphing calculator with a 2D and 3D plotting tool and a rich equation editor that exports to many file formats (including QuickTime). GRASS GIS (freeware) GRASS GIS, is a Geographic Information System (GIS) used for data management, image processing, graphics production, spatial modeling, and visualization of many types of data. Presentations and publishing (e.g., slide shows, web authoring, etc.) iWork '06, from Apple This exciting software suite makes it easy for students and teachers to create, present, and publish their work with style. iWork '06 provides two new powerful tools for the classroom—Keynote 3 and Pages 2.



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		 Keynote 3, from Apple Apple's simple-to-use, cinema-quality presentation software—students can create stunning presentations to share their work.  Pages 2, from Apple Apple's new streamlined word processor—students can choose from a collection of pre-designed templates to readily produce professional-looking newsletters, complex research reports, and more.  iWeb, from Apple Part of iLife '06, iWeb makes it easy for students to make terrific-looking websites and blogs that can include movies created with iMovie HD, podcasts created with GarageBand, images from their iPhoto library, and more. They can then instantly publish their websites on the Internet. Students can use websites produced with iWeb to showcase their documentary films, to display their artwork, or to report on school events. Teachers can use iWeb websites to share class projects with students' families and with the school community.  SiteSucker SiteSucker is an application that automatically downloads web sites from the Internet. It does this by copying the site's HTML documents, images, backgrounds, movies, and other files to your local hard drive. SiteSucker can be used to make local copies of an entire web allowing a user to browse a site off-line



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		<i>Creative Suite 2 Premium, from Adobe</i> Adobe® Creative Suite 2 Premium software is a unified design environment that combines full new versions of Adobe Photoshop® CS2, Illustrator® CS2, InDesign® CS2, GoLive® CS2, and Acrobat® 7.0 Professional software with new Version Cue® CS2, Adobe Bridge, and Adobe Stock Photos. Multimedia creation (e.g., manipulation of digital images, audio, video, etc.) <i>iLife '06, from Apple</i> Bring the sights and sounds that excite and inspire your students into the classroom effortlessly with iLife '06—a highly integrated software suite that comes on every new Mac. <i>iMovie HD, from Apple</i> With iMovie HD, students can easily create movie projects that include digital video, photos, and music, as well as narration and text. Students can use iMovie HD to create video science reports, their own short films, or documentaries about current events. Teachers can use iMovie HD to share best practices with their peers. <i>iPhoto, from Apple</i> iPhoto makes it easy to download, organize, edit, and share digital photos. Students can create field trip slideshows, webpages with photos of their artwork, photo books, calendars, greeting cards, and more. They can also store and organize photos for use in their digital movies.



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		 iDVD, from Apple With iDVD, students can readily produce impressive DVDs to store and share their digital projects, document their learning, or present a class movie, complete with menus and chapters. And because DVD discs hold so much information, teachers can store several digital media projects on one DVD.  GarageBand, from Apple Now students can perform, record, and create their own music and other audio. They can easily create original music by combining a series of pre-recorded musical performances. Or, they can plug in a guitar, keyboard, or microphone and record their own music. Students can also use GarageBand to record podcasts and then add images, jingles, and special effects. They can use their GarageBand compositions as soundtracks for their slideshows, movies, and DVD projects and publish their podcasts on webpages with iWeb.  iTunes, from Apple The ubiquitous Apple jukebox is the perfect tool for organizing and managing your digital audio files. From music to podcasts, audiobooks to dictation, iTunes integrates fully into the other iLife '06 applications.  GNU Image Manipulation Program The GNU Image Manipulation Program (GIMP) can be used to process digital graphics and photographs. Typical uses include creating graphics and logos, resizing and cropping photos, changing colors, combining images using a layer paradigm, removing unwanted image features, and converting between different image formats. The



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		GIMP can also be used to create simple animated images.  Audio Recorder 3.0, Freeware Audio Recorder is an easy to use application that allows the user to record audio from any default input device directly to an AIFF, Apple Lossless (M4A and MOV), MP3, MP4 (M4A and MOV), or WAV file. Extremely useful in creating basic audio files for use in Podcasts, iMovies or audio archives. Research (e.g., Internet browsing with the ability to access and utilize multimedia and interactive content like streaming audio/video, javascripting, java applets, flash/ shockwave, etc)  Safari, from Apple The world's fastest web browser for the Mac, Safari now boasts built-in RSS support. Scan the latest news, information and articles from thousands of websites in one easy-to-read, searchable article list using Safari RSS. Safari also uses strong 128-bit encryption when accessing secure sites.  Spotlight, from Apple A component of Mac OS X, Spotlight is a search technology that enables users to harness the information on their computers, turning their desktops into the equivalent of research libraries. Spotlight finds anything on the computer as quickly as the user can type. The entire system can be searched from one place: files, contacts, images, presentations, PDFs, and applications.  Sherlock, from Apple Dramatically better than standard web browsers at retrieving and displaying some of the most practical and useful information available on the Internet. Especially useful for classrooms



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		are the Dictionary, Thesaurus, and Translation features.  QuickTime, from Apple The advanced QuickTime architecture provides state-of-the-art multimedia technologies that enable everything from high-definition audio and video playback to the creation of immersive environments. QuickTime empowers the development of innovative software such as iTunes, iMovie and Final Cut Pro from Apple as well as thousands of cross-platform programs from third parties. QuickTime supports Flash 5. Macromedia's Shockwave Flash (.swf) file format is widely used on many web sites for animation. A .swf file can contain vector and bitmap animation, as well as interactive elements.   iChat AV & iSight, from Apple Connect students to the world, and the world to students. With iChat AV and an integrated iSight camera, it's easy and affordable to bring videoconferencing into your classroom. You can instantly connect your students with students in other classrooms — all over the globe. And, it's an effective and easy way to bring experts into your classroom.  Java Java has become the de-facto standard language for developing cross-platform applications. Recognizing this, Apple has made Java a core component of Mac OS X. Mac OS X includes the full version of Java 2, Standard Edition, version 1.4.2 — meaning you have the Java Developer Kit (JDK) and the HotSpot virtual machine (VM) without downloading, installing or configuring anything. And because Apple has optimized Java on Mac OS X, Java



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		applications act as first-class citizens on Mac OS X. Other software included in Mac OS X:  Dashboard, from Apple Dashboard is home to widgets: mini-applications that let you perform common tasks and provide you with fast access to information. With a single click, Dashboard appears, complete with widgets that bring you a world of information — real-time weather, stock tickers, flight information and more — instantly. Dashboard disappears just as easily, so you can get back to what you were doing.  iCal, from Apple Teachers and students have never been so busy. You need an easy-to-use tool that not only helps you stay on top of your events but lets others in your life do so as well. iCal helps you organize your schedule by letting you create as many separate calendars as you need. Create a calendar for home, a different one for school, a third for sports, etc.  Grab, from Apple Built into Mac OS X, Grab is an application that allows for capturing screenshots of any window or screen  Preview, from Apple Open, view, scroll, work within and print any PDF document in record time with Mac OS X Tiger. A built-in PDF viewer, Preview 3, and a robust two-dimensional drawing engine, Quartz 2D, make easy navigation and pristine printing possible. And using the Print To PDF feature of Mac OS X, users can create .pdf files from any application that can print.



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		 <i>Universal Access, from Apple</i> Built into Mac OS X are accommodations for users with vision, hearing and motor skill disabilities. Universal Access works across the OS and many applications to facilitate use of a Macintosh regardless of a user's disability. OS X's ability to support multiple users further allows each user to have a customized environment within a shared computer.  <i>Parallels Desktop for Mac, from Parallels</i> While not a direct part of OS X, Parallels Desktop for Mac gives Apple users the ability to run Windows, Linux or any other operating system and their associated applications concurrently with Mac OS X on the Intel-powered MacBook Pro at or near full speed using virtualization rather than emulation technology. Note: Apple reserves the right to exclude Parallels software from the proposed solution should Apple provide similar functionality in any subsequent OS updates. Apple will provide adequate notice of this change to participating schools.  <i>Remote Desktop 3, from Apple</i> Optional remote monitoring and reporting is available via Apple Remote Desktop 3. ARD 3 is a powerful desktop management tool with real-time screen sharing that frees up more time for teachers to teach, students to learn, and system administrators to support their users. This feature-rich application enables administrators to observe and control screens remotely on any Mac, MacBook, or VNC-enabled computer. Apple will provide one copy of ARD 3 for each cart purchased



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		<i>ClamXav</i> ClamXav is a open source virus checker for Mac OS X. It uses the tried, tested and very popular ClamAV open source antivirus engine as a back end. Clam AntiVirus is a GPL anti-virus toolkit that provides a flexible and scalable multi-threaded daemon, a command line scanner, and a tool for automatic updating via Internet. Other Instructional Resources <i>Apex Learning® ClassTools</i> Apex Learning® ClassTools provides standards-based courses in math, science, English, social studies, world languages, for grades 6 through 12. Based on relevant national standards, schools are able to take advantage of a range of online learning approaches to address critical education challenges and raise achievement for all students. <i>VitalSource Library™, from VitalSource Technologies, Inc.</i> VitalSource Library™ is an interactive portable library with a growing digital storehouse of more than 3,400 original-source materials, plus an integrated dictionary and encyclopedia. Loaded on a laptop computer, these resources are completely portable to go anywhere. <i>Apple Learning Interchange</i> Apple Learning Interchange – A free, online treasure chest of teaching and learning resources, ALI provides engaging lesson plans and classroom activities; innovative teaching strategies rich with technology; opportunities for Professional Development; virtual field trips that bring the world into the classroom; and a Student Gallery.



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		iLife '06 in the classroom iLife lesson plans View over 100 educator-created lesson plans for all grade levels and subject areas, and see how teachers are using iLife to engage students and increase achievement. www.apple.com/education/ilife A note regarding third party software: As part of this project, Apple will provide laptop computers with certain third party software preinstalled on the hard drives. Some of these software titles are publicly distributed free of charge to the end user. Because these products are distributed without charge, they customarily are distributed without warranties, particularly with respect to functionality, data preservation, and non-infringement. To Apple's knowledge, none of the titles to be provided has known issues that would make it imprudent to use such software, but each is distributed with licenses that require the user to bear the risk that these titles might (a) not work as well as expected, (b) cause data loss, or (c) infringe the rights of third parties. Accordingly, by accepting third party software as a component of Apple's solution, the PA Department of General Services agrees that any third party software is provided AS IS with no representations or warranties, either express or implied, as to the third party software's performance, safety, or ownership, unless the third party's license provides otherwise, in which case the State will look to the developers rather than Apple for breaches of those representations or warranties. To the extent permitted by law, the PA Department of General Services further agrees to waive, any claims it might have against Apple that arise as a result of Apple's provision of third party software, and to indemnify and hold Apple harmless from and against the claims of third parties arising from any usage by the schools contrary to the third party's licenses or the school's modification of the third party software in any respect.
IV-4. f. ii)	<u>Network and Device Connectivity</u> The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device must be able to connect to network file	Apple's proposed solution complies with this requirement. Mac OS X supports all common networking protocols and utilizes industry standards for



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	servers using common networking protocols (e.g., smb, afp, nfs, ftp, etc.). The device must be able to utilize common peripherals for input and output (e.g., networked and stand-alone printers, digital cameras, digital video cameras, scanners, etc).	input and output, including; Built-in 10/100/1000BASE-T Gigabit Ethernet (RJ-45 connector), 54-Mbps AirPort Extreme wireless networking (based on 802.11b/g standard), Built-in Bluetooth 2.0 + Enhanced Data Rate (EDR) up to 3 Mbps, one FireWire 400 port (up to 400 Mbps), and two USB 2.0 ports (up to 480 Mbps)
IV-4. f. iii)	<u>Stand-alone</u> The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device must be able to function in a stand-alone mode sufficient to enable the user to perform basic functions (e.g., writing, data analysis, multimedia, information management) without requiring network access. The Offeror must describe the differences, if any, in the function of the device when it is network-connected versus in stand-alone mode.	Apple's proposed solution complies with this requirement. Each MacBook will be set up with a local student account and a local administration account. When students use a MacBook they will be able to securely login to the computer using a student password, and use any of the applications that students have been given permission to use. If the wired or wireless network is available then all applications and functions will behave as expected. If the wired or wireless network connection is unavailable then such things as server access, sending and receiving email, Internet access, and other web-based applications are the only functions dependent upon a network connection would be unavailable until the network connection was restored. If desired, MacBooks allows users to carry their entire portfolio of work, and a powerful suite of creative tools, in their hands 24 hours a day, seven days a week. For example, users can create and edit iMovies and run curriculum applications anywhere on campus without requiring network access.
IV-4. f. iv)	<u>Software Restore</u> The portable computing device will be able to be restored easily and in a reasonable timeframe. The Offeror is responsible for providing any CD, DVD and/or electronic image necessary to restore the device to a base state.	Apple's proposed solution complies with this requirement. Each MacBook will ship with a restore DVD that has the base operating system image. A supplemental DVD with all also be provided that restores all custom software and custom imaging options for both students and instructors. For an additional charge, Apple can also provide a high-speed FireWire restore method that has been proven as the most effective and quickest restore method at many of our 1 to 1 deployments. The simplicity of this solution is that it makes it even easier and quicker for non-technical personnel to restore the MacBook to its original state. Apple intends to consult with each school district to determine the most cost effective and efficient solution for their particular needs



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IV-4 f. v)	<u>Operating System</u> The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The Offeror must include current and upgraded (including new operating system) versions of the core operating system software through the term of the agreement in order to maintain usability with upgrades and enhancements to educationally relevant software. The Offeror must provide a device which will not require hardware upgrades in order to reasonably keep up with possible future software upgrades.	Apple will provide current and upgraded versions of the core operating system for the proposed device through the term of the agreement. The MacBook will include adequate memory, storage and processing power to provide the educational solutions required and proposed for the term of the agreement. Mac OS X 10.4 Tiger, the world's most advanced operating system with features that make it easier than ever to find, access and enjoy everything on your computer. Educators value technology that enhances curriculum, is easy to learn and, empowers students and teachers to be creative, collaborative and focused on the content and skills at hand. Simple-to-learn Mac OS X is ideal for education, but don't let its elegant and easy-to-use interface fool you. Beneath the surface of Mac OS X lies an industrial-strength UNIX foundation hard at work to ensure that your computing experience remains free of system crashes and compromised performance. Time-tested security protocols in Mac OS X keep your Mac out of harm's way. Mac OS X Fits in and stands out Mac OS X fits into large, heterogeneous systems with ease, thanks to its extensive support for Windows-based systems and networks. Built-in USB and FireWire support offers plug-and-play access to a large selection of devices including printers and digital devices. Easy file sharing allows Mac and Windows users to seamlessly exchange files and collaborate. Mac OS X is Reliable and Secure Mac OS X is designed to remain stable and maximize uptime, thanks to its UNIX underpinnings. Its reliability and record of steadfast performance, mean Mac OS X will be ready when students and teachers need it, so classroom time can be spent investigating the subjects at hand, not the computers. Universal Access Mac OS X includes many features designed to provide accessibility to users with disabilities. Apple refers to these as "Universal Access" features and has integrated them into the operating system.



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		You can even run Windows XP With the addition of the Parallels Desktop software and a Windows XP license, your Mac may very well be the only computer you'll ever need. In fact, the Mac's flexibility — its ability to run both Mac and Windows is a unique capability that no one else can offer.
IV-4. d. Additional Peripherals		
	The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The Commonwealth wishes to enable public high schools and AVTS/CTCs to enhance or complement the portable computing device with additional software and hardware. The Offeror shall include only those products, models and features that it will support when configured and connected to the proposed solution. The Offeror shall also warrant these additional peripherals for four years. The Offeror is to provide the manufacturer name, model, short description, and warranty. Also, include any additional cables, connectors and adapters required. If any software upgrades or additional features are required, so state. These devices, cables, connectors and adapters must be available through the Offeror's corporation for delivery to the individual sites.	Apple's proposed solution is designed to be complete and fully functional. However, individual school districts may consider adding additional peripherals such as probes, Proscopes, etc. for an additional charge. Apple's proposed solution fully supports existing USB- and FireWire-based peripherals that schools may have already invested in.
IV-4. e. Network Connectivity and Infrastructure		
	The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The wireless network infrastructure shall connect from the classroom portable computing devices at one end to the building local area network demarcation at the other end. Between the two ends, it will be the Offeror's responsibility only to provide consultative services to ensure connectivity and infrastructure. Power-over-Ethernet is preferred. Existing building local area network devices, servers and infrastructure may be utilized by the Offeror's solution at the Offeror's choice.	Apple's proposed solution complies with this requirement. Apple will provide consultative services with each school on an as-needed basis.
IV-4. f. Building Readiness		
	Each local school district that participates in this program shall be responsible to ensure	Apple will work with the Department of Education to provide guidelines to schools for



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	minimum building readiness for the installation of the proposed solution. The local school district shall address structural issues, construction/renovation, abatement, and electrical wiring needs, based on specifications supplied by the Offeror. The proposed solution should be designed to minimize necessary costs of building preparation. It will be the Offeror's responsibility only to provide consultative services to ensure building readiness.	the minimum building readiness specifications. Schools will be asked to provide building data. Apple will then work with the schools to recommend and if appropriate, facilitate upgrades and improvements that minimize financial and operational impact. Priority status will be given to those schools that complete the readiness checklist quickly and do not have abatement issues or other health hazards.
IV-4. g. Local Network and Access		
IV-4. g. i)	These network access services will include as a minimum: <u>Wireless Coverage</u> The coverage must ensure that all math, science, social studies and English classrooms can function wirelessly. Students and teachers will remain connected to the school's wireless LAN as they move around within the various rooms and areas. The Offeror will ensure access to the school's wireless network from all core academic classrooms for math, science, social studies and English content areas. To the extent necessary, a site survey should be performed to optimize each school's coverage area. A school may expand the coverage area at its own expense using the Offeror's optional equipment offering or another available Offeror.	Apple's proposed solution complies with this requirement. Apple will expand the network coverage to the necessary instructional and administrative areas with AirPort Extreme Base Stations. Apple recommends that administrative areas should remain with wired access because of the sensitive nature of student data that is often transmitted in administrative systems. Although there are several security options that could be employed, they would be beyond the pricing available in this project. Wireless is not recommended for situations where sensitive student data is frequently exchanged. Apple will also provide optional coverage pricing for schools to further expand their wireless net
IV-4. g. ii)	<u>Wireless Access</u> Each participating Classrooms for the Future package will be provided with a wireless connection. The portable computing devices will use the wireless access points to connect to the existing local area network, switch, servers, access points, and associated hardware to provide a robust network environment for the student and teacher devices. This includes access from the school environment via the wireless network and provided servers and the services it provides, including access to shared applications and files. Additional accesspoints, wiring, electrical and equipment (if necessary) will also be provided as a local school option. Each Offeror must describe its solution's capabilities as well as its limitations (e.g., interference susceptibility, distance and object penetration), including what wireless industry	Apple's proposed solution complies with this requirement. Apple's AirPort Extreme Base Stations provide the optimal wireless solution and by setting our base station to the combined 802.11(b) and 802.11(g) modes, Apple ensures that any schools that seek to retain their existing 802.11b devices will be able to use them while the new MacBooks are capable of leveraging the higher 802.11g speeds.



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	standards (e.g., 802.11g, standards) are employed in the solution.	
IV-4. g. iii)	<u>Wireless Bandwidth</u> For the wireless solution to be effective, sufficient and necessary bandwidth capacity must be included in the package. The solution must not only include sufficient aggregate bandwidth but must also be capable of being customized for varying needs within a school. For example, a concentration of physical classrooms within a school may require additional access points or faster speeds, or both, within that area. The solution must provide services to all students and teachers concurrently on the wireless network with quality response time that does not hinder or impede effective instruction and learning in the classroom. This requirement includes the ability for students to browse the Internet, download files and use streaming video without unreasonable delay. This requirement also includes the provision that the solution must provide concurrent wireless services to all students and teachers in a manner that, as a minimum, guarantees throughput capability, from host to client, of 3 megabits per second for files 1 megabyte or less in size 90% of the time.	Apple's proposed solution complies with this requirement. Apple will install the wireless networks based upon scheduling information provided by the schools. AirPort Extreme Base Stations will be installed in a physical configuration that ensures compliance with this requirement.
IV-4. g. iv)	<u>Internet Access</u> Access to the Internet for Pennsylvania schools is to be provided via each school's connection to their ISP. The Offeror will ensure its solution works with the school's connection and the Offeror will work with each ISP to identify appropriate bandwidth and network infrastructure as needed. Internet content filtering, such as required by C.I.P.A. federal law, will be the ISP's and the local school's responsibility, not the Offeror's. The Offeror shall, to the extent feasible, consult and advise on the availability of cost effective measures for Internet content filtering.	Apple complies with this requirement and will continue to support the open standards of the Internet as well as to work with schools to identify networking issues such as bandwidth availability, bottlenecks, and IP address allocation.
IV-4. g. v)	<u>Growth</u> Suitable architecture must be provided to allow for growth in the wireless network infrastructure if there is growth due to additional grades in the school utilizing the infrastructure or growth in the population of	Apple's proposed solution complies with this requirement. The Apple solution will be designed for any expected expansion and growth.



Reference	Requirement	Apple Response
	the school utilizing the infrastructure.	
IV-4. g. vi)	<u>Print Services</u> The portable computing devices will be able to utilize a school's existing networked printers. At local cost, each school may choose to acquire and install additional networked printers.	Apple's proposed solution complies with this requirement. The MacBooks are capable of printing to LPR, IPP, Windows XP, USB, AppleTalk, LocalTalk, Bluetooth, and FireWire printers. Tiger includes more printer drivers than ever, supporting hundreds of printers from Brother, Canon, EPSON, HP, Lexmark and Xerox. Tiger also bundles the GIMP-Print open source printer driver project, giving you access to even more printers.
IV-4. g. vii)	<u>Remote Network Access Portability</u> The Offeror's portable computing device must enable students and teachers to access the school network.	Apple's proposed solution complies with this requirement. MacBooks support standards based networking from the physical layer down to the protocol layer. Apple will work with the individual schools as needed to ensure access.
IV-4. h.	Performance Metrics and Reporting	
	The Offeror must track and record operational Performance and Quality metrics necessary to ensure the successful management of the project. Such performance metrics will be reported quarterly, by school as necessary, to a PDE identified project lead. The reporting may include such items as setup, deployment and installation of Classrooms for the Future packages. It will also include summary information regarding incidents, device and system failure types, downtime, repair turnaround times, trends, remediation needed, unresolved issues, recommended improvements, other factors necessary to ensure a successful project. Offerors should recommend metrics for consideration by PDE.	Apple's proposed solution complies with this requirement. Upon award, Apple will work with the Pennsylvania Department of Education (PDE) to determine any additional metrics required. Metrics should measure performance and quality.
IV-4. i	Functional and Asset Security	
IV-4. i. i)	<u>Wireless Security</u> The solution must protect against eavesdropping and unauthorized access. The solution must include encryption or other techniques to provide this assurance which the local school may turn on or off as local policy indicates.	Networking security standards are core to Darwin, the open source foundation of Mac OS X. Darwin offers Kerberos, Secure Shell (OpenSSH), a framework for secure Web transactions (OpenSSL), Wi-Fi Protected Access (WPA) data encryption over wireless networks, and L2TP Virtual Private Network (VPN) for secure remote access to corporate networks.



Reference	Requirement	Apple Response
		Security at the core Apple makes its source code available and uses time-tested open source software; the developer community examines the system's security measures, illuminates areas of weakness, discusses, and finally implements improvements to close security holes. Through this cooperation, which is inherent in open software development, Apple and the open software community can provide a more secure system and quickly respond to security issues. Apple works closely with security watchdog organizations CERT and FIRST.
IV-4. i. ii)	<u>Damage, Insurance, and Warranty</u> In the case of individual fault, the local school district will determine as a matter of local policy whether any or all such local costs should be borne by the individual teacher, student, or parent(s). These local costs shall not be counted as part of the direct or indirect RFP price.	Apple acknowledges and understands the Commonwealth's Damage, Insurance, and Warranty strategy as it applies to individual fault.
IV-4. i. iii)	<u>Theft</u> The portable computing device provided must incorporate security features to deter theft. This should include an unavoidable login or greeting, or similar process, which identifies the program and/or owner of the device. These security features must be operative regardless of the physical environment in which the portable computing devices are found. The Offeror will provide a detailed description of security features on the proposed devices to deter theft.	Mac OS X offers a secure and unavoidable login screen that can be customized to show State or Institutional ownership with appropriate contact information. The MacBooks NVRAM will be embedded with information identifying the device as part of the program and can contain PDE contact information. The desktop image (wallpaper) can displayed an image that identifies the device as part of the program and give information on how to contact PDE if found. Precautions will also be made to make it difficult for non-PDE personnel to erase the information embedded in software that marks the device as a PDE device. Schools will also receive a complete inventory of the devices they are issued which will include hardware details about the device such as Ethernet address and serial number. Apple will also work with State law enforcement officials so that these markings are well known and easily identifiable. Critical to any theft deterrent strategy is to be public about the uniqueness of the participating machines; highlighting both the ease of identification and high risk of subsequent prosecution. When all students are participating in a program, theft among students has proven to be relatively small. Experience has shown that when curriculum stored on laptops is an



Reference	Requirement	Apple Response
		important part of the student's achievement, students then care for and guard their laptops, as they recognize the value in having it as a partner in their education.
IV-4. i. iv)	<u>Asset Tags</u> The Offeror will include an asset tag and recording system. This system will included the fastening of asset tags in the factory during the production of the system. There will be one asset tag type for the entire Classrooms for the Future project. The attributes of the specific tag will be dictated by the Commonwealth. Information gathered and reported on system asset tags and labels may include: customer name, service tag, purchase order number, order number, order date, model number, shipping address, system component data, and/or customer-supplied information. Monitor asset tags and labels may include: customer name, monitor serial number or Offeror-generated asset number sequence. Offeror will establish a standard format for tags working with Commonwealth contract management.	Apple's proposed solution complies with this requirement. Upon award, Apple will work with PDE to finalize the information required to be gathered and reported.
IV-4. j.	Technical and Curriculum Integration Training and Consultation	
	The Offeror shall provide an appropriate level of technical training on the solution, its local support requirements, and its applications for all teachers, school administrative staff, and technical support personnel. Each school district will coordinate the training schedule at the time of purchase. This training shall include basic use of the entire classroom solution and software, use of the solution in a network environment, both wirelessly and wired Ethernet, use of the solution in standalone mode, and use and access of the server(s). Training should be done in the context of how to use and integrate the Classrooms for the Future package in an educational setting. While PDE will continue to provide regional training, the Offeror's training needs to be contextually relevant and not just a "computer skills" class. The Offeror will also include specific training on trouble-shooting, maintenance, repair procedures, etc. for technical support personnel. The Offeror shall describe its proposed program	Apple has two divisions to support the technical and curriculum integration training and consultation needs of the Classrooms for the Future initiative: World Wide Certification & Training (WWCT) and Apple Professional Development (APD). WWCT will provide an appropriate level of technical training for identified personnel in each of the districts to include troubleshooting, maintenance, and management. Details of this training are indicated below. APD will provide professional development for educators with a focus on curriculum integration and consultation as needed. Details of the professional development plan are outlined in Section K, L, M and N below.



Reference	Requirement	Apple Response
	to accomplish both training scenarios including a preliminary training plan, content and method, recommended duration, recommended location(s), materials included, instructor to student ratio, and qualifications of each instructor. The Offeror must separately and specifically address its training program for each year of the contract. The Offeror will also make available sufficient teacher training prior to the start of school year 2006-2007. Training times and locations should be convenient to the participating personnel, and school personnel should have multiple options to signup for training in their region at no additional cost. Each school district will schedule its own training sessions.	
IV-4. k. Curriculum Integration and Professional Development		
	The Offeror will become a partner, providing ongoing consultation, advice, and assistance to PDE in the ongoing effort to increase the purposeful integration of learning technology into teaching, learning, and leadership.	Introduction and Background Apple Professional Development (APD) would welcome the opportunity to work with the PDE's "Classrooms for the Future" mobile cart teaching and learning initiative. It is the goal of APD in this proposal to help PDE build capacity, leadership, and develop a pedagogical environment that effectively uses digital resources to support 21st Century learning in classrooms throughout the state. Apple understands that the development of successful curriculum is dependent upon the creation of challenging integrative and exploratory learning opportunities that will address the cognitive and non-cognitive needs of high school students. Apple's technologies help to provide educators with the tools needed to not only advance student learning but to foster environments designed to engage young adolescents. Apple also understands that continuous student, parent, teacher, and staff training are important to the effective use of digital resources. Apple's professional development program includes effective technology integration techniques for teachers to enhance student achievement. APD has been instrumental to successful teacher training and the effective infusion of digital resources in numerous districts and schools across the country. While much is known about fully integrating technology and designing successful



Reference	Requirement	Apple Response
		professional development, this information is not always applied in actual practice. As early as 1995, Ann Lieberman (Phi Delta Kappan, 76, 8, 1995, p.591) stated “what everyone appears to want for students – a wide array of learning opportunities that engage students in experiencing, creating and solving real problems, using their own experiences, and working with others – is for some reason denied to teachers when they are learners.” The design model for Apple Professional Development is based primarily on research recommendations from the National Staff Development Council and findings from the ACOT (Apple Classrooms of Tomorrow) research project. The first key research foundation is an understanding of what integration means and how it changes teaching and learning in the classroom. Integrating technology in classrooms involves more than simply duplicating the activities that normally occur in computer labs, school media centers or offices. It also involves more than simply automating existing teacher and student tasks or activities. Overall, integrating technology into classrooms to enhance the cognitive learning process requires teachers to change their teaching methods. By doing so, students are given the opportunity to demonstrate learning (working independently or in collaborative groups) by using technology as a tool to gather, explore, and present information. This constructivist type of learning emphasizes that knowledge is not simply transmitted from teacher to student, but rather is constructed in the mind of the learner through active student-centered experiences. The chart below summarizes the difference between several aspects of teaching and learning in a traditional direct instruction model and a technology integration constructivist model. These two models are also sometimes labeled teacher centered vs. student centered. It should be noted that the constructivist model does not entirely replace the traditional mode, but rather is simply more appropriate during different portions of the school day.



Reference	Requirement	Apple Response																												
		<table><tr><th>Aspects of Teaching & Learning</th><th>Traditional Direct Instruction Model</th><th>Technology Integration Constructivist Model</th></tr><tr><td>Activity</td><td>Teacher centered</td><td>Learner Centered & Interactive</td></tr><tr><td>Teacher’s role</td><td>Fact teller & expert</td><td>Facilitator & sometimes learner</td></tr><tr><td>Student’s role</td><td>Listener & learner</td><td>Learner & sometimes expert</td></tr><tr><td>Emphasis</td><td>Facts & replication</td><td>Relationship & inquiry</td></tr><tr><td>Knowledge</td><td>Accumulation</td><td>Transformation</td></tr><tr><td>Success</td><td>Quantity</td><td>Quality</td></tr><tr><td>Assessment</td><td>Norm-referenced</td><td>Criterion referenced portfolio</td></tr><tr><td>Technology use</td><td>Seat work</td><td>Collaboration & composition</td></tr></table>	Aspects of Teaching & Learning	Traditional Direct Instruction Model	Technology Integration Constructivist Model	Activity	Teacher centered	Learner Centered & Interactive	Teacher’s role	Fact teller & expert	Facilitator & sometimes learner	Student’s role	Listener & learner	Learner & sometimes expert	Emphasis	Facts & replication	Relationship & inquiry	Knowledge	Accumulation	Transformation	Success	Quantity	Quality	Assessment	Norm-referenced	Criterion referenced portfolio	Technology use	Seat work	Collaboration & composition	
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		ACOT research over 12 years has shown that when students are given the opportunity to learn using the technology integration model above, that students develop 21st Century learning competencies such as effective communication, problem solving, exploration of information, independence, computer knowledge, skill and application, collaboration and, a positive orientation to the future. In terms of designing professional development to get teachers to change their instructional practices to integrate technology, several other research findings are relevant. The chart below summarizes the different stages of understanding and use of technology by teachers. The identification of these important stages of teacher development was also a result of ACOT research. The third column identifies the type of staff development that is appropriate to the stage of development.																												



Reference	Requirement	Apple Response																										
	Evolution of Teacher Thought and Practice <table><tr><th>Stage of Teacher Development</th><th>Description</th><th>Types of Training</th><th>Relationship</th><th>Focus of Coaching</th></tr><tr><td>Entry</td><td>"only if I have to;" fear & anxiety</td><td rowspan="2">Use</td><td rowspan="2">Instruction Mentoring <i>Knowledge giver to receiver</i></td><td>Empathy</td></tr><tr><td>Adoption</td><td>Productivity; taking control; "bannermania"</td><td>Skills</td></tr><tr><td>Adaptation</td><td>1st class assignments; known curriculum</td><td rowspan="2">Integrate</td><td rowspan="2">Peer to peer interactions</td><td>Classroom management</td></tr><tr><td>Appropriation</td><td>Multiple files, programs, activities; rethinking curriculum; large projects</td><td>Curriculum</td></tr><tr><td>Innovation</td><td>New learning environments; new curriculum; systemic change</td><td>Lead & Plan</td><td>Peer Coaching Construction</td><td>Learning environment</td></tr></table>	Stage of Teacher Development	Description	Types of Training	Relationship	Focus of Coaching	Entry	"only if I have to;" fear & anxiety	Use	Instruction Mentoring <i>Knowledge giver to receiver</i>	Empathy	Adoption	Productivity; taking control; "bannermania"	Skills	Adaptation	1 st class assignments; known curriculum	Integrate	Peer to peer interactions	Classroom management	Appropriation	Multiple files, programs, activities; rethinking curriculum; large projects	Curriculum	Innovation	New learning environments; new curriculum; systemic change	Lead & Plan	Peer Coaching Construction	Learning environment	Although only a summary of related research on technology professional development, this foundation provides a very strong base for understanding and designing a model for the effective professional development of high school teachers in Pennsylvania. Grounded in Research, Practice, & Experience <i>"Apple Professional Development brings top quality training and consulting to our district that's based on research and instructional best practices. They help us do what we do even better."</i> Dave Craven Director of Instructional Technology Cherry Creek School District Aurora, Colorado Apple has worked with thousands of teachers to leverage the effective use of digital resources. Apple Professional Development has learned a great deal about helping educators use
Stage of Teacher Development	Description	Types of Training	Relationship	Focus of Coaching																								
Entry	"only if I have to;" fear & anxiety	Use	Instruction Mentoring <i>Knowledge giver to receiver</i>	Empathy																								
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Reference	Requirement	Apple Response
		technology to introduce intellectually challenging, authentic learning tasks. APD recognizes that teachers are at different stages in their evolution and the use of digital resources in teaching and learning. As indicated previously, teachers tend to move through the following 5 stages: entry, adoption, adaptation, appropriation and innovation. Apple Professional Development is able to work with the identified stage of the teacher and help individuals grow their skills and knowledge to move forward. We hire and train top-flight senior level consultants who are dedicated teachers and administrators, have classroom experience, are technologically savvy, and possess excellent facilitation skills. Many are recipients of teaching recognition awards and hold advanced degrees. Most importantly, all know what it takes to successfully support effective teaching and learning with technology—and how to nurture behaviors that lead to continuous learning. A recent check of over 5,000 APD workshop surveys showed that participants were 93% (5.57/6.00 average) “highly satisfied” with their workshop experience and facilitator. Proven Success <i>“Professional development is the essential ingredient to every successful technology project. Apple Professional Development has provided the teachers in my district the opportunity to grow as professionals and become technology leaders within their schools. The Apple trainers have rich backgrounds in curriculum, instruction, and leadership. This experience and credibility is paramount to the success of a workshop conducted by an outside trainer. The teachers in my district have repeatedly said that this is some of the best professional development they have ever been involved in. Apple makes wonderful technology tools, but Apple Professional Development is one of the main reasons we chose Apple to be our technology and curriculum partner!”</i> Dr. Darrin Hartness Chief Technology Officer Cleveland County Schools Apple Professional Development has been the means to the effective use of technology in



Reference	Requirement	Apple Response
		teaching and learning across the country. The following are a few examples over a number of years. Apple has delivered face-to-face professional development to well over 120 schools and districts in Texas. Among those projects from 1999-2006, APD helped thousands of educators (Project Integrate) in dozens of Texas school districts integrate technology into core content instruction and create standards-based lesson and unit plans. Over the past two years, APD has worked with several districts and schools to support 1 to 1 initiatives as part of the Texas TIP project. Apple provided ongoing support for the initial Maine laptop initiative for all middle schools in the state and will be providing further training for Maine educators in the refresh of their equipment over the coming three years. Apple delivered approximately 200 consultant days of professional development in just over 3 months of 2003 to elementary school teachers in Chicago. Over a multi-year project, APD has provided professional development to thousands of educators in Washington D.C. Apple is also working with Broward County in Florida to provide training to teachers to leverage the use of approximately 30,000 laptops by students in the classroom. One full-time Apple Professional Development consultant is on site for three years in Broward to help the district in the effective utilization of digital resources in teaching and learning and, to help build capacity throughout the district. Apple continues to support numerous teaching and learning initiatives across the country with professional development. <i>"We were very pleased with quality of the training and with the professional manner in which Apple worked with us to deliver it. Our goal was to create a cadre of teachers on each campus with the knowledge and skills to effectively utilize technology to enhance teaching and learning. The training was well received by our teachers and we feel this was a very beneficial step in moving our staff along the continuum of effective technology integration."</i> Dave Richardson Executive Director of Instructional Technology



Reference	Requirement	Apple Response
		Assumptions for Success There are many components necessary to ensure the success of any initiative. The following outlines some assumptions for success based on the literature and involvement in many teaching, learning and technology initiatives. These assumptions help form the basis of Apple Professional Development with schools and districts. 1. The success of any initiative is dependent on strong leadership and support 2. Every project has a champion – project director etc. 3. A well thought out infrastructure will alleviate many technical problems 4. Just-in-time technical and instructional support will foster sustained use of digital resources 5. Leaders must be active participants in the initiative 6. Educators must understand the potential of the digital resources first before they will effectively use them in teaching and learning 7. A shared vision provides a glue and direction for the initiative 8. All stakeholders must be involved from the beginning – effective communication is a must 9. Measures of accountability to determine successes and challenges along the way will provide valuable feedback to make necessary modifications in the implementation plan 10. The seamless infusion of digital resources into curriculum and subsequent link to standards and assessment is essential 11. Emphasize quality rather than quantity – it is better to do a few things well than a lot of things poorly 12. Celebration of successes is essential to building momentum 13. Collaboration both internal and external will help build lateral capacity 14. Building capacity and sustainability are essential to the long-term success of the initiative.



Reference	Requirement	Apple Response
		15. Re-visiting the vision on a regular basis will help ensure effective leadership, direction and success. Apple Professional Development is committed to providing ongoing consultation, advice, and assistance to PDE in the ongoing effort to increase the purposeful integration of technology into teaching, learning, and leadership. Apple looks forward to sharing its vast experience in the use of digital resources in the teaching and learning environment to help support PDE achieve the desired goals of the Classrooms for the Future project.
IV-4. I. Services by Offeror		
	The Offeror, in its proposal, may provide a full description of the Offeror's interest in, capacity for, and approach to providing additional resources, consultation, or support to the professional development of teachers to integrate fully and successfully personal, portable computer technology in instructional practice. These services would be evaluated as value added when determining the overall quality of the Offeror's Technical Proposal. All resources must be aligned or adaptable to Pennsylvania statewide standards; such standards for educator training and development as may be adopted by PDE; and with Pennsylvania's approach to locally-developed curricula and assessment. The Offeror may include a variety of curriculum integration resources or appropriate content, and assistance with the integration of these tools. These resources might include experts in the field of educational technology and access to research data and results in educational technology. The Offeror should describe the full potential for curriculum integration and system capabilities within the application of the proposed wireless network in the educational setting; describe how it would assist schools in identifying and achieving their desired level of curriculum integration and system capabilities; and describe the Offeror's experience in maximizing student achievement with wireless networks in educational settings.	Apple Professional Development Program The Apple Professional Development program is organized into four key strands. The training proposed for PDE's Classrooms for the Future initiative focuses on the Digital Literacy and Technology Infused Learning strands. In addition Leadership Training is a highly recommended option for district and school administrators. Brief descriptions of each of these four strands are included below. Digital Literacy – provides instruction in the use of the technology and various software applications that will enhance productivity within the context of the classroom. Technology Infused Learning – combines technology and emerging models of teaching and learning to transform education. This strand has a strong emphasis on numeracy, literacy, special education and pedagogy that leverages digital resources in the classroom. Leadership Development – supports leaders, provides mentoring and increases knowledge of technology and change. Also provides tools and methodology for evaluating the impact of a technology initiative, and use of teacher assessment tools. Consulting Services – offers customized sessions to meet the school and/or district's unique needs. Simply stated, "digital literacy" training gives teachers the opportunity to develop the skills and knowledge to use the software applications in order to realize the potential for teaching and learning. "Technology infused learning" focuses



Reference	Requirement	Apple Response
		on the effective utilization of digital resources in teaching and learning. These strands are referenced along with some sample agendas in Appendix A. Modes of Delivery: A Blended Approach Apple incorporates both leader-led (on-site) and on-line training resources, providing a blended approach to professional development. Leader-led training incorporates elements such as collaboration, project-based learning as well as interactivity, facilitation and reflection. On-line resources incorporate elements of just in time tutorials and ongoing asynchronous support, learning, opportunity for reflection and connection between educators in and outside of Pennsylvania. <u>Face-to-face</u> Out-of-class training involves Apple Professional Development trainers working with groups of 16 participants for a 1-day, 2-day or multiple day workshops. <u>"In-Class" Professional Development</u> Many districts now use this professional development strategy where teacher training is conducted on site either in the classroom with students, or during teacher preparation or planning periods. In many cases at the Middle School and High School levels, 4 or more teachers may be free during a teacher-planning period. The Apple Professional Development trainer is able to meet with a small group for the length of the period to provide desired training. In some situations, Day 1 of a 2-day training engagement is used to provide training and Day 2 is used to co-teach or model lessons for selected teachers - those requiring additional support to integrate technology into teaching and learning. The in-class model for professional development also negates the need for substitute teachers. <u>On-line Professional Development and Instructional Resources</u> The Apple Learning Interchange www.ali.apple.com Online environments have evolved and in this time of social networking, educators can take



Reference	Requirement	Apple Response
		advantage of spaces created for the ongoing exchange of ideas, information, media and showcases relevant for creating today's school. Since 1997, the Apple Learning Interchange has been a premier online environment for education professionals worldwide. We are excited to bring the latest version, ALI 2006 to Pennsylvania, to assist with the publishing of best practices and teaching examples from the "Classroom of the Future" Initiative. The Apple Learning Interchange (ALI) is an online environment that combines learning events, digital field trips, stories, photos, movies, and audio and text files developed and submitted by educators. These submissions are as simple as classroom snapshots or as complex as multi-page curriculum units including lessons, state standards, assessments, resources, reflections, and more. This content is provided online with the collaboration tools of instant messaging, asynchronous conversations and ratings allowing for feedback, enhancement, and peer review. Members can create their own profile and preference pages allowing them to quickly find, access and/or share the kind of classroom content they're interested in. They can browse and search for content and connect with other professionals around personal and professional interests, geographical or interest based characteristics, goals, and accomplishments. Easy to use publication tools allow members to submit projects for publication by building their own projects. Keystone teachers, Regional Training Centers, and others responsible for the success and continuous improvement of the "Classroom of the Future" Initiative will be able to utilize this resource for reporting what is happening in the classrooms throughout Pennsylvania. Specific ALI features include: • Published "exhibits" of teaching practice. This is a repository for educators, incorporating movies and photos and descriptions of classroom practices. These exhibits also incorporate student work, alignment to standards, samples of assessment practices and links to multiple resources. Teachers will be given the



Reference	Requirement	Apple Response
		opportunity to publish in this “teacher gallery”. As part of ALI, Apple hosts a gallery of student created work including music, movies and photos, facilitating peer review and connections to and commentary from experts. • Digital Learning Events, presenting live (and archived) events such as technology demonstrations, electronic field trips, best practices vignettes, and presentations from education experts. • iLife in the Classroom Lesson Plans - A collection of lesson starters to show how educators can use iLife applications in the classroom – in language arts, math, science, social studies, and other subject areas. These award-winning examples come from educators who are using iLife applications to enhance their curricula and student performance. The Learning Center Included on every teacher laptop, The Learning Center is a collection of tutorials that covers the fundamentals of the Mac OS X operating system and the iLife and iWork applications that come installed on the MacBooks. Each Mac OS X Learning Center tutorial consists of between 5 and 15 topics. Each topic includes an instructional video with a voice over track and text captions. In addition, each tutorial includes printable step-by-step guides. iTunes U Apple is collaborating with a select group of higher education institutions – including The Pennsylvania State University, Stanford University, Duke University, the University of Michigan, the University of Missouri, and Brown University – in using the iTunes infrastructure to manage, distribute, and control access to audio and video content within each institution. Apple is planning to evaluate similar solutions within the K12 environment, and would welcome the opportunity to discuss this exciting technology with the Commonwealth.



Reference	Requirement	Apple Response																	
IV-4. m.	Additional Training and Development Resources																		
	The Offeror may describe optional, additional training, professional development or consulting resources that could be provided beyond the scope of this RFP to PDE or to local school units, with an appropriate additional, optional cost schedule.	The Apple Professional Development K-12 Framework below gives an outline of areas of focus in each of the four strands – Digital Literacy, Technology Infused Learning, Leadership and Consulting Services.																	
	APPLE PROFESSIONAL DEVELOPMENT FRAMEWORK OVERVIEW <table><tr><td>Entry</td><td>Adoption</td><td>Adaptation</td><td>Appropriation</td><td>Innovation</td></tr><tr><td colspan="2">Digital Literacy</td><td colspan="2">Technology Infused Learning</td><td>Leadership</td><td>Consulting Services</td></tr><tr><td colspan="2"> • Apple Applications • 3rd Party Applications </td><td colspan="2"> • Digital Communication • Digital Productivity • Digital Collaboration • Research & Pedagogy • Special Education • Technology Professional Growth Series • Mentoring • Cart Solution Training </td><td> • Leadership Series • Leadership Training • Apple 1 to 1 Lead Support </td><td> • Specialized • Customized Training for Curriculum & Technology • Just-in-time Support </td></tr></table>		Entry	Adoption	Adaptation	Appropriation	Innovation	Digital Literacy		Technology Infused Learning		Leadership	Consulting Services	• Apple Applications • 3rd Party Applications		• Digital Communication • Digital Productivity • Digital Collaboration • Research & Pedagogy • Special Education • Technology Professional Growth Series • Mentoring • Cart Solution Training		• Leadership Series • Leadership Training • Apple 1 to 1 Lead Support	• Specialized • Customized Training for Curriculum & Technology • Just-in-time Support
Entry	Adoption	Adaptation	Appropriation	Innovation															
Digital Literacy		Technology Infused Learning		Leadership	Consulting Services														
• Apple Applications • 3rd Party Applications		• Digital Communication • Digital Productivity • Digital Collaboration • Research & Pedagogy • Special Education • Technology Professional Growth Series • Mentoring • Cart Solution Training		• Leadership Series • Leadership Training • Apple 1 to 1 Lead Support	• Specialized • Customized Training for Curriculum & Technology • Just-in-time Support														
		The following lists the Apple Professional Development sessions in each of the three strands of Digital Literacy, Technology Infused Learning and Leadership. Please note our professional development sessions in Special Education as well. Further information about Apple Professional Development sessions can be found at: http://www.apple.com/education/apd/																	



Reference	Requirement	Apple Response
		Digital Literacy <i>(most sessions are 1 – 2 days)</i> a) Apple Applications • Mac OSX Out-of-Box • Mac OSX Accessibility • iLife (iTunes, iPhoto, iMovie, GarageBand, iDVD and iWeb) • Podcasting • Final Cut Express • Final Cut Pro 5 • Soundtrack Pro • Motion • DVD Studio Pro b) 3rd Party Applications • Kidspiration and Inspiration • Notetaker/Noteshare • Microsoft Office • Dreamweaver • StudyWiz • Filemaker Pro Technology Infused Learning <i>(all sessions are at least 2 days)</i> <u>Digital Communication</u> • Digital Storytelling • Documentary Filmmaking • Video Journalism • Podcasting in the Classroom • Web Based Communication • Digital Media in Education • Digital Productivity • Using Data in Learning • Spreadsheets in the Classroom • Digital Collaboration • Collaboration in Learning • Collaboration Beyond the Classroom



Reference	Requirement	Apple Response
		<u>Research and Pedagogy</u> • Research Strategies, 21st Century Skills and Assessment • Digital Resources and Project Based Learning • Digital Resources and HOTS (Higher Order Thinking Skills) • Digital Resources and Multiple Intelligences • Electronic Portfolios <u>Special Education (Reaching All Learners & ELL)</u> • Introduction to Apple Accessibility • Supporting Visual and Auditory Learners with Digital Media • Podcasting to Engage Auditory Learners • Supporting Student Productivity with iWork <u>Technology Infused Learning Series</u> • 8-day Technology Professional Growth Series • 8-day Technology Infused Learning Mentor Program • 8-day Digital Media Series • 4-day Podcasting in Education • 4-day iLife '06 in the Classroom • 4-day Apple Digital Educator Institute • 4-day Special Education: Reaching All Learners • 4-day Empowering English Language Learners Leadership <i>(most sessions are 1 or 2 days)</i> • Technology, Research, Best Practice and Vision • Technology and Curriculum Infusion • Technology and Classroom Support • Technology and Accountability • 6-day Digital Leadership for Administrators



Reference	Requirement	Apple Response
		NB – Two sample agendas are included in Appendix A for the following APD sessions: 1. Sample 2-day Digital Literacy Agenda 2. Sample 2-day Technology Infused Learning Agenda 3. Sample 2-day Leadership Agenda 4. 8-day Technology Professional Growth Series
IV-4. n.	Online Instructional Resources	
	Any online instructional resources offered need to supplement existing PDE e- Learning initiatives and will provide a means to support more engaged, relevant, and personalized learning for students. Interactive technologies will allow students to build new knowledge by doing, receiving feedback, and refining their understanding. Technologies will also help students visualize difficult-to- understand concepts and increase conceptual understanding. Respondents may include online and/or electronic instructional resources that extend, supplement or enhance learning in the four core curriculum content areas of English language arts, mathematics, science and social studies for grades 9-12. Specific requirements of online and/or electronic instructional resources include the following:	In order to fully support the goals of the Classrooms for the Future and promote Pennsylvania student achievement, Apple has included the following software and Online Resources in the per-unit price of its proposal: • Apex Learning ClassTools and Beyond Books • VitalSource Library • AquaMinds NoteShare Apex Learning ClassTools and Beyond Books Apex Learning’s ClassTools and Beyond Books offer diverse approaches to teaching and learning with dynamic, innovative content specifically created for online learning by educational experts. The material is up-to-date and directly relevant to the world in which today’s students live. Using interactive activities, animations, audio, video, and Internet explorations, ClassTools and Beyond Books help students master skills and develop conceptual understanding. Active learning experiences help teachers spark student curiosity. ClassTools and Beyond Books content is developed with an understanding of the preferences of the millennial student, taking advantage of the power of technology to create active learning experiences that keep students active and engaged throughout. At the same time, ClassTools and Beyond Books are designed to meet the requirements of education today. The online curriculum is fully aligned to national and state standards. It also effectively links assessment with instruction to support teachers in personalizing instruction, helping each student achieve to his or her potential.



Reference	Requirement	Apple Response
		<i>Apex Learning ClassTools</i> Paired with an Apple laptop computer, ClassTools comprehensive online curriculum is the ultimate supplement or replacement for the traditional textbook, providing core content and assessments that are available to students anytime, anywhere. Each ClassTools subject provides a comprehensive set of online curriculum resources to support a full year of instruction, allowing teachers to make the most effective use of student laptop computers as part of daily instruction. ClassTools helps classroom teachers enhance instruction, increase student proficiency, and raise achievement levels in the core academic subjects of math, science, English, social studies and world languages. • Multimedia tutorials and interactive activities motivate students to invest more time in their assignments and provide multiple representations of key concepts. • Self-check activities, computer-scored practices problems and quizzes, and teacher-graded worksheets provide ongoing assessment opportunities. • Online diagnostics for each unit pinpoint student strengths and weaknesses. • Automatically generated individual and class-wide study plans support teachers in individualizing instruction. • Detailed progress reports provide all stakeholders - including students, teachers, administrators, and parents – with relevant information. • Spoken audio content for limited English proficient (LEP) students through Mac OS X's text-to-speech capabilities. This built-in feature of the operating system reads instructional content and assessments aloud, making learning content more accessible to struggling readers or non-native English speakers.



Reference	Requirement	Apple Response																															
		<table><tr><th colspan="2">Fall 2006 Course Catalog</th></tr><tr><td rowspan="5">Math</td><td>Fundamental Math</td></tr><tr><td>Introductory Algebra</td></tr><tr><td>Algebra I</td></tr><tr><td>Algebra II</td></tr><tr><td>Geometry</td></tr><tr><td rowspan="4">Science</td><td>Physical Science</td></tr><tr><td>Earth Science</td></tr><tr><td>Biology</td></tr><tr><td>Chemistry</td></tr><tr><td rowspan="4">English</td><td>Writing and Grammar Essentials¹</td></tr><tr><td>Introduction to English Literature and Composition</td></tr><tr><td>Critical Reading and Effective Writing</td></tr><tr><td>American Literature</td></tr><tr><td rowspan="4">Social Studies</td><td>World History</td></tr><tr><td>U.S. History</td></tr><tr><td>U.S. Government and Politics^{1,3}</td></tr><tr><td>U.S. and Global Economics^{1,2}</td></tr><tr><td colspan="2">Notes:</td></tr><tr><td colspan="2">¹ One-semester course</td></tr><tr><td colspan="2">² Available in January 2007</td></tr><tr><td colspan="2">³ New course will replace existing course in January 2007</td></tr></table> ClassTools content in the core academic subjects included in the table above is appropriate for grades 6-12. Note that Fundamental Math addresses content appropriate for remediation at grades 6-12.	Fall 2006 Course Catalog		Math	Fundamental Math	Introductory Algebra	Algebra I	Algebra II	Geometry	Science	Physical Science	Earth Science	Biology	Chemistry	English	Writing and Grammar Essentials ¹	Introduction to English Literature and Composition	Critical Reading and Effective Writing	American Literature	Social Studies	World History	U.S. History	U.S. Government and Politics ^{1,3}	U.S. and Global Economics ^{1,2}	Notes:		¹ One-semester course		² Available in January 2007		³ New course will replace existing course in January 2007	
Fall 2006 Course Catalog																																	
Math	Fundamental Math																																
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Reference	Requirement	Apple Response
		<i>Apex Learning Beyond Books</i> Beyond Books online supplementary resources give teachers easy access to appropriate Internet content for science, social studies and English classes in grades 6-12. Original online content is aligned to standards and widely-used textbooks and linked to the most current Internet education sites available. Teachers can efficiently update their existing curriculum, integrate engaging, interactive readings and exercises, and offer multiple explorations for each topic to meet individual needs. Teachers have tools including standards correlations, lesson plans, and teaching strategies for incorporating Beyond Books into existing curriculum. • Original core subject matter • Extensive Internet links • Interactive exercises • Study questions and inquiry-based project Beyond Books provides 13 programs in the broad academic general studies areas of social studies, literature and language arts, and science. Beyond Books is appropriate for students in grades 6-12. <i>About Apex Learning</i> Following the traditional model of textbook based curriculum developers, Apex Learning's online curriculum is developed to align with the subject-specific national standards and the state standards for Texas, California, Florida, Virginia, and Michigan as well as taking into account Standards for Success, a new set of standards built from a collaboration of over 40 premier institutions of higher learning that specify the skills and content knowledge essential to student success in colleges and universities. Both ClassTools and Beyond Books are well-suited to meet the PA curriculum standards. (ClassTools and Beyond Books correlations to PA standards are available on request.) A leading publisher of online learning solutions for secondary schools, Apex Learning is now entering its seventh year of providing online instructional resources to schools, districts, state education agencies, and regional education service centers. During this time, Apex Learning has supported students from 4,000 school



Reference	Requirement	Apple Response
		districts in all 50 states with more than 400,000 enrollments in its online courses, classroom curriculum resources, and test preparation products. According to Apex Learning, ClassTools has been effectively used by a number of schools and districts to raise student achievement. For example: • At Dublin High School in Dublin, CA, students using Introductory Algebra raised their scores on the SAT-9 test by 17%. • At Goochland High School in Goochland, VA, students using the Algebra I resource increased Virginia state assessment pass rates by 56%. • At Granby High School in Norfolk, VA, students using the Geometry resources increased the pass rate on the Virginia state assessment by 13%. VitalSource Library Founded in 1994, VitalSource has a vision for moving resource access into the digital age. For more than a decade, they have focused on ways the computer can enhance learning, and particularly on how computers can aid in the delivery and use of trusted, respected resources in the classroom. VitalSource Library™ is an interactive portable library with a growing digital storehouse of more than 3,400 original-source materials, plus an integrated dictionary and encyclopedia. Loaded on a laptop computer, these resources are completely portable to go anywhere. The VitalSource Library includes great classic works from Socrates to Shakespeare, from Milton to Martin Luther King, Jr. More than just text, the resource also contains audio speeches, maps, musical scores and recordings, paintings and sculpture, with links to Web-based materials as well. In addition, VitalSource Library is always growing — whenever a user connects to the Internet, the library can be updated and expanded. In terms of functionality, VitalSource Library allows the user to navigate the extensive resources using various strategies, including the ability to browse by subject, by type of material, by country of origin, by century or decade. A user



Reference	Requirement	Apple Response
		can also search the entire library for a particular author or title in seconds. The powerful search feature will find any word or phrase in any document. Users can also make notes and highlight their materials right on their computers. It's ideal for collaborative, interdisciplinary learning. In addition, the Library is designed to deal with the increasingly complex copyright which can hamper the learning process with rules and restrictions. VitalSource handles all digital rights management, so teachers and students can access and use the needed materials without the burden of tracking down copyright information or fighting copyright infringement. AquaMinds NoteShare NoteShare for OS X is a next-generation, personal sharing and collaboration application for creating, publishing and sharing media-rich, multi-page digital notebooks. NoteShare allows the user to create and/or compile both structured and unstructured information. It is an ideal tool for organizing written projects, keeping journals, creative brainstorming, doing web research, tracking project task, managing meeting notes, outlining study or lecture notes, exchanging and presenting ideas, tracking tasks, group authoring and more. NoteShare can be used between two users, by an entire classroom of users, by users in the same school or even by users across the Internet from their desk at school or comfort of their living room. This tool helps users connect anytime and anywhere they have network access while allowing for the instant creation of both private and public learning spaces. NoteShare is an ideal collaboration tool for students, teachers and school administrators who want to work on team projects. Participants can share resources and materials in small groups, in teacher-student tutorials, or as part of a team wanting to co-construct materials, lessons, or evidence around learning.
IV-4. n. i)	The resources must be provided for both teachers and students.	Apple's proposed solution complies with this requirement.
IV-4. n. ii)	The resources must include guides or other clear prompts demonstrating to teachers suggested methods for incorporating the	Apple's proposed solution complies with this requirement.



Reference	Requirement	Apple Response
	resources into lesson plans and other classroom teaching activities.	
IV-4. n. iii)	The resources must include a combination of at least two and preferable all of the following information conveyance formats: text, pictures, video and sound.	Apple's proposed solution complies with this requirement.
IV-4. n. iv)	The resources must be accessible with and through the wireless mobile computing system proposed as part of the respondent's Classrooms for the Future package.	Apple's proposed solution complies with this requirement.
IV-4. n. v)	The resources must be easily viewable on the wireless mobile computing system provided as part of the respondent's Classrooms for the Future package.	Apple's proposed solution complies with this requirement.
IV-4. n. vi)	The resources must be available for easy and rapid download on the wireless mobile computing device provided as part of the respondent's Classrooms for the Future package if they are web-based and distributed to the wireless mobile computing system using an ASP model.	Apple's proposed solution complies with this requirement.
IV-4. n. vii)	The resources must be able to be stored on the storage media native to the wireless mobile computing device provided as part of the respondent's Classrooms for the Future package if they are electronically-based resources and require device-localized storage on the device to be operable.	Apple's proposed solution complies with this requirement.
IV-4. o. Support and Maintenance		
	As part of the cost, the Offeror will provide ongoing support to the schools for the duration of the agreement. Since the cost is to cover the full costs of deploying and supporting the solution, each Offeror must factor a full support package into its price. The components of such a full support package must include those components necessary to assure the Performance and Quality specifications are met continuously and that the solution is sufficiently supported at all times. The support package must include, but is not limited to: Help Desk; repair; preventative maintenance; licensing; fixes and updates for software, firmware, microcode, etc. This support will include Help Desk or Support	Apple's proposed solution complies with this requirement. AppleCare, Apple's service and support division, has developed customized, comprehensive service and support solutions for the Commonwealth of Pennsylvania's Classrooms for the Future initiative. In order to provide the Commonwealth with maximum flexibility, Apple is proposing the following two service and support options: Option A AppleCare Protection Plan with onsite repair Option B Self-Servicing Account Program.



Reference	Requirement	Apple Response
	Center service available via 1-800 type access, which includes staffing, tools and processes to meet the schools' support requirements including a system of dispatching, tracking, priority setting, reporting and escalation, which ensure timely and satisfactory response and resolution. We are not requiring the Offeror to provide dedicated help desk personnel. The Offeror may also employ other communication systems for delivery of just-in-time support such as Internet audio chat, text chat, web forums, etc. School users of the Help Desk may include teachers, administrators and technical coordinators. The Offeror will describe its Help Desk offering as well as its ongoing technical support provided for its proposed solution. The minimum expectation is that the Help Desk will be operational from 6am to 9pm Monday thru Friday. The Offeror will fully describe the process and plan that will be utilized whenever a break/fix event occurs within the school's computing environment. This will cover the entire process of repairing or replacing a portable computing device or any of the Classrooms for the Future package. Respondents will be expected to provide their normal level of customer support for all components of the Classrooms for the Future package over the course of the project. If the RFP response is from a partnership of multiple Offerors, then all of the Offerors will be expected to support their contributing component in concert with all other proposing partners. However, a single partner must be designated as the lead technical support partner, and a single point of contact must be specified at that partner for implementing campuses and districts to contact with technical support issues.	Both options are four-year plans, and the cost of the selected option will be included in the cost of the laptops. <u>Features included in both Support Options</u> Project Manager For both options, AppleCare will provide a dedicated AppleCare Strategic Account Manager (AC-SAM), an experienced, qualified, and effective project team member. Software Update Apple's Mac OS X Software Update feature makes it easy to determine what you need when you need it. Battery Coverage The proposed MacBooks include one primary and one additional battery. Swappable Hard Drives MacBook hard drives can be easily swapped, reducing down time if repairs are needed. Reporting If awarded a contract under this response, Apple's Project Team will work with the Commonwealth to designate what reports are desired, and which people at the Commonwealth or school sites should receive this information. Apple's Service Providers are an outside entity and are not necessarily using Apple's systems to record the details of any warranty or AppleCare Protection Plan services that may be provided, so Purchaser repair service reporting is not available at this time. However, when any repair is made to Apple-branded equipment a service tag which describes the repair services performed will be left with the unit after any repair is completed. For Self-Servicing accounts, reports are also available via GSX. Note: Pricing for both solutions without the additional battery for each MacBook purchased is also available and would provide the Commonwealth with a cost savings. Batteries can be purchased in units of 5 and 25 for a savings over the single unit price.



Reference	Requirement	Apple Response
		OPTION A: AppleCare Protection Plan With Onsite Repair The more robust solution Apple has built for the Commonwealth is available to a school or schools that purchase a combined minimum of 350 new MacBook computers within a 50-mile radius. This support and maintenance plan includes: • Help desk services at a toll-free telephone number • Hardware repair • Fixes and updates for software and firmware • Account Management • Onsite Next Day Repair • One replacement battery for each MacBook during the four-year term of the program. Technical Support Apple currently offers phone support 7x13, 7:00 a.m. to 8:00 p.m. CST (1-800-800-2775) for all front line products. Apple receives and responds to Direct Service Dispatch onsite requests during "normal" business hours (Monday through Friday; 8am-5pm Local Time). Apple also provides technical support from 8 a.m. to 8 p.m. CST, Saturday and Sunday). For the Commonwealth, phone support will be available from 6:00 a.m. to 9:00 p.m. Local Time, Monday through Friday and from 9 a.m. to 9 p.m. Local Time, Saturday and Sunday. Break/Fix Process for Option A The Break/fix process for Option A is as follows: Break/Fix Process for Option A <u>Option A Step 1</u> • Customer calls 1-800-800-2775. • Apple technicians provide troubleshooting and, if it is determined that the unit requires hardware repair. • Apple notifies the Direct Dispatch Service Provider (DDSP) of Direct Service Dispatches via Direct Dispatch Web Site



Reference	Requirement	Apple Response
		as well as courtesy e-mail to the DDSP location. <u>Option A Step 2</u> - Once Apple has submitted the notifications, the DDSP calls the school to schedule service. DDSP's are goaled to schedule an onsite appointment within four (4) business hours from Apple dispatch notification. <u>Option A Step 3</u> - DDSP should attempt onsite repair the following business day if the receipt of the Apple dispatch notification occurs before 3 p.m. Local Time. - The schools are responsible for managing the Commonwealth's Apple computers, including asset tags. AppleCare Protection Plan The AppleCare Protection Plan is a comprehensive plan that provides up to four years of service and support for one economical price, and includes telephone support, powerful diagnostic tools, Apple-certified repairs, and 24-hour-a-day Internet support. During the plan's term, customers receive direct telephone access to Apple's Technical Support group, the people who know the Macintosh system best. They'll assist with both hardware and operating system difficulties—walking through to a solution. If repairs are needed, the AppleCare Protection Plan ensures that they'll be performed by certified Apple technicians using genuine Apple parts. The plan covers all repair costs due to defects in materials and workmanship, including replacement parts and labor charges. This makes it an excellent choice for individuals who want protection from unexpected repair costs, and for businesses or institutions that want to control their computer maintenance budgets. In fact, given that a single repair can cost significantly more than the whole four years of the AppleCare Protection Plan, the repair coverage alone can make the investment worthwhile. Preventative Maintenance Apple defines preventative maintenance as fixes and updates for software and firmware, which are available at no charge at:



Reference	Requirement	Apple Response
		www.apple.com/support/ The AppleCare Protection Plan can only be purchased while the computer is still under its original one-year warranty. OPTION B: Self-Servicing Account Program The more economical offering Apple has built for the Commonwealth will provide an opportunity for schools to actively participate in Apple's delivery of service and support. The schools that participate will receive the following benefits from Apple: • Acceptance into Apple's Authorized Service Program • Training to help prepare the technicians for Apple's certification exams (Apple Portables training for one technician per school is included) • Exam costs (Apple Portables exam for one technician per school is included) • Apple certification for technicians in Apple Portables (certification for one technician per school is included) • School Technicians can take the Mac OS X class, which is required as part of Self-Servicing Apple Portables certification, online at no charge. This support and maintenance plan includes: • Fixes and updates for software and firmware, • DIY kits of customer-replaceable parts • Account Management • One replacement battery for each MacBook during the four-year term of the program • Access to a pool of spare computers to maximize uptime. Preventative Maintenance Apple defines preventative maintenance as fixes and updates for software and firmware, which are available at no charge at www.apple.com/support/



Reference	Requirement	Apple Response
		Apple Service Tools and Information The Self-Servicing Account Program features include online access to the following information: • AppleCare Service Source • Self-Paced Training Materials • New Provider Preparedness Note: These features are subject to change or discontinuance at any time. AppleCare Service Source, which is accessible from the GSX Home page, provides the following troubleshooting and repair resources for Apple products, as well as Self-Servicing Account program information: • Service Manuals: Comprehensive product information including take-apart, upgrade and repair procedures, basic servicing information, troubleshooting flow charts, product specs, adjustment procedures, and exploded view diagrams with part numbers. • Self-Servicing Account Program Manual: Information regarding the performance criteria, business practices, and policies to which participants in Apple's Self-Servicing Account program must adhere. • Macintosh Diagnostics Tools: Advanced troubleshooting and testing tools for Apple products. Updates are distributed via the web and communicated through AppleCare Service News. • AppleCare Service News: Bulletins about new or revised service programs and policies. • Web Chat Service: Live Web Chat with Apple Technical Service Provider Support. • GSX: Parts order management system. • GSX Web Services: A data exchange mechanism that allows partners to integrate their applications with GSX. Self-Paced Training Materials Self-Paced Training Materials are provided online without additional charge to all Self-Servicing



Reference	Requirement	Apple Response
		Accounts. This training is accessed via GSX and includes: • Desktop Products • Portable Products • Server Products • Mac OS • New Product Training Spare Computers As part of Apple's Option B solution, spare computers will be deployed onsite at each school. These spares are to be used when a student or staff device needs to be repaired. The student or staff member will be issued a spare by the local school representative to use while his/her unit is being repaired. The spare computers will be configured as student units. Break/Fix Process for Option B The break/fix process for Option B is flexible and scalable. The School Technician can repair the computers onsite and access an onsite pool of spare computers if necessary. The Technician can manage the quality and time of the entire repair process, including troubleshooting, diagnosing, repairing, verifying, and returning products to Apple. <u>Option B Step 1</u> • The School Technician uses the GSX online tool to troubleshoot. <u>Option B Step 2</u> • If it is determined that the unit requires hardware repair, the School Technician initiates repair. • If replacement parts are required, the School Technician uses GSX to order service parts. <u>Option B Step 3</u> • Parts arrive at site and the School Technician initiates repair. <u>Option B Step 4</u> • If necessary, the School Technician issues a spare unit to student or staff member with computer being repaired. • The School Technician manages asset tagging, management, and tracking of Commonwealth's Apple equipment.



Reference	Requirement	Apple Response
		Self-Servicing Account (SSA) Program Apple's Self-Servicing Account (SSA) program is designed for institutions and businesses that want the convenience of repairing their own products. Program participants ("Self-Servicers") must have an installed base of at least 50 Apple computers, are authorized to repair only the products they own or lease, and may not perform repair work for third parties. Qualified institutions that fulfill the minimum requirements of the program can use Apple's online systems to quickly and easily accomplish the following: • Obtain genuine Apple, Do-It-Yourself (DIY) parts, which are customer installable and typically include replacement keyboards, mice, power cables, memory, and modem cables • Directly initiate Mail-In facilitation service for select products • Order parts for Non-covered Repairs, stock on hand, or fulfillment • Access comprehensive troubleshooting and repair information on Apple products, including GSX online tool for service, repair and order management. Self-Servicers that maintain Apple Certified Technicians on staff can perform more intricate Covered Repairs. • Covered Repairs include the repair of products covered by an Apple Hardware Warranty, AppleCare Protection Plan, or other AppleCare Extended Service Agreement. • Non-covered Repairs include the repair of products when coverage has expired or the repair pertains to accidental damage or abuse. • Mail-In facilitation service is the repair or replacement of select Apple products at an AppleCare Repair Center (not available for AppleCare Parts Agreement). Requirements and Benefits Apple Certified Portable Technician certification requires passing a Mac OS exam (software) and



Reference	Requirement	Apple Response
		Apple Portable Service Exam (hardware). ACPT certification is valid for one year. Becoming an Apple Certified Technician As of June 2006, Apple Customer Training offers the following certifications applicable to Service Technicians employed by Self-Servicers, which Apple recommends for the Commonwealth schools that want to service their own units: • Apple Certified Portable Technician (ACPT) certification for Service Technicians seeking to repair Macintosh portable systems, such as iBook, PowerBook G4, MacBook, and MacBook Pro. Apple Certified Portable Technician certification requires passing a Mac OS exam (software) and Apple Portable Service Exam (hardware) at an authorized Prometric Testing Center. ACPT certification is valid for one year. • Apple Certified Help Desk Specialist (ACHDS) certification for help desk personnel, Service Technicians, technical coordinators, and others who support Mac OS X customers or perform Mac OS X troubleshooting and support in schools and businesses is also available. Note: Apple Certified Help Desk Specialist certification is recommended, but not required, for Service Technicians who replace DIY parts or create Mail-In Repairs. Software and Hardware Exams Apple Customer Training offers a variety of Mac OS exams that satisfy the Apple Certified Portable Technician software exam requirement. The following hardware exam is also offered: Apple Portable Service Exam for portable certification. Training Resources Mac OS and Apple hardware self-paced training is provided online without additional charge to Self-Servicers. By simply clicking the Training & Certification link at the top of the GSX Home page, Service Technicians can prepare for certification exams and keep apprised of new Apple product courses. The Apple Customer Training website provides detailed information about Apple Service Certification, preparatory courses, exam registration, and exam fees.



Reference	Requirement	Apple Response
		Apple authorizes, solely at its discretion, qualified institutions and businesses to participate in the Self-Servicing Account program. For more information on fulfilling the Self Servicing requirements, go to: www.apple.com/support/programs/ssa/ Program Costs As part of Option B, Apple will cover the cost of Apple Portable Service training for one Technician per school. School Technicians can take the Mac OS X class, which is required as part of Certified Portable Technician certification, online at no charge. Technicians who want to service their own units must also pass the Mac OS X exam. There are no first-year or annual fees to participate in the program. Apple will cover Apple Portable Service Exam certification exam (one exam per school). Each Apple recertification exam is \$50 (USD). Program Benefits Self-Servicers that meet the Parts-Only tier program requirements, but do not have Apple Certified Technicians on staff can: • Access comprehensive, online product information, training, repair procedures, troubleshooting, and diagnostic tools • Order genuine, Apple DIY parts and service parts for Non-covered Repairs using Apple's online Global Service Exchange system, which provides automatic product and pricing updates, online order validation, immediate order confirmation and estimated ship date • Access online Mac OS and hardware training for service Technicians from the GSX Home page • Use GSX to directly initiate Mail-In Repairs performed by an AppleCare Repair Center (not available for AppleCare Parts Agreement). • Use GSX to order service parts for stock on hand and to place fulfillment orders for lost, missing or damaged new product manuals and/or media items



Reference	Requirement	Apple Response
		• Use the GSX Help Form for administrative help with GSX, including order status, billing questions, and Covered Repair claim reconciliation. In addition to the benefits listed above, Self-Servicers that maintain Apple Certified Technicians on staff (Apple's recommendation for the Commonwealth schools that want to service their own units) can: • Obtain genuine Apple service parts, enabling them to perform all Covered Repairs and Non-covered Repairs on the Apple products owned or leased by their organization • Manage the quality and time of the entire repair process, including troubleshooting, diagnosing, repairing, verifying, and returning products to Apple • Perform repairs on a Module-exchange basis to limit down time • Access Apple's Technical Service Provider Support resources to troubleshoot difficult repairs New Provider Preparedness New Provider Preparedness, which begins approximately 7-10 business days after receiving written confirmation that Apple has approved your Self-Servicing Account Agreement, ensures that your organization has a clear understanding of service policies and procedures. An Apple New Provider Preparedness specialist contacts newly authorized Self-Servicing Accounts to initiate this process. System Requirements To access Apple service information and resources, you must have Internet access either through an Internet Service Provider or LAN/WAN connection, and an Apple Macintosh computer with Mac OS X and Safari v1.2 (or later) or a PC with Windows 2000 or XP and Internet Explorer 6.x.
IV-4. p.	Project Management and Implementation	
	The Offeror must ensure a successful implementation for each of the participating sites. This includes necessary site surveys,	Apple Computer is proud to be a part of some of the world's largest educational computing initiatives, and will apply the knowledge gained



Reference	Requirement	Apple Response
	validation testing, installation and configuration of all hardware and software, training, support program implementation and any other aspects of the solution. Removal of the packaging will be the successful Offeror's responsibility at no extra cost.	during the project to deliver a professional implementation for PDE. Apple Computer will use the Project Management Institute (PMI) standards for managing this project. Upon award, Apple will finalize a project plan that will provide clear deliverables and objectives for all of the aspects of the implementation. For more information, please refer to the Classrooms For The Future Project Plan appendix.
IV-4. q. Project Plan and Deliverables		
	The Offeror will develop and implement a project plan that includes, as a minimum, the following deliverables. Offerors must clearly describe their plan for implementing all of the components of their Classrooms for the Future package on a participating campus. A local education agency will be free to choose any one of the Classrooms for the Future packages approved under this RFP. Each must describe its ability to meet these requirements:	Apple's proposed solution complies with this requirement. For more information, please refer to the Classrooms For The Future Project Plan appendix.
IV-4. q. i)	<u>Project Plan</u> The preliminary Project Plan itself will be delivered for approval not later than 30 calendar days after the agreement is fully executed by the Commonwealth. Development of the plan with PDE's involvement is required. The Plan must include all aspects of the project and its deliverables, including coordination with PDE and the schools, communications and reporting, timetable, Validation Testing Subplan, Deployment Subplan, Training Subplan, and the Service and Support Subplan. This Project Plan will be revised and improved periodically as needed, with consultation of PDE.	Apple agrees with this requirement and will provide project plans and review updates with PDE on a regularly scheduled basis.
IV-4. q. ii)	<u>Validation Testing</u> This will be system testing, in Commonwealth schools, that confirms that the solution meets or exceeds the functional requirements, and the performance and reliability specifications as required under the agreement between the Offeror and PDE resulting from this procurement process. This Validation Test will enable the Offeror the opportunity to test its equipment in	Upon award, Apple will work with PDE to determine the metrics by which the validation testing will be judged. An implementation plan will be followed for up to 8 schools and validation will be completed in accordance with the requirement.



Reference	Requirement	Apple Response
	Pennsylvania school environments and will assure PDE that the solution is acceptable for production deployment. The test will include PDE and up to eight schools and must be successfully no later than four weeks after issuance of notice to proceed.	
IV-4. q. iii)	<u>Educational Conferences and Meetings</u> Participation in at least 30 educational conferences or meetings annually in conjunction with the Pennsylvania Department of Education, the intent of which is to help inform the educational community of the project plans and to maintain communication and ongoing relationships with the participating schools. Complimentary registration fees to conferences will be considered as long as the supplier is a presenter at statewide technology conferences. Booth space will not be provided.	Apple accepts this provision with the following clarification, in which the words in bold are to be added and those in [brackets] are to be deleted: “Participation in [at least 30] mutually agreed upon educational conferences or meetings annually in conjunction with the Pennsylvania Department of Education, the intent of which is to help inform the educational community of the project plans and to maintain communication and ongoing relationships with the participating schools.” Apple will use the appropriate staff to participate in the agreed-upon educational conferences conducted in Pennsylvania. During the first month of the project, the Apple Area Development Manager will meet with representatives from the Department to establish a public relations plan. This cooperative plan will be established to clearly define a communications and public relations strategy that benefits both the State of Pennsylvania and Apple. Discussions of involvement in local and national conferences along with communication to press organizations, and school visitation strategies will be explored. The goal of this plan will be to clearly articulate the positive outcomes of PDE to an international audience and bring deserved recognition to the State of Pennsylvania
IV-4. q. iv)	<u>Implementation</u> Each school installation will include provision of complete, current documentation necessary for effective and successful use of the solution by people such as system administrators, site support personnel, and teachers. This may include manuals, guides, quick reference materials and other documentation. Either hardcopy or electronic versions are required. Each Offeror will describe what documentation they will provide and how they will provide it in order to be effective. Each installation will include establishment	Apple complies with this requirement. Apple will provide each school with a customer signoff packet. That packet will include warranty information, help desk information, and applicable product manuals. Technical training will also be delivered to technical staff that will cover the basic troubleshooting. For more information, please refer to Appendix 1: Classrooms For The Future Project Plan.



Reference	Requirement	Apple Response
	of a site work completion and satisfaction sign-off form. The Offeror's equipment and work at each site will not be considered complete nor will it be paid for until satisfaction sign-offs are obtained from both the responsible site person and the PDE Project Manager. The respondent must scope their implementation plan to address: • How the respondent will provide implementation of their Classrooms for the Future package across each campus and how the respondent will assure implementation fidelity across these campuses.	
IV-4. q. v)	<u>Project Implementation Plan</u> The Offeror must successfully install, configure and test all hardware and software for each participating site. In School Year 1, this must be completed no more than 4 weeks after issuance of notice to proceed. NOTE: Dates are contingent upon contract award. The specific components required of the technical implementation plan include: • The method by which the respondent will provide for onsite implementation of the Classrooms for the Future package. • The resources the respondent will make available during implementation to conduct the implementation of the Classrooms for the Future package—whether specific technical personnel will be provided for implementation, how many and of what type of expertise. • The timeline—in days, weeks or months—necessary for accomplishing the implementation of the Classrooms for the Future package on a participating campus and to make all of its components fully operative. The timeline should include all major phases and milestones. • The management plan for implementation of the Classrooms for the Future package—which partner(s) will be responsible for implementing which components of the Classrooms for the	Apple complies with this requirement. For more information, please refer to Appendix 1: Classrooms For The Future Project Plan.



Reference	Requirement	Apple Response
	Future package, in what order and under which managing (lead) partner's supervision. The single partner that will be responsible for managing and effecting implementation of the Classrooms for the Future package if the response to this RFP involves a partnership of Offerors. The RFP response and the proposed implementation plan will be assessed on all of the components described previously in this section.	
IV-4. q. vi)	<u>Project Staffing</u> An experienced, qualified, and effective project team will be identified and provided. The Offeror will provide a description of its project staffing plan for all phases and tasks. Identify each senior staff member and complete for each the form in Exhibit C in order to demonstrate your staff's experience with projects similar to this one. At a minimum, the Offeror will maintain an in-State team for the length of the project made up of a Project Manager, Educational Specialist, Systems Integrator and a Technical Engineer. These resources do not need to be dedicated solely to this project; however an appropriate level of support must be provided.	Apple complies with this requirement, with the following clarification: "Based on both the volume of purchasing, and on the number and location of participating schools, Apple reserves the right to assign, reassign and substitute personnel at anytime at its sole discretion. Apple shall make commercially reasonable efforts to provide Services on a timely basis, subject to availability of qualified personnel and the difficult and scope of the Services. However, Apple shall not be liable for its failure to do so, nor will it be in breach of this Agreement solely by reason of such failure." Apple will provide the following in-state staff to support this project: one Project Manager, one Technical Service Consultant/, one Education Specialist, and one part-time Office Manager. The responsibilities of each staff member are outlined in the table below: Project Manager: - Overall Responsibility - Contract Management - Contractor/Third Party Management - Coordination and Communication - Issue Escalation Technical Service Consultant/Engineer: - Software Restore Image Creation - Technical Support - AppleCare Liaison - Hardware Issues Escalation



Reference	Requirement	Apple Response
		• Software Issue Escalation Education Specialist: • Professional Development Programs • Coordination with Apple Professional Development • Assessment Planning and Coordination • Coordination of PDE with other DOE Programs Office Manager: • Office Operations • Tracking Assets • Tracking Shipments • Meeting Minutes
IV-4. r. Coordination with Schools		
	The Offeror will work with PDE and each school district and its principal or principal designee to determine via any necessary site surveys the local requirements necessary to implement the solution as well as any local change requirements and costs, and will coordinate the installation of its solution with each school's changes. These local change requirements would include not only the basic solution but also any additions or adaptations that a school elects to implement at its own local cost (e.g., switches, hubs, software, hardware, adaptive devices). The Offeror must accommodate school schedules and needs, even if this requires some alteration of the Offeror's customary schedule. Such accommodation must not include any additional, premium or overtime charges.	Apple complies with this requirement and will work with PDE and the schools to schedule any site visits including site surveys, hardware installations, and training. Upon award, Apple and its subcontractors will finalize scheduling of installation to be the least intrusive to the school environment. As noted in the RFP requirement, if the school elects to add additional requirements, it must do so at its own cost.
IV-4. s. Work Within Schools		
IV-4. s. i)	Each Offeror will succinctly describe the basic physical characteristics of the proposed equipment including dimensions, weights, electrical, HVAC and any other specifications vital to know. All required cables, wires, mounts and connectors will be specified by the Offeror.	Apple will work with each school to meet a minimum requirement for infrastructure specifications in order to successfully implement Apple's version of the Digital Classroom of the Future
IV-4. s. ii)	<u>ACT 34 COMPLIANCE</u> The Offeror must submit with their	Apple complies with this requirement.



Reference	Requirement	Apple Response
	application a copy of a report of Criminal History Record Information from the Pennsylvania State Police or a statement from the Pennsylvania State Police that the State Police Central Repository contains no such information relating to any persons working within the schools. For out-of-state persons who will be working within the schools, the Offeror must submit with their application a copy of a federal criminal record history from the Federal Bureau of Investigation. The criminal record history report must be no more than one year old.	
IV-4. s. iii)	<u>ACT 151 (PA Child Abuse History Clearance)</u> Each Offeror must submit with their application a copy of an official clearance statement obtained from the Pennsylvania Department of Public Welfare or a statement from the Department of Public Welfare that no record exists for any person(s) working within the schools. The clearance statement must be no more than one year old.	Apple complies with this requirement.
IV-4. s. iv)	All cabling, wiring, connectors and mounts will be installed in a manner which results in safe and secure facilities. No hazards will be created; any identified hazard will be pointed out to appropriate site personnel. Installations must be performed in a manner which does not harm or diminish local site designs, structural integrity or—to the extent feasible—cosmetics. Installations will meet all prevailing local codes and governing body codes as well as IEEE, TIA/EIA and ISO/IEC standards for cabling and wiring. • IEEE—Institute of Electrical and Electronic Engineers. • TIA/EIA—Telecommunications Industry Association/Electronic Industry Association • ISO/IEC—International Organization for Standardization/Equipment Installer's Code. PDE is seeking a solution which adheres to industry standards and open systems architectures as versus proprietary solutions. Each Offeror must identify whether its solution includes proprietary aspects and, if it does, will provide in its proposal a schedule and a plan to PDE for the Offeror's	Apple complies with this requirement.



Reference	Requirement	Apple Response
	migration to industry standards - or state that it intends to continue pursuing its proprietary approach.	



Reports and Project Control – As agreed upon between Offeror and PDE

Reference	Requirement	Apple Response
IV-5. a.	Status Report	
	A periodic monthly progress report covering activities, problems and recommendations. This report should be keyed to the work plan the Offeror developed in its proposal, as amended or approved by the Issuing Office.	Apple will provide monthly reports and will work with PDE to examine desired changes to the content. These reports will include the activities completed during the performance period, upcoming activities for the following performance period, and any issues or concerns.
IV-5. b.	Project Management Reporting	
	The Offeror will submit on the last working day of each quarter a detailed quarterly progress report to PDE's, starting with the first month of the Agreement. Among other things, this report must include a monthly summary of the performance metrics specified earlier. The Offeror may be requested to supply additional information as warranted.	Apple will provide monthly reports and will work with PDE to examine desired changes to the content. These reports will include the activities completed during the performance period, upcoming activities for the following performance period, and any issues or concerns.
IV-5. c.	Problem Identification Report	
	An "as required" report, identifying problem areas. The report should describe the problem and its impact on the overall project and on each affected task. It should list possible courses of action with advantages and disadvantages of each, and include Offeror recommendations with supporting rationale.	Apple's monthly reports will address any problems identified during the performance period. Problems will be assessed and a course of action will be recommended.



Contract Requirements – Disadvantaged Business Participation and Enterprise Zone Small Business Participation

Reference	Requirement	Apple Response
IV-6.	All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must also include a provision requiring the selected Offeror to meet and maintain those commitments made to Disadvantaged Businesses and/or Enterprise Zone Small Businesses at the time of proposal submittal or contract negotiation, unless a change in the commitment is approved by the BMWBO. All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must include a provision requiring Small Disadvantaged Business subcontractors, Enterprise Zone Small Business subcontractors and Small Disadvantaged Businesses or Enterprise Zone Small Businesses in a joint venture to perform at least 50% of the subcontract or Small Disadvantaged Business/Enterprise Zone Small Business participation portion of the joint venture.	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
	The selected Offeror's commitments to Disadvantaged Businesses and/or Enterprise Zone Small Businesses made at the time of proposal submittal or contract negotiation shall be maintained throughout the term of the contract. Any proposed change must be submitted to BMWBO, which will make a recommendation to the Contracting Officer regarding a course of action.	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
	If a contract is assigned to another Offeror, the new Offeror must maintain the Disadvantaged Business participation and/or Enterprise Zone Small Business participation of the original contract.	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.
	The selected Offeror shall complete the Prime Offeror's Quarterly Utilization Report (or similar type document containing the same information) and submit it to the contracting officer of the Issuing Office and BMWBO within 10 workdays at the end of each quarter the contract is in force. This information will be used to determine the actual dollar amount paid to Small Disadvantaged Business and/or Enterprise Zone Small Business subcontractors and Offerors, and Small Disadvantaged Business and/or Enterprise Zone Small Business participants involved in joint	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.



Reference	Requirement	Apple Response
	ventures. In addition, this information will serve as a record of fulfillment of the commitment the selected Offeror made and for which it received Disadvantaged Business and Enterprise Zone Small Business points. If there was no activity during the quarter then the form must be completed by stating "No activity in this quarter."	
	NOTE: EQUAL EMPLOYMENT OPPORTUNITY AND CONTRACT COMPLIANCE STATEMENTS REFERRING TO COMPANY EQUAL EMPLOYMENT OPPORTUNITY POLICIES OR PAST CONTRACT COMPLIANCE PRACTICES DO NOT CONSTITUTE PROOF OF DISADVANTAGED BUSINESSES STATUS OR ENTITLE AN OFFEROR TO RECEIVE CREDIT FOR DISADVANTAGED BUSINESSES UTILIZATION.	This requirement is not applicable to Apple's proposed solution; Apple does not intend to utilize any Disadvantaged Businesses or Enterprise Zone Small Businesses in the fulfillment of this engagement.



II-4 | Prior Experience

DGS Requirement Include experience in technical training and project management. Experience shown should be work done by individuals who will be assigned to this project as well as that of your company. Studies or projects referred to must be identified and the name of the customer shown, including the name, address, and telephone number of the responsible official of the customer, company or agency who may be contacted.

Apple Response Please see references below.

Name of Client	Broward County Public Schools		
Address	600 SE Third Avenue, Fort Lauderdale, Florida 33301		
Client Contact References:	Angela Coluzzi	Phone Number:	754 321-0356
Type of Entity:	Public School System		
Approximate Number of Portable Wireless Computing Devices Installed:	6,000		
Approximate Number of Wireless Access Points Installed:	Reused existing network		
Approximate Number of Buildings, Rooms, Square Footage Involved in Project:	4 buildings		
Approximate Dates of Engagement	From	July 2004	To Present - ongoing

Purpose and Objectives of Work:

Broward County Public Schools deployed a 1 to 1 Learning environment in four schools in the fall of 2004. While our referential focus for is the Digital Learning Environment Study, Broward County can provide many instances of work completed within the county beyond this implementation over many years.

Hardware: iBook 1Ghz/combo drive, Xserve (at least one per site), Apple AirPort Extreme card

Software: Mac OS X v.3, iLife 04, Apple Remote Desktop, Managed Client for OS X

Networking: District currently has an investment in Airspace wireless infrastructure. District is also upgrading the WAN connection to 10Mbps MetroEthernet.

Training: District has its own staff development models and we are working with them to include a 1:1 staff development model to augment their existing Digital Education Teacher Academy.

Support: Apple is providing a Project Manager to oversee implementation and support of the study. In addition, we are providing System Engineer resources and have subcontracted a local service provider, MTG, to provide assistance in the rollout post implementation support.



Name of Client	Ann Arbor Public Schools		
Address	2555 South State Street, Ann Arbor, MI 48104		
Client Contact References:	John Van Riper	Phone Number:	734 994-2211
Type of Entity:	Public School System		
Approximate Number of Portable Wireless Computing Devices Installed:	4,200		
Approximate Number of Wireless Access Points Installed:	410		
Approximate Number of Buildings, Rooms, Square Footage Involved in Project:	32 buildings		
Approximate Dates of Engagement	From	October 2004	To September 2005
Purpose and Objectives of Work:			
Plan, deploy and maintain district computers and servers to 32 schools and administrative facilities. Deployed 12" iBooks and eMacs for students, 14" iBooks for teachers, tech staff and administrative staff, Mac Minis to secretarial staff. Develop and maintain a repair depot on-site, deploy and maintain 42 Xserves with Network attached storage. Professional services such as on-site Project Manager, on-call Technical Services Consultant and Professional Development			



Name of Client	Jefferson County Public Schools		
Address	3332 Newburg Road, Louisville, KY 40232-4020		
Client Contact References:	Stephen Dasechner, Supt.	Phone Number:	502 485-3251
Type of Entity:	Public School System		
Approximate Number of Portable Wireless Computing Devices Installed:	3,300		
Approximate Number of Wireless Access Points Installed:	250		
Approximate Number of Buildings, Rooms, Square Footage Involved in Project:	4 buildings		
Approximate Dates of Engagement	From	August 2004	To Present - ongoing
Purpose and Objectives of Work:			

Jefferson County Public Schools has been an Apple customer since the early 80's. The Macintosh platform supports 65% of the instructional platform. The district educates 96,000 students. Project 1st CLASS is the name given to the 1 to 1 learning project that was developed by the District to resolve the issues relative to eliminating the negative trend of at risk middle schools and at risk high schools.

Hardware: Apple branded components include iBooks (12" students and 14" teachers) and AirPort Base Stations

Software: Apple branded software included OS X, iLife Suite, AppleWorks. Other third party offerings included, Microsoft Office Suite and Graphing Calculator.

Networking: JCPS provides 100 MB fiber to their buildings. Each school is supported by (State Regulation) WindowsNT Servers and Proxy Servers. Network switching and routing is provided by 3Com.

Training: Apple Professional Development was deployed at the Leadership level to all principals and onsite Technology Support Teachers to help JCPS get started.

Support: Proposed



II-5 | Personnel

DGS Requirement Include the number of executive and professional personnel, analysts, auditors, researchers, programmers, consultants, etc., who will be engaged in the work.

Apple Response Specific assignments will be made after an award has been made. Additional assignments will be made after the volume level has been determined. Attached resumes are representative of the individuals that will be assigned to the project.

DGS Requirement Show where these personnel will be physically located during the time they are engaged in the Project.

Apple Response Specific assignments will be made after an award has been made. Additional assignments will be made after the volume level has been determined. Attached resumes are representative of the individuals that will be assigned to the project.

DGS Requirement For key personnel include the employee's name and, through a resume or similar document, the Project personnel's education and experience in project management.

Apple Response Apple anticipates that the majority of the individuals named below will be involved to some degree in the delivery of the Computers for the Future project.* Specific assignments will be finalized after an award has been made. Additional assignments will be made after the volume level has been determined.

Brian Hoskins, PMP, Senior Project Manager, Apple Professional Services

Doug Snow, Project Manager, Apple Professional Services

Terry Walker, Technical Services Consultant, Apple Professional Services

Brent Willingham, Strategic Account Manager, AppleCare

Paul Takac, Regional Manager for Pennsylvania, Apple Education Sales

Mickey DeMatteis, Northeast Area Director, Apple Education Sales

Brent Frey, Northeast Area Development Manager, Apple Education Sales

Peter Oyler, Education Development Executive, Apple Education Sales

Christian Thomas, Field Engineering Manager, Apple Professional Services

Steve Zalot, Senior Systems Engineer, Apple Professional Services



Brannon Stegall, Systems Engineer, Apple Professional Services

Matthew Little, Systems Engineer, Apple Professional Services

Mick Weeks, K12 Account Executive, Apple Education Sales

Rusty Clementoni, Account Executive, Apple Education Sales

Donna Marks, Account Executive, Apple Education Sales

Cheryl Haring, Account Executive, Apple Education Sales

Tom Wangler, National Program Manager, Apple Project Management Services

Apple Professional Services Project and Program Managers

The following assets, skills, and experience are representative of the general caliber of Apple's Project and Program Managers:

Capabilities	Routinely relied upon to provide consistently superior Program Management and Leadership in support of clients in every region of the United States. Expertise includes program and personnel management, software engineering & development support, budgeting, and multiphase project implementation and management. Provide clearly superior contract, negotiation, client, financial, and operations management in demanding environments.
Skill Keywords	Multiple Program Management, Program Development and Coordination, Process Identification and Improvement, Client Management, Contract Negotiation, Personnel Management, Software Development Support, Internet Based Solutions, Consulting, Risk Management, Business Process Improvement (BPI), Manager, Operations Management.
Experience	Apple Professional Services Program Managers bring extensive experience to each client. Program Managers are routinely called upon to participate in strategy and planning sessions. Eloquent and effective in the delivery of presentations. Decades of supervisory experience with superbly honed communication and interpersonal skills ensure that every aspect of an engagement is considered in the support of a client. Program Managers bring experience working for nationally known consulting firms such as KPMG, Booz-Allen and Andersen.
Education	Program Managers credentials include both higher education degrees including Masters degrees as well as industry recognized specialty training.

* Based on both the volume of purchasing, and on the number and location of participating



schools, Apple reserves the right to assign, reassign and substitute personnel at anytime at its sole discretion. Apple shall make commercially reasonable efforts to provide Services on a timely basis, subject to availability of qualified personnel and the difficult and scope of the Services. However, Apple shall not be liable for its failure to do so, nor will it be in breach of this Agreement solely by reason of such failure.

DGS Requirement Indicate the responsibilities each individual will have in this Project and how long each has been with your company.

Apple Response Specific assignments will be made after an award has been made. Additional assignments will be made after the volume level has been determined. Attached resumes are representative of the individuals that will be assigned to the project.

DGS Requirement Identify by name any subcontractors you intend to use and the services they will perform.

Apple Response The following subcontractors may be involved in Apple's implementation phase of the described solution:

- MicroTechnology Group
- CrossIT
- MacOutfitters
- PC Medics
- Ease Technology
- The Millennium Group



II-6 | Training

DGS Requirement Indicate recommended training of public high school and AVTS/CTC personnel. Include the personnel to be trained, the number to be trained, duration of the program, place of training, curricula, training materials to be used, number and frequency of sessions, and number and level of instructors.

Apple Response Please refer to section IV-2. b. iii) 2)



II-7 | Financial Capability

DGS Requirement Describe your company's financial stability and economic capability to perform the contract requirements. Offerors shall provide Dunn & Bradstreet number, if available; otherwise, financial documents such as audited financial statements or recent tax returns will be acceptable to the Commonwealth.

Apple Response Apple Computer, Inc. ended fiscal year 2005 with over \$8.2 billion in cash. Cash generation has been largely a function of increasing profitability and efficient working capital management. Additionally, Apple has no short-term or long-term debt.

Apple succumbed to the implosion of the "Internet bubble" like other technology companies and generated a loss of \$25 million in fiscal 2001. Apple then made the strategic decision to invest through the economic downturn, and those investments have clearly paid off. Revenue climbed from \$5.4 billion in 2001 to \$13.9 billion in 2005 while earnings surged to \$1.335 billion in fiscal 2005.

Apple has continued to build cash while making significant investments in its retail store initiative and research and development to poise the company for ongoing growth. Apple currently has over 130 retail stores that host over one million visitors each week. Revenue through Apple's retail stores last fiscal year averaged \$22.5 million per store.

Apple continues to lead the industry in innovation with its award-winning desktop and notebook computers, OS X operating system, and iLife and professional applications. Apple is also spearheading the digital music revolution with its iPod portable music players and iTunes online music store.

Apple's Dun and Bradstreet number is 5A-2.



II-8 | Objections and Additions to Standard Contract Terms and Conditions

DGS Requirement The Offeror will identify which, if any, of the terms and conditions (contained in Exhibit A) it would like to renegotiate and what additional terms and conditions the Offeror would like to add to the standard contract terms and conditions. The Offeror's failure to make a submission under this paragraph will result in its waiving its right to do so later, but the Issuing Office may consider late objections and requests for additions if to do so, in the Issuing Office's sole discretion, would be in the best interest of the Commonwealth. The Issuing Office may, in its sole discretion, accept or reject any requested changes to the standard contract terms and conditions. The Offeror shall not request changes to the other provisions of the RFP, nor shall the Offeror request to completely substitute its own terms and conditions for Exhibit A. All terms and conditions must appear in one integrated contract. The Issuing Office will not accept references to the Offeror's, or any other, online guides or online terms and conditions contained in any proposal.

Regardless of any objections set out in its proposal, the Offeror must submit its proposal, including the cost proposal, on the basis of the terms and conditions set out in Exhibit A. The Issuing Office will reject any proposal that is conditioned on the negotiation of terms and conditions other than those set out in Exhibit A.

Apple Response



Exhibit C

Wireless Local Network (WLAN)

Manufacturer Apple Computer, Inc.

Wireless Transmission Rate of	<u>54</u>	MB/sec at a range of 50 feet
	<u>11</u>	MB/sec at a range of 100 feet
	<u>0</u>	MB/sec at a range of 200 feet
Maximum Range of	<u>150</u>	feet

Full disclosure of the capabilities and limitations of the wireless technology proposed must be included such as interference between classrooms, distance and object penetration data, and susceptibility to interference from outside sources.

Apple adheres to the IEEE 802.11b/g standards and fully complies with the speeds, ranges and interference specifications.

Describe the actual throughput for the installed wireless network (KB/sec, MB/sec, GB/sec) for a 1MB file, 1 MB Streaming Audio File, and 1 MB Streaming Video File for the following number of simultaneous users:

Number of Simultaneous Users	1 MB Data File	1 MB Streaming Audio File	1 MB Streaming Video File
10 Students	*	*	*
30 Students	*	*	*
100 Students	*	*	*
500 Students	*	*	*
1,000 Students	*	*	*

* AirPort Extreme uses the 802.11g wireless standard. Accessing the wireless network requires an AirPort or AirPort Extreme enabled computer or Wi-Fi-certified 802.11b or 802.11g computer. Achieving data rates of 54 Mbps requires that all users have an AirPort Extreme or Wi-Fi-certified 802.11g enabled computer and connect to an AirPort Extreme Base Station. If a user of a Wi-Fi-certified 802.11b product joins the network, that user will get up to 11 Mbps and AirPort Extreme and Wi-Fi-certified 802.11g users will get less than 54 Mbps. Actual speed will vary based on range, connection rate, site conditions, size of network, and other factors. Our solution will cover the requested educational spaces in order to meet the data transmission rates as outlined in the RFP.

Please describe the average amount of time in hours per month the system will be down for regular scheduled maintenance. Also describe how maintenance will be accomplished so that the impact on system availability is minimized.

Apple's wireless local area network does not require regularly scheduled maintenance. From time to time we may release firmware updates for Apple's networking equipment. From previous experience we estimate that these updates disrupt the network no more than an hour per year.

Please describe how backup systems will be utilized so that the impact on system availability is minimized.

Not applicable for Apple's wireless local area network.



Please describe other WLAN specifications.

802.11 refers to a family of specifications developed by the IEEE for wireless LAN technology. 802.11 specifies an over-the-air interface between a wireless client and a base station or between two wireless clients. The IEEE accepted the specification in 1997.

802.11b – an extension to 802.11 that provides 11 Mbps transmission (with a fallback to 5.5, 2 and 1 Mbps) in the 2.4 GHz band. 802.11b was a 1999 ratification to the original 802.11 standard, allowing wireless functionality comparable to Ethernet.

802.11g - The latest version of 802.11 is the 802.11g standard. 802.11g offers a maximum data rate of 54 Mbps—nearly five times faster than 11-Mbps 802.11b products.

Data rate – the maximum available transmission speed given the quality of the radio signal. 802.11g supports data rates of 54Mbit/sec, 48Mbit/sec, 36Mbit/sec, 24Mbit/sec, 18Mbit/sec, 12Mbit/sec, 9Mbit/sec and 6Mbit/sec. Further it is backward compatible with 802.11b at rates of 11Mbit/sec, 5.5 Mbit/sec, 2 Mbit/sec and 1 Mbit/sec. As the quality of the radio signal degrades then the equipment automatically falls back to the next lower data rate.

Given that the available data rate for each client is determined by the strength of the radio signal between the client and the base station it is possible for a large number of client systems to be connected to a base station at the 54 Mbit/sec data rate. However the data bandwidth that is available to each client is dependant on the usage pattern of the clients connected to the base station. The bandwidth available to a 802.11g client is analogous to the case of an Ethernet network comprised of client systems and a large hub. In both cases the design allows for only one system at a time to transmit and the bandwidth available from this hub or base station is shared amongst all clients.

From Apple internal testing the AirPort base station is capable of supporting 50 clients each loading a new web page every 30 seconds with NO degradation in page load times.

Apple internal testing shows that the AirPort base station is capable of supporting 25 clients undertaking file copies concurrently. These file copies are unconstrained data downloads from a local server. The results indicate that the degradation in performance, on a per client basis is linear.

Apple's base stations are capable of the following security protocols: Wi-Fi Protected Access™ (WPA), Wireless security (WEP) configurable for 40-bit and 128-bit encryption, MAC address filtering, NAT firewall, Support for RADIUS authentication, 802.1X, PEAP, LEAP, TTLS, and TLS. We will configure the access points with WEP to maintain backwards compatibility with the current installations.



Software

Identify and fully describe the applications associated with your system:

LAN Software	Apple Remote Desktop
Writing	Word, Pages, Microsoft Office 2004, NeoOffice, TextEdit, NoteShare, Inspiration, Mail, Entourage, Dictionary & Thesaurus
Data analysis	Microsoft Excel, Grapher, GRASS GIS
Presentation	Keynote, PowerPoint, SiteSucker, NeoOffice,
Publishing	iWeb, Pages, Adobe Creative Suite 2
Multimedia Creation	iLife: iMovie, iPhoto, GarageBand, iDVD, and iWeb; GNU Image Manipulation Program, Creative Suite 2, Audio Recorder
Multimedia Viewing	iPhoto, iTunes, QuickTime, Flip4Mac (WMV), iChat, Preview
Information Management	FileMaker Pro, Excel, NeoOffice, Spotlight, Inspiration
Research	GRASS, VitalSource Library, Apex Learning ClassTools and Beyond Books
Anti-Virus	ClamXav
Internet Browser	Safari, Firefox, Sherlock
Curriculum Development	Apple Learning Interchange (ALI) 2006, Apex Learning ClassTools and Beyond Books
Project Staffing	Please refer to Section II-5 and Apple's Value Add submittal.
Other Software	Dashboard, iCal, Grab, Universal Access, Parallels*, Apple Remote Desktop * Apple reserves the right to exclude Parallels software from the proposed solution should Apple provide similar functionality in any subsequent OS updates. Apple will provide adequate notice of this change to participating schools.
Other educational software installed in solution	Apex Learning ClassTools and Beyond Books, Vital Source Library

Note: Please refer to Technical Submittal Sections IV-4 f. and IV-4 n. for additional detail and descriptions of each software title.



Appendices

Appendix 1: Classrooms For The Future Project Plan

Executive summary

- The purpose of this document is to provide an initial plan of Apple's execution of the Classrooms for the Future initiative
- Each functional component of this project, identified below, will have a detailed sub plan describing the scope of work and tasks. Some of these sub plans will need to be evaluated and further developed during the planning phase prior to implementation.
- This document is considered a living document that will grow over the life of this project.
- Changes to this plan, and all associated sub plans, will be controlled by this Project Plan and documented by our Project Manager in coordination with the PDE Project Manager.

Project Management

The implementation of the Apple portion of the Classrooms for the Future project will be performed under an Apple Project Manager's direction. The Project Manager is the primary point of contact for the Commonwealth and participating districts, and will manage the project scope from initiation through implementation to closure. This person will organize the project, integrate resources, and manage project scope, schedule, quality, communications, risk, change, and lessons learned. Scope of work includes building readiness survey, creation of custom images, imaging and configuration of laptops, inventory, mobile cart setup, white board installation, and teacher orientation and distribution.

The Apple Project Manager will be assigned to this project for the period of one year beginning with bid-award (see note below for exception). At the end of one year, a second audit of the program will be conducted to establish the status and future needs of the project. Allocation of time dedicated to the project will be evaluated and adjusted according to budget and need.

Below is an outline of our project management plan. This plan outlines the roles and responsibilities that our PM will be engaged in over the course of the project. More project detail will be included in each subsequent phase description. Apple considers our detailed plans, including charts and Work Breakdown Structures, to be proprietary and confidential. This plan will commence upon bid-award.

Note: The Apple Technical Service Consultant and the Apple Project Manager will be two separate and full time dedicated resources once the unit count exceeds 5,000 units. If the total unit count is less than 5,000 units, the Apple Project Manager and Apple TSC will be equivalent to one full time resource.

The major milestones include:

Milestone 1: Project Initiation

- Project kickoff Meeting.
- Develop deployment plan with PDE staff.
- Meet with each School Principal and staff to finalize deployment schedule/plan.
- Work with individual schools to identify Depot Manager.
- Schedule Training for School staff.
- Agree on project meeting schedule and reporting.
- Determine date for P.O.'s to be issued.



Milestone 2: Pre-Deployment

- Apple and PDE work together to provide specification for image.
- Local Apple team works with PDE to create image specification.
- Local Apple team works with PDE to approve the image.
- Apple manufactures MacBooks.

Milestone 3: Installation - Implementation/Roll Out

- Deliver MacBooks, carts, and all accessories to each school as per pre-determined schedule.
- Install whiteboards.
- Setup mobile carts with MacBooks, printers and AirPort Base Station
- Assist with Roll out.
- Report assets to PDE
- School acceptance/sign off of installation phase

Milestone 4: Implementation/Ramp Up

- The Apple PM will work with the PDE Classrooms for the Future staff to approve a training and ramp-up schedule.
- The Apple PM will work with the Principal and Depot Manager at each school to develop an implementation plan specific to the unique needs of each school.
- Assess the effectiveness of each school's ramp-up phase and develop an ongoing support and training plan

Milestone 5: Post Implementation support

- The Apple PM will continue to work with the PDE Classrooms for the Future staff on a regular basis and provide reporting and attend regular meetings
- Continued scheduling of Apple resources assigned to the project

Apple Technical Services Consultant (TSC)

The Apple Technical Services Consultant (TSC) will be responsible for working with the Apple Designated Project Manager, Apple team, selected schools and designated integrators, to understand the project and implementation and deployment plan, and to be a part of the on-going Apple team assigned to work with schools/end-users, and is part of the customer facing interface for schools and designated integrators.

The Apple TSC is to perform the following tasks, while working with the PDE, schools, integrators and Apple team:

- Will be assigned to the PA PDE
- Will participate in planning meetings prior to the Implementation Phases
- Will assist in conducting and evaluating site surveys
- Will assist in monitoring all installations completed by assigned integrator
- Will assist with PD assessment of all school-based learners for future trainings
- Will assist in providing Depot training to schools
- Will be available for hands on training while in the schools (out of the box training)
- Will be available to assist, if required, with any facet of the asset management process and Depot process
- Will be part of all team meetings



- Will provide to PM a written weekly status report to include activities performed and any issues/concerns uncovered

The Apple TSC will be assigned to this project for the period of one year beginning with bid-award (see note below for exception). At the end of one year, a second audit of the program will be conducted to establish the status and future needs of the project. Depending on budget and a needs assessment, the TSC may remain dedicated to the project, or may decrease his commitment.

Note: The Apple TSC and the Apple Project Manager will be 2 separate and full time dedicated resources once the unit count exceeds 5,000 units. . If the total unit count is less than 5,000 units, the Apple Project Manager and Apple TSC will be equivalent to one full time resource.

Project Initiation

The Project Initiation Phase of the Classrooms for the Future Project will begin when Apple is informed that they have been awarded a contract for this initiative. Apple will quickly move to demonstrate its commitment to the Classrooms for the Future initiative and exhibit our expertise in managing education projects of this scope and size. This will begin a series of rigorous meetings, evaluations, and preparations. The Apple PM and TSC along with other members of the Apple team will request a kick off meeting with the Classrooms for the Future Staff to discuss the project and move forward with building level meetings and planning sessions. We expect the planning stage to last 3 to 4 weeks from the time we are awarded the bid until the time we receive any P.O.'s (assuming we are awarded the bid). [Note: matches usage elsewhere] Some of the details to determine during the early stages of the Planning phase are:

A. Kick off Meeting

- i. Determine team members
- ii. Determine communications
 1. Email
 2. Phone
 3. Meetings
 4. Frequency – Daily, weekly, monthly
 5. Who is part of the Critical Communications Path
 - a. Apple Team
 - b. Classrooms for the Future Staff
 - c. School Staff
 6. Who is part of the Non-Critical Communications Path
 - a. Apple Team
 - b. Classrooms for the Future Staff
 - c. School Staff
- iii. Determine potential risks/obstacles to success
 1. Information flow
 2. Access to facilities and resources
 3. Clear understanding and articulation of roles and responsibilities
- iv. Determine and discuss customer requirements
 1. Classrooms for the Future Administration must appoint a project PM to act as the single point of contact for the Apple Project Manager
 2. Schools "customer requirements" are listed below



- v. Determine and discuss quality standards and time lines
 - 1. Certifications
 - 2. Training
 - 3. Assessments
 - 4. School/Teacher Participation
 - vi. Discuss logistics and details of this project plan
 - vii. Discuss plan for meeting with each School and the desired outcomes and commitment
 - viii. Revise and reach consensus on project plan
- B. Meet with each School to develop plan for phase II and III and to gain commitment from School Principal on customer requirements.
- i. Meet with Critical staff to discuss roll out and ramp up
 - 1. Principal
 - 2. Depot Manager
 - 3. Representative of Custodial Staff
 - 4. Apple PM
 - 5. Apple TSC
 - ii. Gain commitment from School Principal on customer requirements
 - 1. The Principal must work with the Apple PM to have a “Ready Plan” for the “just in time” delivery of the schools assets. This plan will be completed on site, but will include at a minimum:
 - a. Date for installation
 - b. School based team ready to accept delivery
 - c. A plan for accepting, installing, and storing the MacBooks
 - d. A deployment plan for classroom logistics
 - e. A power/recharge plan to maximize battery life (details and assistance to follow)
 - 2. School must appoint a dedicated technical* resource to work as the Depot Manager. This individual may not start out as a technical person, but must have the aptitude to become one. The Depot Manager is to be the primary contact for all technology issues related to the Classrooms for the Future project. The DM provides on-site computer technical support to faculty, students and staff. Their essential task is to return units to service by performing initial troubleshooting and resolving issues at the school or facilitating a repair through the PDE AppleCare process. Responsibilities of the Depot Manager may include, but are not limited to:
 - a. Know and perform applicable duties in support of the Classrooms for the Future Service and Support program (to be defined).
 - b. Act as the technical leader for the school.
 - c. Address both hardware and software issues.
 - d. Possess basic diagnostic capabilities.
 - e. Interface with PDE Help Desk.
 - f. Facilitate Repairs as required.
 - g. Manage Depot/spares. Track assets as they come in and out of the Depot.



- h. Report all activity to the Apple PM.
 - i. Interface with Apple TSC and PM on a weekly basis.
 - j. Manage the re-imaging process when required.
 - k. Act as the point of escalation to Apple, third-party vendors, and PDE.
- 3. The School must commit to an appropriate space for the Depot. Apple recommends a minimum dedicated work area for the Tech of at least 64 square feet (8'X8') in a room of at least 600 square feet (30'X20'). In addition to an Apple system, the following furniture and equipment is recommended: (Depot Manager resources are included in Phase III)
 - a. A secure room (i.e. locked)
 - b. High speed internet access
 - c. Telephone line and telephone
 - d. Locked storage cabinet (2)
 - e. Shelves
 - f. Chair
 - g. Desk or workbench
 - h. Equipment as necessary or required by AppleCare
- 4. The school must commit to a training schedule that will be developed jointly with the Apple PM. This plan is designed to give teachers, staff and technical resources the skills, tools and confidence to be successful in the Classrooms for the Future environment.
- C. Meet with Classrooms for the Future staff to discuss plans for the roll out and the ramp up project phases. Ensure all schools have complied with requirements and that the timelines and content meet with the approval of the administration.
- D. Finalize Planning stages and communicate current revision of the Project plan to all Classrooms for the Future stakeholders.

Pre-Deployment Phase

The Pre-Deployment Phase of the Classrooms for the Future Project will include planning the laptop image, building the image and manufacturing the laptops with the specified image. The Image Creation process includes:

- 1. Apple and PDE work together to provide specification for image.
- 2. Local Apple team and Apple Custom Software Solution team (CSS) works with PDE to create image specification.
- 3. Image is built by Apple CSS as specified. Includes setting permissions, preferences, and DVD region code to North America, and software bundled with Apple's Classrooms for the Future solution.
- 4. Apple tests image to ensure it is compatible with hardware.
- 5. PDE tests and approves final image.
- 6. Apple releases image to Apple factory.
- 7. Duration is approximately 4 weeks.

This phase is expected to take five weeks from the time we are awarded the bid and receive a purchase order.



Installation/Implementation/Roll Out

The Installation Phase of this project will be a well-coordinated exercise as a result of the pre-planning meetings that will take place in Phase One of the project. The following Statement Of Work (SOW) outlines what will take place when Apple receives a purchase order. This phase includes:

- Deliver all equipment to the school on a pre-determined schedule;
- Unbox and test MacBooks;
- Unbox and assemble mobile carts;
- Unbox, connect, and test printers;
- Unbox and install the whiteboards;
- Unbox and configure AirPort Base Stations; and
- Connect MacBook classroom environment to the local are network, if available.

We expect this phase to last approximately two weeks from the time a P.O. is issued to Apple.

Implementation/Ramp Up

The Implementation/Ramp Up phase is the most important phase to teachers and staff in the life of this project. It is a time when expectations are set and first impressions are made. It is for that reason that Apple will bring it's most experienced team to the project in order to assist the School staff in setting off in the right direction. The exact implementation will rely heavily on each Principal and Schools individual plan and tolerance for change. We expect this phase to last up to two weeks for Apple to manage and execute after the installation is complete. During this phase we will work as a single team to execute the training plan that was developed between Apple and PDE Classrooms for the Future Team. As a team, we will develop a flexible and aggressive plan to ensure that we give each constituent of the Classrooms for the Future school an opportunity to attend an appropriate training. We expect those constituents to include:

- Administrators
- Teachers
- Principals
- Assistant Principals
- Depot Managers
- Tech Coordinators

Each of these constituents will receive a base level out of the box training. Based on this training we will attempt to conclude a baseline assessment for the teachers in the program. We will share our metrics with teachers during the initial out of the box trainings and consult with them on where they may reside on the Professional Development continuum. To accomplish this goal we will be using a tool called the Teacher Technology Profile (TTP). We will share our training schedule and allow them to choose the level that is right for them. We may recommend and advise a level to a teacher, Administrator or Principal, but in the end, it is their decision as to which level training courses to attend.

Based on Apple Classrooms of Tomorrow (ACOT) research, Apple has identified five stages of assessment. We expect a large number of participants to be in the first two stages with about 20% in or approaching the third stage. The majority of our training will be based on this metric. Further evaluations will take place during Phase I and early in Phase II. Adjustments can be made quickly and on the fly because of the experience of our team. The following is description of our thought and practice stages based on ACOT research.

Apple Classrooms of Tomorrow researchers observed that teachers' approach to the use of classroom technology evolves through five orderly stages. Identifying the stages as Entry, Adoption, Adaptation, Appropriation, and Innovation, the researchers called the process "the evolution of thought and practice."



At the **Entry stage**, teachers are struggling to learn the new technology. Much of the time the computer may sit in the back of the room with a dust cover on it; teachers are waiting to be “trained” to use it. When they do try to use it on their own, something invariably goes wrong, there’s no one there to fix it, and their frustration mounts. Comments like, “If I had my way, I don’t think I would ever look at a computer again,” are not uncommon.

At the **Adoption stage**, teachers begin using the technology to support traditional instruction—lots of “drill and practice”—and to automate existing tasks. Students are allowed to “play” on the computer, usually as a reward for finishing their “real” work. No significant change in teaching or learning occurs.

At the **Adaptation stage**, teachers begin integrating the new technology into traditional classroom practice. Productivity emerges as a major theme: using word processing, spreadsheet, and graphics tools capabilities, students work faster and produce more. The resulting extra time leads to increased opportunities for teachers to engage students in higher-order learning objectives and problem solving. Teachers begin to experiment with new practices during this stage.

At the **Appropriation stage**, the use of technology has become second-nature, allowing teachers to focus on cooperative, project-based, and interdisciplinary work, incorporating the technology as needed and as one of many tools. Students are motivated to learn on their own, shifting from competitive work patterns toward collaborative ones. Students begin teaching each other, and the teacher’s role shifts to that of facilitator.

Finally, at the **Innovation stage**, teachers begin to discover new uses for the technology that even the inventors of technology hadn’t foreseen—inventing projects and new curriculum that engage students in gathering information, analyzing and synthesizing it, and ultimately building new knowledge on top of what they already know.

ACOT researchers found that, without effective support, teachers took from three to five years to progress from learning to use the technology to the point where they were inventing new uses for it in their classrooms. With the implementation of an effective staff development program, teachers were able to move through the stages in approximately 18 months.

The goal of the project team in this phase is to prepare all of the constituents in this phase to be ready for their journey through the 5 phases confidently. Below is a list of the training classes, beginning with the basic out of the box training, that will be available to all audiences. Some of these classes will be taught at different levels to accommodate the audience.

- Care & Feeding training
- Out of the box training
- “A day in the life of a teacher” training
- OS training
- Basic Classrooms for the Future/File manipulation training
- Access/Storage Admin training
- Basic troubleshooting/repair/image restore training
- Peripheral connectivity training
- Advanced application usage in the classroom to include iLife training

This training will be offered in a variety of levels and at multiple times and places over the two weeks of this phase so that we can accommodate any Classrooms for the Future School member that would like to attend. After the two week Ramp Up phase, this training will be available for the life of project through our local team and can be scheduled with our Project Manager.

This training is also available in an online component complete with multimedia and self paced modules. It is the perfect compliment to the onsite training given by the Apple team. This online training will be available to participating schools for an additional cost

In addition to the training that is available to the entire Classrooms for the Future population, we have developed courses specifically for Students and Parents. In a document, entitled, “Getting to know your MacBook” we cover the basics every student and parent needs to know to begin exploring with their new computer. We will hold



multiple classes, at times decided upon by the Principal and staff at each school, for both students and parents that will last about 20 minutes.

Power Management training is included in many of the classes and if decided by the project team, can be a class unto itself and taught to any of the audiences. The Depot Manager will receive individual instruction on this topic and will act as the expert in the school. Depending upon implementation and adherence to proper battery management techniques, a six-hour battery life, which should encompass a full school day, is possible. Apple will focus on this topic during specific teacher training and has included best practices for power management as an addendum to this document.

Depot Managers

The Apple project team will focus on the specific needs of Depot Managers. These people will be the champions in each school and will be crucial to ensuring success. The profile and tasks associated with this position are listed in the planning section of this document. In order to assist the Depot Manager, Apple has created a specific training regimen with additional formal training for these people. This instruction will begin during the planning phase and continue through the life of the project. Instruction will come from the Apple PM, TSC, Phase II Ramp Up team and from AppleCare. Apple will perform flexible training for the depot managers with one on one training performed with the Apple TSC, group training with Apple trainers and online Apple Certification training. All group trainings will be counted as one of the 15 training days and be reported and managed by the Apple project manager.

Below is a sample of the initial training a Depot Manager can expect:

Sample Depot Manager Training Course Objectives:

Initial Course A

- Getting to know the foundations of Mac OS X
- Apple Service and Support Resources
- Using Global Service Exchange (GSX) Resources
- Electrostatic discharge (ESD) processes and procedures
- Troubleshooting processes and procedures
- Do-it-yourself (DIY) processes and procedures
- Using the Imaging Station
- Mac OS X Troubleshooting
- How the Support System Works
- Using the On-Line Service Request System (DepotWorks)

Initial Course B

- Getting to Know the Mac OS X user interface
- Learn Mac OS X basics.
- Learn to customize system-wide preferences and user preferences.
- Learn how common applications integrate with each other.
- Learn to manage multiple applications and multiple windows within applications.
- Learn to use the Mac OS X help system.
- Learning to Manage your Mac
- Learn the basic principles of file sharing, command line administration, working with multiple users.
- Learn to install applications from disk images.
- Learn basic troubleshooting techniques.



In addition to the training Apple intends to provide as part of the Classrooms for the Future initiative, it is recommended that the School Depot Managers pursue additional formal training that will enable them to become more proficient and valuable to their school and the project while enhancing their own abilities. These course include but are not limited to:

Apple Certified Portable Technician (ACPT)

This class and subsequent certification verifies the ability to perform basic troubleshooting and repair of Macintosh portable systems, such as MacBook and PowerBook G4. ACPT certification exams emphasize identifying and resolving common OS X problems, and using Apple Service and Support products and practices to effectively repair Apple hardware.

Intro to Mac OS X v.10.4 for Technical Professionals

This class will teach you the fundamentals of Mac OS X and how to work with applications. You will work in the command line interface and begin the basics of trouble shooting techniques.

Mac OS X Support Essentials v.10.4

This class will teach you tools and resources needed for in-depth exploration and troubleshooting . You will continue your work on the features of Mac OS X 10.4.

Post Implementation support

This phase of the project will consist of the ongoing support of the Apple PM and Apple TSC, as well as the local Apple Education team, other Apple trainers, engineers, and support personnel as required. For the duration of the first year of the Project, the Apple Project Manger and TSC will be dedicated resources. They will carry out their responsibilities in supporting this initiative as described in previous sections.

The Project Manager's focus will be to conduct regular status meetings with Principals and other administrators to keep the Classrooms for the Future community informed of all project developments, successes, and failures. The PM will be focused on communicating best practices and sharing of knowledge between schools in this project and from around the country. The PM will highlight pods of excellence and will work to bolster areas of weakness with additional support. The PM will conduct audits of the project at the two month point as well as at the one year mark.

During this phase, the Apple PM will work with the Classrooms for the Future Administration to evaluate the health of the program and to share tools that the PDE can use to assess their progress through the project.

The Apple TSC will be the Tech lead for the Depot Managers, other Classrooms for the Future technical resource and teachers. The TSC will spend his time understanding the needs the schools. The TSC will be focused on uptime for all teachers and students during this phase. The TSC's goal while maximizing uptime will be to help make each school independent by mentoring them through issues to resolution and by supporting the Depot Manager.

The Apple TSC will be conducting training classes at each individual school as well as in the local Intermediate Units. These classes will include all previously mentioned classes as well as any new material that may be appropriate. The TSC will offer classes at multiple levels and will adjust the pace and level of the class while ensuring that all schools receive the same core content.

A meeting will be conducted after the first year audit is complete. At this time the Apple team will work with the Classrooms for the Future team to evaluate our role and refresh our priorities in the program. If additional funds are allocated to continuing the dedicated status of these individuals, they will continue based on the year end evaluation. If funds are not made available to continue the dedicated status of these positions, then they may phase the time obligation to the project to a lower level while maintaining their focused commitment.



Appendix 2: Pennsylvania Success Stories

iBook Transforms “Old School” Learning

Kutztown, PA — Dr. Brenda Winkler used to call Kutztown Area High School “the black hole of technology.” When she became superintendent of Kutztown Area School District, the school’s computer labs had a mix of aging PCs, and one teacher connected to the Internet via one sluggish dial-up connection. But then the district implemented a 1 to 1 learning initiative based on wireless iBook laptops. Now, with the help of some talented teen technicians, Kutztown Area High has changed from black hole to red-hot.

In recent years, five of the six buildings in the Kutztown Area School District have undergone a structural and technological transformation. When it came time for Kutztown High’s renovation, Technology Director Mark Erb was tasked with making recommendations. After comparing an upgrade to the existing wired computer infrastructure with a new 1 to 1 learning solution, there was no question which way the district should go: with iBook wireless laptops and Apple Professional Development.

“On paper, the so-called ‘traditional’ approach cost less than the 1 to 1 learning program,” says Erb. “But when we talked to suppliers who would make the renovations and install all the wiring, the cost estimate showed that we’d actually end up spending about \$124,000 more than it would cost to buy the laptops and go wireless. Plus, the 1 to 1 solution that Apple proposed included comprehensive professional development. We knew this would be critical to the success of our program, and would otherwise have been an additional, major expense.

“Our Apple Professional Development is fabulous, and has exceeded our expectations. The feedback we’ve received from the teachers has been extremely positive.”

— Eric Erb, Principal, Kutztown High School

“We talked to several Windows-based PC laptop manufacturers, and they could not match the value of the technology and services that Apple was offering, nor could they meet the costs,” Erb adds. “Also, they would have had to outsource the staff development piece of it. Apple provided a comprehensive 1 to 1 learning solution for us that really met our needs.”

Apple Professional Development Energizes Faculty

Kutztown High School took delivery of 700 wireless iBook laptop computers for all students and teachers in the summer of 2004. Apple Professional Development (APD) helped introduce the school’s faculty to the new laptops, and assisted with the curriculum integration. Since then, biweekly “quick-hit” sessions led by staff members have acquainted teachers with new skills and shortcuts on the laptops, helping them integrate the technology into the curriculum.

“Seeing the teachers in the APD sessions is like going into your most motivated class,” notes Eric Erb, principal at Kutztown High. “You constantly hear, ‘Wow, look at this!’ and ‘Oh, this is awesome!’ Our APD is fabulous, and has exceeded our expectations. The feedback we’ve received from the teachers has been extremely positive. They’re especially excited because they know we’re behind them all the way.”

Students Rise to the Challenge

There’s another reason for the excitement at Kutztown High: When students received their iBook laptops in September of 2004, a brand-new technical support group kicked into gear. Dubbed the “Apple Corps” (but not affiliated with Apple), this team is comprised of a mix of student council members, athletes, Future Farmers of America, and Vocational Technology students, among others. All provide an invaluable blend of coaching and guidance to peers and teachers.

Explains Winkler, “This team is definitely not all made up of the ‘techie’ kids. We were looking for students who were approachable; kids whom both students and teachers would feel comfortable with when they have questions. The Apple Corps members come from varied achievement levels. And that’s been one of the best things about the program; seeing how they’ve all risen to the challenge.”



The former site of the school's audiovisual center now houses the Student Support Center, where Mark Erb and the Apple Corps team work. Outfitted with a couch and a few cushy chairs, the environment invites conversation, collaboration, and creativity on the iBook laptops.

"I wasn't the greatest student in the past. But my iBook helped me focus on my school work, and my grades definitely went up."

— Brad Fleisher, Graduate, Kutztown High School

"When the Apple Corps kids have study hall, they hang out in there ... and the other students know they can stop by and ask questions," observes Winkler. "It really is a picture of students helping students! And what's especially nice is that the faculty is comfortable seeking help as well. I believe this type of natural conversation is one of the real successes of the Apple 1 to 1 Learning program."

Peer Coaching Leads to iMovie Success

Case in point: The ninth grade social studies teacher assigned students a history project using iMovie, which required the collection of still and video images, and the use of narration and music. Students were then asked to export their projects to QuickTime, and burn CDs for submission to the teacher. In the weeks before the assignment was due, the Student Support Center fielded constant requests.

"We had about 140 students working simultaneously on these projects," recalls Mark Erb. "Every Apple Corps kid really stepped up to the plate, helping other students with their video exports, burning the CDs, labeling them, and answering tons of questions. They were absolutely indispensable, and saved me from hours and hours of work! If we hadn't had the Apple Corps team and the easy-to-use tools on the iBook laptops, that history project would never have been completed so successfully, by so many students."

Better Attitudes, Higher Grades, and New Skills

Kutztown graduate Brad Fleisher, now enrolled in Indiana University of Pennsylvania's Media Communications Program, says his Apple Corps experience helped refine his computer skills, particularly with such tools as Final Cut Pro. He also learned that he likes helping his peers. "Answering questions and helping other kids was usually pretty easy, and I really enjoyed it," says Fleisher. "In fact, the whole school experience became a lot more fun. I wasn't the greatest student in the past. But my iBook helped me focus on my school work, and my grades definitely went up."

Adds Justin Knabb, who now attends Kutztown University's computer science and IT program, "After a while, it wasn't 'I have to go to school.' It's 'I get to go to school now, and work with computers I love.' Having an iBook laptop to use made my year a lot better, and it became a lot more fun to go to school. Plus, when you help people feel good about themselves, it makes you feel good, too."

Joining the Apple Corps and using an iBook also changed Jermaine Justice's opinion of the Mac. "I didn't like Macs at all ... then again, I hadn't tried them," he laughs. "But I've become a committed Mac user. I'm planning a career in communications, so having the Mac skills will be a huge plus in an area where a lot of companies use Apple computers."

A Sure Thing with Apple

In the months ahead, APD will lead additional technology immersion sessions for Kutztown High's teachers. And as more funds become available, the school's structural renovation will move forward. In the interim, with the iBook laptops and the Apple Corps, Kutztown High already has constructed a 21st-century learning environment.

"With our 1 to 1 program, the worst feeling would have been that we were out there on our own," says Mark Erb. "But we know that hundreds of other schools are already working with Apple for 1 to 1 learning. And, we're receiving the level of service and quality that we need to make this initiative work. We wouldn't know how to implement this laptop program with any company other than Apple."



District Makes Move to the Mac

Easton, PA — After 20 years in a New Jersey school district, Thomas Drago was eagerly anticipating his new post as technology director at Easton Area School District (ASD). But when he got there, he found old Windows-based PCs, a student information system few people used, and an outdated, Novell-powered networking infrastructure. With the approval of the district's administrative staff, Drago began a transition to the Mac platform. Now, Easton ASD boasts thousands of iMac, eMac, and PowerBook computers, a collection of Xserves, and PowerSchool. The "conversion" is still ongoing, and Drago continues to evangelize the Mac.

Suggesting such a radical transformation, Drago (an Apple Distinguished Educator) expected to encounter a fair amount of opposition. But as soon as Drago demonstrated what Apple solutions and the Macintosh OS X platform could provide, Easton ASD Superintendent Dennis Riker says the hesitation virtually vanished.

"In all honesty, the central administrative staff did have some serious reservations in transitioning to the Mac platform," Riker recalls. But as Tom began to share the educational opportunities the Mac platform provides to the students and staff, the comfort level to move in this direction rapidly grew, and the transition was strongly supported."

School Board Gets PowerBook Laptops First

Drago first purchased a PowerBook laptop for each board member. "In no time, they were totally hooked by the speed and beauty of the Mac," he says.

From there, Drago adds, it was a smooth transition to replacing the PCs in Easton's elementary schools with new Macs. "Many of the teachers hadn't seen an Apple computer in 20 years, and had no idea how the platform has evolved," says Drago. "They were surprised to see that the programs they were using on their systems worked just great on the Mac. We completely exploded the 'it only works on a PC' myth."

Ensuring Success with Classroom Technology Coordinators

To make the migration to the Mac even more seamless, Drago placed a technology coordinator in each one of the district's school buildings. He sought those who could speak the teachers' language: their peers.

"The classroom technology coordinators are all teachers themselves," he explains. "They determine what lessons the teachers would like to create, and then help the teachers with integrating the necessary technology into their curriculum. The success of this whole initiative is due to the tech coordinators, who really understand what the teachers need."

Apple Assists with Technology Immersion

Easton ASD also tapped Apple Professional Development (APD) to kick off the technology immersion effort. Once the initial training was completed, the Apple team successfully handed off the ongoing professional development to Easton's staff. Now that district teachers are conversant with the Mac, the addition of several Apple Mobile Learning Labs in each building provides invaluable digital resources for faculty and students alike.

"We're at the point where our teachers go and grab the carts themselves and dive into a lesson, instead of waiting for a technology coordinator to help them out," Drago confirms. "Many of them had no idea what amazing things they could do with tools like iMovie and GarageBand, so they're very, very excited."

Xserve Supports All Platforms and Reduces Costs

Easton's Mac migration is now complete in all elementary and middle schools. In the district's administrative offices and the high school, the switch will be implemented in 2006. Due to some custom programming by Apple's engineering team, all of the Windows-based computers are connected seamlessly to the district's collection of Xserves. Drago notes that this compatibility often prompts disbelief from other districts. They're especially incredulous when they hear the cost savings Easton ASD enjoys with its Xserves.



"Before I arrived in Easton, the district was spending an astronomical amount of money on the licensing for the Novell software, and for all of the Windows machines. With the Xserves, you just pay one price. This has dramatically reduced our administrative costs for the servers."

— Tom Drago, Technology Director and Apple Distinguished Educator,
Easton Area School District

"Before I arrived in Easton, the district was spending an astronomical amount of money on the licensing for the Novell software, and for all of the Windows machines," says Drago. "With the Xserves, you just pay one price. This has dramatically reduced our administrative costs for the servers. And, with the Workgroup Manager feature in Mac OS X Server, server configuration and management is so easy. With our Xserves, we're enjoying a serious cost savings."

Governor Lauds Shawnee's Success with iBooks

In January of 2006, Easton ASD's school board unanimously approved a 1 to 1 learning initiative that put iBook laptops in the hands of 60 students at the Shawnee Success Academy. At this alternative school, struggling students acquire the motivation and skills needed to refocus on their studies, and return to the normal school routine. In a press release sent from his office a few months later, Pennsylvania Governor Edward G. Rendell called Shawnee "the perfect example of why laptop computers should be on the desks of every high school student." Rendell also encouraged his state's General Assembly to pass his \$200 million "Classrooms for the Future" initiative, which would provide an iBook laptop for every high school student in Pennsylvania.

"With the Workgroup Manager feature in Mac OS X Server, server configuration and management is so easy. With our Xserves, we're enjoying a serious cost savings."

— Tom Drago

"To be prepared for the office or the assembly line, students need to learn how to use computers and other technology," Rendell says. "The Easton School District is on target with this approach, and students are benefiting from this initiative."

Mac Makes It Possible

Riker and Drago agree, saying the Mac has the potential to keep all of the district's students engaged in their studies. Both look forward to incorporating other Apple technologies in the years ahead.

"Having the capability to bring remediation, enrichment, and day-to-day educational enhancement opportunities to our children, staff, and families is critical in today's educational environment," observes Riker. "The Mac platform is driven with this in mind, and has provided us with the tools to be successful in our endeavors. I am confident that as we move our district forward, Apple will be there to provide the hardware, software, and technical support we need."

"We feel that our Mac migration has been very successful," Drago adds. "We have second-grade kids who are making movies! By not making the brand of the machine an issue, we've seen amazing results in a very short time. But the bottom line is, none of this would have been possible without Apple."



New Library and Teacher iBooks Spark Learning

Philadelphia, PA — It started with a plan for some new carpets, drapes, and paint. But by the time the library renovation at Central High School was complete, school administrators and the Associated Alumni had created a state-of-the-art facility offering educational technologies that would be the envy of most universities. With a total of 290 computers — including iMac G5 and Power Mac G5 workstations in the library, and a wireless iBook laptop for each faculty member — Central has committed to making 21st-century learning available throughout the school.

Central's library facelift began when the school's alumni association held a meeting in the old building. Disheartened by his lackluster surroundings, Associated Alumni member Bernard Spain launched a fundraising campaign to begin a cosmetic overhaul. But rather quickly, Spain's initial goal of \$100,000 escalated into a multi-pronged, \$4.5 million technology initiative. Bringing Apple into the equation helped define the campaign.

"Once we partnered with Apple, the culture change began to take shape that we felt was necessary," recalls Richard Prinz, Associated Alumni president. "We were able to add all of the important pieces to it: the partnership with the school district, the presentation of an iBook laptop to each faculty member, and the professional development. That really put the focus on education and curriculum development, as opposed to just having a place that looked great."

"There's so much less time needed to support the Mac, which leaves me free to assist teachers with curriculum issues."

— Sheldon Neff, Technology Coordinator, Central High School

"We did this whole thing because we really wanted the library to function as the educational nexus of the school, and to stimulate the staff, the kids, the parents, and the alumni to see what 21st-century research and learning tools could do," adds Central High School President Dr. Sheldon Pavel. "Apple presented us with a user-friendly method of involvement; of having two components — the staff and the students — comfortably begin to access the technology tools, and enhance their capacity to learn."

Mac Still the Best Choice

Before the funds needed to support the initiative began to flow in, Prinz and his colleagues had sent out a Request for Proposal (RFP) to several educational technology providers. But after a thorough evaluation, Central determined Mac was still the best choice.

"We knew there was no way we could do our job with PCs," says Sheldon Neff, technology coordinator at Central High School. "We were talking about the eventual purchase of hundreds of computers, yet there's just myself and an aid to support all of them. With the Mac we could do it; with PCs we'd need a full-time staff of at least a half-dozen people. There's so much less time needed to support the Mac, which leaves me free to assist teachers with curriculum issues."

"Apple's been in the education 'biz' for a long time, and they know their stuff. With the PC manufacturers, it would have been 'drop the machines; make sure they work, and bye-bye.' Their presence in education just doesn't compare to Apple's."

— Reg Speir, Assistant Principal, Central High School

Reg Speir, assistant principal at Central High School, says Apple's experience in education was another major factor in the school's purchasing decision. "Apple's been in the education 'biz' for a long time, and they know their stuff," Speir says. "With the PC manufacturers, it would have been 'drop the machines; make sure they work, and bye-bye.' Their presence in education just doesn't compare to Apple's."



Apple Tools and Services, Start to Finish

When the new Dr. William M. King Communications, Media, and Research Center library complex opened its doors in May of 2005, it contained a dazzling array of Apple tools. In addition to the iBook laptops for faculty members, five iBook Wireless Mobile Labs for students began traveling throughout the school.

Central's technology immersion now extends beyond the library, with 74 iMac G5 computers available for general usage in the school's classrooms and kiosks (at the end of 2005, Central added another 300 iBook and iMac computers to its classrooms and labs). One room has access to special research databases, while another is dedicated to students who wish to peruse online catalogs, complete college applications, and conduct interviews. An alumni archive room boasts high-density storage, courtesy of a 3.6 TB Xserve RAID and four Xserves G5. A Power Mac G5 workstation is available for high-end graphics, research projects, and the creation of student portfolios, which are also stored on the Apple servers.

Apple Professional Development and Tech Support Ensure Success

Of course, merely installing an arsenal of hardware and software technologies — without providing the type of staff development necessary to maximize their value — would have been a huge mistake. Once again, Apple stepped up to the plate: Apple Professional Development experts provided two full days of on-site training, helping staff members begin to integrate their new iBook laptops and digital tools into their curriculum.

"You can't reasonably expect teachers to begin to integrate technology if you don't show them how to do so. Apple has had a lot of experience in this area."

— Dr. Sheldon Pavel, President, Central High School

"The whole staff development issue was a huge consideration for me," says Speir. "I knew that if we were really going to ask our staff to move closer to where they needed to be with regard to technology, the training piece of it would be key."

Since then, Central High administrators have held ongoing sessions led by skilled staff members. Additionally, teachers and students benefit from the presence of the Digital Service Fellow program on campus, in which high school graduates provide technical support and prepare for careers as IT professionals. The Fellows run the OS help desk, saving the district hundreds of thousands of dollars in support costs.

Says Pavel, "You can't reasonably expect teachers to begin to integrate technology if you don't show them how to do so. Apple has had a lot of experience in this area. They've been able to train a core group of 16 people, then that group's responsibility will be to share that knowledge with their peers. In this way we've created this fantastic network with Apple, our faculty, staff, counselors, students, alumni, and now the school district. Over time, we expect that other partners will be added to the team, too."

"The potential of all of this is tremendous," Speir notes. "We anticipate that students will develop and begin using the skills they need when they go on to college and their jobs. And we expect to see some pretty profound differences in the way teachers think and work."

New Library a Major Hit

If the students' response to Central's technology integration is any clue, Pavel and his colleagues have hit it out of the park. "The students' use of the computers in the library has been overwhelming," reports Speir. "We have an enrollment of 2400, and nearly 1100 of them have been visiting the library each day. Every Apple computer has been in use nonstop, and the kids are excited as they can be. You can't ask for much more than that!"

For his part, Pavel believes the cost of the new library was more than worthwhile. "Working with Apple, and installing the types of technologies that we did, has helped us increase our capacity to educate young people. We're in the business of trying to help kids learn to the best of their ability. With Apple's help we've raised that upper limit, beyond what we ever thought was possible."



Service and Certification for Student Tech Team

Philadelphia, PA — Laurente Gomez knows all about the digital divide. In the urban School District of Philadelphia where he grew up, nearly 80 percent of the K-12 students live at or near the poverty level, and few have technology access at home. But Gomez is one of many young people who are changing that model. As a Digital Service Fellow (DSF) Gomez provides technical support to teachers and students in the district, while he prepares for a career as an IT professional. “To see the digital divide firsthand, and to be able to bring the two sides of the divide together has been miraculous,” says Gomez, 18. “I’m proud to be a part of the Digital Service Fellows program, and to make sure that kids in Philadelphia will learn about technology.”

The DSF program, an initiative of the Philadelphia school district, is supported by a cooperative effort between Apple, Nortel Networks, the EducationWorks foundation, and other public and private agencies. The program’s goal: to meet the growing demand for full-time technology support staff in the school district.

“Since all of our K-8 classrooms are Mac-based — as well as all of our media, music, and video production facilities — having our kids go through the AppleCare Technician Training is a huge plus for the district.”

— Charles Ireland, Educational Technologist
School District of Philadelphia

During the 12-month Digital Service Fellowships, high school graduates serve their community and acquire meaningful technical skills by servicing many of the district’s 40,000+ computers (85 percent of which are Macs). In addition to CompTIA (Computer Technology Industry Association) A+ certification of their IT skills, participants in the program now have the opportunity to prepare for Apple Service Certification. In this way, the Fellows can make an easy transition into careers in the IT field.

“Since all of our K-8 classrooms are Mac-based — as well as all of our media, music, and video production facilities — having our kids go through the AppleCare Technician Training is a huge plus for the district,” says Charles Ireland, educational technologist with the Philadelphia school district and manager of the program. “We could spend our support budget on outside vendors ... but with Apple’s help, we’re creating our own tech support specialists. Apple absolutely has been the backbone of this program.”

Technical Skills Prepare Students

The DSF program grew out of the district’s need to service and support its huge array of computers. At the same time, district administrators realized that many students were frustrated by the traditional educational path, from elementary school to high school to college.

“We had a lot of young people who were graduating from technology-oriented programs in high school, but weren’t necessarily ready to go directly to college,” remembers Vince De Tolla, director of the district’s Education Technology Group. “We felt that by setting up a type of mentoring program, these students could learn usable technology skills while continuing their education if they wished. And, since so many of our computers are Mac-based, we believed the AppleCare Technician Training should be a key part of the Digital Service Fellows program.”

Earning While Learning

Initiated in the fall of 2002 by Educational Technologist Edison Freire, Philadelphia’s DSF program employs a mentor/apprentice model. Each Fellow works with a regional computer maintenance technician, learning valuable professional and technical skills while on the job. The relationship is a “win” for both sides: the Fellows learn real-world skills from their mentors, while the technicians receive assistance in performing their daily tasks.



"Since so many of our computers are Mac-based, we believed the AppleCare Technician Training should be a key part of the Digital Service Fellows program."

Vince De Tolla, Education Technology Group Director
School District of Philadelphia

During their year of service, the Fellows also prepare for their Apple Service and A+ certifications. Eventually, says De Tolla, passing these exams can lead to full-time employment with the district's partners. In the meantime, since the Fellowships receive [AmeriCorps](#) funding, the Fellows actually earn while they learn. With AmeriCorps stipends, plus payments into retirement accounts and all regular benefits, the Fellowships help participants take the first steps toward real-world employment as computer support specialists.

AppleCare Technician Training Made Easy

As the Fellows prepare for their Apple Service Certification, De Tolla says they'll be taking advantage of the self-paced curriculum available via AppleCare Technician Training. With the combination of training materials, diagnostic tools, and information available online and on CD, the Fellows will learn to support and troubleshoot Apple products without overtaxing their schedules.

Says De Tolla, "Our goal is to work with DeVry University to define an Associate degree for our Fellows, that would include the AppleCare Technician Training as another IT credit-bearing course. Also, we're currently modifying Apple's OS Help Desk curriculum to fit our needs. We feel this will be an even bigger benefit to our school district, as the Fellows will learn to support all of the Apple software programs that we run."

Role Models and ROI

Having the Digital Service Fellows has been a major blessing for the cash-strapped Philadelphia school district. In total, says De Tolla, the young support team has saved the district hundreds of thousands of dollars. Yet the true value of their contributions — whether providing technical support to Philadelphia's Antiviolence Conference and a Youth Technology Summit, to completing an inventory of district classrooms — has indeed been priceless. We estimate that the value of the services provided by the Fellows thus far has been \$500,000," De Tolla notes proudly. "Yet the most important thing these kids can take away is that they are our ambassadors in the schools. The Fellows have really become role models for the younger kids they work with."

"What I cherish about the Digital Service Fellows program is that it really reaches out to students who are interested in computers and the information technology field, and gives them everything they need to succeed," observes Bessy Anas'san, 20, one of the first Fellows. "I'd gone to college for a semester, then had to start working. Now I want to continue my education, but I'll always use technology ... whether it's just for my own work, or to help others."

Pride and Fun in Equal Measure

For Digital Service Fellow Leron Magilner, his AppleCare Technician Training has been the highlight of his year of service. Not only has he enjoyed the experience, Magilner says; he believes he is truly making a contribution to his community.

"The most fun for me has been setting up the Mac labs, because the computers are so cool and easy to use!" says Magilner. "We were given iBook laptops to help with our work, and I'm really going to miss mine."

"The most fun for me has been setting up the Mac labs, because the computers are so cool and easy to use!"

— Leron Magilner, Digital Service Fellow, School District of Philadelphia

"At the end of the day," Magilner adds, "this is a job where I can actually say that I did something worthwhile with my time ... that I did something for the community, and the people I work for and with. I'm extremely proud and honored to have been a Digital Service Fellow."



Meetings Go Virtual on the Mac

Chester County, PA — When Gail Kennedy and Diane Thomson presented at the National Educational Computing Conference (NECC), they blew everyone away. One attendee was so excited that he joined in the discussion and shared his own experiences. The fact that Kennedy and Thomson were in Pennsylvania, another speaker was in Arizona, and their spontaneous presenter was in New York was no big deal. The four were joined by their Mac laptops and Elluminate Live!, a software application that is literally changing the face of professional development, distance learning, and business meetings.

Kennedy and Thomson are both employed by the Educational Research Development and Technology Services Division of the Chester County Intermediate Unit (CCIU). The CCIU provides a variety of services to the school districts, including special education and compensatory education programs; career, technical and customized education; and curriculum services.

Thomson, who serves as a technology specialist, and Kennedy, supervisor of educational technology, are responsible for developing and administering professional development programs to over 7000 teachers in Chester County. A colleague at the Pennsylvania Department of Education (PDE) introduced Kennedy to Elluminate Live! Since she and Thomson had just wrapped up an on-site training session, they immediately glimpsed a groundbreaking resource in the software.

"We definitely have a preference for the Apple servers, because of their performance and the stability of the UNIX platform. With Windows servers we'd have to worry more about viruses and being hacked."

Gail Kennedy, Supervisor of Educational Technology
Chester County Intermediate Unit

"We held a statewide conference in which administrators and school board directors had to attend workshops on Friday, Saturday, and Sunday," Kennedy recalls. "It was very expensive to do. We were trying to find ways to reach a wider audience, that wouldn't require so much time and travel. We evaluated other web-based conferencing software. But Elluminate Live! had both the functionality we wanted, and ran on the Mac platform. Since we've always been a very pro-Mac organization, that made the purchase a no-brainer for us."

Xserves Ensure Trouble-Free Performance

Elluminate Live!'s Mac compatibility was ideal for CCIU, given its existing collection of Xserves. When talking about what's needed to support the Mac servers, Kennedy becomes extremely enthusiastic.

"Very few things around here do not run on the Xserve," she notes. "We definitely have a preference for the Apple servers, because of their performance and the stability of the UNIX platform. With Windows servers we'd have to worry more about viruses and being hacked. But the Mac is our platform of choice. If I could run everything on a Mac, I would!"

"We've found that pretty much anything you can do face-to-face, you can do with a Mac and Elluminate Live!"

— Gail Kennedy

VoIP Support Keeps Costs Down

In addition to Elluminate Live!'s cross-platform compatibility, the application offered another important feature for CCIU: its Voice-Over Internet Protocol (VoIP) support. For school districts watching their pennies, says Kennedy, this is a huge benefit.

"Many competitive products require that you have a telephone conversation going on while you're having your meeting," Kennedy explains. "In education we simply don't have the budgets that can support long-distance



phone calls to every member of our audience. With Elluminate Live!'s VoIP feature, users just need a computer with a high-speed Internet connection, and speakers so they can hear us. And if they want to participate 'live' in the conversation, they'll need a microphone, which most systems — such as Mac laptops — already have built in."

Application Sharing Enhances Meetings

Once participants are logged onto Elluminate Live!, they can share in a wide range of applications, such as Microsoft Word and PowerPoint, and a polling tool, which lets users provide feedback on the presentation. The product also offers a "white board" feature that encourages brainstorming among meeting attendees. In addition, users can share sound files and view video footage, and the latest version of Elluminate Live! offers compatibility with Apple's iSight cameras and iChat AV.

Says Kennedy, "I believe Elluminate Live! will be a wonderful complement to iChat AV. With Elluminate Live!'s collaboration tools and application-sharing features, users will be able to have incredibly effective, face-to-face meetings, no matter how geographically dispersed they might be."

Online Meetings Offer Still More Savings

From the very first, CCIU enjoyed a significant savings in time and costs with the Mac-Elluminate Live! solution. According to Thomson, a PDE employee compared the costs for a traditional conference, in which attendees came from all over the state, and a second, web-based gathering.

"After estimating the costs for travel and food and lodging for 12 people, she figured she saved about \$4000 by using Elluminate Live!," Thomson reports. "If you have a group that meets frequently, such as teachers who are receiving ongoing professional development, the savings can add up very quickly."

Virtual Classroom Meetings on Tap

Given the economics and efficiency of web-based meetings, Kennedy and Thomson predict they will soon become commonplace in the classroom as well. In the not-too-distant future, a faculty member in Alaska can take students in Florida on a tour of glacial formations, and a Paris-based teacher can share an impromptu French lesson with a class in Des Moines. Acclaimed children's book author and illustrator Peter H. Reynolds already has "appeared" via a single session to 2150 students in 76 classrooms across Pennsylvania, courtesy of his Mac and a Wacom tablet.

"Reynolds drew several of his characters on the tablet, and talked about his stories," says Thomson. "He chatted with the kids while he was drawing, and somehow managed to keep up with their questions through the direct-messaging window. It was amazing! We're going to continue with that series, bringing authors and illustrators and designers right to the students' desktops."

Thomson and Kennedy now meet regularly via Elluminate Live! to plan the professional development sessions they have on tap for teachers and students, technology coordinators and directors, and school administrators. They look forward to spreading the word about Elluminate Live! on the Mac, and encourage others to visit them in their virtual meeting rooms.

"We held about 15 events in 2004, and based on that success we'll be staging three per month for the Pennsylvania Department of Education," Kennedy says. "We've found that pretty much anything you can do face-to-face, you can do with a Mac and Elluminate Live!"

Adds Kathleen Brautigam, director of the PDE's Bureau of Educational Technology, "Through Elluminate, the Bureau is providing access to real-time webinars that promote constructive and compelling interaction between educators and children; experts and novices. In doing so, the state is modeling technology integration that can erase the barriers created by distance, while simultaneously supplying quality, relevant resources."



Funding a Dream

Bethlehem, PA — Dr. Joe Lewis has a vision. As superintendent of Pennsylvania's Bethlehem Area School District (BASD), Lewis has a keen understanding of the value of using technology tools in the classroom. His aim: To make every classroom in BASD a computer lab, by putting laptops into the hands of all K-12 students and teachers. But with a student population of 15,000, and 1000 staff members, funding his vision is a monumental task. Fortunately, Lewis has an ally in his quest: Apple Financial Services (AFS) Education Finance is helping Lewis and BASD make this vision a reality.

In the 1990s, BASD ranked as one of Pennsylvania's most technology-literate districts. But in recent years the district had fallen victim to a slowing economy and shrinking funding sources. As a result, BASD's technology tools were rapidly becoming obsolete. When Lewis came on board in July of 2002, he made ubiquitous technology usage his number one goal. He immediately identified two challenges: refreshing the district's computers, and motivating teachers to use them.

"Not only did we have a digital divide, with many students having no access to computers, we clearly had an educational divide, with teachers demonstrating either very intense or very minimal usage of the computers," says Lewis. "If we're trying to get kids to use technology tools, naturally it has to start with the teachers. So our first target was to get our teachers on board."

"AFS Education Finance helped us do some creative financing. In essence, we were able to fund the first year of the program at a quarter of our estimated costs."

Dr. Joe Lewis, Superintendent,
Bethlehem Area School District

First Hurdle: Fund Teachers' Computers

Lewis knew that BASD's teachers would themselves need the proper tools before they could move the technology initiative forward. Thus, he tapped into what limited grants monies and general revenues were available to purchase the district's first group of new Apple computers. But realizing that the funds would not stretch far enough to support the full technology implementation, and that an outright purchase would only lead to asset ownership problems in a few years, Lewis looked to Apple for assistance.

"To do what we wanted to do," explains Lewis, "which was to bring in about 3000 teacher and student machines in one year alone, it would have cost about \$4 million, by the time we added in peripherals, site licenses, and so forth. We knew we couldn't sustain that through our general fund. But AFS Education Finance helped us with some creative financing. In essence, we were able to fund the first year of the program at a quarter of our estimated costs."

By extending the terms of the lease to a four-year arrangement, Lewis adds, AFS Education Finance created a manageable payment schedule for BASD. At the same time, the district will be able to refresh its computers every year, ensuring that no systems will be obsolete.

Once the financial arrangements were in place, BASD launched its new technology initiative by purchasing 820 PowerBook laptops and 130 eMac computers — one system for every teacher. In addition, the district installed AirPort Base Stations in almost every building in the district, so students and teachers could log onto the Internet wherever they needed to work.

Professional Development Is Key

Apple Professional Development helped train BASD's staff in the use of their new Macintosh computers. Lewis says that 16 teachers have since committed to be mentors and provide continuous professional development to other teachers in the district.



Observes Lewis, "It's crucial to go slowly with a technology program, and make sure your teachers are comfortable using the tools. And, you should never make assumptions about what they know. They all have so much to do every day, both in and out of the classroom ... so it's extremely important to make the time for the professional development piece of it."

"We're seeing some extremely positive results with the at-risk students who are using the iBooks."

— Dr. Joe Lewis

Results with At-Risk Students Encouraging

Once the teachers were up to speed on their new Macs, BASD started a 1 to 1 laptop pilot program for students. Lewis says the initiative provided some exciting insights.

"We took 150 of our highest at-risk kids in the fifth grade — kids who have really struggled in the past — and gave each of them an iBook laptop at the beginning of the 2002 school year," recalls Lewis. "We've been tracking them ever since, and they're doing incredibly well. Now, was that 100 percent due to the laptops? Probably not ... but it has to be one of the main variables. Our goal was to advance these students two to three years in their reading and math levels. So far, we're seeing some extremely positive results with the at-risk students who are using the iBooks in both areas."

Lewis adds that the pilot program sparked a newfound sense of responsibility in the new laptop owners. "In the test group," he reveals, "we found that the students were very careful and protective of the iBook computers. They watched over them, carried them carefully, and didn't leave them lying around. We felt that if our test group was demonstrating this kind of care, then the rest of the student population would be fine when they got their laptops."

An iBook for Every Sixth Grader

Thanks to the success of the iBook pilot program, BASD has since acquired more than 4000 iBook laptops running Mac OS X. The purchase also included Mac OS X Server, and licenses for iWork. While the initial vision was to have students lease the machines, the response from parent-teacher focus groups and BASD's school board led Lewis to consider another option.

Apple demonstrated how its experience allowed BASD to create a comprehensive solution for the district's technology challenge. Thus, BASD was able to put a laptop into the hands of every sixth grade student during the 2003-2004 term, without unduly taxing the district's (or families') finances. Eventually, Lewis hopes, every child in the Bethlehem district will have unlimited, wireless access to technology tools.

"The fluidity of our implementation is what led us to select Apple for our technology needs."

— Dr. Joe Lewis

"We're very excited about our partnership with Apple," says Lewis. "I'd have to say that everyone in AFS Education Finance has been outstanding. Today, with education dollars being fewer and fewer, you need to find creative ways to do what needs to be done."

"Even though I'd worked with other technology suppliers before I came to this district, I don't believe we could have done this nearly as easily with another vendor," Lewis finishes. "The beauty of the Mac is that it's truly plug-and-play and Apple really worked with us to make our technology program happen."

"If someone tries what we did with another vendor, here's my advice: Be ready for lots of surprises, and much more work. The fluidity of our implementation is what led us to select Apple for our technology needs."



iBook Laptops Build a New Learning Model

York, PA — For Michael, the pressure was on. He'd spent much of the past school year with his new iBook laptop, working on a multimedia, multidisciplinary project. But a lot was at stake. The success or failure of his project could affect a potential presentation to the school board, his upcoming performance on the PSSA (Pennsylvania System of School Assessment) test, and eventually, his senior project requirement. Then again, Michael has a few years before he really has to worry. He just finished the fourth grade at York's Ferguson Elementary School.

Michael is just one of York's nearly 500 students who are working with Apple wireless mobile technology. A new learning initiative, which has brought wireless iBook laptops to Ferguson and other schools, is helping lift the district's performance, community image, and empowerment status as evaluated by the Commonwealth of Pennsylvania.

"The district views its iBook-based technology initiative as the key to establishing a new learning model in York."

Gregory Carkhuff, Director of Technology (Retired)
York City School District

The city of York, whose poverty level ranks as one of the highest in the state's 500+ school districts, currently has a student enrollment of over 7500. In the urban city's nine elementary, middle, and high schools, over 70 percent of the students qualify for free or reduced-price lunches. But, says Gregory Carkhuff, formerly the district's director of technology, the district views its iBook-based technology initiative as the key to establishing a new learning model in York.

"We have set out to prove that an empowerment label doesn't necessarily equate to poor student achievement," explains Carkhuff. "With our iBook laptop program, we're leveling the playing field."

Sowing the Seeds of Success

Nearly a year ago, Carkhuff and District Superintendent Carlos Lopez leveraged creative leasing tactics and capital improvement funding to begin a wide-scale integration of iBook laptop computers into York's schools. But unlike the approach taken by most K-12 districts implementing a technology initiative, York's initial strategy was to get ahead of the critical PSSA benchmark testing in grades 5, 8, and 11.

Thus, the district provided wireless iBook laptops in grades 4 and 7 to help students prepare for their PSSA tests, and in grade 12 to support the senior projects required for graduation. In all, 20 iBook Wireless Mobile Labs — which included 480 iBooks computers — were purchased.

"In essence, it all leads to that senior project mandate," Carkhuff said. "The skills these kids learn in the fourth grade will reflect on their PSSA scores and on their performance, and it will build every year. Then as seniors they will leave here on a high note, and they'll be ready to take critical-thinking skills and project-based learning to the next level."

Freedom For All

York City chose the wireless iBook laptops over competitive models because of their advantages in mobility, and the preinstalled digital learning software such as iMovie, iPhoto, and iTunes.

"The iBook laptops have given us a new freedom that's not dictated by a schedule," Carkhuff said. "I don't have to pull any more wires, and all kids have equal computer access. The iBook laptops are intuitive, they are multimedia-rich, and you don't have to be a teacher to figure them out."



A Rising Star

Michael is now doing well in the fifth grade. Although he'd been assessed as academically challenged when he began the fourth grade, he has shown marked improvements in his writing, research, organization, and comprehension skills since embracing his iBook in February 2002.

"Never in my wildest dreams could I have imagined the success I've witnessed watching Michael's level of engagement increase since the beginning of the iBook program," says fourth grade teacher Mickie Jones, who has been an educator in York City for 17 years. "He has just blossomed with the use of the laptop."

"The iBook laptops have given us a new freedom that's not dictated by a schedule."

Gregory Carkhuff

iMovie, the Perfect Vehicle for Student Projects

Although it can be nerve wracking for a technology director when the superintendent attends a technology conference, Carkhuff said it was only good news when Superintendent Lopez participated in an Apple Leadership Institute conference. Since then, iMovie has become one of the major foundations of York's laptop program.

"Our superintendent was absolutely knocked out by iMovie, because he saw it as the perfect vehicle for several of the students' required projects," Carkhuff said. "So in February of 2003, we introduced this moviemaking technology to all the teachers and students in the district. Several kids profiled the attributes of their favorite teachers using iMovie, and their presentations reduced some staff members to tears! Our kids received a standing ovation ... and iMovie is now a big part of our vision for technology."

Senior Rachel Bowders, a performing arts student, used her iBook and iMovie to produce a stirring senior project on domestic violence. The program is now being evaluated for use as an on-air public service announcement by the York County Coalition on Domestic Violence.

"The project is very dramatic," notes Pat Byerly, computer coordinator William Penn High School, and a 30-year York City teacher. "It elicits horror, awe, and every emotion in between. But the message is very clear."

Getting the Job Done

Carkhuff retired in December 2003 after 35 years as a York City educator and technologist. Yet, he still takes great pride in helping to assess and use technology to empower all students, and to increase their academic achievement.

"The use of Apple's wireless mobile technology helps us keep our kids in school beyond the ninth grade, which is often when we lose them."

Gregory Carkhuff

"For those kids who are not academically strong, technology can often pull out their embedded strengths and their creativity," Carkhuff says. "The use of Apple's wireless mobile technology helps us keep our kids in school beyond the ninth grade, which is often when we lose them. So that's a hope for us. Historically, we've had people say, 'You think these kids can really do this?' At the end of this year, those same people are saying, 'Look at what they've done!'"



Flexible Financing Makes Technology Upgrade Possible

West Shore, PA — Located in south-central Pennsylvania, West Shore School District has always prided itself with being on the leading edge of technology. But with school budgets, there's an unfortunate rule of thumb: When you need them most, you usually have the least to spend. Such was the case when the district wanted to take technology off of the desktop and put it into the hands of teachers and students. With the help of a flexible, end-to-end leasing program from Apple, that included hardware, software, training, and support, the district was able to realize its technology goals during tough economic times.

With more than 8300 students in West Shore, keeping the technology tools current is no small task. Several years ago, West Shore's IT team began a renovation cycle aimed at refreshing and replacing all computer and networking systems. Assisted by funds allocated for building renovations, school administrators were able to upgrade the network infrastructure and computers in West Shore's elementary and high schools. But with steadily dwindling operational budgets and a slowing economy, district staff had to look at other alternatives for their middle school system upgrades.

"We'd had severe budget cuts, so we wanted to try something different at the middle school level," recalls Pete Oyler, coordinator of technology and media services for West Shore. "Students were sharing desktop computers, which we thought was hampering the learning process, so we opted to go the laptop route. We knew that would give everyone a better shot at working on his or her own system and would improve the quality of learning."

"Then," continues Oyler, "we said, 'What's the latest and greatest, most instructionally beneficial computer platform for our teachers?' While we'd been a Mac district for years, we put out requests for proposals to Apple and two PC laptop manufacturers. We asked each one, 'What can you do for us, in terms of training and support?' And that's really what brought us right back to Apple."

Delivering a Complete Solution

The PC manufacturers seemed happy enough to sell West Shore several hundred new laptops, says Oyler ... but the buck definitely stopped there. AFS Education Finance, on the other hand, provided a complete educational solution. And not only did the AFS Education Finance team ensure delivery of the necessary iBooks and other technology tools, they devised a painless leasing plan that met the district's needs.

Says Oyler, "Apple came in and they said, 'Here's the pricing on the hardware and software; we can provide instructional training. And we can give you support on your network integration.' Plus, in what was a very difficult year for us financially, they worked really hard to put together a leasing program that we could afford, and still gave us every piece of equipment we had on our shopping list! No one else was willing to do that for us ... so that's what sold us on going the iBook route."

Still More Magic

In all, West Shore distributed 170 teacher iBook laptops during the 2002-2003 school year. So successful was that rollout that school administrators yearned to extend the laptop initiative to the elementary schools and high schools. Again, money was tight. But, says Oyler, Apple made the system upgrade possible.

"It looked like we could only afford the laptops in one or the other," Oyler remembers, "not both the elementary and high schools. But AFS Education Finance stepped up to the plate once more. They kept plugging away until they found a way to consolidate some prior leases we had, they got our interest rates down, and they still delivered the hardware, the training, and the support. Thus, we were able to distribute 440 more iBooks in the rest of our schools in September of 2003."

iBook Mobile Labs Stretch Budget Further

Along with the new teacher iBooks, each of West Shore's four middle schools and two high schools now has three iBook Wireless Mobile Labs. In addition, AirPort Extreme Base Stations are installed in all 16 schools. As word spreads of how easily the mobile labs provide students access to the iBook laptops, additional carts will be ordered for the elementary schools as well, Oyler predicts.



"The biggest benefits of the mobile labs is that teachers can have technology tools anywhere, as opposed to having to go sit down and do something in a computer lab," Oyler explains. "If the kids are working on a science project, they can take their laptops outside with them ... They're not limited by the classroom walls."

"For example," he continues, "earlier this year our fourth graders were working on a health studies project. Traditionally, they'd do their research, then hand in a written report. But this year the kids took the iBooks outside. Then they used video cameras to shoot a series of video clips that they imported into iMovie, and they produced short videos on several topics. It was just an excellent use of technology, in that the video projects provided an alternate form of academic assessment. The iLife suite has provided our students additional opportunities for expressing their knowledge and understanding."

Teachers Mentoring Teachers

A technology initiative is only as good as those who implement it. Toward that end, Oyler says that Apple has helped get the staff development piece of the program off and running. Members of the Apple Professional Development (APD) team initially visited West Shore to provide a roadmap. From there on, the district's instructional development took on a life of its own.

"Our APD partners helped us figure out what a technology-leading teacher would need to know, and the kind of staff development we should provide," Oyler says. "Then they helped us put together a cadre of teachers whose goal is not to support hardware; it's to support student learning. Now we're widening that cadre, we're delivering ongoing training to both computer and classroom teachers, and they're all working together to help guide each other."

Adds Oyler, "Our biggest advocates are our middle school teachers who've had the iBooks for an entire year. They really work with the teachers who are new to the program, and they tell them, 'When you get through this and come out on the other side, it will be wonderful!' It's very exciting to see this instructional cadre taking shape."

A Plan for the Future

Looking ahead, Oyler would love to see the day when West Shore is able to launch a 1 to 1 laptop initiative throughout the district. But with budgets being what they are, he hopes that in the near future, students at least will be able to check iBook laptops out of the library as easily as books. If anyone can make that dream a reality, Oyler notes, it will be Apple.

"We've done our homework, and the other laptop manufacturers can provide good equipment at a good price, and maybe some training in how to use Word," muses Oyler. "But no one else was willing to go the extra mile for us like Apple was. For the West Shore School District, the best solution for our needs was the iBooks, and Apple. Really, I can't sing the praises of Apple enough!"



McAuliffe Heights Program at Irving Elementary School

Altoona, PA — Founded in 1997, the McAuliffe Heights Program at Irving Elementary School established a tradition for providing students from throughout the Altoona district with a quality education. Now a new initiative that has enabled the distribution of an iBook computer to every K–6 student and teacher at McAuliffe Heights is further supporting the vision of Dr. Frank Meloy, founder of the program. Meloy, who is also Altoona’s assistant superintendent for education, foresaw a school of choice in which a rich curriculum would be unveiled to those who sought to learn. With their iBook laptops in hand, students and faculty alike are now free to explore the limitless learning possibilities of the digital domain.

Transforming with Technology

At the time that Meloy launched the McAuliffe Heights Program, Irving Elementary students consistently posted the lowest scores on standardized tests in the Altoona District. The fact that the school’s socioeconomic status was also one of the lowest in the area portended an even bleaker future for Irving students. But Meloy brought together a think tank of local educators, school administrators, and community members seeking to bolster the quality of education in the district. Thus the McAuliffe Heights Program was launched, named in honor of the late teacher and astronaut Christa McAuliffe. Technology has been a key component of the program since its inception. Glimpsing the potential of the Internet and computer-based tools to expand students’ educational horizons, Meloy and his colleagues have since made sure that hardware and software tools are used daily at Irving. “We’ve always had computer labs at the school,” confirms Pat Labriola, principal at Irving Elementary. “We have 25 iMac computers in our lab and another three systems in every room, and our teachers have been working with CompassLearning for math and language arts integration for the past six years. But with 250 students, each child could get on a computer for only one-half hour a day. We viewed the one-to-one laptop initiative as the next logical step in our technology integration.”

An Important Partnership

Labriola and McAuliffe Heights instructional advisor Norma Biesecker headed up a team that worked closely with Apple to identify the objectives of the laptop program. The partnership was an important one, notes Labriola. “Our association with Apple was key to the success of this program,” he explains. “The Apple Professional Development people came in, they worked with us to find out what our needs were, and they were with us every step of the way, setting up the training for our teachers and providing technical advice. Apple’s facilitators really helped our students and faculty create a smooth transition into the digital school.”

Apple Professional Development Ensures Success

Along with approximately 275 wireless iBook systems, McAuliffe Heights purchased 50 days of Apple Professional Development (APD) time, to be used over the next three years. The APD resources, which include leader-led workshops, in-class modeling, and technical support, have helped the school’s teachers learn to use their new technology tools effectively.

“We started the APD classes during the summer of 2002, before we got the iBook laptops,” Labriola says. “Those sessions were extremely helpful in anticipating any challenges we might have, and in letting the teachers share ideas. Now our APD team comes in at least once a month, and they do everything from working directly with the kids to showing our teachers how to use AppleWorks and iMovie.”

And They’re Off...

The arrival of the wireless laptops immediately provided unique learning opportunities at McAuliffe Heights. In almost no time, says Biesecker, the students using them had far exceeded their teachers’ expectations. “Once the kids got the iBooks in their hands, they were off and running!” she laughs. “Our teachers had to revise their long-range goals, simply because the students were instantly so far ahead of where we expected them to be. They just have no fear—the students have been raised to consider technology a part of their lives, and their work on the iBook laptops is absolutely remarkable.”

Student Mentoring Abounds

One of the most intriguing aspects of the iBook initiative has been the way in which Irving’s students have begun to teach each other. Free to take their wireless systems in and out of classrooms, the older students frequently coach the younger ones through new concepts. For example, the sixth graders recently visited the second-grade



classroom, where they mentored the younger students in creating a survey and posting the results on a spreadsheet. The third graders also met with the kindergarten class, helping them pull up information from the web about Native American villages.

"I sat between two kindergarten girls, and one showed the other shortcuts for incorporating clip art into a presentation and reducing the size of the images! We were expecting this to be big stuff to our students, but they just do it."

Pat Labriola, Principal
McAuliffe Heights Program at Irving Elementary School

"The kids often help each other in their own classrooms, too. I'll never forget the time I sat between two kindergarten girls, and one showed the other shortcuts for incorporating clip art into a presentation and reducing the size of the images! It's simply amazing. We were expecting this to be big stuff to our students, but they just do it," Labriola marvels. Comparing this year's kindergarten class with last year's, teacher Marlana Miller says, "The students are much more comfortable with the technology now. Last year, many of my students were hesitant to explore a program when given a rare opportunity. This year, exploring independently with confidence is an everyday occurrence."

Teachers Interacting, Too

Having their own laptops helps Irving's teachers collaborate as well. "In one of our in-service sessions, we said, 'Let's take what we've learned through our peer group tutoring and make sure we're using it ourselves,'" Labriola reveals. "So now our staff keeps notes on their laptops about how various ideas work, and they're sharing their success stories. This has helped them start to work as teams across grade levels, and they're actually visiting each other's classes to observe and integrate new skills into their own classrooms."

Bryce Cossitor, technology coordinator for the Altoona Area School District, says, "The process of transforming McAuliffe Heights into a digital school has been a fascinating journey. As teachers and students redefine their roles in the classroom, we've begun to see a renewed interest in cooperative learning strategies and higher levels of student engagement across the curriculum."

"We Get to Do Homework!"

Of course, having the latest technology tools means little if the students ignore them. But at McAuliffe Heights, that's hardly the case. In fact, school administrators are in the midst of a phased process that eventually will allow the laptops to go home with the students, extending learning still further beyond the classroom. A delighted sixth-grade class was the first to stash their iBook computers in their backpacks to take home. "I walked into a classroom that morning, and a student yelled out, 'Hey, Mr. Labriola, guess what we get to do today?'" Labriola recalls. "They were all so excited! Their first assignment was to write an essay, and their teacher said they could hardly wait to get to it. Now when was the last time you announced a homework assignment, and the kids actually wanted to do it?"

Labriola proudly adds that since McAuliffe Heights' technology integration, the school has put its low-performing past firmly to rest. In 2001 McAuliffe Heights was designated a Pennsylvania Governor's School of Excellence for achieving three consecutive years of significant growth on the Pennsylvania System of School Assessment (PSSA) standardized tests. In 2002 the school was honored again, signifying four years in a row with major gains on the PSSA. It was the second time that the school was so honored for its academic achievement.

Touching the Future

All of McAuliffe Heights' students and teachers gather for an opening assembly each morning. The staff concludes the session by reciting Christa McAuliffe's pledge: "I touch the future; I teach." The students respond with "We are the future; we learn."

Says Biesecker, "Little did we know, at the inception of the McAuliffe Heights Program, the powerful effect those words would have on our program. With the integration of the digital school, our students and faculty are touching the future every day, and learning in ways we'd never imagined."



Appendix 3: Apple Professional Services Agreement

This Apple Professional Services Agreement ("Agreement") is made between Apple Computer, Inc., a California corporation located at 1 Infinite Loop, Cupertino, CA 95014 ("Apple") and:

Company Name ("Customer"): _____

Address: _____

City, ST, Zip: _____

1. Definitions

A. "Agreement" means collectively this Apple Professional Services Agreement, any exhibits, addendums, amendments or additions, and any documents or materials incorporated by reference.

B. "Confidential Information" means confidential information disclosed by either party to the other, including but not limited to the terms and conditions of this Agreement, any non-public information relating to the other party's research, development, proprietary technology, product and marketing plans, finances, personnel, business opportunities, and pricing, but not including information that becomes public knowledge except to the extent made public in violation of this Agreement.

C. "Services" means the information technology consulting services that Customer acquires from Apple, as identified in a SOW.

D. "Statement of Work" or "SOW" means a uniquely numbered document detailing the Services that Customer will acquire from Apple, substantially in the format attached hereto as Exhibit A.

2. Services

A. Statement of Work

This Agreement shall serve as a master agreement for the acquisition of Services from Apple to Customer. It is agreed that when Services are to be performed, the parties shall prepare and execute a SOW. All Services to be performed by Apple shall be documented in a SOW. Each SOW shall set forth, at a minimum, a description of the Services, the duration of the Services, and the fees for the Services. By referencing the number and date of this Agreement, each SOW shall incorporate all terms contained herein. Apple shall have the right to accept or decline any proposed SOW.

B. Delivery and Acceptance

Apple shall make reasonable efforts to provide Services on a timely basis, subject to availability of qualified personnel and the difficulty and scope of the Services. However, Apple shall not be liable for its failure to do so, nor will it be in breach of this Agreement solely by reason of such failure. Apple may reassign and substitute personnel at anytime and may provide the same or similar Services to other customers. Services supplied by Apple under this Agreement are provided to assist Customer. Customer, not Apple, will be responsible for determining objectives. Services shall be deemed accepted, on date of delivery or upon conclusion of any agreed acceptance period stated in the SOW, if the Services substantially conform to their description.

3. Compensation

A. Fees and Expenses

In consideration of Services performed, Customer agrees to pay Apple the fees and expenses specified in the applicable SOW. If no fee is specified, Customer agrees to pay Apple's then current fee rate for each hour of Service performed. Customer may specify in each SOW an authorized limit of fees and expenses for which it shall pay for Services performed, and Apple agrees not to incur additional fees and expenses beyond the limits specified without prior written approval from Customer.



B. Invoicing

Provided Customer is eligible for Apple's credit terms, fees and expenses shall be invoiced after Services are performed on a monthly basis unless otherwise specified in the SOW. Fees due for fraction of hours shall be rounded up to the nearest whole number. Any overdue amounts shall be subject to a finance charge at the rate of 1.5% per month commencing on the date such amount becomes overdue, or the highest rate permitted by applicable law, whichever is lower. Customer will pay any tax Apple becomes obligated to pay by virtue of this Agreement exclusive of taxes based on the net income of Apple. Payment of fees and expenses shall be due thirty (30) days from date of Apple's invoice.

4. Confidentiality. Neither party will use the other's Confidential Information except as required to achieve the objectives of this Agreement, or will disclose such Confidential Information except to employees, agents or contractors who have a need to know or as required by law. Neither party will make any disclosure or statement of Confidential Information in connection with this Agreement or its subject matter without the other's prior written consent or as required by law.

5. Ownership. Any ideas, concepts, inventions, know-how, data-processing techniques, software or documentation developed by Apple personnel (alone or jointly with Customer) in connection with Services provided to Customer ("Apple Information") will be the exclusive property of Apple, except to the extent that such items are a derivative of Customer's property. Apple grants Customer a non-exclusive, royalty-free, non-transferable (without right to sublicense) license to use the software or other proprietary rights in Services developed under this Agreement. Apple may provide Customer with specific, customized or unique suggestions or information as part of the Services developed by Apple, which suggestions or information do not have application to other customers of Apple ("Customer-Owned Information"). Apple will identify all Customer-Owned Information and furnish that information to Customer subject to the qualifications set forth in this Agreement, and Customer will own all of Apple's right, title and interest in the Customer-Owned Information.

6. Warranty. Except as expressly represented otherwise in this Agreement, and to the extent not prohibited by law, all Services provided by or on behalf of Apple to Customer under this Agreement are furnished on an "AS-IS" basis, without warranty of any kind, whether express, implied, statutory or otherwise especially as to quality, reliability, timeliness, usefulness, sufficiency and accuracy. ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION ALL IMPLIED WARRANTIES OF CONDITION, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED BY APPLE. NO ORAL OR WRITTEN INFORMATION PROVIDED BY APPLE SHALL CREATE A WARRANTY UNLESS INCORPORATED INTO THIS AGREEMENT.

7. Limitation of Liability and Remedies. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT, STRICT LIABILITY, STATUTE OR OTHERWISE, SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES (INCLUDING LOST BUSINESS PROFITS, LOSS OF DATA, INTERRUPTION IN USE OR UNAVAILABILITY OF DATA) OR FOR PUNITIVE OR EXEMPLARY DAMAGES. IN THE EVENT THAT APPLE SHALL FAIL TO PROVIDE SERVICES IN ACCORDANCE WITH THIS AGREEMENT, APPLE'S ENTIRE LIABILITY AND CUSTOMER'S EXCLUSIVE REMEDY SHALL BE FOR APPLE TO USE ITS REASONABLE EFFORTS TO REPERFORM THOSE SERVICES WITHIN A REASONABLE PERIOD OF TIME; PROVIDED, THAT IN THE EVENT APPLE IS UNABLE TO CORRECT ANY DEFAULT OR BREACH OF THIS AGREEMENT BY IT, APPLE MAY ELECT TO REFUND ALL PAYMENTS ACTUALLY RECEIVED BY IT FROM CUSTOMER FOR THE SERVICES IN QUESTION, IN FULL SATISFACTION OF APPLE'S OBLIGATIONS UNDER THIS AGREEMENT. THE SAID REPERFORMANCE OR REFUND SHALL CONSTITUTE APPLE'S ENTIRE LIABILITY AND CUSTOMER'S EXCLUSIVE REMEDY FOR SUCH DEFAULT OR BREACH. IN NO EVENT SHALL THE AGGREGATE LIABILITY FOR DAMAGES OF APPLE, ITS EMPLOYEES OR AGENTS, EXCEED THE AMOUNTS CUSTOMER ACTUALLY PAID TO APPLE FOR THE SERVICES AT ISSUE UNDER THIS AGREEMENT. TO THE EXTENT NOT PROHIBITED BY LAW, THE LIMITATIONS IN THIS SECTION SHALL APPLY TO PERSONAL INJURY LIABILITY.

8. Indemnification. Apple will defend or settle any claim against Customer that a Service delivered under this Agreement (collectively referred to as "Deliverables") infringes a United States patent, utility model, industrial design, copyright, mask work or trademark, provided Customer (i) promptly notifies Apple in writing of the claim, and (ii) cooperates with Apple in and grants Apple sole authority to control the defense and any related settlement. Apple will pay the cost of such defense and settlement and any costs and damages finally awarded against Customer. If such a claim is made or appears likely to be made, Apple may procure the right for Customer



to continue using the Deliverable(s), may modify the Deliverable(s), or may replace it. If a court enjoins use of the Deliverable(s) or Apple determines that none of these alternatives is reasonably available, Apple will take back the Deliverable(s) and refund its value. Apple is not liable for any claim of infringement arising from Apple's compliance with any designs, specifications or instructions of Customer, modification of the Deliverable(s) by Customer or a third party, or use of the Deliverable(s) in a way not specified by Apple. These terms state the entire liability of Apple for claims of infringement by Deliverables supplied by Apple.

9. Term and Termination

A. Term

Unless terminated earlier as provided in this Agreement, the initial term of this Agreement shall be from the date Apple signs it until March 31, 2006; and unless either party provides written notice to the contrary to the other party not less than thirty (30) days before the expiration of any renewal term, this Agreement shall be renewed for additional one (1) year periods.

B. Termination

(i) Termination of Agreement. Either party may terminate this Agreement without cause upon thirty (30) days prior written notice. Either party may terminate this Agreement immediately in the event the other is in material breach of this Agreement. In the event notice is given terminating this Agreement, the due date of all Apple invoices shall be accelerated so that they become due and payable as of the date of notice of termination.

(ii) Termination of a SOW. If Apple is not in default of any of its obligations under a SOW, and the performance of Services is stopped through any wrongful act or neglect of Customer, or Customer fails to make payment to Apple when due, Apple may give written notice to Customer of its intent to terminate performance under a SOW or a portion thereof, specifying the grounds thereof. If the Customer fails within ten (10) days to cure the act or neglect specified or to make the payment identified therein as past due, Apple may then terminate performance of Services and recover payment from the Customer for all Services performed prior to the termination date. The Customer may, for its sole convenience, cancel a SOW in whole or in part, by giving Apple ten (10) days written notice of its intention to do so. In the event of such cancellation, Apple shall be entitled to recover for all Services performed prior to the effective termination, together with its reasonable extra costs incurred by reason of the cancellation.

C. Termination for Cause

Either party may terminate a SOW immediately if the other party has (i) failed to cure any breach of this Agreement and/or the SOW within thirty (30) days of written notice from the non-breaching party, (ii) breached the terms of the section entitled "Confidentiality", or (iii) become insolvent, makes a general assignment for the benefit of creditors or becomes subject to any proceeding under any bankruptcy or insolvency law.

D. Survivorship

Those sections that by their nature survive expiration or termination of this Agreement will survive expiration or termination.

10. General

A. Governing Law; Venue; Limitation of Claims

This Agreement will be governed and interpreted under the laws of the State of California, without regard to its conflict of laws provisions. In the event of any dispute or controversy between the parties to this Agreement, the parties shall try to resolve the dispute in a fair and reasonable way. To that end, the parties shall first attempt to resolve such dispute or controversy through one senior management member of each party. If the parties' senior management members are unable to resolve such dispute or controversy within sixty (60) days after the complaining party's written notice to the other party of such dispute or controversy, the parties shall further seek to resolve the dispute or controversy pursuant to non-binding mediation conducted in either Santa Clara County or San Francisco, California. Each party shall bear its own expenses in connection with the mediation, except that Apple shall pay the fees and expenses of the mediator. If the parties are unable to resolve the dispute or controversy within sixty (60) days after commencing mediation, either party may commence litigation in the state or federal courts in Santa Clara County, California (but only such courts). Notwithstanding the foregoing, each party shall have the right to seek equitable relief in order to protect any rights to confidentiality or intellectual property. The parties hereby waive any bond requirements for obtaining equitable relief. To the extent permitted



by law, EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER OR NOT RELATING TO OR ARISING OUT OF THIS AGREEMENT). ANY LITIGATION ARISING OUT OF ANY DISPUTE OR CONTROVERSY BETWEEN THE PARTIES TO THIS AGREEMENT MUST BE BROUGHT WITHIN ONE (1) YEAR FROM THE FIRST DATE SUCH ACTION COULD HAVE BEEN BROUGHT. IF A LONGER PERIOD IS PROVIDED BY STATUTE, THE PARTIES HEREBY EXPRESSLY WAIVE IT.

B. Independent Contractor

During performance of the Agreement, Apple shall be an independent contractor and not an agent of the Customer. Apple shall supervise the performance of its own services and shall have control of the manner and means by which the Services are performed, subject to compliance with the Agreement and any plans, specifications, schedules, or other items agreed to in a SOW.

C. Non-Solicitation of Employees

During the term of this Agreement, and for one (1) year thereafter, Customer shall not offer employment to, or employ, an employee or contractor of Apple directly involved in Services, or induce such employee or contractor to breach any employment agreement or services contract with Apple. This restriction shall not apply to a Customer making offers of employment through general public advertisements.

D. Publicity

In connection with Apple's promotion of its professional services, including but not limited to, referential listings of customers on its web site, Customer grants to Apple a worldwide non-exclusive royalty free license to publicly use Customer's name and trademark(s) in connection with informing others of Customer's utilization of such services. Apple agrees to make reasonable efforts to adhere to any trademark guidelines that Customer may wish Apple to adopt, as delivered in writing to Apple from time to time.

E. Force Majeure

Neither party shall be liable for any delay or failure to meet its obligations under this Agreement due to circumstances beyond its reasonable control, including but not limited to war, riot, insurrection, civil commotion, labor strikes or lockouts, shortages, factory or other labor conditions, fire, flood, earthquake or storm.

F. Notices

Any notice under this Agreement, must be in writing and will be deemed given upon the earlier of actual receipt or ten (10) days after being sent by first class mail, return receipt requested, to the address set forth below for Apple and to the address designated on this Agreement by Customer for receipt of notices, or as may be provided by the parties.

Apple Computer, Inc.
Sales Contracts Management
1 Infinite Loop, M/S 38-2CM
Cupertino, CA 95014

Either party may give notice of its change of address for receipt of notices by giving notice in accordance with this section.

G. Assignment

Apple may use subcontractors to perform Services under this Agreement. Customer may not assign this Agreement without the written approval of Apple. Any attempt by Customer to assign without Apple's approval shall be deemed void.

H. Severability

If any provision of this Agreement should be held to be unenforceable or invalid for any reason, such unenforceability or invalidity shall not affect the enforceability or validity of the remaining provisions, and the parties will substitute for such provision an enforceable and valid provision, which most closely approximates the intent and economic effect of the unenforceable or invalid provision.



I. Entire Agreement

Apple and Customer acknowledge that this Agreement and any associated Statements of Work supersedes and extinguishes all previous agreements and representations of, between or on behalf of the parties with respect to its subject matter. This Agreement contains all of Apple's and Customer's agreements, warranties, understandings, conditions, covenants, and representations with respect to its subject matter. Neither Apple nor Customer will be liable for any agreements, warranties, understandings, conditions, covenants, or representations not expressly set forth or referenced in this Agreement. Apple is deemed to have refused any different or additional provisions in purchase orders, invoices or similar documents, unless Apple affirmatively accepts such provision in writing, and such refused provisions will be unenforceable.

J. Modifications

Except as otherwise provided in this Agreement, no modification to this Agreement will be binding unless in writing and signed by an authorized representative of each party.

K. Customer's Responsibilities and Representations

Customer shall provide Apple equipment, information, and facilities necessary to perform Services described in the SOW, unless agreed otherwise by the parties.

The duly authorized representatives of the parties execute this Agreement as of the dates set forth below.

Customer	Apple Computer, Inc.
SIGNATURE: _____	SIGNATURE: _____
PRINT NAME: _____	PRINT NAME: _____
TITLE: _____	TITLE: _____
DATE: _____	DEPT: Sales Contracts Management _____
	EFFECTIVE DATE: _____



Exhibit A Statement of Work (Sample)

Apple Computer, Inc. ("Apple") and _____ ("Customer") have entered into an Apple Professional Services Agreement ("Agreement") as of _____, 20____. Apple and Customer agree that Apple will provide Services as described in this Statement of Work in accordance with the terms of the Agreement in effect at the time this Statement of Work is signed by Customer and Apple.

I. Introduction:

Project name:

Project number:

Title/Name of SOW:

SOW ID Number:

SOW Effective Date/Start Date:

Business Owners:

- Apple Account Executive:
- Apple Systems Engineer:
- Apple Professional Services Manager:

Bill To Address:

Deliver To Address:

Project Manager(s):

- Apple Project Manager:
- Customer Project Manager:

Project Objective: Project Objective is a short statement condensing what the scope of the project is, it's schedule and resource to be used.

II. Project Description/Description of Services

A. Scope of Statement of Work:

General description of what the project will and will not include.

B. Term of Statement of Work:

Estimated Start Date: [Enter date] Estimated Completion Date: [Enter date]

III. Development and Implementation Approach

A. Basic Approach:

Methodology or strategy by which an engagement will be executed. If the SOW covers multiple releases of functionality, that will be outlined here.

B. Summary of Services Components and Deliverables:

Service Components	Deliverables
Example: four hours of instructional service	Example: A four-hour workshop for School X Content Creators and IT Staff



C. Project Schedule/Major Milestones:

D. Project Organization:

High-level description of project organization.

E. Project Roles and Responsibilities:

F. Reporting:

Explanation of how the Project Status will be tracked and reported.

G. Project Risks and Assumptions:

Identification of known and/or potential barriers or boundaries as they relate to the work effort covered by this SOW.

H. Changes of Scope:

Any modifications or changes to the services outlined in the original signed SOW must be approved in writing by both parties. Such writing may take the form of a Change Request Form presented to Customer by Apple.

IV. Project Resources and Prices:

A. Service Rates, Expenses and Totals:

Part Number	Description	Total
[Enter Part#]	[Enter Description]	\$ [Enter Amount]
[Enter Part#]	[Enter Description]	\$ [Enter Amount]
Total Fees and Expenses		\$ [Enter Amount]

B. Authorized Service Fees and Expenses (if any):

Enter \$ Amount authorized by Institution.

The duly authorized representatives of the parties execute this Statement of Work as of the dates set forth below.

Customer

Apple Computer, Inc.

SIGNATURE:

PRINT NAME:

TITLE:

DATE:

SIGNATURE:

PRINT NAME:

TITLE:

DEPT: Sales Contracts Management

EFFECTIVE DATE:



Appendix 4: Microsoft Authorized Agent Letter

Apple Computer, Inc.
1 Infinite Loop
Cupertino, CA 95014

Re: Microsoft Office Agent Authorization

Dear Apple Computer, Inc.:

The purpose of this letter is to clarify the procedures and responsibilities of Apple Computer, Inc. with respect to the duplication of recovery media containing Microsoft Office software for the Institution's computers.

Apple Computer, Inc. is authorized by Institution, under a Volume License Agreement between Institution and Microsoft, Inc. to produce a set of recovery media for each computer purchased from Apple. The media set will contain an image of the hard drive (including all system, utility and Microsoft Office software) as delivered, and will be used for the purpose of recovery from a loss of data due to corruption or malfunctioning of the hard drive.

Apple Computer, Inc. is acting as an agent of Institution under the terms of the Microsoft Volume License Agreement referenced below. Apple Computer, Inc. is responsible for the duplication of the hard drive's image onto a recovery media set. Apple will not place any Apple Computer logo or the name of Apple Computer, Inc. on the CD label, except as required for proper trademark identification. The media label will read as follows (check one):

_____ **Recovery Media for Macintosh Computers Only - or -**
_____ Recovery Media for iMac (Flat Panel) Computers Only
_____ Recovery Media for eMac Computers Only
_____ Recovery Media for iBook Computers Only
_____ Recovery Media for PowerBook Computers Only
_____ Recovery Media for Power Mac Computers Only

Microsoft Volume License No. _____
(please attach a copy of your MS License Confirmation Notice)

Effective Dates: From _____ To _____
License Type (check one) _____ Open _____ Select _____ School _____ Campus
Contact Name _____ Contact Title _____
Contact Phone _____ Contact Email _____

(continued)



Executed this _____ day of _____, 20_____, by the undersigned, authorized to execute this letter agreement on behalf of Institution.

Institution: _____

By (print name): _____

Signature: _____

Title: _____

Please fax this completed form to 408 974-6499, make a copy for your records, then mail the original form with a copy of your MS License Confirmation Notice to:

Apple Computer, Inc.
Attention: Susan Priore
Mail Stop 35-3RD
1 Infinite Loop
Cupertino, CA 95014



Appendix 5: Solution Software Installation Agreement Letter

Apple Computer, Inc.
1 Infinite Loop
Cupertino, CA 95014

Re: Solution Software Installation Agreement

Dear Apple Computer, Inc.:

Institution has requested that Apple install certain third-party software ("Software") that has been identified in writing or provided by Institution on computer equipment ordered by Institution for a one year period from the date executed below. This letter agreement confirms the terms under which Apple agrees to provide such Services ("Services").

1. Institution represents and warrants that Institution has the authority to authorize, and rights reasonably necessary to permit, Apple to install the Software, and to the extent lawfully permitted, Institution shall be responsible for any Apple loss or liability because of a breach of the foregoing warranty.
2. Institution agrees to the terms of all applicable Software user agreements, and Institution authorizes Apple to accept such terms on Institution's behalf.
3. Institution is fully responsible for providing any notices required under any Software user agreement.
4. To the extent lawfully permitted, the Services are provided by Apple "AS IS," without any warranty, express or implied. APPLE SHALL NOT BE RESPONSIBLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE SERVICES, even if advised of their possibility. Apple's total liability for the services shall not exceed \$50.00.
5. Executed this _____ day of _____, 20____, by the undersigned, authorized to execute this letter agreement on behalf of Institution.

Institution: _____

By (print name): _____

Signature: _____

Title: _____

Please fax this completed form to 408 974-6499, make a copy for your records, then mail the original to:

Apple Computer, Inc.
Attention: Jon Porter
Mail Stop 35-3RD
1 Infinite Loop
Cupertino, CA 95014

**CONTRACT
FOR
CLASSROOMS FOR THE FUTURE**

THIS CONTRACT for the supply and delivery of products and services for the Classrooms for the Future project ("Contract") is entered into this 17th day of November 2006, by and between the **Commonwealth of Pennsylvania**, acting through the Department of General Services ("**DGS**"), and CDW Government, Inc. ("**Contractor**").

WHEREAS, DGS issued a Request For Proposals for Classrooms for the Future, RFP No. CN00019758 ("RFP"); and

WHEREAS, Contractor submitted a proposal in response to the RFP; and

WHEREAS, Contractor revised its proposal in response to DGS' request for clarifications; and

WHEREAS, Contractor's proposal was selected for the Best and Final Offer ("BAFO") phase of the RFP process; and

WHEREAS, in response to DGS' BAFO request, Contractor submitted BAFO Price and Disadvantaged Business submittals; and

WHEREAS, DGS determined that Contractor's revised proposal was the most advantageous to the Commonwealth for Lot A (PC's) ("PC") after taking into consideration all of the evaluation factors set forth in the RFP and selected Contractor for contract negotiations; and

WHEREAS, DGS and Contractor negotiated this Contract as their final and entire agreement in regard to the supply and delivery of PC products and services for the Classrooms for the Future project to the Commonwealth.

NOW THEREFORE, intending to be legally bound hereby, DGS and Contractor agree as follows:

1. Contractor shall, in accordance with the terms and conditions of this Contract, supply and deliver PC products and services for the Classrooms for the Future project to all Pennsylvania schools that receive Classrooms for the Future funding from the Commonwealth of Pennsylvania.
2. Pennsylvania schools shall procure their requirements for Classrooms for the Future PC products and services in accordance with the terms and conditions of this Contract.

3. DGS and Contractor agree to be bound to the Special Terms and Conditions attached hereto as Exhibit A.
4. Contractor agrees to supply and deliver the Classrooms for the Future PC products and services, at the prices listed for those items, listed in its Final Price Sheet, which is attached hereto as Exhibit C and made a part hereof.
5. Contractor agrees to meet and maintain the commitments to disadvantaged businesses made in its BAFO Disadvantaged Business Submittal, which is attached hereto as Exhibit D. Any proposed change to a disadvantaged business commitment must be submitted to the DGS Bureau of Minority and Women Business Opportunities ("BMWBO"), which will make a recommendation as to a course of action to the Contracting Officer. Contractor shall complete the Prime Contractor's Quarterly Utilization Report and submit it to the Contracting Officer and BMWBO within ten (10) workdays at the end of each calendar quarter that the Contract is in effect.
6. This Contract is comprised of the following documents, which are listed in order of precedence in the event of a conflict between these documents:
 - a. The Special Terms and Conditions set forth in Exhibit A, attached hereto and made a part hereof.
 - b. The revised Contract Standard Terms and Conditions attached hereto as Exhibit B and made a part hereof.
 - c. The Final Price Sheet, which is attached hereto as Exhibit C and made a part hereof.
 - d. The BAFO Disadvantaged Business Submittal, which is attached hereto as Exhibit D and made a part hereof.
 - e. The RFP, including all of the referenced Appendices and as revised by all Addenda issued thereto, which is incorporated by reference herein as Exhibit E and made a part hereof.
 - f. Contractor's Technical Submittal, which is incorporated by reference herein as Exhibit F and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract the day and year first above written.

ATTEST:

CDW Government, Inc.:

By: 
(Assistant) Secretary

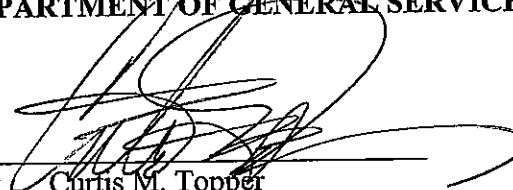
Tara K Barbieri 11/7/06
Printed Name/Date

By: 
Director

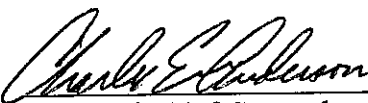
David C Hutchins
Printed Name/Date

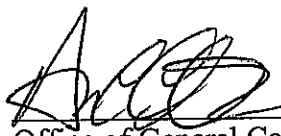
36-4230-110
Federal I.D. Number

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES

By: 
Curtis M. Topper
Deputy Secretary for Procurement

APPROVED AS TO FORM AND LEGALITY:

 11/08/06
Office of Chief Counsel Date

 11.15.06
Office of General Counsel Date

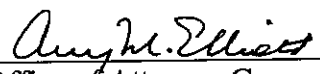

Office of Attorney General Date

EXHIBIT A TO CLASSROOMS FOR THE FUTURE CONTRACT
SPECIAL TERMS AND CONDITIONS

These **SPECIAL TERMS AND CONDITIONS** shall be a part of the Contract for the supply and delivery of PC products and services for the Classrooms for the Future project between the Commonwealth of Pennsylvania ("Commonwealth"), acting through the Department of General Services ("DGS"), and CDW Government, Inc. ("Contractor").

1. CONTRACT SCOPE/OVERVIEW:

This Contract (identified here and in other documents as the "Contract") will cover the requirements of the Commonwealth for Classrooms for the Future PC products and services, as more fully described in RFP No.CN00019758.

2. TERM OF CONTRACT:

This Contract shall not be a legally binding agreement until it is fully executed by the Commonwealth. The term of this Contract will commence on the Effective Date (as defined herein) and will have a term of three (3) years. The Effective Date shall be fixed by DGS after the Contract has been fully executed by the Contractor and all approvals required by Commonwealth contracting procedures have been obtained. The procurement of all Classrooms for the Future products and services will expire at the end of the contract term.

3. OPTION TO RENEW:

The Contract may be renewed annually by mutual agreement between the DGS and the Contractor, contingent upon future funding of the Classrooms for the Future project by the PA General Assembly and the PA Department of Education ("PDE"). If the Contract is renewed, except for product and price adjustments which may be negotiated, the same terms and conditions shall apply.

4. PRICE GUARANTEE:

Contractor's pricing for the products and services listed in its Final Price Sheet (Exhibit C to the Contract) shall remain firm for the three-year term of the contract.

5. SUBSTITUTION OF PRODUCTS:

- a. If the production of an item being acquired under this Contract is permanently discontinued, the Contractor is not obligated to provide the item after written notification of discontinuance is received by the Commonwealth. The Contractor agrees to provide

the Commonwealth the maximum possible advance notice of OEM decisions to cease production.

- b. Notwithstanding the provisions of subsection a. above, the Contractor is required to make available substitute products for the item being discontinued. The substitute product shall at a minimum include the salient characteristics and major functional capabilities as well as meet or exceed the rated performance characteristics of the item being replaced.

6. NEW TECHNOLOGY:

- a. The items being acquired under this Contract were compiled based upon current Commonwealth needs. This configuration was used to obtain pricing for the current state of technology level, rather than rigid product configurations. It is required that the Commonwealth be able to continue paying the contracted pricing obtained for this technology level even as the standard product configurations for this level adjusts with changing technology and market pricing.
- b. When a standard product configuration has reached the end of its life cycle and/or as new product features are incorporated into the technology level, Contractor will work with the Commonwealth to develop a plan for a smooth transition to a new product configuration. As part of this plan, Contractor will make a good faith effort to help the Commonwealth transition to a new standard product configuration at a point in the product life cycle where the price of the new configuration is comparable to the price of the prior configuration.
- c. As technology changes, an updated list of option/upgrade items may be more appropriate for the Commonwealth. Any changes in technology to warrant these changes will be evaluated and prices negotiated between the Commonwealth and the Contractor.
- d. The contractor, DGS and PDE will meet on a quarterly basis to discuss technology upgrades, model changes, new technology and price adjustments based on current market conditions.

7. SOFTWARE VERSIONS:

The Contractor must include current and upgraded versions of the office and operating system software through the term of the Contract in order to maintain usability with upgrades and enhancements to educationally relevant software. Notwithstanding anything in the Contract, this Section 7 is superseded by any conflicting terms and conditions contained in Attachment 1 to this Exhibit A.

8. ADDITIONAL FUNDS:

Purchasers may purchase products from this Contract utilizing any appropriate sources of funds in addition to the Classrooms for the Future grant funds made available by the Commonwealth.

9. KEY PERSONNEL:

The key personnel identified below shall be assigned to administer this Contract on behalf of the Contractor. These persons shall not be removed from this assignment in the absence of death, retirement, resignation or termination from the Contractor or other unavoidable circumstance. All replacements and additions to key personnel assigned to administer this Contract shall be subject to the written approval of DGS, which approval shall not be unreasonably withheld.

(Name)	(Title)
Noel Corral	Project Coordinator
Joe Kurtz	Sales Manager (K-12)
Amanda Ewertowski	Program Manager

DGS Personnel:

Contract Officer:

Dennis J. Fellin
Commodity Manager
IT & Communications
Commonwealth Of Pennsylvania
Dept of General Services
717-346-2675
717-783-6241 (fax)
defellin@state.pa.us

PDE Project Officer:

Holly Jobe
Office of Elementary/Secondary Education
Bureau of Teaching & Learning Support
Division of Middle & Secondary Education
8th Floor, 333 Market Street
Harrisburg, PA 17126

10. CRIMINAL BACKGROUND CHECKS:

Contractor's business partners are all either in compliance with Act 34 and Act 151 clearances or will be in compliance prior to any school onsite activity in support of this initiative. As a standard, CDWG does background criminal checks through the states and the counties in which the potential coworker has lived and worked.

ACT 34 COMPLIANCE

CDWG must submit to the PA Department of Education ("PDE") a copy of a report of Criminal History Record Information from the Pennsylvania State Police or a statement from the Pennsylvania State Police that the State Police Central Repository contains no such information relating to any persons working within the schools. For out-of-state persons who will be working within the schools, CDWG must submit with their application a copy of a federal criminal record history from the Federal Bureau of Investigation. The criminal record history report must be no more than **one** year old. This applies to all subcontractors to CDWG.

ACT 151 (PA Child Abuse History Clearance)

CDWG must submit to PDE a copy of an official clearance statement obtained from the Pennsylvania Department of Public Welfare or a statement from the Department of Public Welfare that no record exists for any person(s) working within the schools. The clearance statement must be no more than **one** year old. This applies to all subcontractors of CDWG.

11. CONTRACTING OFFICER:

The Contracting Officer for this Contract is:

Contractor shall direct all notices or inquiries to the Contracting Officer.

12. PROJECT DESCRIPTION:

The parties agree that the supply and delivery of PC products and services for the Classrooms for the Future project shall be performed in conformance with the Project Description outlined in Attachment 1, attached hereto and incorporated herein. Modifications to the Project Description may be made in writing by mutual consent of the parties and will automatically become a material part of this Exhibit and the Contract, without the necessity of any further instrument.

Attachment 1 to Exhibit A Classrooms for the Future Contract Project Description

SOFTWARE

Office 2007

All notebooks for the Classroom For the Future (CFF) program will ship with Office Pro 2007. Upgrades beyond Office Pro 2007 will be priced at the time of purchase. CDWG will honor the same markup on later releases that is reflected in the Final Price Sheet (Exhibit C to the Contract) which was .5%. Microsoft will support one master license for the Commonwealth from which all schools will execute an individual enrollment agreement.

Operating System

CDWG commits to offering a no cost upgrade from Windows XP Pro to Vista Business on the machines sent to CDWG for the Commonwealth of Pennsylvania, CFF opportunity. CDWG makes this commitment based on the assumption there is no delay in the launch of an upgrade path from XP Pro to Vista Business from Microsoft and with the understanding that the Commonwealth of PA will make the transition to Vista preloaded models upon general availability from Lenovo.

Adobe (Instructor PC Only)

Pricing includes license price and two (2) year maintenance agreement. Above terms are contingent upon having a CLP agreement signed by the Commonwealth of PA. License and maintenance must be purchased together through the CLP agreement for these prices to be valid. Adobe will execute one license agreement for this program. This price for Creative Suite version 2.0 Includes the following applications:

- Adobe Photoshop® CS2
- Adobe Illustrator® CS2
- Adobe InDesign® CS2
- Adobe GoLive® CS2
- Adobe Acrobat® 7 Professional
- Version Cue CS2
- Adobe Bridge
- Adobe Stock Photos

Inspiration (All PCs)

Pricing includes license price and four (4) year maintenance agreement.

Open Source Software

If a school district opts for this software configuration, CDWG will reduce the cost of the actual purchase for those Microsoft products not selected.

Other Software Provided when opting for Microsoft Operating System:

- a. Windows Media Player
- b. Infopath
- c. Microsoft Internet Explorer
- d. Symantec Norton Anti-Virus
- e. Vital Source
- f. Think Advantage Tools
- g. Other software as specified in RFP response

FREIGHT SCALE

The following methodology applies to the shipment of the CFF component(s):

1. In an effort to minimize freight costs and maximize installation efficiency, CFF orders will be grouped by school location whenever possible. The CDWG dedicated account manager for each school will work with the school and project management to create accurate and complete purchase orders and schedule delivery and installation accordingly.
2. CDWG will pass through its bulk invoice costs to the schools. Each school's dedicated CDWG account manager will provide the school with a freight price to be included on the school's purchase order to CDWG. This freight price will be based on the agreed list of CFF products to be ordered for the school.
3. Uncontrollable fluctuations in fuel costs will affect shipping costs. Increases or decreases will be passed directly to the school and a quarterly review of these costs will be held with DGS to review fluctuations.
4. CDWG will offer the same component pricing as is listed in the CFF contract to participating schools for individual component purchases. If these purchases are not timed to be grouped with a bulk CFF purchase, the shipping rates below will apply.

Shipping Methods and Rates

Component	Ship Method	Single Unit	Qty 2+
Lenovo laptop	UPS Ground	\$12.99	Call for freight quote
Printer w/cables	UPS Ground	\$12.99	Call for freight quote
Projector	UPS Ground	\$12.99	Call for freight quote
Web Camera	DHL Ground	\$7.99	Call for freight quote
Speakers	DHL Ground	\$7.99	Call for freight quote
Digital Still Camera	DHL Ground	\$7.99	Call for freight quote
Video Camera	DHL Ground	\$7.99	Call for freight quote
Laptop Cart standalone	Eagle	Call for Freight Quote	Call for freight quote
Interactive Board	Drop Ship	No additional cost	No additional cost
Replacement batteries	Ground	Single order of 1-20 batteries \$12.99	N/A
Replacement batteries	Ground	Order greater than 20 batteries: \$1.60/battery	N/A
Additional Charger	Ground	Orders of 1-10 \$12.99	N/A
Additional Charger	Ground	Orders greater than 10 \$1.80 each	N/A

The above ship methods were chosen to minimize cost. Rates are subject to change. CDWG will recommend the most cost effective method at time of purchase. Quicker methods are available at purchaser's request.

INTERACTIVE WHITEBOARD

Due to contractual limitations with the manufacturer, CDWG cannot currently offer the Promethean white board outside of CFF grant funding. Due to this situation, CDWG will also offer a Polyvision whiteboard. To ensure consistency of functionality, performance, and service, CDWG will work with each school to select one of these whiteboards as the standard for that school's classrooms. If schools choose the Promethean whiteboards, the following additional features are included:

- ActiveStudio Software
 - Lesson development software
 - Over 15,000 resources
- NetTrekker
 - Online search engine dedicated to K-12
- Promethean Planet
 - Access to over 1500 lesson plans

SERVICE CALL FLOW MATRIX

Should CFF participants require help desk support, they can call their dedicated account manager who will be trained to triage the call and determine which area to engage, i.e. help desk, warranty support or Customer Relations. CDWG has included a process diagram outlining how the customer will be supported. Further, users will be able to create a trouble ticket online during regular or after business hours.

The dedicated CDWG Account Manager will be the first point of contact for warranty/support calls. For initial diagnostics, they will engage our in-house technicians who are certified by the Computing Technology Industry Association (Comp TIA), as well as by individual manufacturers. Actual warranty work will be performed by the manufacturers' authorized technicians. The CDWG dedicated account manager will facilitate the manufacturer warranty process and ensure that the standard warranty procedures are followed.

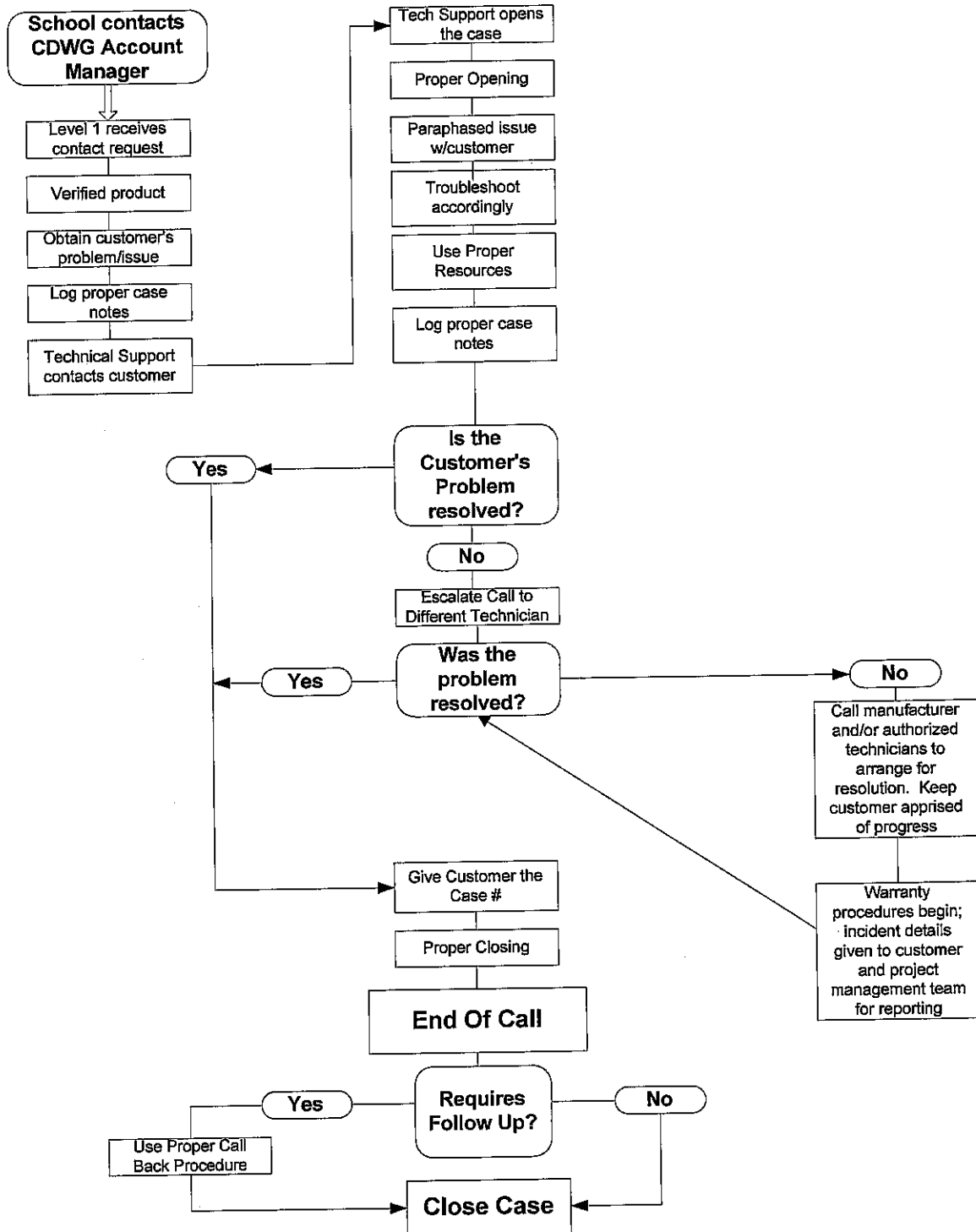
When a CFF customer calls for support, CDWG technicians may bring manufacturer personnel in on a conference call for additional consultation. CDWG will authorize them to dispatch certified technicians for onsite services.

All service issue calls are tracked on the user's custom extranet site. Information such as date of call, part numbers, case history and resolution are recorded. For onsite service, CDWG will also track the customer's location, items, serial numbers, problem identification/resolution and history.

In addition to a direct call to the account manager, users will be able to call a dedicated toll-free phone number that will route to the CDWG CFF inside team. The account manager that answers will transfer the call to the appropriate team member. CDWG will ask for the asset tag number from the Lenovo laptop in order to identify the individual component of the package that needs support.

Note Technical Support Procedure flow chart on following page.

Technical Support Procedure



ASSET TAGS

Asset tags will be attached to the laptops in the CDW configuration center prior to shipment. Asset tags will be printed with a number and a bar code that can be viewed on each school's laptop as well as on each school's customized web site. This site will reflect no less than the following information, all of which is easily downloadable into an excel format:

- a. Customer Name
- b. CDWG Order Number
- c. Invoice Number
- d. Order Invoice Date

Additional information regarding the order, components, addresses, dates, etc. can be easily accessed through each school's dedicated account manager by calling the CFF hotline number and referencing the asset tag number, order number, etc.

INTEGRATION/IMPLEMENTATION PLAN

In accordance with the requirements of the RFP, CDW•G has provided an example description and daily assessment of each task in the following sample Gantt Chart:

	No of Business Days	Start Day	Finish Day	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13 and beyond
Ordering Process																
Identify Approved Grantees	1															
AM Contacts School District	1	1	1													
Confirm # of CFF Classrooms	1	1	1													
Pre-Installation Checklist	2	1	2													
Send Quote	1	3	3													
Determine preliminary schedule	1															
Receive PO	1	4	4													
Solution Delivery																
Procure Equipment	1	4	4													
Products arrive in CDWG Config	1	4	4													
Laptops Tagged	1	5	5													
Quality Check performed	1	5	5													
Schedule Training	1	4	4													
Schedule Installation	1	4	4													
Site Readiness Call	1	5	5													
Ship Classroom Package	5	5	9													
Receive Equipment	1	9	9													
Technicians arrive for installation	1	11	11													
Briefing for School Technical co	1	11	11													
Professional Development Traini	1	12 to 30	12 to 30													
Day 2 support																
Customer Satisfaction Survey	1	14	14													
Account Manager followup calls	1															
Help Desk	ongoing															
Warranty & Depot Support	ongoing															

PROFESSIONAL DEVELOPMENT

"Open Box" Training

CDWG has included a very comprehensive professional development program to ensure milestones are reached and goals of the CFF program are achieved. This training will include the following:

- "Open Box" instructor-led sessions for professional learning. This will instruct teachers how to use the equipment and integrate all the components.
- Integrating the technology into the 4 disciplines of Math, Science, English and Social Studies.
- Self-directed tutorials for Microsoft applications and tools.
- Self-directed curriculum trainings such as Eternal Egypt, Try Engineering and Hermitage Museum.

This training is directed to select teachers from each school (as participation is limited to 18 per session and in most cases, multiple schools will be attending each session) in the 4 Core areas. The CDWG project team will coordinate and schedule these training classes and attendees concurrent with the project implementation phase. This will ensure timely integration as well as participation of key personnel (train-the-trainer designates) from each school.

Breakout for "Open Box" is as follows:

Year	Number of High Schools	Number of Sessions	Number Days of Training (if two sessions per day)	Total Number of Participants (48 per session)
Year 1	100	50	25	900
Year 2	255	128	64	2,304
Year 3	256	128	64	2,304
Totals	611	306	153	5,508

Please review the components of this training offering in the attached document entitled "Professional Development Package- Open Box Training."

Additional subject leader training

CDWG has added 50 additional sessions to provide further Instructor-led curriculum training.

- Instructor-led Math, Science, Social Studies, and Language Arts Integration Courses for Teachers and IT personnel. **(Course Name: Infusing Technology)**.
- Course allows for a smooth transition from the traditional classroom to the 21st century classroom. This in depth course bridges the gap by infusing the technology devices in the classroom package into existing teacher lesson plans.
- As there are fewer spaces available in this session, CDWG will work with DGS and the PDE to identify key leaders who will attend the session and subsequently communicate the content to the other CFF teachers.

Breakout for additional subject leader training is as follows:

Year	Number of High Schools	Number of Sessions	Number Days of Training (if two sessions per day)	Total Number of Participants (18 per session)
Year 1	100	10	5	180
Year 2	255	20	10	360
Year 3	256	20	10	360
Totals	611	50	25	900

Sessions will take place in a centrally-located classroom with the components in place. Please review the highlights of this training offering in the attached document entitled "Professional Development Package- Additional Subject-Leader Training."

Please note: The number of sessions shown assumes full deployment according to DGS estimates. Should the quantity of schools be substantially lower than stated, the number of sessions will be reduced proportionately.

CONSULTATIVE SERVICES

CDWG account managers will consult directly with the CFF school contacts to comprehensively review school and classroom readiness. These school contacts may be the technical staff for the school, leaders who are coordinating the implementation(s) or the teachers who work in the classrooms that are being equipped. The resources will be used remotely, primarily via phone discussions, to explain classroom physical requirements and setup as well to define the preferred location of key items such as the interactive white board, laptop cart and projector prior to product delivery to ensure effective installations.

Resources will include:

- CDWG CFF Account Manager
- Pre-order survey and questionnaire
- Pre-order classroom layout worksheet
- Project Manager
- CDWG Systems Engineers
- CDWG Technical Support
- CDWG contracted installation partners

If, after exhausting all of the above resources and efforts in cooperation with the CFF school contact, CDWG determines that an on site survey is necessary, it will be scheduled promptly. CDWG will include our installation partners in these assessment efforts to ensure that all parties are in agreement that the site is ready for installation.

VALIDATION TESTING

Upon completion of each of the pilot schools, CDWG will conduct system testing to confirm that the solution meets or exceeds the functional requirements. CDWG will use a checklist template to verify the functionality of the individual components. System tests will verify the following:

- a. Power up laptops, ensure all are fully charged and operational.
- b. Check network connectivity and interoperability of all peripherals—conduct handshake test to ensure everything is integrated.
- c. Test wireless coverage, access and bandwidth—test strength of signal by setting appropriate channels for student and teacher use.
- d. Ensure internet connectivity by testing existing routing hardware.
- e. Check remote printing services by running test page.

Once system tests are complete, component debrief training will begin and satisfaction surveys will be distributed. Formal acceptance of working systems will be accomplished by signature on the work-order from the senior IT representative for the school. The methodology described above will not only take place in the pilot launches but will also occur on every deployment throughout the life of this program.

The test will include PDE and up to **eight** schools and must be successfully completed no later than **four** weeks after issuance of notice to proceed from acceptance of the implementation plan.

MEETINGS

CDWG will participate in at least 30 mutually agreed-upon educational conferences and meetings in conjunction with PDE. The goal will be to keep the educational community up to date on the progress of the installations, trainings and completions. Further, CDWG will create a website with links to stories of interest and other items relating to the project.

PROJECT PLAN

The actual project plan timetable is being developed at this time and will be completed within 30 days of contract execution.

IMAGING, VALIDATION

CDWG will create the hard drive image. Imaging will take place at the Lenovo factory and shipped to the CDWG distribution center. All testing and validation of the image will take place there prior to reaching the CDWG facilities. The base image for the machine will include all of the required software as specified and any updates/patches as of the date the image was created. The images will be different for teacher stations and student stations. Images for the restore of the laptops is to be completed at the factory.

PRODUCTS/WARRANTY

All product and warranty descriptions are included in the attached schedule.

REQUIRED REPORTS

All reports are due quarterly. CDWG is to provide all reports no later than the 10th day of the end of each calendar quarter. CDWG shall e-mail usage reports to **ra-itpurchases@state.pa.us**, and the PDE Project manager. Each report shall indicate the name and address of the Contractor, the contract number and period covered by the report.

1. Sales Reports

- a. Usage Reports: Include the following elements: School District, School Name, Address, City, State, and Zip Code, Item no. (if applicable), Material Code (if applicable), Description, Quantity, Unit price, Total Cost, Date of Installation, and Date of Acceptance.
- b. Customer Report: A listing of all CFF customers including contact information.

2. Service Reports

- a. Service Response Time: Include the following elements: date of call, name and full address of caller, item description, serial number, customer problem, resolution, time call opened, time customer issue resolved, type of call (land-line, web report), account manager.
- b. Repeat calls: Number of repeat calls on a rolling 30-day basis including detail of each product.

3. Other Reports

- a. Progress/Problem Identification Report: Cover activities, problems and recommendations. The report should describe the problem and its impact on the overall project and on each affected task. It should list possible courses of action with advantages and disadvantages of each, and include CDWG's recommendations with supporting rationale.
- b. Project Management Report: Include status of setup, deployment and installation, and summary information such as: PO turnaround times, trends, remediation needed, unresolved issues, recommended improvements and other factors necessary to ensure a successful project.
- c. Performance Metrics Report: Report on order status and tracking, software license tracking, invoice tracking and management, contact information for account managers and other CDWG personnel, and other performance metrics determined by COMMONWEALTH and CDWG to ensure a successful project.

CDWG ACCOUNT MANAGEMENT

To access the dedicated CDWG account management team, customers can dial the Classrooms for the Future hotline at (888) 494-4239. This number will also be posted on the following website www.cdwg.com/PAClassroomsfortheFuture along with specific information pertaining to the individual school districts. This number will be used for all types of calls including warranty support, planning, ordering, etc.

CDWG SERVICE DELIVERABLES

1. Inventory all equipment prior to installation.
2. Unbox and stage all equipment for installation according to classroom configuration.
3. Configure laptop units with client provided IP Address.
4. Place Laptop in notebook cart for charging.
5. Install and setup printer and run print test to calibrate ink cartridges.
6. Install and channel Wireless Access Points.
7. Setup Notebook Storage Carts in designated work areas.
8. Install and configure Web Camera verifying functionality.
9. Install multimedia speakers and run sound test.

10. Un-box and setup Digital Video Camera.
11. Un-box and setup digital Still Camera.
12. Dispose of all packaging material and take refuse to client designated area.
13. Interactive whiteboard: A readiness check survey will be conducted to establish placement of the ACTIVboard in each room and to determine needed installation supplies.
14. Mount ACTIVboard in area designated by customer according to Promethean specifications.
15. Install all necessary USB/serial cabling to connect the ACTIVboard to the computer system (In compliance with all local and state fire and/or safety codes).
16. Install all necessary VGA cables to connect the projector to the computer system (in compliance with all local and state fire and/or safety codes).
17. Install all necessary Audio/Video cables to connect the projector to a DVD/VCR (if required and in compliance with all local and state fire and/or safety codes).
18. Confirm that the latest release of the ACTIVboard firmware is installed on the board. (Install the latest firmware where needed.)
19. Install the latest version of ACTIVstudio software on one (1) PC or MAC computer in classroom.
20. Perform a debrief training with the appropriate IT personnel. This training will be performed per classroom location.
21. Perform the Services during normal business hours (8:00a.m. to 5:00p.m. local time Monday through Friday).
22. Deliver to the customer all parts including cables, brackets, and power supplies not used in the installation.

SCHOOL DISTRICT RESPONSIBILITIES.

1. Schedule the Services with the CDWG Project Manager.
2. Communicate all material project matters to the CDWG Contracting Party through the CDWG Contact.
3. Provide qualified, knowledgeable personnel capable of: (i) performing School District obligations; (ii) making timely decisions necessary to move the Services forward; and (iii) participating in the project.
4. Perform other reasonable duties and tasks to facilitate the CDWG Subcontractor's performance of the Services.
5. Provide at least one technical contact with system administration responsibilities for the duration of the Services.
6. Provide the CDWG Subcontractor's project staff with appropriate levels of access and privilege to systems and information necessary for the CDWG Contracting Party's performance of the Services.
7. Provide security of equipment after delivery.
8. Provide interactive Classroom configuration for setup and deployment.
9. Provide IP Address configuration for Laptops.
10. Provide Wireless configuration information for Access Points.
11. Provide access to all rooms where installation is to take place.
12. Ensure there are no obstructions on the wall designated to receive the ACTIVboard.
13. Provide 110v electrical power outlet that meet local safety/fire codes no further than 10 feet from the projector and the ACTIVboard.
14. Place projector on laptop cart no more than 8ft from the interactive whiteboard where optimum performance can be achieved, based on the manufacturer's recommendations.
15. Provide any cable raceway that may be needed to ensure student and teacher safety.
16. Provide administrative logon information or a person to assist with logon during time of installation.
17. Ensure that the teacher (room occupant) is available for orientation.
18. Sign Installation Sign-Off upon successful acceptance of work.

Professional Development Package– “Open Box” Training

Individual Components of BASE Package		
BASE Package	Description	Platform
Open Box Professional Learning for Teachers (3.5 hrs)	Course includes training on: Portable Multimedia Computer Device, Interactive Whiteboard, Projector, Productivity Software, Web Camera, Digital Video and Still Cameras, Multifunction Printer/Scanner, Learn IT Teach IT Content, Utilizing the Technology in the Classroom, Best Practices, Sample Integration Projects, CD's containing all Projects and Materials related to this training, Teacher Workplace, Eternal Egypt, Hermitage Museum, TryEngineering, CSTA Science Content, and Change Management Toolkit	Face to Face
Open Box Professional Learning for Teachers Course Content Development	Course Content Preparation for Class and Handouts	Online/Image/CD
Open Box CD Handouts	CD contains Entire Course Contents	Online/Image/CD
Integration Examples on Open Box CD Handout	Integration of Technology into Math, Science, Social Studies, and Language Arts Lesson Plans	Online/Image/CD
Learn IT, Teach IT Tutorials	Self-paced online tutorials for teachers and students to learn the Microsoft office tools and understand how to use the broad set of features within Microsoft technologies	Online/Image
Training Management, Strategy Development, and Material Development for the Open Box Professional Learning Implementation	Oversight and Management of Entire Professional Learning Project including Goal Setting, Strategy Development, Scheduling, Implementation, Evaluations, and Extensive Reporting for Administration, Refinement with the client	Face to Face/Online
Course Evaluations	Documented feedback from every class	Face to Face/Online
Reports	Extensive Detailed Analysis of Project provided monthly	Face to Face/Online
Teachers Workplace	Software to build teacher portfolios	Online
Teachers Workplace Hosting support	Hosting of the software	
Eternal Egypt	Online content website	Online
Hermitage Museum	Online content website	Online
Try Engineering	Online engineering content	Online
CSTA Science Content	Online science content	Online
Change Management Toolkit	Blueprint planning for implementing new processes in the classroom	Online
Open Box Professional Learning for Teachers	Course includes training on: Portable Multimedia Computer Device, Interactive Whiteboard, Projector, Productivity Software, Web Camera, Digital Video and Still Cameras, Multifunction Printer/Scanner, Learn IT Teach IT Content, Utilizing the Technology in the Classroom, Best Practices, Sample Integration Projects, CD's containing all Projects and Materials related to this training, Teacher Workplace	Online

Professional Development Package– Additional Subject-Leader Training

Individual Components of BASE Package		
BASE Package	Description	Platform
Math, Science, Social Studies, Language Arts Integration Courses for Teachers and IT	Educators to develop an effective process and strategy for technology integration into a specific curriculum area and to make use of classroom methodology. Participants are exposed to a variety of exemplary technology-infused classroom projects that address national, state, and local content standards including the National Council for Teachers of English (NCTE), National Council for Teachers of Math (NCTM), National Science Teachers Association (NSTA), National Council for Social Studies (NCSS) and performance indicators from the Technology Standards International Society for Technology in Education (ISTE). Class members work collaboratively and independently to construct their own integrated projects for use in the classroom and share them with their peers. A technology integration rubric is provided to assist in providing meaningful feedback on the projects. Participants leave the course with a set of adaptable lessons, a variety of evaluative tools to determine their effectiveness and student performance, a plan for creating original content and a wide range of resources and tutorials to use and share, and incorporation of the IBM TryEngineering and CSTA Science Content	Face to Face

In addition to the proposed enhancements above, the CDWG installation team will provide a one hour debrief training with the designated IT personnel at each school. These trainings will be tailored to device functionality, connectivity and troubleshooting. In addition to basic training, the installation team will walk through the "How To" manual with the IT team. This aspect of the training will be designed to give the IT staff a lasting overview of the solution.

In addition to this, IT personnel and technicians will also be able to sit in on the Train the Trainer sessions described in the training section of the CDWG Technical proposal.

PRODUCT AND WARRANTY SCHEDULE

Manufacturer	Device Type	Manufacturer Part Number	Model Number	Warranty
Lenovo	Laptop	Custom	Z61e	Standard warranty: 3-year next business day onsite repair See Final Price Sheet for optional upgrades.
• Intel Solo Core Processor (1.66 GHz/2MB Cache/400 MHz FSB) • Genuine Windows XP Professional Operating System • 15.4in WXGA Display • 512MB DDR2, 533MHz, SDRAM, 2DIMMS. • DIMMS (or 1 DIMM to allow future upgrade to Vista memory requirement of 1 GB) • 24X CD burner/DVD Combo Drive (Teacher PC has DVDRW/CDRW Drive) • 60GB Hard drive, 9.5MM, 5400RPM • Integrated INTEL Media Accelerator 900 Graphics (up to 128mb RAM)				
• 6 Cell Primary battery (up to 5.6 hour battery life) • Built in Firewire IEEE 1394 • Built in Ethernet (10/100/1000) • Internal Wireless (802.11a/b/g 54Mbps) • 5.8 lbs				
				Standard warranty: 1-year next business day replacement; see Final Price Sheet for optional upgrades.

Manufacturer	Device Type	Manufacturer Part Number	Model Number	Warranty
HP	Printer/Scanner	Q8110A#ABA	Photosmart	1 year, 5 business day exchange depot
Logitech	Web Cam	961403-0403	C4180	2 year limited warranty, parts
Logitech	Computer Speakers	970152-0403	Quickcam Fusion	2 year limited warranty, parts
D-Link	Access Points	DWL-3200AP	R-10	1 year parts depot
Epson	Projector	V11H176020	3200AP	3 year NBD (replacement sent overnight to school)
Bretford	Notebook Cart	LAP30EBA-GM	82c	12 year parts depot
Canon	Digital Video Camera	1176B001	LAP30EBA-GM	1 year parts depot
HP	Digital Still Camera	L2063A#ABA	ZR500	1 year, 5 business day exchange depot
			R725	
Promethean	Interactive White Board	1-PRM-AB78B-US2	Activeboard	5 year parts depot
Polyvision	Interactive White Board	TS600ET	TS-600	5 year parts depot

VALUE ADDED SUBMITTAL

1. Education-Oriented Laptops

- a. Design Principals
- b. International Warranty
- c. Access Connections
- d. Rescue and Recovery

2. Instructional Assistance

- a. Microsoft Teach IT Learn IT
- b. Microsoft ISTE Online Technology Assessment
- c. Microsoft/Digital Literacy Curriculum
- d. Microsoft Developer Network Academic Alliance
- e. Learning Essentials
- f. Shared Computer Toolkit for Windows
- g. TryEngineering
- h. CSTA (Computer Science Teachers Association)
- i. IBM Academic Initiative Program

3. Professional Development

- a. IBM Teacher Work Place
- b. MicroSoft Innovative Teacher
- c. IBM MentorPlace
- d. Microsoft Professional Development Program
- e. Bring selected Golden Apple or Keystone teachers to Chicago for tour of CDW and model Chicago-area high schools, Chicago events, educational summits)
- f. Sponsor travel for select teachers to Educational shows

4. Overall Program Support

- a. Education-Oriented Team
- b. Care and Feeding "TPI" DVD-Based Training
- c. Change management toolkit
- d. Software Tracking Tool
- e. Customized Extranet
- f. Project Management
- g. Technical Support
- h. Field Technical Support
- i. Internal Hardware Component Configuration
- j. Program Management
- k. Quick and Accurate Delivery
- l. Monthly or Quarterly Reporting
- m. Lenovo Learning Solutions
- n. Lenovo Asset Recovery Services
- o. ThinkTank
- p. Intel's Teach to the Future program

5. Community Relations

- a. Pennsylvania "Win a Wireless Lab" Sweepstakes
- b. Small Business Partnerships
- c. On Demand Community
- d. Highlight a feature story on the program in EdTech
- e. Internships for HS students
- f. Community awareness and briefings by implementation district, on a quarterly basis.

Overview and Descriptions

Towards the goals of the Commonwealth's Classrooms for the Future project, CDWG, in partnership with IBM and Lenovo, is committed to providing a technologically sound, cost effective, teaching and learning solution. Critical to the success of "Classrooms for the Future" will be the need to continually assess and evaluate the overall impact and effectiveness of the solution. This of course cannot be just from a hardware point of view; it needs to be more from an end-to-end systems view that encompasses hardware, software, instructional applications, learning tools, and training. Within an end-to-end systems approach, there will also need to be some key differentiators or value add elements that can enhance and accelerate the teaching and learning process while at the same time having a positive impact on the broader learning community.

To this end, CDWG and its partners, IBM and Lenovo, are pleased to provide the Commonwealth with a suite of value add solutions that have been developed, tested and implemented within K12 teaching and learning communities. These solutions are critical elements of an end-to-end systems solution and are also viewed as best practices examples of K12 teaching and learning applications.

These value add solutions have applicability across the entire K12 community but are specifically designed to enhance technology enabled teaching and learning experiences for students and teachers.

1. Education-Oriented Laptops:

- a. Design principals:** Lenovo engineers each laptop to be easy-to-use, resilient, elegant and efficient. Used by millions of students and administrators, Lenovo laptops are built to stand-up to the stresses of everyday student life, as well as perform their tasks brilliantly.

Lenovo laptop Education Checklist:

- Keyboard Spill Tray
- Wireless Antennae Built into the Screen
- Latest Intel Mobile Processors
- Long Battery Life
- Hard drive active protection system
- Warranty Support per the specifications of the final agreement
- Access Connections
- Rescue and Recovery

b. International Warranty

All laptops will ship with an additional International warranty option valid in over 125 countries worldwide at no extra charge.

c. Access Connections 4.12

- Simplifies connection management for mobile users
- Supports latest standard of wireless security

d. Lenovo Rescue and Recovery 3.1 2

- Offers do-it-yourself recovery and support options saving critical time for schools
- Administration tools can be customized to deploy critical updates (such as patches for worms or viruses) to Lenovo PCs across your school
- Rescues and restores your files, folders, or backups
- Links via the Internet (even with a blue screen!) to Lenovo and other support sites (LAN connection required) to allow for critical patch updates

2. Instructional Assistance:

a. Microsoft Teach IT Learn IT

Microsoft will also provide Teach IT, Learn IT CDs for usage by all schools and teachers in the Commonwealth. Teach IT, Learn IT CDs provide time-saving tools to integrate technology into curriculum and create engaging opportunities for teachers and students. This two-CD set, created for K-12 educators, helps you to take advantage of Office products by expanding what you already know. Learn how to get more from the following products: Word, Excel, PowerPoint, Publisher, FrontPage and more. The kit includes: 66 templates, more than 2,500 education clip art images, teacher-tested, themed lessons, and education specific tutorials.

b. Microsoft/ISTE Online Technology Assessment – includes a set of 30-minute formative assessments that students work through to gain technology skills.

c. Microsoft/Digital Literacy Curriculum – the complete online curriculum will include five courses comprised of an eLearning experience and associated assessments. The curriculum will also be available as a printed, ILT solution. A certificate exam will validate an individual's level of knowledge across the objective domain of all five courses.

d. Microsoft Developer Network Academic Alliance

Microsoft will provide, at no additional cost, to participating Classrooms for the Future schools under the School Agreement Licensing model Microsoft Developer Network Academic Alliance (MSDNAA) which will assist in preparing Pennsylvania students for their future.

e. Learning Essentials

Learning Essentials is a no-charge desktop application that runs on top of Microsoft Office to give students and teachers a custom Office environment. Learning Essentials includes curriculum-based templates and toolbars for Microsoft Office Word, Microsoft Office PowerPoint presentation graphics program, and Microsoft Office Excel spreadsheet software, plus academic tutorials from leading education publishers.

f. Shared Computer Toolkit for Windows

A no charge desktop application to help make shared computers more reliable and less time-consuming to maintain. The toolkit also helps to protect user privacy by refreshing the desktop, user settings, and user data each time a new user logs on.

g. Adobe Instructor Resource Center

In addition to the Adobe applications, Lenovo also offers the Adobe Instructor Resource Center. This easy-to-navigate tool allows students and teachers to search a database of rubrics, assessments, projects and assignments using Adobe Photoshop Elements and Premier Elements. It provides a great way to jumpstart technology integration in the curriculum and classroom experience! The Instructor Resource Center also includes links to the Adobe Digital Kids Club, a special site created for teachers, students, and parents. This is where you'll find the essential digital photography, video, and imaging resources you need to unleash the creative freedom that digital media products offer.

h. TryEngineering

IBM is the technology partner of TryEngineering, a new web site owned by IEEE. Designed to appeal to a wide range of audiences, TryEngineering.org, aims to inform teachers, school counselors, parents, and high school students about engineering and what engineers do through a web site, which launched June 2006, that combines interactive activities with valuable information on careers in engineering.

The site helps to demystify engineering with sections such as:

- **Engineer Life Profiles** – Profiles of real-life engineers inform visitors of the many duties that engineers perform daily in their profession.
- **Become an Engineer** – Students can learn how to prepare for a career in engineering. This section provides descriptions of Engineering and Engineering Technology majors, links to summer programs, suggested courses selections, and more.
- **Ask an Expert** – Visitors can send an engineering-related question to either an engineering undergraduate student or an engineer. The questions and answers are posted on TryEngineering.org and serve as an FAQ resource for all who visit the site.
- **University Finder** – Visitors can search for accredited engineering and engineering technology degree programs in Canada and the United States. Visitors can search by country, state/province/territory, degree field, tuition ranges, room and board ranges, size of student body, and location (rural, suburban, or urban). Plans are underway to expand the site to include programs in other English-speaking countries as well as Germany and France.
- **Lesson Plans** – Teachers can download free lessons that are aligned with national U.S. education standards on a variety of topics, such as building a robot arm, electric motors, and building a model of a household item.
- **Play Games** – Children can try their hand at virtual activities that introduce them to basic engineering concepts. "Beat the Heat" asks users to design a house that uses the sun for energy and remains at a comfortable temperature year round, while "Millennium Train" challenges children to design and test a railway transportation system that would run in the next century.

i. CSTA Instructional Resources

According to the Computer Science Teachers Association (CSTA), there will be 1.5 million computer and information technology jobs in the United States alone by 2012. IBM and CSTA have collaborated to accelerate computer science and

technology skills among young people by creating three instructional resources. Two of the resources are designed specifically for classroom use with students ages 14-18. They include:

- **Object Oriented Design Using Pong** - Students design and implement the classic video game Pong using Java programming concepts. Teachers use interactive group exercises to educate students about the core principles of object oriented programming.
- **Web Page Design and Development** - Students learn basic Web site design techniques, such as how to select a Web site project, identify the target population for a Web site, and use storyboarding as a tool for building Web sites. Teachers can use the pre-packaged lesson plans to break down the complexity in teaching computer science. The resources align to the curriculum standards contained in the Association for Computing Machinery's (ACM) Model Curriculum for K-12 Computer Science.
- **Project-Based Learning Module** - This third resource can be used by teachers to improve their own teaching strategies on project-based learning. These advanced skills are becoming relevant to the Information Technology field and every workplace. Teachers can become skilled at leading a series of group exercises that teach students how to collaborate with each other and solve complex problems.

IBM will provide these resources to the Commonwealth as part of this solution.

j. IBM Academic Initiatives Program

The IBM Academic Initiative is an innovative program to partner with high schools, colleges and universities worldwide to better educate millions of students for a more competitive information technology (IT) workforce. The Academic Initiative provides a broad range of offerings and benefits to professors and students, including the latest technologies in open source and IBM software, hardware, course materials, training and other resources. IBM will work with schools that support open standards and seek to use open source and IBM technologies for teaching purposes, both directly and virtually via the Web.

Education and consulting services can be made available to groups of faculty members interested in a particular technology. Educational resources provided range from product tutorials and skill development courses to publications with detailed integration guidelines, advanced technology topics and training, to courses-in-a-box with instructor and student guides, hands-on lab exercises, and exams. Other support resources include discounts on IBM certification exams, e-mail-based technical support, newsletters, tutorials and articles, forums and newsgroups, and more.

Upon graduation, students will understand the relevance and power of open standards and business on demand. They will possess the necessary skills for employment, such as mastery of J2EE and Linux, by IBM, its customers and IBM Business Partners worldwide -- a multi-million-job employment ecosystem, and one of the industry's largest.

As part of this solution, IBM will make available to the Commonwealth the following:

- The most comprehensive set of e-business software available
- Discounts on servers
- Training and educational materials, curriculum and courseware
- Certification resources and discounts
- Technical support
- Forums, newsgroups and other community resources, Journals and magazines

Students can visit the Student Portal which provides resources such as:

- Jobs and fellowships
- Downloads and demos
- Newsletter and newsgroup
- Contests
- Journals and magazines

Our focus is on serving students and faculty through providing free software from IBM when used in an instructional or research setting. Included are the latest products and technologies, such as WebSphere, DB2 Universal Database, Rational Application Developer and Rational Software Modeler and more -- available for Linux, Windows and AIX platforms.

3. Professional Development

a. IBM Teacher Work Place

IBM Reinventing Education (RE) has partnered with schools to develop and deliver technology solutions that tackle some of the education's toughest problems. Teacher's Workplace (TWP) is the solution that evolved from RE3 that makes it possible for teachers to design and produce electronic portfolios; personalize, store and review professional development materials; and communicate with mentors and peers about their classroom experiences.

The Pennsylvania Teacher's Workplace is a secure web site for educators housed at the University of Pennsylvania. IBM Corporate Community Relations began working with the Bucks County Intermediate Unit and Carol Teitelman and Shirley Crehan, who were leading the Keystone Initiative statewide. Ten Keystone teachers have been trained to use TWP and they are using this environment for collaboration and sharing files, and keeping a repository of personal best practices. In August 2006 at the Keystone Summit, they registered and trained an additional 100 Keystone Teachers on Teacher's Workplace.

IBM would also like to provide Teachers' Workplace as a repository for all professional development materials that will be used to support the Open Box Train the Trainer (T3) sessions for the Classrooms of the Future project. We can register all the T3 participants and they will receive their own User ID and Password.

These T3 participants will have access to the T3 materials; receive their own personal private file repository for storing best practices, a Web Page template

for publishing their own Classroom/Teacher Web Page and other collaborated threaded discussions that are lead via the Keystone initiative.

b. Microsoft Innovative Teachers

The Microsoft Innovative Teachers program provides opportunities for teachers to continually develop as professionals by focusing on the creation, sharing, reflection and replication of exemplary teaching and learning. The program helps educators use Microsoft technology to connect with their peers in a way that helps them learn from and inspire one another. Through the program Microsoft is awarding up to \$50 million in software grants to promote the creation of exemplary practices and providing educators with access to online learning communities of practice.

c. IBM MentorPlace

IBM recognizes the need districts have for volunteers and mentors for students as well as teachers. IBM would like to offer the opportunity to partner with IBM to match IBM mentors with Commonwealth students and teachers. IBM MentorPlace is a school-based online mentoring program in which IBM employees are providing academic assistance and career counseling to students in grades 3-12 while letting them know that adults care about their issues and concerns. IBM employees are also working with teachers, offering technology advice and other assistance.

MentorPlace serves as a key component of IBM's overall commitment to public education and raising student achievement. MentorPlace is a comprehensive and structured online mentoring initiative that capitalizes on the knowledge, dedication, and enthusiasm of teachers and students, as well as on the expertise, experience, and volunteering spirit of IBM employees.

In addition to working with students, we work in partnership with the teachers in each site to ensure that the online communication between mentors and students links closely with classroom learning. Some sites are working with middle school students on mathematics, and some are offering career advice and guidance to at-risk students. IBM will tailor the program to meet the needs of the teachers and students in the local school districts.

d. Microsoft Professional Development Programs

Microsoft will provide Teacher Professional Development Programs to support the product changes and enhancements and build a successful program for all participating teachers and students. Microsoft Education Productivity Advisors will create up to 20 hours of customized online interactive content to be leveraged across all Classrooms for the Future participants. In addition to the online interactive training modules, Microsoft will also commit an Education Productivity Advisor for 3 days in year one of this project to meet with the PDE and the IU leadership teams and gather a clear understanding of the Professional Development requirements specific to using Microsoft technologies in a classroom. These meetings will be in the form of 10 one hour Live Meeting sessions that will assist teachers in integrating technology into the curriculum.

- e.** We will work with the PDE to select teachers and invite them to Chicago educational summits, to tour model Chicago-area high schools, the CDW facilities, and local events. Similarly, we will sponsor attendance at key educational shows such as NECC for selected teachers.

4. Overall Program Support

a. Education-Oriented Team:

CDWG, Lenovo, and IBM understand the learning values that are derived from 1:1 initiatives in the schools. The companies that make up this industry-leading team are passionately focused on public-sector and educational needs.

Member schools will receive customer support second to none from CDWG. The account team will be available to help with any order-related needs or questions 7AM-7PM ET, Monday through Friday. However, if customers need assistance after hours, they can depend upon CDWG's US based customer support center, available toll-free at (866) 782-4239. Customer relations is available 24 hours per day, 365 days per year to answer questions about order status and returns and to provide post-sales assistance.

CDWG dedicated account managers, supported by a team of product specialists and system engineers, are available for Pre and Post-sales consultation and advice. Each account manager completes 250+ classroom hours at CDW University and receives weekly product training direct from manufacturers. Product specialists and system engineers use their high-level understanding of all the products and services available to assist the account managers in formulating the right solution at the right price for every specific situation.

b. Care and Feeding "TPI" DVD-Based Training

Lenovo will provide a high-production value training DVD geared toward the 12-24 year-old demographic. This compelling video entertains while teaching students the importance of Lenovo laptop care and safety. We suggest that this DVD be shown during student orientation of "Classrooms for the Future."

c. Change Management Toolkit

The Classrooms for the Future initiative in Pennsylvania will result in amazing changes in how teachers teach and how students learn. Any change of this magnitude must be accompanied by a change management strategy that recognizes all the stakeholders and processes needed to make it successful. IBM is offering the Commonwealth the use of its Change Management Toolkit to assist in this initiative as well as others within the district, whether at the district, school, or classroom level.

The Reinventing Education Change Toolkit, based on the work of Harvard Professor Rosabeth Moss Kanter, is a web site created by IBM to help education professionals be more effective at leading and implementing change. The Reinventing Education Change Toolkit was created through the collaborative effort of Rosabeth Moss Kanter and Goodmeasure, Inc., IBM's Reinventing Education project, together with the Council of Chief State School Officers (CCSSO), National Association of Secondary School Principals (NASSP), and National Association of Elementary School Principals (NAESP).

Here are some examples of the types of projects that might arise in your school or district for which the **Change Toolkit** could be helpful:

- Developing and adopting new lesson plans

- Increasing parental involvement and community collaboration
- Finding a way to accommodate and live with a new and lower budget
- Implementing a data warehouse and moving towards data-driven decision making to inform instructional practice
- Shifting from a one teacher-one classroom model to a team teaching approach
- Improving school-wide or system-wide morale
- Developing an alliance of businesses and community groups to address school issues
- Involving students more fully in planning for their own educational needs
- Introducing some useful new technology into your classrooms

d. Software Tracking Tool

Software License Tracker is a partnering with Adobe, Computer Associates, Microsoft, Network Associates/McAfee, Symantec, and Veritas, through CDWG's Extranet, which allows customers to obtain, track, and generate reports on software licenses, both current and those purchased as far back as June 1, 2001.

e. Customized Extranet

In addition to serving as a portal for obtaining product information, the customized extranet allows customers access to enhanced order status, product information, reporting capabilities, merchandise returns, personalized account status, quotes, and accounts payable.

f. Project Management

The CDWG dedicated project team will leave no detail unattended. Certified technicians, CDWG field account executives, inside account managers, Lenovo staff and customer relations coworkers will combine to offer unprecedented support to this valued initiative.

g. Technical Support

Free US based technical support is available 24 hours per day, 365 days per year, via toll-free telephone lines, e-mail, and online chat. All CDWG technicians are certified.

h. Field Technical Support

A Lenovo Field Technical Support Specialist will assist Commonwealth of PA's I/T team in implementing tools such as Access Connections and Rescue & Recovery to enhance the end user experience across all schools.

i. Program Management

CDWG's program manager will take responsibility for the contract management involved in the various and complex technology acquisitions made under the Commonwealth Classrooms for the Future contract. The reporting process will remain simple on the customer's end, since your program manager works to: ensure CDWG's compliance to the contract, make recommendations to the account team for improvements and efficiencies, and generate informative and customizable monthly and quarterly reports.

j. Quick and Accurate Delivery

97% of in-stock, credit-released orders ship the same day the order is placed. Out-of-stock orders typically ship in 2-10 days, ARO, subject to manufacturer availability. Due to our state-of-the-art shipping facilities, orders ship from CDWG with 99.9% accuracy.

k. Monthly or Quarterly Reporting

The CDWG program manager will generate reports, which will be available via the account team of the Pennsylvania Classrooms for the Future Extranet. These reports can be customized and will include key information, including but not limited to: order numbers, invoice numbers, dates of invoices, CDWG part numbers of products ordered, item descriptions, manufacturer part numbers of products ordered, quantity total, total dollar amount, number of purchase orders processed, number of credit card orders processed, dates of delivery, and number of returns.

l. Lenovo Learning Solutions

The Lenovo Learning Solutions is the one-stop source for technical and service professionals who want training on the newest Lenovo products and solutions. Some of our most exciting new offerings are now available on the Web. The Web courses offer the convenience of 24-hour access, self-paced learning, and online testing (most of which are free of charge). A wide range of training options are available: online Web courses, self-paced courses (CD, DVD, self study, and multimedia learning), or hands-on lab classes. All offerings take advantage of the very latest technology.

m. Lenovo Asset Recovery Services

IBM Global Financing (IGF), through its Asset Recovery Services (ARS) offering, can provide for the safe and environmentally legal disposition of Commonwealth of PA school owned assets. Through this ARS offering, IGF can offer a fixed-price removal of marketable products (**included behind this document**), a shared revenue process by which IGF receives the product at our designated location, puts it through a sales preparation process, remarkets the product and credits 80% of the sales proceeds to Commonwealth of PA (less a handling fee per unit), or a no cost asset disposal solution. Product without market value can be sent directly to our designated facility to be dismantled and scrapped. Note: this will be offered on a school-by-school basis outside of the parameters of the Classrooms For the Future Agreement. Transactions will be at the sole discretion of individual schools and districts.

n. ThinkTank

IBM has an educational cross communication program called ThinkTank. As part of this solution, we encourage the Commonwealth to participate in ThinkTank.

Since 1993, IBM has formalized our work with institutions implementing pervasive mobile computing and 1:1 programs. Through our experience with over 350 institutions throughout the world, IBM has been able, in partnership with educational institutions, to develop and compile best practices for student mobile computing.

ThinkTank is a program comprised of the following:

- an international users' group,
- a conference, and
- a web portal residing on the ibm.com domain.

The goal of ThinkTank is to provide best practices, open discussion and support for ThinkPad 1:1 and ThinkPad University programs across the world. The annual conference is an opportunity for institutions, like the Commonwealth, to network with each other along with IBM and Lenovo executives while learning about one another's programs - both successes and lessons learned. For one such event, annually, a member institution will host an international meeting of "ThinkTank" which brings together schools from around the world for a three-day session. During this meeting, both IBM experts (research, networking, wireless, ThinkPad development teams) and institutions present a variety of topics ranging from laptop distribution and student training approaches to financial, technical and helpdesk issues. The meeting is open only to IBM ThinkPad Academy, ThinkPad University and ThinkPad at School customers implementing similar projects. We believe this offers tremendous value to ThinkPad at School memberships and further facilitates and enhances the information transfer that already exists in the education community. In addition, it will grant the opportunity for each educational participant to highlight their own particular strengths. Participants gather information on best practices in one to one computing from colleagues as well as leaders in the education industry. There are numerous workshops, breakout sessions and small group meetings.

To further enhance ThinkTank, in 2004, an online best practices institute, ThinkTank Online, was established. This is ongoing networking via the ThinkTank Online portal; which is a 24/7 dynamic environment. This portal contains a worldwide data warehouse of best practices and information for mobile computing, exclusively for the benefit of our one to one computing program participants.

This site includes advice, software, templates and enlightened discussion on teaching with technology. In addition, member schools have the opportunity to sponsor one piece of curricula.

o. Intel's Teach to the Future program

Intel® Teach to the Future offers professional development worldwide designed to improve student learning through the effective integration of technology into the curriculum. Program offerings are available to K-12 teachers, school leaders and teacher education faculty.

http://www97.intel.com/education/teach/us_program.htm

5. Community Relations:

a. Pennsylvania "Win a Wireless Lab" Sweepstakes

In an effort to augment the Pennsylvania Classrooms For the Future initiative and add some fun and excitement, upon award to CDWG, CDWG will offer a complete and fully functioning wireless lab through a random sweepstakes that enables all Pennsylvania public schools to enter into the sweepstakes daily for three months.

Entries will be submitted at the **Discovery Education** website found at www.discoveryeducation.com. The name of one Pennsylvania public school will be drawn in May 2007 and will receive, at no cost, a Lenovo wireless lab bundle including but not limited to:

- 20 Lenovo laptop computers
- 1 Laptop cart
- 2 Access points
- 1 Projector
- 1 Printer
- 1 Digital Camera

CDWG will offer this sweepstakes in year one of the rollout, for delivery in time for back-to-school 07-08. Further information regarding this year's event can be viewed at [CDWG Wireless Lab Giveaway](#).

b. Small Business Partnerships

When any member school needs customized on-site service, CDWG can deliver it via one of our many local business partners. Powered by our extensive service and delivery capabilities, the CDWG Small Business Consortium is a select group of quality companies whose capabilities compliment CDWG's offerings. Pennsylvania member schools can work with these companies to fulfill purchasing requirements and make small business contracting goals.

c. On Demand Community

On Demand Community is a new web-based corporate initiative that transforms traditional models of community service and continues IBM's leadership in volunteerism. It demonstrates IBM's e-business on demand strategy and technology innovation connecting IBM to the community featuring over 100 web based tools for schools and community organizations plus community grants.

d. Highlight a feature story on the program in EdTech, our award-winning publication that describes issues facing schools, novel implementations in the K12 environment, and other features of interest. This magazine, with nationwide circulation, is lauded for its efforts to provide timely and relevant articles about technology in the educational environment.

e. Internships for HS students

These mini job training sessions will give students the opportunity to taste what it is like to be a technician at CDW. This can be done remotely through webcam, private chats, podcasting, IM and remote login.

f. Community awareness and briefings

CDWG will create a website that will serve to update Pennsylvania constituents on the status and milestones of the Classrooms For the Future initiatives. When the landing page is accessed, users will be able to access information on district deployments in progress, innovative uses of the CFF technology, FAQs on implementation, and other features as desired by the Commonwealth. This page will have a URL of www.cdwg.com/PAClassroomsfortheFuture or another moniker of the Commonwealth's choice.

g. Other community awareness activities

CDWG Public Relations is committed to enabling and highlighting the success of the Classrooms for the Future initiative. CDWG will undertake a series of targeted media activities to support the announcement of the contract and demonstrate success through the life of the program.

- **Post Award**

1. Press Release
2. Media Planning
3. Direct mail to schools highlighting Account Team, hotline number, bullet points describing order process.

- **Post Implementation**

1. Custom Case Study
2. Media Outreach
3. Speaking Opportunities

- **Post Award Press Release**

CDWG will work with the Pennsylvania Department of Education to develop a press release announcing the contract award. The press release will include:

- Background and overview of Classrooms for the Future
- The project's innovative approach to education and technology initiatives
- The potential positive impact the project will have on Pennsylvania's students and teachers

- **Media Planning:** CDWG will conduct media outreach, distributing the press release to:

1. K-12 media
2. Pennsylvania print and broadcast media
3. National publications

- **Other marketing activities**

1. Case Study: CDWG will work with the PDE to develop a custom case study upon implementation completion. The case study will be utilized for media outreach, thought leadership, speaking outreach and award outreach.
2. Media Outreach
3. News Messaging: Map and execute against a structured news roadmap

4. Editorial Features: Proactive pitches into predictable features
5. Opportunism: Harness one-to-one initiative leadership in the marketplace
6. Thought Leadership: Address market-centric problems with innovative, effective approaches
7. Speaking Outreach: Place speakers in visible positions at key conferences and events
8. Award Outreach: Secure industry awards recognizing CDWG and its customers

**EXHIBIT B TO CLASSROOMS FOR THE FUTURE CONTRACT
REVISED CONTRACT STANDARD TERMS AND CONDITIONS**

1. PURPOSE OF CONTRACT

The Department of General Services ("DGS") is establishing this Contract ("Contract") for the use of Pennsylvania public schools that receive *Classrooms for the Future* funding from the Commonwealth of Pennsylvania, Department of Education. ("Purchasers") in accordance with the requirements of Act 77 of 2004, amending Section 1902 of the Commonwealth Procurement Code, 62 Pa. C.S. § 1902.

2. PURCHASERS UNDER THE CONTRACT

a. The Contractor understands that it will not be providing any items directly to DGS or to any Commonwealth agency under the Contract. DGS is acting as a facilitator for the Purchasers, who may wish to purchase supplies under the Contract.

b. Purchasers who participate in this Contract and issue purchase orders ("POs") to the Contractor are third party beneficiaries who have the right to sue and be sued for breach of this contract without joining the Commonwealth or DGS as a party.

3. TERM OF CONTRACT

The term of the Contract shall commence on the Effective Date (as defined in this Section 3) and shall end on the Expiration Date identified in the Contract, subject to the other provisions of the Contract.

a. The Effective Date shall be:

1) the date the contract is fully executed and all approvals have been obtained as required by Commonwealth contracting procedures, or

2) the date identified in the Contract Special Terms and Conditions ("Special Terms and Conditions"), whichever is later. The Contract shall not be legally binding until after DGS sends the fully-executed Contract to the Contractor.

b. The Contractor shall not start performance under this Contract, nor shall the Contractor represent to any prospective Purchaser that the Contractor is authorized to provide supplies under this Contract, until the Effective Date has arrived and the Contractor has received a copy of the fully-executed Contract from DGS. The Contractor understands and accepts that a Purchaser has no obligation to pay the Contractor for any supply furnished, work performed, or expenses incurred under this Contract at any time, and that only a PO from a Purchaser shall trigger any delivery under this Contract.

c. DGS reserves the right, upon notice to the Contractor, to extend the Contract or any part of the Contract for up to three months upon the same terms and conditions. DGS will extend the Contract only to prevent a lapse in Contract coverage for Purchasers, and only for up to three months, until DGS enters into a new contract covering the Contract items.

4. PURCHASE ORDERS

Purchasers may issue POs against the Contract either directly using the Contractor's dedicated website ("online orders") or through any other means acceptable to the Contractor. Each PO will incorporate the terms and conditions set forth in the Contract.

Any PO delivered or transmitted to the Contractor after 4:00 p.m. will be considered received the following business day.

For electronically-issued POs, the following terms apply:

a. Upon receipt of a PO, the Contractor shall in return promptly deliver or transmit an acknowledgement to the Purchaser. A PO shall not give rise to any Contractor obligation to deliver or to any Purchaser obligation to receive and pay for delivered products, unless and until the Purchaser has received a Contractor acknowledgement of the PO.

b. The parties agree that no writing in addition to the PO and acknowledgement shall be required to make the PO legally binding, notwithstanding contrary requirements in any law. The parties agree not to contest the validity or enforceability of an electronic PO or acknowledgement under the provisions of a statute of frauds or any other applicable law relating to whether certain agreements are required to be in writing signed by the parties. A printed record of any electronic PO or acknowledgement will be admissible as evidence in any judicial, arbitration, mediation, or administrative proceedings to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of POs or acknowledgements under either the business records exception to the hearsay rule or the best evidence rule on the basis that the PO or acknowledgement were not in writing or signed by the parties. A PO or acknowledgement shall be deemed to be genuine for all purposes if it is transmitted to the location designated in these Terms and Conditions for such documents.

c. Each party will immediately take steps to verify any document that appears to be garbled in transmission or improperly formatted, including re-transmission of any such document.

5. INDEPENDENT CONTRACTOR

In performing the required Contract obligations, the Contractor agrees that it will act as an independent contractor, and not as an employee or agent of the Commonwealth, DGS, or any Purchaser.

6. THIRD PARTY BENEFICIARIES

The Contractor understands and acknowledges that there is no guarantee that any prospective Purchaser will place a PO under this Contract, and that it is within the sole discretion of the Purchaser whether to procure from the Contract or to use another procurement vehicle.

a. The selection of a particular contractor to provide a Contract item to a particular Purchaser will be based upon best value or return on investment, within the sole discretion of the Purchaser. The Contractor shall have no right to protest Purchaser's selection of a contractor under this procurement or any other contract.

b. The Contractor agrees that any dispute concerning a particular PO will be resolved between the Contractor and the Purchaser, without DGS participation.

7. COMPLIANCE WITH LAW

The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in the performance of this Contract.

8. ENVIRONMENTAL PROVISIONS

In the performance of this Contract, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

9. CONTRACTOR DEDICATED WEBSITE

DGS strongly encourages the Contractor to provide a dedicated website for Purchasers ("Contract Website"), including a complete listing with Contract pricing for all items required under the Contract, product and customer support information, and the capability for Purchasers to place online orders for Contract items. If the Contractor provides a Contract Website, the Contractor agrees to permit DGS to provide a link from the DGS website to the Contract Website to facilitate access by prospective Purchasers.

10. PRICING, COMPENSATION, AND INVOICES

The Contractor shall be required to furnish the awarded item(s) to Purchasers issuing POs under this Contract at the price(s) quoted in the Contractor's bid for the term and any and all renewals of this Contract, as further specified in this Section 10. After delivering the Contract item(s) to the Purchaser, the Contractor shall promptly send an invoice, including the PO number and itemized by line item, to the Purchaser's address specified in the PO. The invoice should include only those amounts due under the PO for items timely and satisfactorily delivered to the Purchaser.

a. The Contractor may offer voluntary price reductions and provide Contract items at prices lower than the Contractor's Contract prices for the items. The Contractor shall be compensated only for item(s) delivered to and accepted by the Purchaser.

b. The pricing for each Contract item shall include the cost of delivery to any destination within the Commonwealth of Pennsylvania as may be further limited by the Special Terms and Conditions, and there shall be no minimum order for shipments qualifying for F.O.B. delivered prices.

c. Because some smaller Purchasers may not have readily available Internet access, awarded Suppliers will also be required to provide hard copies of pricing information via fax or mail to any Purchaser requesting such information within five (5) working days after receipt of the Purchaser's request.

d. The Contractor's price shall include the warranty specified in Paragraph 13 below.

11. PAYMENT

Purchasers electing to participate in the Contract will order items directly from the Contractor and be responsible for payment directly to the Contractor. DGS shall require the Purchaser to put forth reasonable efforts to make payment by the Required Payment Date, defined as (a) the date on which payment is due under the PO terms, (b) 30 days after a Purchaser receives a completed invoice for items the Purchaser has accepted at its "Bill To" address on the PO if no payment date is specified in the PO, or (c) any later payment date specified on the invoice.

a. The Purchaser may delay payment if the invoice amount is greater than the Contract price(s).

b. The Contractor shall not construe any payment as the Purchaser's acceptance of any Contract item(s).

c. DGS, on behalf of the Purchasers, reserves the right for any Purchaser to conduct testing and inspection after payment within a reasonable time after delivery, and for that Purchaser to reject any or all Contract item(s) if such post payment testing or inspection discloses any defect or failure to meet Contract specifications.

d. The Contractor agrees to accept any Purchaser payment made through the use of a VISA card or MasterCard.

12. TAXES

A Purchaser may be exempt from excise taxes imposed by the Internal Revenue Service, Pennsylvania state sales tax, local sales tax, public transportation assistance taxes, and fees and vehicle rental taxes. A Purchaser may be registered with the Internal Revenue Service to make tax-free purchases. DGS will require each Purchaser claiming any tax exemption to complete the appropriate areas on the PO form to notify the Contractor of the applicable tax exemptions. The Pennsylvania Department of Revenue's regulations provide that exemption certificates are not required for sales made to governmental entities and no such certificates are issued.

13. WARRANTY

The Contractor warrants that all item(s) furnished by the Contractor, either itself or through its agents and subcontractors, shall be free and clear of any defects in workmanship or materials.

a. The Contractor shall pass through to the Purchaser the manufacturer's warranty for all Contract Items. The Contractor shall correct any problem with the Contract Item(s) and/or replace any defective part with a part of equivalent or superior quality, without additional cost to the Purchaser.

b. The Contractor warrants that all items to be provided under the Contract meet the requirements set forth in Part IV of the RFP.

c. The warranty period for a Contract Item shall commence upon delivery of the Contract Item to the Purchaser at the Purchaser's specified address.

14. DELIVERY

The Contractor shall deliver all item(s) F.O.B. Destination to the address specified on the PO.

a. The Contractor shall use commercially reasonable efforts to deliver all items ordered from this Contract within the time period specified in the Contract, and, if no time period is specified, within a reasonable time, not to exceed 30 calendar days after acceptance of any order, unless the Contractor and the Purchaser shall otherwise agree in writing. If Contractor is unable to meet Purchaser's time requirements, alternative arrangements may be agreed upon in writing between the parties. In the absence of such agreement, Purchaser's remedy is to cancel the order.

b. The Contractor agrees to bear the risk of loss, injury, or destruction of the item(s) ordered prior to the Purchaser's receipt of the items. The Contractor also agrees that such loss, injury, or destruction shall not release the Contractor from any of its contractual obligations to the Purchaser or DGS.

15. PATENT, COPYRIGHT, AND TRADEMARK INDEMNITY

a. The Contractor shall hold the Commonwealth and any Purchaser harmless from any suit or proceeding which may be brought by a third party against the Commonwealth or any Purchaser, their departments, officers or employees for the alleged infringement of any United States or foreign patents, copyrights, or trademarks, or for a misappropriation of trade secrets arising out of performance of this Contract, including all work, services, materials, reports, studies, and computer programs provided by the Contractor, and in any such suit or proceeding will satisfy any final award for such infringement, including costs. The Commonwealth agrees to give Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act 71 P.S. § 732-101, et seq., the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under the terms it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits. No settlement which prevents the Commonwealth from continuing to use the products provided in the Contract shall be made without the Commonwealth's prior written consent. In all events, the Commonwealth shall have the right to participate in the defense of any such suit or proceeding through counsel of its own choosing. It is expressly agreed by the Contractor that, in the event it requests that the Commonwealth provide support to the Contractor in defending any such claim, the Contractor shall reimburse the Commonwealth for all expenses (including attorneys' fees, if such are made necessary by the Contractor's request) incurred by the Commonwealth for such support. If OAG does not delegate the defense of the matter, the Contractor's obligation to indemnify ceases. The Contractor will, at its expense, provide whatever cooperation OAG requests in the defense of the suit.

b. If the defense of the suit is delegated to the Contractor, the Contractor shall pay all damages and costs awarded therein against the Commonwealth. If information and assistance are furnished by the Commonwealth at the Contractor's written request, it shall be at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written authorization.

c. The remedy for this section is limited to the following:

- (1) any amounts paid by the Commonwealth or any Purchaser less a reasonable amount based on the acceptance and use of the deliverable;
- (2) any license fee less an amount for the period of usage of any software; and
- (3) the prorated portion of any service fees representing the time remaining in any period of service for which payment was made.

d. The obligations of the Contractor under this Section continue without time limit and survive the termination of this contract.

e. Notwithstanding the above, the Contractor shall have no obligation for:

- (1) modification of any product, service, or deliverable provided by the Commonwealth or any Purchaser;
- (2) any material provided by the Commonwealth or any Purchaser to the Contractor and incorporated into, or used to prepare, a product, service, or deliverable;
- (3) use of the product, service, or deliverable in other than its specified operating environment;
- (4) the combination, operation, or use of the product, service, or deliverable with other products, services, or deliverables not provided by the Contractor as a system or the combination, operation, or use of the product, service, or deliverable, with any products, data, or apparatus that the Contractor did not provide;
- (5) infringement of a non-Contractor product alone.
- (6) the Commonwealth's or any Purchaser's distribution, marketing or use beyond the scope contemplated by the Contract; or
- (7) the Commonwealth's or any Purchaser's failure to use corrections or enhancements made available to the Commonwealth or any Purchaser by the Contractor at no charge.

f. The obligation to indemnify the Commonwealth and any Purchaser, under the terms of this Section, shall be the Contractor's sole and exclusive obligation for the infringement or misappropriation of intellectual property.

16. OWNERSHIP RIGHTS

Each Purchaser issuing a PO under this Contract shall have unrestricted authority to reproduce, distribute, and use any submitted report, data, or material, and any software or modifications and any associated documentation that is designed or developed and delivered to the Purchaser as part of the performance of the PO.

17. ASSIGNMENT OF ANTITRUST CLAIMS

The Contractor and DGS recognize that in actual economic practice, overcharges by the Contractor's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Purchaser under each Contract PO. As part of the consideration for the award of the Contract, and intending to be legally

bound, the Contractor assigns to each Purchaser issuing a Contract PO all right, title and interest in and to any claims the Contractor now has, or may acquire, under state or federal antitrust laws relating to the supplies and services which are the subject of the Contract PO.

18. HOLD HARMLESS PROVISION

a. The Contractor shall hold the Commonwealth and any Purchaser harmless from and indemnify the Commonwealth and any Purchaser against any and all third party claims, (i) brought for death or personal injury to a third party, or (ii) damage to tangible personal property suffered or incurred based upon or arising out of any negligent activities performed by the Contractor and its employees and agents under this Contract, provided the Commonwealth gives Contractor prompt notice of any such claim of which it learns. However, notwithstanding the prior sentence, a claim for death or personal injury to a third party or damage to tangible personal property shall not be subject to this Section if such claim or damage was caused in whole or in part by the actions of the Commonwealth or any Purchaser, their employees, agents, contractors or representatives. Claims also do not include any damages or liability excluded in this Contract. Pursuant to the Commonwealth Attorneys Act (71 P.S. § 732-101, et seq.), the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under such terms as it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits. If OAG does not delegate the defense of the matter, the Contractor's obligation to indemnify ceases. The Contractor will, at its expense, provide whatever cooperation OAG requests in the defense of the suit.

b. Notwithstanding the above, neither party shall enter into any settlement without the other party's written consent, which shall not be unreasonably withheld. The Commonwealth may, in its sole discretion, allow the Contractor to control the defense and any related settlement negotiations.

c. In no event will the Contractor be liable for incidental, consequential, special or indirect damages (including, without limitation, claims for lost profits, lost revenue, lost savings, interruption in use, unavailability of data, or for punitive or exemplary damages). The Contractor will not be liable for damages due to lost records or data, however, the Contractor shall provide reasonable assistance to the Commonwealth in restoring such lost records or data to their most recent backup copy. This limitation will be effective even in the event Contractor is informed in advance of the possibility of such damages.

19. AUDIT PROVISIONS

DGS and its designees, including without limitation any Purchaser issuing a PO under this Contract, shall have the right, at reasonable times and at a site DGS may designate, to audit the Contractor's books, documents, and records to the extent that such books, documents, and records relate to costs or pricing data for the Contract. The Contractor agrees to maintain records that will support its prices charged and costs incurred for the Contract.

The Contractor shall preserve books, documents and records that relate to costs or pricing data for the Contract for a period of three (3) years from date of final payment. The Contractor shall give full and free access to all records to DGS, Purchasers who have issued Contract POs, and/or their authorized representatives.

20. INSPECTION AND REJECTION

a. No item(s) received by any Purchaser issuing a Contract PO shall be deemed accepted until the Purchaser has had a reasonable opportunity to inspect the item(s). The Purchaser may reject any item(s) discovered to be defective or failing to conform to the Contract specifications upon initial inspection or at any later time if the defects contained in the item(s) or the noncompliance with the specifications were not reasonably ascertainable upon the initial inspection. The Contractor shall have the duty to remove rejected item(s) from the Purchaser's premises without expense to the Purchaser within fifteen (15) days

after notification. Rejected item(s) left longer than fifteen (15) days will be regarded as abandoned, and the Purchaser shall have the right to dispose of the item(s) as its own property and shall retain that portion of the proceeds of any sale that represents the Purchaser's costs and expenses for the storage and sale of the item(s). Upon notice of rejection, the Contractor shall immediately replace all such rejected item(s) with other non-defective items conforming to the specifications. If the Contractor fails, neglects, or refuses to do so, the Purchaser shall then have the right to procure a corresponding quantity of such item(s), and deduct from any monies then or later due to the Contractor, the difference between the price stated in the Contract and the actual cost of the item(s) to the Purchaser.

b. Notwithstanding subsection a. above, inspection and rejection rights only apply to products and installation services. Purchasers will have 15 days from receipt to inspect and reject products and services. Products and services will be deemed accepted if Contractor does not receive notice of rejection within the 15 day time period.

21. DEFAULT

a. DGS or any Purchaser may, subject to the provisions of Section 22 of this Contract ("Force Majeure"), and in addition to its other rights under this Contract, declare the Contractor in default under the Contract as to DGS, or under any PO issued under the Contract as to the issuing Purchaser, by written notice to the Contractor provided Contractor has not cured the default within 30 days from receipt of written notice of default. DGS may terminate (as provided in Section 23 of this Contract, "Termination Provisions") the whole or any part of this Contract, or in the case of any Purchaser, terminate a PO issued under this Contract, for any of the following reasons:

1. Failure to deliver the awarded item(s) within the time specified in the Contract or PO or as otherwise specified;
2. Improper delivery;
3. Failure to provide an item or items conforming with the specifications referenced in the Invitation For Bids;
4. Delivery of a defective item;
5. Failure or refusal to remove and replace any item(s) rejected as defective or nonconforming within fifteen (15) days after notification;
6. Insolvency or bankruptcy;
7. Assignment made for the benefit of creditors;
8. Failure to protect, to repair, or to make good any damage or injury to property; or
9. Breach of any provision of this Contract or any PO.

b. In the event that any Purchaser terminates a PO as provided in Subsection a. of this Section 21, any Purchaser may procure, upon such terms and in such manner as it determines, on item(s) similar or identical to those in any PO so terminated, and the Contractor shall be liable to Purchaser for any reasonable excess costs for such similar or identical item(s) included within the terminated part of the Contract.

c. If the Contract is terminated in whole or in part as provided in Subsection a. above, a Purchaser, in addition to any other rights provided in this Section 21, may require the Contractor to transfer title and deliver immediately to the Purchaser in the manner and to the extent directed by the Purchaser, such partially manufactured or delivered item(s) as the Contractor has specifically produced or specifically acquired for the performance of such part of the PO as has been terminated. Except as provided below, payment for any partially manufactured or delivered

item(s) accepted by the Purchaser shall be in an amount agreed upon by the Contractor and the Purchaser. The Purchaser may withhold from amounts otherwise due the Contractor for such partially manufactured or delivered item(s), such sum as the Purchaser determines to be necessary to protect the Purchaser against loss.

d. The rights and remedies of DGS and the Purchaser provided in this Section 21 shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

e. Failure to exercise any rights or remedies provided in this Section 21 shall not be construed to be a waiver by DGS or the Purchaser of any rights and remedies in regard to the event of default or any succeeding event of default.

f. Following exhaustion of the Contractor's administrative remedies against DGS as set forth in Section 24 of this Contract, the Contractor's exclusive remedy against DGS shall be to seek damages in the Board of Claims.

g. In the event a Purchaser terminates a PO under this Contract, the Contractor's exclusive remedy shall be against the Purchaser and not against DGS. The Contractor shall seek remedies against any Purchaser under a PO under the laws of the Commonwealth of Pennsylvania as they relate to contract disputes against non-Commonwealth parties, unless the Purchaser is subject to the jurisdiction of the Board of Claims, in which event the Contractor's exclusive remedy shall be to seek damages against the Purchaser before the Board as provided in Title 63 Pa. C.S. Part II, Subchapter C.

22. FORCE MAJEURE

No Purchaser will incur any liability to the Contractor, and the Contractor shall not incur any liability to any Purchaser, if its performance of any obligation under this Contract is prevented or delayed by causes beyond its control and without its fault or negligence. Causes beyond the control of the Contractor or Purchaser may include, but are not limited to, acts of God or war, changes in controlling law, regulations, orders or the requirements of any governmental entity, severe weather conditions, civil disorders, natural disasters, fire, epidemics and quarantines, general strikes throughout the trade, and freight embargoes.

The Contractor shall notify the Purchaser and the DGS Commodity Specialist orally within five (5) days, and in writing within ten (10) days, of the date on which the Contractor becomes aware, or should have reasonably become aware, that such cause would prevent or delay its performance. Such notification shall (i) describe fully such cause(s) and its effect on performance, (ii) state whether performance under the contract is prevented or delayed and (iii) if performance is delayed, state a reasonable estimate of the duration of the delay. The Contractor shall have the burden of proving that such cause(s) delayed or prevented its performance despite its diligent efforts to perform and shall produce such supporting documentation as the Purchaser and the DGS Commodity Specialist may reasonably request. After receipt of such notification, the Purchaser and the DGS Commodity Specialist may individually elect either to cancel the Contract or PO, as applicable, or to extend the time for performance as reasonably necessary to compensate for the Contractor's delay.

In the event of a declared emergency by competent governmental authorities, the Purchaser and DGS, by notice to the Contractor, may suspend all or a portion of the Contract or PO, as applicable.

23. TERMINATION PROVISIONS

DGS has the right to terminate this Contract, and any Purchaser shall have the right to terminate a PO issued under this Contract, upon written notice to the Contractor, for any of the following reasons:

a. DGS shall have the right to terminate this Contract, and any Purchaser shall have the right to terminate any PO issued under this Contract, for its convenience if DGS or the Purchaser, as applicable, determines termination to be in its best interest. The Contractor is entitled to complete any PO initiated prior to the effective date of the termination for which the Purchaser receives

delivery of a satisfactory product, but in no event shall the Contractor fill any POs received after the termination date of this Contract.

b. (1) DGS shall have the right to terminate this Contract, and any Purchaser shall be entitled to terminate any PO issued under this Contract, for Contractor default as defined in Section 21 of this Contract, or for any other cause specified in this Contract or by law upon written notice to the Contractor. Purchasers shall have no ability to terminate the Contract.

(2) DGS or the issuing Purchaser must provide Contractor with thirty (30) days advance written notice of intention to terminate this Contract as to DGS, or any PO issued under the Contract as to the issuing Purchaser, due to the Contractor's default. In the event that the default is not cured or an acceptable plan for curing the default is not in place within 30 days, DGS may terminate the Contract or the issuing Purchaser may terminate the PO.

(3) If it is later determined that DGS or the Purchaser erred in terminating the Contract or PO for cause, then, at the discretion of DGS or the Purchaser, as applicable, the Contract shall be deemed to have been terminated for convenience under Subsection a. of this Section 23.

24. CONTRACT CONTROVERSIES

a. In the event of a controversy or claim arising out of this Contract (except when the claim relates to a specific PO, as specified in Subsection d. of this Section 24) the Contractor must, within six months after the cause of action accrues, file a written claim with the DGS contracting officer for a determination and, in the case of a claim involving a PO, with the Purchaser. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum.

b. The DGS contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.

c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

d. In the event of a controversy or claim arising out of a PO, the Contractor shall file a written claim directly with the Purchaser.

25. ASSIGNABILITY AND SUBCONTRACTING

a. Subject to the terms and conditions of this Section 25, the Contract shall be binding upon the parties and their respective successors and assigns.

b. The Contractor shall not subcontract with any person without the Purchaser's prior written consent, which consent may be withheld at the Purchaser's sole and absolute discretion.

c. The Contractor may not assign, in whole or in part, this Contract or any rights, duties, obligations, or responsibilities under this Contract without DGS's prior written consent, which consent may be withheld at DGS's sole and absolute discretion.

d. Notwithstanding anything else in this Contract, the Contractor may, without DGS's consent, assign its rights to payment under this Contract or any PO issued under this Contract, provided that the Contractor provides written notice of such assignment to the DGS Commodity Specialist and the Purchaser together with a written acknowledgement from the assignee to DGS that any such payments are subject to all of the terms and conditions of this Contract.

e. For the purposes of this Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor, provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.

f. DGS's consent to any assignment, other than an assignment of payment as specified in subsection d. of this Section 25, shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all Contract terms and conditions and to assume the Contract duties, obligations, and responsibilities being assigned.

g. Any Contractor change of name that does not change the Contractor's federal identification number shall not be considered an assignment of this Contract. The Contractor shall give the DGS Commodity Specialist and the Purchaser written notice of any such change of name.

26. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of the Contract, Contractor agrees as follows:

a. In the hiring of any employees for the manufacture of supplies, performance of work, or any other activity required under the Contract or any subcontract, the Contractor, subcontractor or any person acting on behalf of the Contractor or subcontractor shall not by reason of gender, race, creed, or color discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

b. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work or any other activity required under the Contract on account of gender, race, creed, or color.

c. The Contractor and subcontractors shall establish and maintain a written sexual harassment policy and shall inform its employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.

d. The Contractor shall not discriminate by reason of gender, race, creed, or color against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

e. The Contractor and each subcontractor shall furnish all necessary employment documents and records to and permit access to its books, records, and accounts by the contracting officer and the Department of General Services' Bureau of Minority and Women Business Opportunities for purposes of investigation to ascertain compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause. If the Contractor or any subcontractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting officer or the Bureau of Minority and Women Business Opportunities.

f. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.

g. The Commonwealth may cancel or terminate the Contract, and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of

this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

27. CONTRACTOR INTEGRITY PROVISIONS

a. For purposes of this Section 27 only, the words "confidential information," "consent," "contractor," "financial interest," and "gratuity" shall have the following definitions.

1. **Confidential information** means information that is not public knowledge, or available to the public on request, disclosure of which would give an unfair, unethical, or illegal advantage to another desiring to contract with the Commonwealth.

2. **Consent** means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this agreement.

3. **Contractor** means the individual or entity that has entered into the Contract with the Commonwealth, including directors, officers, partners, managers, key employees and owners of more than a five percent interest.

4. **Financial interest** means:

A. Ownership of more than a five percent interest in any business; or

B. Holding a position as an officer, director, trustee, partner, employee, or the like, or holding any position of management.

5. **Gratuity** means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind.

b. The Contractor shall maintain the highest standards of integrity in the performance of the Contract and shall take no action in violation of state or federal laws, regulations, or other requirements that govern contracting with the Commonwealth.

c. The Contractor shall not disclose to others any confidential information gained by virtue of the Contract.

d. The Contractor shall not, in connection with this or any other agreement with the Commonwealth, directly or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any officer or employee of the Commonwealth.

e. The Contractor shall not, in connection with this or any other agreement with the Commonwealth, directly or indirectly, offer, give, or agree or promise to give to anyone any gratuity for the benefit of or at the direction or request of any officer or employee of the Commonwealth.

f. Except with the consent of the Commonwealth, neither the Contractor nor anyone in privity with him or her shall accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of work under the Contract except as provided therein.

g. Except with the consent of the Commonwealth, the Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material on this project.

h. The Contractor, upon being informed that any violation of these provisions has occurred or may occur, shall immediately notify the Commonwealth in writing.

i. The Contractor, by execution of the Contract and by the submission of any bills or invoices for payment pursuant thereto, certifies, and represents that he or she has not violated any of these provisions.

j. The Contractor, upon the inquiry or request of the Inspector General of the Commonwealth or any of that official's agents or representatives, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to the Contractor's integrity or responsibility, as those terms are defined by the Commonwealth's statutes, regulations, or management directives. Such information may include, but shall not be limited to, the Contractor's business or financial records, documents or files of any type or form that refers to or concern the Contract. Such information shall be retained by the Contractor for a period of three years beyond the termination of the Contract unless otherwise provided by law.

k. For violation of any of the above provisions, the Commonwealth may terminate this and any other agreement with the Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all expenses incurred in obtaining another Contractor to complete performance hereunder, and debar and suspend the Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or nonuse of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

28. CONTRACTOR RESPONSIBILITY PROVISIONS

a. The Contractor certifies, for itself and all its subcontractors, that as of the date of its execution of the bid/contract, that neither the Contractor, nor any subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid, a written explanation of why such certification cannot be made.

b. The Contractor must also certify, in writing, that as of the date of its execution of the bid/contract, it has no tax liabilities or other Commonwealth obligations.

c. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

d. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

e. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth, which results in the suspension or debarment of the Contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

f. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the internet at <http://www.dgs.state.pa.us> or contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No. (717) 783-6472
FAX No. (717) 787-9138

29. AMERICANS WITH DISABILITIES ACT

a. Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Contract or from activities provided for under this Contract on the basis of the disability. As a condition of accepting this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.

b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of subsection a above.

30. HAZARDOUS SUBSTANCES

The Contractor shall provide information to DGS and any Purchaser under this Contract about the identity and hazards of hazardous substances the Contractor may supply or use in the performance of this Contract. The Contractor must comply with Act 159 of October 5, 1984, known as the "Worker and Community Right to Know Act" (the "Act") and the regulations promulgated at 4 Pa. Code Section 301.1 et seq.

a. Labeling. The Contractor shall insure that each individual product (as well as the carton, container, or package in which the product is shipped) of any of the following substances (as defined by the Act and the regulations) supplied by the Contractor is clearly labeled, tagged, or marked with the information listed in Paragraph (1) through (4):

1. Hazardous substances:

- A. The chemical name or common name,
- B. A hazard warning, and
- C. The manufacturer's name, address, and telephone number.

2. Hazardous mixtures:

- A. The common name or, if no common name exists, the trade name;
- B. The chemical or common name of special hazardous substances comprising .01% or more of the mixture;
- C. The chemical or common name of hazardous substances comprising 1.0% or more of the mixture;
- D. A hazard warning; and

E. The manufacturer's name, address, and telephone number.

3. Single chemicals:

- A. The chemical or common name;
- B. A hazard warning, if appropriate; and
- C. The manufacturer's name, address, and telephone number.

4. Chemical Mixtures:

- A. The common name or, if no common name exists, the trade name;
- B. A hazard warning, if appropriate;
- C. The manufacturer's name, address, and telephone number; and
- D. The chemical or common name of either the top five substances by volume or those substances comprises 5.0% or more of the mixture.

A common or trade name may be used only if such a name more easily or readily identifies the true nature of the hazardous substance, hazardous mixture, single chemical, or mixture involved.

Container labels shall provide a warning as to the specific nature of the hazard arising from the substance in the container.

The Contractor shall give the hazard warning in conformity with one of the nationally recognized and accepted systems of providing such warnings, consistent with one or more of the recognized systems throughout the workplace. Examples are:

- NFPA 704, Identification of the Fire Hazards of Materials.
- National Paint and Coatings Association: Hazardous Materials Identification System.
- American Society for Testing and Materials, Safety Alert Pictorial Chart.
- American National Standard Institute, Inc., for the Precautionary Labeling of Hazardous Industrial Chemicals.

Labels must be legible and prominently affixed to and displayed on the product and the carton, container, or package so that employees can easily identify the hazardous substance or mixture present.

b. The Contractor shall provide Material Safety Data Sheets (MSDS) with the information required for each hazardous substance or hazardous mixture by the Act and regulations. The Contractor must provide an appropriate MSDS to the Purchaser with the initial shipment and with the first shipment after an MSDS is updated or product changed. For any other chemical, the Contractor shall provide an appropriate MSDS if the manufacturer, importer, or supplier produces or possesses the MSDS. The Contractor shall also notify the Purchaser when a substance or mixture is subject to the provisions of the Act. The MSDS may be attached to the carton, container, or package to be delivered to the Purchaser at the time of shipment.

31. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract on any agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies the Contractor may maintain for the purpose of securing business. For breach or violation of this warranty, the Commonwealth shall have the right to terminate this Contract without liability.

32. APPLICABLE LAW

This Contract shall be governed by and interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania, waiving any claim or defense that such forum is not convenient or proper. The Contractor agrees that any such court shall have *in personam* jurisdiction over it, and consents to service of process in any manner authorized by Pennsylvania law.

33. INTEGRATION

The RFP, any Addenda and exhibits thereto, the Contractor's Technical, Cost, Disadvantaged Business and Value Add (if applicable) proposals and any other referenced documents in the Contract, as well as the applicable provisions of the POs issued by the Purchasers, constitute the entire agreement between the parties. No agent, representative, employee, or officer of DGS or the Contractor has authority to make, or has made, any oral or written statement, agreement, or representation which may in any way be deemed to modify, add to, detract from, or otherwise change or alter the terms and conditions of, this Contract. No negotiations between the parties, nor any custom or usage, shall modify or contradict any of the terms and conditions of this Contract. No modifications, alterations, changes or waiver to the Contract or any of its terms, other than in a PO authorized by any individual Purchaser, shall be valid or binding unless accomplished by a written amendment signed by both parties or by a DGS- signed change order on the appropriate Commonwealth form.

34. CHANGES

DGS reserves the right to make changes at any time during the term of this Contract, including any renewals or extensions:

- a. to increase or decrease the quantities resulting from variations between any estimated and actual quantities;
- b. to make changes to the supply within the scope of the Contract;
- c. to notify the Contractor that the Commonwealth is exercising any Contract termination, renewal, or extension option; or
- d. to modify the time of performance so long as the modification does not alter the scope of the Contract or extend the Contract completion date beyond the Expiration Date specified in the Contract, including any renewals or extensions.

Any such change shall be made by the contracting officer shown on the Contract form, by notifying the Contractor in writing. The change shall be effective as of the date of the notification of change, unless the change specifies a later effective date. Such increases, decreases, changes, or modifications will not invalidate the Contract. The Contractor agrees to provide the supply to all subsequent Purchasers in accordance with the change. Any dispute by the Contractor in regard to the performance required by any notification of change shall be handled through Section 24 of this Contract ("Contract Controversies"). Purchasers shall have no ability to modify the Contract.

Exhibit C to Classrooms for the Future Contract

Final Price Sheet 10/25/2006

Student PC		Teacher PC	
Laptop Prices		Laptop Prices	
PC Laptops (ea) include training, integration, software and warranties, onsite repairs and all services as designated in this contract.		PC Laptops (ea) include training, integration, software and warranties, onsite repairs and all services as designated in this contract.	
Software includes: Genuine XP Windows, Inspiration + 4 year upgrade ability, Microsoft Office Professional XP and other software as noted in agreement		Software includes: Genuine XP Windows, Microsoft Office Professional XP, Inspiration + 4 year upgrade ability, Adobe Creative Suite + 2 year upgrade ability and other software as noted in agreement	
Classroom Package		Options:	
Printer/Scanner (ea)	\$146.14	1. At time of purchase, add extra battery and extra charger	\$124.90
Web Cams (ea)	\$71.00	2. At time of purchase, add 4-year warranty on battery	\$50.00
Interactive White Boards	\$1,032.10	3. At time of purchase, Increase laptop on-site warranty to 4 years	\$49.00
PC Multimedia Speakers	\$8.50	NOTES:	
Projector	\$683.00	1 Each school's dedicated CDW/G Account Manager will provide the school with a freight price at the time of order to be included as a line item on the school's purchase order and resulting invoice. Freight charges will be a pass through on classroom shipments.	
Laptop Storage Cart for PC (ea)	\$898.00	2. Installation is included in all standard CFF classroom orders. A standard classroom includes 11-30 laptop units, 2 access points and quantity 1 of the component items. If schools require a classroom purchase with less than 11 laptop units, \$25.84 will be charged per unit less than 11.	
Wireless Access Point (ea)	\$119.00	For installation of component items outside of the classroom package, schools will arrange for installation through their own suppliers.	
Digital Video Cameras	\$338.00	3. Promethean Whiteboard Option 1	
Digital Still Camera	\$204.67	<u>Interactive white board installation concurrent with standard classroom package installation:</u>	
Extra 6 cell battery	\$47.48	General board installation (not including configuration/overview): \$110	
Extra Battery charger	\$77.42	Above install, configure with projector/wireless plus overview: \$195	
Extra 9 cell battery	\$63.44	4. Promethean Whiteboard Option 2	
Extra 6 cell battery	\$47.48	<u>Interactive whiteboard installation (not concurrent with standard classroom installation):</u>	
		General board installation (not including configuration/overview): \$165	
		Above install, configuration with projector/wireless plus overview: \$300	



Disadvantaged Business Submittal Exhibit D

For purposes of this RFP, CDW•G, in partnership with IBM/Lenovo, has gone to great lengths to ensure that we have provided the State and it's schools a partner group that both meets the requirements and true spirit of the State's Disadvantaged Business and Enterprise Zone Small Business Initiatives, as well as ably fulfilling the necessary service requirements the State has put forth in this RFP such as:

- Professional Development, including training and consultation, curriculum development and integration, and online instruction
- Environment Assessment and Preparation
- Program/Contract Management and Implementation
- Support and Maintenance
- Installation and Configuration

Our strategy in creating partnerships for this and future opportunities within the State was a multi-tiered process of which we gave great consideration, discovery, planning, and execution. The steps in developing our team were as follows:

1. Identify partners that are certified as a Disadvantaged Business and/or Enterprise Zone Small Business.
2. Identify companies that can provide products and/or services needed for this opportunity and bring value to the schools.
3. Identify companies that can service large numbers or strategic areas/counties within the state.
4. Gather feedback from our Pennsylvania state, local and education customer base, as well as our vendor partners in the State for their recommendations and feedback on potential partners for this opportunity. We asked them who they preferred working with and why.
5. Request work/business plans, experience/references, as well as certifications and additional documentation required as part of this RFP.

After completing our due diligence in the process of discovery, qualification, and deliberation of the small disadvantaged businesses that could best compliment the partnership we have constructed between CDW•G, IBM, and Lenovo for this opportunity, we determined that two companies will provide the largest value to the schools for the 'Classrooms for the Future' initiative as part of our proposed solution to the Commonwealth.



CDW•G Contact for Small Disadvantaged Business contact:

Amanda Ewertowski
Program Manager
P: 312-705-3340
Email: amanda.ewertowski@cdwg.com

The purpose of this *Disadvantaged Business Submittal* is to provide the Commonwealth with a basis for evaluating the Disadvantaged Business and Enterprise Zone Small Business Utilization participation in the Classrooms for the Future Project for the Pennsylvania Department of General Services.

CDW•G is the prime contractor for this project. As part of our team, we are partnering with Veridyne Inc. Veridyne is certified by the Commonwealth of Pennsylvania Department of General Services as a MBE. We are also partnering with BetisGroup, Inc. We have included the following documentation at the end of this submittal as required by the RFQ:

- Certifications
 - A photocopy of Veridyne's BMWBO certificate;
 - BetisGroup 8(a) Certification
- Number of Employees
 - SBA Firm Profile indicating BetisGroup has 12 Employees
 - A letter attesting to the fact that Veridyne has 100 or fewer employees.
- Revenues
 - A copy of Veridyne's most recent tax return indicating that our gross annual revenues are less than the \$25 million allotted for information technology sales and service businesses.
 - A copy of BetisGroup's most recent Audited Financial Statements.
- Letters of Intent between CDW and Veridyne, BetisGroup to provide services or hardware procurement as a subcontractor on this project.

The following is additional information requested by the Commonwealth to be included as part of our submittal. There is no joint venture or utilization of small business located in a designated enterprise zone as part of this project.

- **Name and telephone number of project (contact) person for the Small Disadvantaged Business(s) or Socially Disadvantaged Business(s).**

Phillip R. Gring
Veridyne, Inc.
(717) 612-9561
pgring@veridyneinc.com

Hernan Cortez
BetisGroup, Inc.
(703)-585-2384
hcortes@betis.com

- **The company name, address and telephone number of the prime contact person for each specific Small Disadvantaged Business(s) or Socially Disadvantaged Business(s) included in the proposal.**



Veridyne, Inc.
2002 Sproul Road
Suite 206
Broomall, PA
(610) 325-1585
Attention: Mr. Samuel Patterson

BetisGroup, Inc.
6711 Lee Hwy.67 Highway , Ste. -2
Suite M-2
Arlington, VA 22205
(703) 532-2008
Attn: Mr. Hernan Cortez

- **The specific work, goods, or services the Small Disadvantaged Business(s) or Socially Disadvantaged Business(s) will perform or provide.**
 - Veridyne will provide project services related to equipment installation as outlined in the project's work plan contained in our Technical Proposal.
 - We will purchase selected Classrooms for the Future hardware directly from BetisGroup.
- **The location where the Small Disadvantaged Business(s) or Socially Disadvantaged Business(s) will perform these services.**
 - Veridyne will work at the customer location(s) as required by the RFP.
 - BetisGroup will conduct their work through their headquarters.
- **The timeframe for the Small Disadvantaged Business(s) or Socially Disadvantaged Business(s) to provide or deliver the goods or services.**
 - Veridyne and BetisGroup will be involved in the project for the entire project timeframe.
- **The amount of capital, if any, the Small Disadvantaged Business(s) or Socially Disadvantaged Business(s) will be expected to provide.**
 - No capital will be required of Veridyne, Inc.
 - BetisGroup will provide hardware to CDW•G for shipment within the Commonwealth. Upon invoicing CDW•G, they will receive compensation for this equipment.
- **The form and amount of compensation each Small Disadvantaged Business(s) or Socially Disadvantaged Business(s) will receive.**
 - Veridyne will be paid on a monthly basis based upon its billings to CDW.
 - BetisGroup will receive the benefit of their markup when selling CFF products to CDW•G
- **The percent of the total value of services or products purchased/subcontracted under the proposal that will be provided by the Small Disadvantaged Business(s) or Socially Disadvantaged Business(s).**
 - Veridyne will perform the installation services that will be provided by a disadvantaged business for this project.
 - Betisgroup will provide a percentage of the hardware to CDW•G. Together, the total value of all hardware procurement and services conducted with these two firms will approximate eight (8)% of the value of our offer.



Additional CDW•G efforts to promote small, disadvantaged businesses and the continued development of our Small Business Consortium

In December of 2003, CDW•G created the Small Business Consortium as a result of a growing need by our public sector customers to identify, promote and utilize small and/or disadvantaged businesses for procuring IT products and related services.

The Consortium has been formed as a result of annual releases of public requests for proposals to partner with our company. CDW•G has researched, qualified and selected partners that meet the federal, state and local government's requirements on many different socio-economic levels, allowing agencies the freedom to select the appropriate small business partners to suit their individual needs. Each of these partners is committed to demonstrating a high level of service — a level in which our customers have grown to be accustomed to — and expect from CDW•G and its industry partners.

Powered by CDW•G's extensive service and delivery capabilities, the Consortium is a select group of quality companies whose capabilities compliment CDW•G's offerings. Public sector customers in government, education and healthcare can work with these companies to fulfill their IT purchasing requirements and make their small business contracting goals.

We understand and are fully committed to working with the Commonwealth in their initiatives to enhance the ability of under-utilized firms to grow their business. Our Small Business Consortium gives us the process to quickly identify quality firms and tap into their wealth of service offerings.

And finally, we continue to work with Debra Pierson of Pierson Consulting with an intent to subcontract a yet-to-be-determined portion of the Classrooms for the Future initiative.



Professional Development High Level Overview:

*The below commitments assume the school chooses the CDW•G classroom solution.

Futurekids iAssessment for all teachers and principals (12,200 seats over 3 years)

Administrators:

Futurekids iAssessment for Principals; Futurekids

Pre session (curriculum needs assessment); Promethean 1 day

Post session (teacher presentations, needs assessment); Promethean 1 day

Total: 2 days

Coaches:

Infusing Technology; Futurekids 1 day

Kickoff Coaches Conference; Futurekids 1 day

Secondary Coaches Mentoring; Futurekids 1 day

Adobe Creative Suite Course; Adobe 2 days

Adobe Print, Web, and Mobile publishing course; Adobe 1 day

Lesson plan integration; Promethean 1 day

Post sessions; Promethean 90 minutes per month (3) 3 Days

Total: 10 days

Teachers:

Lesson plan integration: Promethean 1 day **all** teachers (T&C)

Post implementation sessions; Promethean 90 minutes per month (3 months)

Open Box; Futurekids Half Day face to face 6 teachers (T)

Open Box; Futurekids customized online course available to **all** teachers (T&C)

Infusing Technology; Futurekids online course available to **all** teachers

Adobe Education Leader Series; Adobe online lesson plan creation (4 core subjects) (T&C)

Total: 2 days

Technical Team:

Setup and Installation Session; CDW•G Install Team during implementation

Thinkvantage Technologies; Lenovo 1 day

Total: 2 Days

Professional Development Detail:

*The below commitments assume the school chooses the CDW•G classroom solution.

Futurekids Professional Development Overview for PA Classrooms for the Future

iAssessment

Purpose: The Futurekids team will develop an online survey instrument for each participant to take 60 days prior to the project kickoff. The purpose of the survey is to understand the existing skill sets, knowledge base, and attitudes of the trainee who will be implementing the Classrooms for the Future environment. Analysis of the survey results will determine the best adjustment of the course content to meet individual sessions.

Content: The skills and knowledge assessment is an online diagnostic tool, customized for four audiences including teachers, students, technology directors/coordinators/coaches and administrators, personalized for each user, and is intended to be ongoing; the tool provides superior reporting capabilities for users providing instant results aligned with ISTE and NETS with summary charts reflecting individual's current stage of development in seven different categories, each with five subcategories; the tool includes Individual Learning Plans (ILP) in which each user has opportunity to select target levels of development, to select timelines for accomplishing specific goals/activities, to select mapped resources available to the user to achieve targets levels, to provide lines of evidence that goals have been accomplished, and finally to produce comparative analysis reports. This platform will align all of the resources (content and online classes) with learning objectives and will serve as a content data bank for individualized learning plans. For accountability and measurable progress as well as on-going coaching and support, ILP's are e-mailed to coach/mentor for review and feedback.

Form: Two hard copies and one electronic copy of the online survey instrument will be delivered to the CDW-G Training Lead.

Open Box Training Train-the-Trainer

Purpose: Futurekids will prepare the Train-the-Trainer course materials for the Open Box training course. The purpose of these course materials is to provide the school trainers with the knowledge and material that they will need to feel comfortable in using the Classrooms for the Future environment and then training other teachers and potentially students on how to work in this environment.

Content: The course content materials will consist of the following:

- Training on portable multimedia computer devices and all peripherals including interactive whiteboards, projectors, web cameras, digital video and still cameras, multi-function printers and scanners
- Introduction of all software resources and the resources links
- Training on Microsoft Learn It, Teach It, productivity software tutorials including Word, Excel, Access, PowerPoint and Internet

- Training on sample integration projects for technology-rich classrooms in core subject areas of math, science, social studies and language arts
- Training on technology based student curriculum, templates and samples

Form: Two hard copies and one electronic copy of the Open Box Course Train-the-Trainer materials will be delivered to the CDW-G Training Lead.

Infusing Technology Train-the-Trainer

Purpose: Futurekids will prepare the Train-the-Trainer course materials for the subject leader training course. The purpose of these course materials is to provide the school trainers with the knowledge and material that they need to specifically address the infusion of the Classrooms for the Future technology into the teaching processes supporting the core curriculum areas of math, science, social studies and science.

Content: The course content materials will consist of the following:

- Resources and practical tools to integrate technology into core curriculum areas of math, science, social studies and language arts
- Effective process and strategy for technology integration
- Ten subject specific sample projects with templates and rubrics
- Standards mapping using NCTM (math), NSTA (science), NCSS (social studies), NCTE (language arts) and PA Academic Standards
- Technology skills tutorials
- Development of rubrics for student evaluation
- Development of student materials and templates
- Development of peer to peer teacher evaluation tools

Form: Two hard copies and one electronic copy of the Subject Leader Train-the-Trainer materials will be delivered to the CDW-G Training Lead.

Kickoff Coaches Conference

Task Description: The purpose of this task is to develop the course content for the PDE Classrooms for the Future Coaches' Corner sessions. Futurekids Team will be developing course content that will address following needs:

- Provide support to post the professional development calendar for trainees to sign up for training.
- Follow up in greater details on any questions in regards to the hardware, Open Box sessions and the Subject Leader training
- Validate and measure the implementation value of the online reporting tools of Futurekids online assessment. iAssessment will become a platform for sustained implementation of ongoing professional learning. We will prepare mentor teachers to support their colleagues through individualized learning plans.
- Emphasis on the software and web resources (Adobe, Inspiration, and other web resources included in the program.
- Higher order technology integration strategies and techniques.

- Develop course exercises to support the course objectives.
- Prepare “Train-the-Trainer” notes so that trainees can conduct the training within their schools
- Test the course content in a mock training environment
- Prepare an electronic copy of the course

Secondary Coaches Mentoring

Task Description: The purpose of this task is to develop the course content for the PDE Classrooms for the Future Coaches’ Corner sessions. Futurekids Team will be developing course content that will address following needs:

- Provide support to post the professional development calendar for trainees to sign up for training.
- Follow up in greater details on any questions in regards to the hardware, Open Box sessions and the Subject Leader training
- Validate and measure the implementation value of the online reporting tools of Futurekids online assessment. iAssessment will become a platform for sustained implementation of ongoing professional learning. We will prepare mentor teachers to support their colleagues through individualized learning plans.
- Emphasis on the software and web resources (Adobe, Inspiration, and other web resources included in the program.
- Higher order technology integration strategies and techniques.
- Develop course exercises to support the course objectives.
- Prepare “Train-the-Trainer” notes so that trainees can conduct the training within their schools
- Test the course content in a mock training environment
- Prepare an electronic copy of the course

Promethean Professional Development Overview for PA Classrooms for the Future

I. Pre Visit

- A. Who: Administrators
- B. What: Needs assessment: questionnaire with follow up call/visit
- C. When: 2 weeks before visit (Y1)

II. Visit

- A. Who: Teachers, coaches
- B. What: PD session-combination of the following based on needs assessment
 - 1. Back to Basics: Review of functions and features
 - 2. Resource Round-Up: Actualizing the value of district resources.
 - 3. Promethean Planet: Give and take
 - 4. Flipchart Fundamentals: Analyzing and creating engaging flipcharts
- C. When: date TBD (Y1)

III. Post Visit-

- A. Group 1
 - 1. Who: Teachers, coaches
 - 2. What: User group
 - i. 90 minutes/mo for 3 months under TLC guidance
 - ii. Project based
 - 3. When: (Fall Y2)
- B. Group 2
 - 1. Who: Administrators
 - 2. What: Lunch 'n Learn
 - i. teacher presentation
 - ii. success stories
 - iii. needs assessment
 - 3. When: 2 weeks after third user group session (Fall Y2)

Adobe Professional Development Overview for PA Classrooms for the Future

Creative Suite 2 Course:

Solution Overview Introductory Sessions

These sessions will be introductory overviews of the Adobe Creative Suite Premium 2.3 solution for the Productivity Solution for all coaches.

The complete design environment for print, web, and mobile publishing

Adobe® Creative Suite® 2.3 Premium software is a highly efficient, unified design environment that combines the latest versions of Adobe's professional design software with Version Cue® CS2, Adobe Bridge, and Adobe Stock Photos. It includes all-new Adobe Acrobat® 8 Professional software for the most up-to-date Adobe PDF file creation, collaboration, and automation tools. Creative Suite 2.3 Premium also comes with Dreamweaver® 8, the industry-leading web development tool.

Sessions will be held as follows (locations/dates/times TBD)

February eastern PA

March Western PA

April Eastern PA

May Western PA

Adobe Education Leader Series Virtual Seminars (via Online Virtual Session via the Adobe Acrobat Connect Solution-)

Sessions will review how Adobe Creative Suite 2.3 can be used across curriculums with instructors from various districts from across the US presenting- Session dates and times TBD

Online Instructional Resources

Lenovo Professional Development Overview for PA Classrooms for the Future

Thinkvantage Technologies:

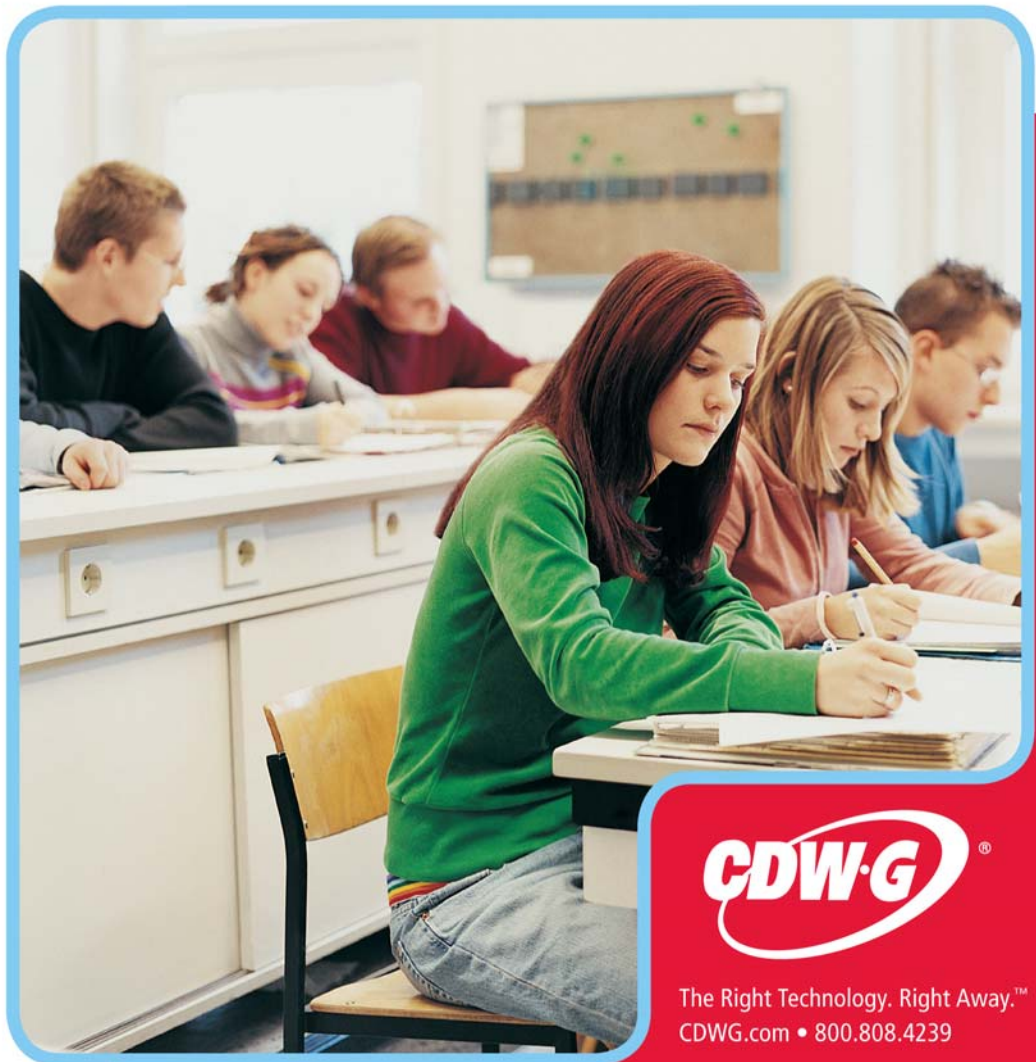
Understanding the value of Thinkvantage technologies. This course will take the technical staff from each district through all aspects of the Lenovo laptop.

Applications include Rescue & Recovery, Access Connections, and Thinkvantage System Update. The goal is to help the technical staff understand, implement and support ThinkPad's into their environment.

Commonwealth of Pennsylvania
Department of General Services

Request for Proposal for
Classrooms for the Future
July 28th, 2006

Technical Submittal



The Right Technology. Right Away.™
CDWG.com • 800.808.4239



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II-1. Statement of the Problem

The Commonwealth of Pennsylvania acknowledges a recent slowdown in integrating technology into Pennsylvania's classrooms across the Commonwealth. Technology use in the classroom has not increased significantly beyond the levels attained in the year 2002. Existing computers must be shared by up to eight students and with this published student to computer ratio of 8:1, this status quo is not likely to improve. However, the innovative Classroom of the Future project will significantly accelerate the infusion of technology into the curriculum of Pennsylvania schools across the state.

The core subjects of math, social studies, English and science will benefit most from this initiative by means of resources and lesson plans which exploit technology's benefits to their fullest. Further, the program is designed to ensure that every public high school and ACTS/CTC core classroom is equipped with laptops and supporting peripherals, applications and resources with a 1:1 student to laptop ratio. Most importantly, Pennsylvania's teachers will be prepared using the most advanced professional development paradigms available. The enabled and empowered faculty will then be able to deliver dynamic, interactive and multi-dimensional instruction.

At its core, the Classroom of the Future initiative benefits students most. Assessment data on 1:1 programs throughout the world already proves technology can have a positive impact in education. Pennsylvania's comprehensive plan has the ability to not only improve basic test score, attendance and retention metrics, but also to foster analysis, synthesis and evaluation - critical 21st-century skills demanded in today's global marketplace. Within the framework of the Classroom of the Future initiative, Project 720 and Job Ready PA, Pennsylvania's students will be equipped to live, work, compete and succeed in an increasingly competitive, global world.

II-2. Management Summary

CDW Government, Inc. (CDW•G,) a wholly owned subsidiary of **CDW Corporation (CDW)**, is fully committed to providing an all-inclusive solution to the Commonwealth; one that is supported by everyone from the Executive boardroom to the distribution center staff. Being named **"Most Admired Company,"** (#1 in our Industry) by **FORTUNE® Magazine** for 3 years in a row is testament to our high standards and attention to excellence. Attributes measured in this survey include Innovation, Employee Talent, Use of Corporate Assets, Financial Soundness, Long-Term Investment Value, Quality of Management and Quality of Products/Services. We are proud of this accolade, and intend to show the Commonwealth our business practices that point to every quality we have been cited for.



"Most Admired" in Our Industry - Again!



As recipient of the Torch Award for Ethics in the Marketplace (Council of Better Business Bureaus), we can assure the Commonwealth that integrity is our most valued principle. We will operate under the highest personal and professional standards during the performance of this project and will insist on the same measure for each of our partners.

We have given careful consideration to the approach needed to successfully provide a comprehensive solution to the Classrooms for the Future initiative. We assembled a dynamic team consisting of the best of the best, the leaders of the industry—to ensure that our solution best meets the needs of the teachers and students of Pennsylvania. We called on **Lenovo**-- an innovative, international technology company formed as a result of the acquisition by the Lenovo Group of the IBM Personal Computing Division. We solicited **IBM Global Services**-- the world's largest information technology services and consulting provider. We reached out to **disadvantaged businesses** in the Commonwealth of Pennsylvania to ensure that all counties will be serviced by top-quality, pioneering companies. We identified **Futurekids, Inc.** as our training partner, a global leader in helping schools use technology to transform education. Finally, CDW•G's powerful logistics and dedicated account management team will ensure the success of this program long after the products are delivered and the classrooms are infused with this ground-breaking technology solution.

The CDW•G knowledge base has been formed through our annual **Teachers Talk Tech** report—where we have tracked and measured technology trends in education from the teacher's perspective for the last four years. We employed Quality Education Data (QED), an industry leader in education market data, to survey more than 1,000 teachers to understand how technology is shaping education. The insight this year's teachers provided shows technology-related professional development is changing the way they teach in dramatic ways. While obstacles like time, access and budget still remain, when teachers are given the tools and training they need, they use technology more and their students, in turn, use technology to learn.

We are pleased to present our Classroom of the Future Offering to the Commonwealth of Pennsylvania. In reviewing the requirements for creating an integrated "Smart Classroom", CDW•G saw that the Commonwealth was seeking a solution that:

- Allows the teacher and students in the classroom to move to a highly interactive mode of teaching and learning through the integration of wireless mobile devices, whiteboards, web cameras, digital video and still cameras, and multifunction printers/scanners.
- Promotes learning inside and outside of the classroom and provides not only the base content requested in the RFP, but offers additional resources to serve as a gateway to expanding the teaching and learning possibilities throughout the learning environment.
- Is well thought out and provides a documented solution that enables the high schools to ready their classrooms prior to the team arriving for product installation.



- Supports the training model that empowers the teachers to integrate the technology and transform the teaching and learning processes in the classroom.
- Has the stability and “up time” so that teachers and administrators can focus on teaching and learning and not on the time needed to maintain and keep the solution running.
- Is managed and supported by a solution provider who can not only supply the products and services, but can concurrently support and document the procurement and end-user activity.

CDW•G has responded by offering an integrated solution that is supported by a multi-disciplinary team who reflect the best practices across the country. In this section, we provide an overview of our solution which includes **our team, our solution, workplan approach, prior experience, personnel, training approach, and financial capability**.

The Team – CDW•G has assembled a Team that offers proven performance in integrating technology into the classroom to drive educational results.

This project is not solely about technology. It is about leveraging technology in the classroom to create a new type of teaching and learning environment that drives educational results in the classroom. As a result, CDW•G assembled a team that delivers a robust solution that is supported by a set of meaningful services that support a transformation in the classroom. CDW•G is the prime contractor for this opportunity. We have formed an integrated team that consists of:

CDW•G Coworkers

We comprise a dedicated team intent on ensuring the all details of the customer experience are managed to the utmost satisfaction of every Commonwealth user. The account management, tech support, Customer Relations and ecommerce teams will all come together to seamlessly provide unmatched customer service.

Classroom of the Future Device Partners

CDW•G will lead the project by providing advice/consultation, product configuration, shipping, support, contract management and reporting.

- **Lenovo** is the manufacturer of the mobile devices, Lenovo offers the state-of-the-art laptop device and delivers the best value for mobile computing in terms of robustness, self help tools, embedded content, and price.
- **Mimio** is one of the leading whiteboard manufacturers in the world, and our whiteboard offering.
- **Hewlett Packard** is the industry leader printer manufacturer and innovator of various technologies including cameras, and our choice for both of these products, the **printer** as well as **digital camera** portion of our offering.
- **Cisco** is a name to trust, true innovators, and will be our proposed **access point** for wireless connectivity and accessibility.



- **Logitech** is a leading peripheral manufacturer and our chosen vendor for the **Web Camera** and **Speakers**
- **Bretford** is the name everybody knows when it comes to **laptop carts**, and our choice for this project.
- **Epson** is known throughout the world for their innovation and long standing excellence, and we have chosen them as our **projector** manufacturer.
- **Canon** is a name synonymous with cameras, and our choice for the **digital video camera**.

Classroom of the Future Services Partners

We have assembled a state-wide portfolio of service providers including national integrators and smaller disadvantaged regional businesses:

- CDW•G will supply products, assessment, consultation and frontline technical support, as well as overseeing the entire project and measuring its success.
- IBM Global Services will provide assistance in project management; integration, deployment and training.
- In-Shore Technologies, Veridyne, Inc. and CDW•G will provide the installation services required.
- CDW•G and other offered manufacturers will provide warranty support.

Classroom of the Future Content Partners

The following package of applications and tools will contribute to a rich interactive learning experience:

- Microsoft
- ThinkVantage technologies
- Adobe
- Inspiration
- FutureKids

The Solution – CDW•G offers an integrated solution that meets or exceeds all the technology component requirements specified by the Commonwealth

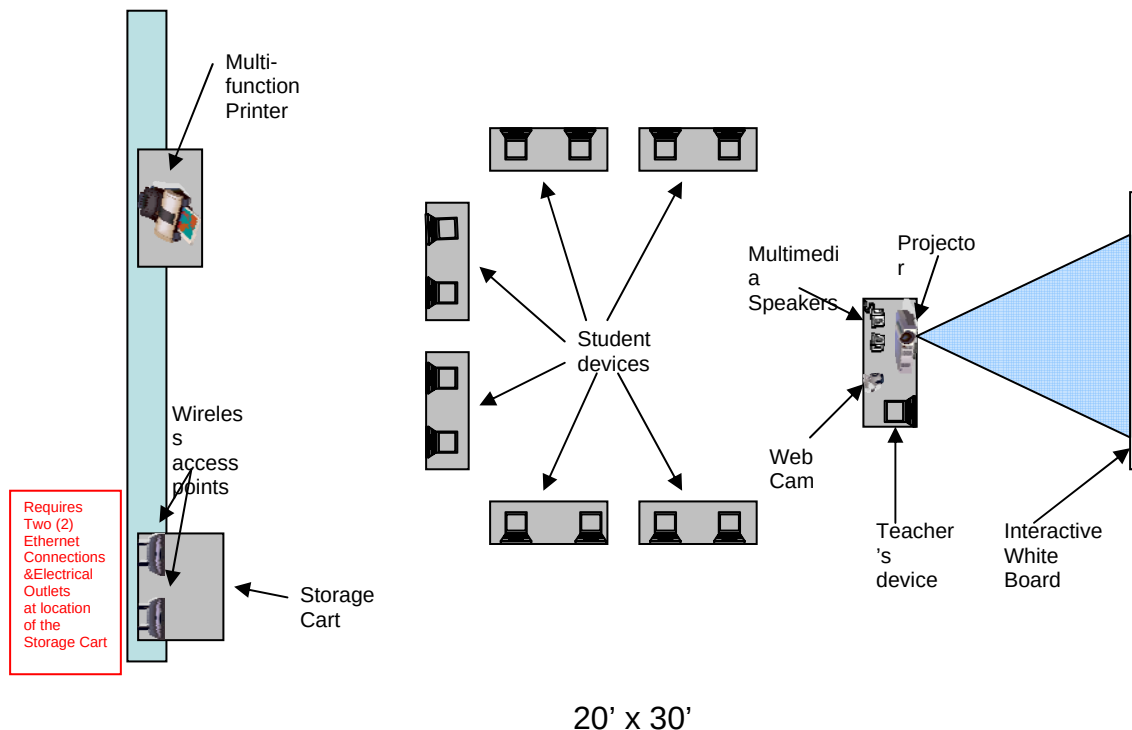
We have created a plan that considers the following milestones

- Grant application process
- Assessment of needs
- Order placement
- Acceptance readiness
- Shipment/delivery
- Installation
- Level 1/help desk support
- Day 2 support—warranty service
- Training/integration
- Ongoing consultative services



Our solution shows each of the components in an integrated solution framework. While research data shows the proposed classroom design as optimal, additional students can easily be incorporated into the classroom. Because the design has been based on the organic, scalable needs of a school, it can be expanded or contracted to meet the schools' individual needs. These needs will be assessed during the infrastructure build-out and configuration interviews. Highlights of each of our solution components are provided below:

"Classroom for the Future" Average Classroom



Classroom of the Future Device Partners

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The following package of applications and tools will contribute to a rich interactive learning experience:

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- ThinkVantage technologies
- Adobe
- Inspiration
- FutureKids

The Workplan Approach – CDW•G Offers an Implementation Approach that is ServiceFocused with the Schools as the Client



Prior Experience – CDW•G and its team offers an implementation experience – both solution and services – that reflects best practices across urban, suburban, and rural school districts nationally. Further, our experience in the commercial and government segments serves to reinforce our position as a world-class solution provider.

Our experience in deploying large rollouts in K12 and higher ed settings scales that of large school districts, private educational institutions and large university systems. We recently managed a nation-wide grant program where laptop cart solutions were installed in schools and non-profit institutions in urban, suburban and rural environments. CDW•G has the resources and logistics to ensure quality and attention to detail are paramount in the implementation of this program.

The Personnel – CDW•G and its team Offers demonstrated experience with its corp of certified, experienced account managers, trainers and technicians.

CDW•G provides our customers the type of customer service and support essential to this the success of projects of this magnitude. Our sales and technical teams attention to detail, focus, and customer centric approach allows us to truly understand the needs of our customers and supply them with a total solution.

With a can-do company culture, highly motivated coworkers, industry leading business partners and a business model that puts you, the customer, at the center of it all, CDW•G delivers to the Pennsylvania Department of Education the best our industry has to offer.

The Training Approach – The CDW•G Team is offering a Train-the-Trainer Approach That Focuses on Integration and Transformation in Classroom, not just on Technology.

For more than two decades, IBM, in partnership with CDW•G, has been providing Professional Development Consulting and Training that enables educators to build creative strategies to enhance learning and teaching experiences using technology. Our educational solutions are designed to provide the highest quality learning for your students and professional development resources to address teacher needs and goals. Working with *Futurekids*, we embraced their 5-step solution encouraging state and districts to support professional development that ultimately leads to student achievement of state standards.



The Financial Capabilities – The CDW•G Team brings to the Commonwealth a Solution and Services Approach that is Backed by Team Members who are the Most Financially Stable in the Industry .

CDW•G is a wholly owned subsidiary of CDW Corporation. CDW is a Fortune 500 company (#343) with over \$6.29 billion in sale last year, ZERO debt, and \$611 million in positive cash flow. CDW has been selling IT hardware, software and services into schools for over twenty years, and our company continues to grow year after year.

Conclusion

We ask you to decide that the CDW•G solution is the best fit for the Classrooms for the Future model. Our dedication to excellence, industry-leading team and considered approach will ensure that teachers gain knowledge and confidence in using technology; and that students benefit from an enriched educational experience as they move through high school into their college years.

The Classroom of the Future initiative contains many components which must seamlessly work together to form dynamic learning environments for students and teachers across Pennsylvania. The CDW•G solution, network and classroom design form the infrastructure. The most-awarded laptop brand ever, the ThinkPad, becomes the platform by which to deliver curricula. CDW•G's centrally-managed, locally dispatched service and support structure provides the lowest downtime metrics and highest end-user confidence.

FutureKids enables and empowers teachers to exploit this technology with the best professional development available. Each component has been created with one goal in mind: measurable, significantly positive educational assessment data. "Technology for technology's sake" no longer suffices. The Classroom of the Future initiative must yield positive assessment results, and this fact has influenced every aspect of our solution.

CDW•G is committed to flawless execution on our commitments for Pennsylvania schools. We look forward to discussing our solution with the Commonwealth in a future collaborative setting.

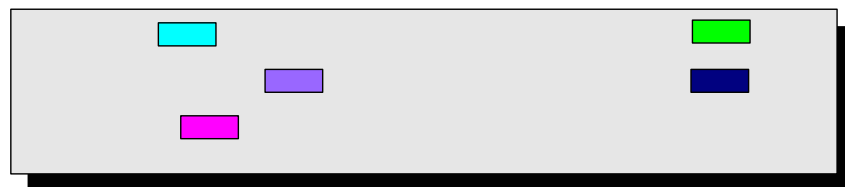
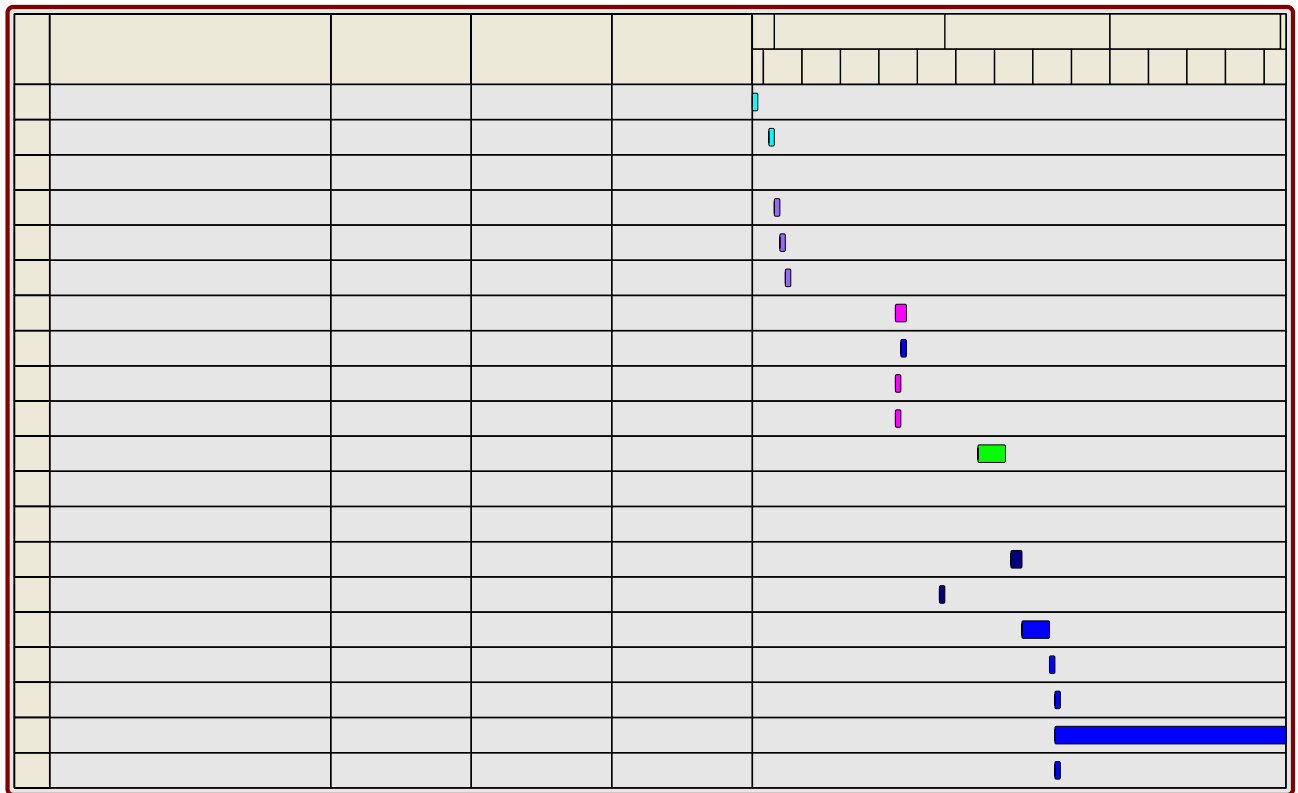
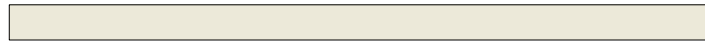


II-3. Work Plan

CDW•G/Lenovo/IBM response:

CDW•G has read and understands the information needed for the subsequent section 'IV. Requirements' and has provided accordingly with a point by point response to each requirement.

Additionally, CDW•G has provided a description and daily assessment of each task in the Gantt Chart on the following page.





IV-4. Requirements.

a. Device Specifications.

The minimum specification for the device is listed on Part IV, Section IV-2. ii). The devices (as defined in the detailed specification chart) will support the latest technology for example: The minimum specifications on Part IV, Section IV-2b.ii) were designed so that the mobile computing device will have sufficient processor speed, RAM, optical drives and hard disk storage to function in a classroom throughout the life of the contract. As per 2005 PA Technology Inventory, the school districts, AVTS/CTC utilize 87% PC and 13% MAC. Please prepare your proposal accordingly.

CDW • G /Lenovo / IBM response:

Minimum PC Laptop Specifications	Proposed Lenovo Specifications	Meets or Exceeds Specifications
Intel® Pentium® M Processor 740 or equivalent (1.73GHz/2MB Cache/400 MHz FSB)	Intel® Solo Core® Processor (1.66GHz/2MB Cache/400 MHz FSB) *	*Meets Specification
Genuine Windows XP Professional Operating System	Genuine Windows XP Professional Operating System	Meets Specification
15.4in WXGA Display	15.4in WXGA Display	Meets Specification
512MB DDR2 533MHz SDRAM, 2 DIMMS	512MB DDR2 533MHz SDRAM, 2 DIMMS (or 1 DIMM to allow for future upgrade to Vista memory requirement of 1GB)	Meets Specification
24X CD Burner/DVD Combo Drive (Teacher PC must have DVDRW/CDRW Drive)	24X CD Burner/DVD Combo Drive (Teacher PC has DVDRW/CDRW Drive)	Meets Specification
60GB Hard Drive, 9.5MM, 5400RPM	60GB Hard Drive, 9.5MM, 5400RPM	Meets Specification
Integrated Intel® Media Accelerator 900 Graphics (32mb RAM minimum)	Integrated Intel® Media Accelerator 900 Graphics (up to 128mb RAM)	Meets Specification
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	6 Cell Primary Battery (up to 5 hour battery life; 30 minute recharge) **	Meets Specification **
Built in Firewire IEEE 1394	Built in Firewire IEEE 1394	Meets Specification
Built-in Ethernet (10/100/1000)	Built-in Ethernet (10/100/1000)	Meets Specification
Internal Wireless (802.11g, 54Mbps)	Internal Wireless (802.11a/b/g, 54Mbps)	Meets Specification



4 Year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries.	4 Year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries ***	Meets Specification
7 pound maximum weight limit	5.8lbs	Exceeds Specification

*** Proposing Core Solo T1300 processor per Intel recommendation. The Core Solo T1300 processor is newer Intel technology with equivalent performance to the Pentium M 740 plus the added benefits of a faster front side bus and extended battery life which is essential for the classroom environment.**

**** Extra Battery and Charger per Laptop**

In Section “IV-2, ii Scope of Procurement”, the Commonwealth specifies that an additional batter and charger are made available. This section stipulates that the charger (or charging solution) must be capable of charging the additional batteries alone, outside of the laptop. To meet this requirement, and to address the answer in Question 120, CDW•G has included in the price of each laptop unit, a second batter per laptop and one charger per laptop that is designed to charge these additional batteries free standing from the laptop. We strongly encourage that the evaluation team confirm with all offers that their solution includes the same required specification.

***** 4-Year warranty covers system battery which ships standard with the machine. Each laptop ships with a power management utility that will indicate when the system battery should be replaced.**

b. Device Connectivity.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device will be able to connect to the wireless network and also be able to also access the school’s pre-existing local network, and the Internet, either wirelessly and wired within the school. The Offeror must describe its connectivity solution in detail. The system must support wireless Internet and WLAN access using the 802.11g standards.

CDW•G/Lenovo/IBM response: The proposed device being offered the PAE for this opportunity will be able to connect to the wireless network and will also be able to access the pre-existing local network and Internet in the schools.

The ThinkPad technology leadership extends to extensive participation in Industry standards committees like WiFi and Trusted Computing Platform Alliance (TCPA).

The standards emerging from these committees are often based on IBM/Lenovo invented technology that has already been incorporated on previous and current IBM/Lenovo product giving customers assurance that they are using tried and tested products.



IBM was the first in the Wintel marketplace to announce WiFi certified integrated wireless in our notebook computing platform in the year 2000. IBM has also led the industry with our implementation of placing the antenna(s) in the TFT which enhances wireless connectivity and reception. These design features have been carried over into the Lenovo products.

Lenovo offers a complete product line of wireless client systems and options that include wireless local area network (LAN via 802.11a/b/g all available), wireless personal area network (PAN via Bluetooth), and wireless wide area network (WAN via cellular). Lenovo is the only manufacturer that offers wireless connectivity without sacrificing other connectivity options. Lenovo gives our customers the ability to not only have 802.11a/b/g capability but also modem, wired Ethernet, and optional Bluetooth capabilities if desired, and these can all be accommodated within the same system.

Superior Design

Lenovo has the best implementation of wireless because all wireless ThinkPad systems have dual integrated antenna in the display bezel. This placement enhances performance by placing the antenna higher on the system with no obstruction. Also, by having two antennas, better transmission levels are possible as the stronger signal detected is the one that is used. The high, unobstructed positioning also allows for 360-degree communication, and enables a more consistent signal regardless of the positioning of the ThinkPad in relationship to the access point. Other manufacturers choose to put the antenna in the palm rest of the machine. Placing the antenna in the palm rest increases the likelihood of signal interference because the normal position of hands while typing virtually guarantees that a hand will be placed over the palm rest, causing interference. Placing the system on a metal desk also introduces interference to a palm-rest antenna. Additionally, Lenovo wireless cards and their corresponding antennas are not external to the machine which in a user environment ensures that the likelihood of loss or damage to the card is reduced.



Wireless Antenna Implementation Representing Dual Antennas in Screen



Connectivity Ease

In a wireless computing environment, hardware design is not the only consideration factor. Tools that simplify movement between a modem and/or Ethernet LAN to a wireless environment and back again are a necessity. Lenovo offers *Access Connections* software which gives users the ultimate in ease of use by saving wireless and wired network settings to easily switch between classroom, lab and auditorium environments with one user interface.

Access Connections allows users to create and manage location profiles. Each location profile stores all of the network settings including printer settings for example, and then also Internet configuration settings that are needed to connect to a network infrastructure from a specific location such as home or school. *Access Connections* also helps users find new open wireless networks, identify them and connect more quickly. By switching between location profiles as they move from place to place, users can easily and efficiently connect to a network without having to manually reconfigure settings and restart the computer each time. Without a tool like *Access Connections* software, users may need to take significantly more steps to set up a network connection in a location, including a call to the help desk.

c. Device Portability.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device will be able to be carried conveniently and easily by students and teachers. The portable computing device shall be lightweight.

CDW•G/Lenovo/IBM response: With dimensions of 14.1" x 10.3" x 1.58" and a weight of 5.8 lb, the Z61e is truly a portable yet powerful system. Lenovo's Z-Series Thinkpad laptops are designed for mobile users who rely on one notebook computer for both work and life demands. The ThinkPad Z61e's 15.4-inch display offers 30 percent more data space than a 15-inch XGA and better viewing angles.

In addition, for "student-friendly" handling, the Z-Series features a new inner armor chassis – a ThinkPad "Roll Cage" – that reduces the amount of stress by up to 30 percent on internal components when the notebook is dropped. The internal components, including the hard disk drive, are mounted in a one-piece magnesium cage that forms a more protective shell than traditional casings without affecting usability. Combined with Lenovo's Active Protection System, a ThinkVantage Technology, the ThinkPad "Roll Cage" provides a strong solution to defend against costly hard disk damage.

e. Device Power.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The portable computing device will have a battery(s) that will allow the device to be used throughout a standard school day. The battery will need to have the ability to be recharged through a type of multi-unit re-charger at the school, and will need to be able to be recharged overnight or sooner. The device shall also be able to be powered by a standard electrical plug.

The Offeror must specify the recharge time, electrical load, battery life, and other relevant electrical specifications of its solution-



CDW • G / Lenovo / IBM response: ThinkPad engineers have spent years studying customers and their needs. ThinkPad notebooks offer a long battery life allowing users to work anywhere; Battery MaxiMiser Wizard software will help users get the most out of their ThinkPad between battery charges. They can use this wizard to select the best Extended Power Scheme for what they need to do. Extended Power Schemes save power by disabling devices that are not needed. The users can also check their battery levels and enable alarms that will alert them when their battery power is low.

Options are available utilizing several sleep mode, hibernation, and suspend features to assist in saving power.

The standard 6-cell battery has a life up to 5 hours depending on the use. The recharge time when in the system is 3.5 hours while system is off or in suspended mode and 3.5 to 6 hours when in operation. Battery life and recharge times vary based on many factors, including screen brightness, applications, features, power management, battery conditioning, and other customer preference.

We are offering an optional Lenovo battery charger which gives maximum battery flexibility by providing a charged spare battery independent of the laptop. This charger works with the AC adapter provided with the laptop or can be purchased as an option.

f. Software and Function

i) Applications

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The solution must, at a minimum, provide the students and teachers with software to facilitate the following educational needs: writing (e.g., word processing, journaling, email, etc.), data analysis (e.g., spreadsheet, graphing and charting, GIS, etc.), presentations and publishing (e.g., slide shows, web authoring, etc.), multimedia creation (e.g., manipulation of digital images, audio, video, etc.), information management (e.g., database, concept mapping, etc.), research (e.g., Internet browsing with the ability to access and utilize multimedia and interactive content like streaming audio/video, javascripting, java applets, flash/shockwave, etc.). This software is further defined in the detailed specification chart. While the Offeror is not required to provide educational content, it is encouraged to do so as a Value Added option. It will be considered Value Added, if the content is aligned with tools and resources with Pennsylvania's standards and assessment anchors. (See http://www.pde.state.pa.us/a_and_t/site/default.asp) .

The most cost effective licensing options should be provided through the Microsoft Select plus software assurance and School Agreement programs. Schools will own the Laptops during the course of the four year lifecycle with the option to buy-out the software at the end of the four years. Please address licensing options to support. For additional information regarding Microsoft products, contact Pratik Chanda,



pchanda@microsoft.com

CDW•G/Lenovo/IBM response:

The PDE 'Classrooms for the Future' software solution provides the students and teachers with software to facilitate the following educational needs: writing (Microsoft Word.), data analysis (Microsoft Excel), presentations and publishing (Microsoft Powerpoint and Publisher), multimedia creation (Adobe Creative Suite, MS Office Suite 2003, and Inspiration), information management (Infopath), research (MS Internet Explorer and Adobe Creative Suite).

Additionally within our 'Value Add Submittal' under '3. Instruction Assistance', there is a myriad of education content tools/software to assist students in assessing and developing their skills and knowledge.

CDW•G has offered the most cost effective licensing program given the scope of the project and requirements for ownership. We worked closely with Pratik Chanda of Microsoft to develop a unique solution to meet the needs of the Commonwealth of Pennsylvania in the structure of a customized School Agreement. This agreement will provide four years of coverage from the start date of each year's enrollment. Whether each school starts their enrollment in year one, two or three, they all have four years of coverage which meets the specification of this rfp. As school agreements are annuity and volume based, pricing fluctuates based on the volume tier you reach annually.

The pricing in Exhibit D, reflects Tier 1 (0-24,999 units) which is \$117.19 per seat or \$26,907,552 for the full term assuming that tier. If the Commonwealth of Pennsylvania reaches its objective volume in year two and year three, the total cost over the term of the agreement will significantly decrease to \$16,689,928. At the top tier(75,000 units+), year 2 and 3 would be priced at \$69.53 per seat.

CDW•G and Microsoft believe that this program is the best solution for the Commonwealth of Pennsylvania. We welcome any requests for further clarification.



ii) Network and Device Connectivity.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device must be able to connect to network file servers using common networking protocols (e.g., smb, afp, nfs, ftp, etc.). The device must be able to utilize common peripherals for input and output (e.g., networked and stand-alone printers, digital cameras, digital video cameras, scanners, etc).

CDW•G/Lenovo/IBM response: The proposed laptop is able to connect to network file servers using common networking protocols. In addition, there are an array of ports for nearly every peripheral, including three USB 2.0 ports, as well as connections for S-Video, VGA and IEEE1394. The Z61e also boasts a 4-in-1 media card reader with support for Secure Digital memory, multimedia card, memory stick, and xD picture cards.

Adding to the multimedia capabilities are the new Windows, multimedia and application keys enhance the legendary full-size ThinkPad keyboard. The large stereo speakers are strategically placed on either side of the keyboard for superior sound quality and volume.

iii) Stand-alone.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device must be able to function in a stand-alone mode sufficient to enable the user to perform basic functions (e.g., writing, data analysis, multimedia, information management) without requiring network access. The Offeror must describe the differences, if any, in the function of the device when it is network-connected versus in stand-alone mode.

CDW•G/Lenovo/IBM response: There would be no difference in function in stand-alone mode of the base software load assuming no server or internet/intranet based applications or drives are required by the school.

iv) Software Restore.

The portable computing device will be able to be restored easily and in a reasonable timeframe. The Offeror is responsible for providing any CD, DVD and/or electronic image necessary to restore the device to a base state.need to address time and cd/dvd question directly.

CDW•G/Lenovo/IBM response:

Necessary resources needed to restore the device to a base state will be made available to schools with a restore CD and/or accessing a "ThinkVantage" button on the unit. The process to do so is quick and easy. One of many advantages to having a product from Lenovo is the ThinkVantage Tools provided with each system.

For example, applicable to this requirement, ThinkVantage Rescue and Recovery™ is a one-button solution that includes a set of self recovery tools to help users diagnose, get help and recover from a software crash, even if the primary operating system will not boot. It helps with everything from complete software failure to occasions when you



need only to restore a corrupted or deleted file. It is easily accessible from the Microsoft Windows desktop or by pressing the blue ThinkVantage button

ThinkVantage Rescue and Recovery:

- Helps users stay productive even if the primary operating system will not boot
- Provides links and access numbers to CDW•G tech support.
- Offers do-it-yourself recovery and support options
- Rescues and restores your files, folders, or backups
- Compatible with a broad range of external storage devices to help you back up your data off-line
- Links via the Internet to the Lenovo and other support sites
- Is easy to customize and deploy in the enterprise
- Can be incorporated into the Classrooms for the Future base image comes preloaded on select new Lenovo Think Family systems and is available as a download to update legacy entitled systems currently in the schools.

Savings can be found in the reduction of labor-intensive tasks associated with on-site support, help desks, PC management, and IMAC (Imaging, Moves, Adds and Changes).

Customer Benefits: The value of this \$180+ per incident is provided at no charge. The savings in time is limitless.

v) Operating System.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The Offeror must include current and upgraded (including new operating system) versions of the core operating system software through the term of the agreement in order to maintain usability with upgrades and enhancements to educationally relevant software. The Offeror must provide a device which will not require hardware upgrades in order to reasonably keep up with possible future software upgrades.

CDW•G/Lenovo/IBM response: CDW•G is including current versions of Microsoft. CDW•G is including the current versions of Microsoft XP Pro either obtained as an upgrade from Microsoft XP Home via the School Agreement or an OEM license per the two options described previously. Operating system upgrades would be covered by the Microsoft program.

According to the publicly available information on the Microsoft website (<http://www.microsoft.com/windowsvista/getready/default.mspx>) as of submission of this response, we believe the minimum hardware configuration specified would be Windows Vista capable with no Aero functionality. Windows Vista Premium would require additional hardware upgrades (recommendation of 1GB memory with 128mb VRAM). If the Commonwealth determines that it is in its best interest to move to Vista Premium, this hardware recommendation would require a configuration of 2-512mb DIMMS versus the 2-256mb DIMMS specified. The incremental cost of this configuration change would be \$50.



d. Additional Peripherals.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The Commonwealth wishes to enable public high schools and AVTS/CTCs to enhance or complement the portable computing device with additional software and hardware.

The Offeror shall include only those products, models and features that it will support when configured and connected to the proposed solution. The Offeror shall also warrant these additional peripherals for four years.

The Offeror is to provide the manufacturer name, model, short description, and warranty. Also, include any additional cables, connectors and adapters required. If any software upgrades or additional features are required, so state. These devices, cables, connectors and adapters must be available through the Offeror's corporation for delivery to the individual sites.

CDW•G/Lenovo/IBM response: PDE will receive additional peripherals; products, models and features that will be supported when configured and connected to the proposed solution. CDW•G will provide four year warranty coverage for these peripherals.

We have included product/technical specification sheets behind Tab 3. for each of the peripheral products offered as a part of this project solution. All hardware and software products offered as part of our solution are available for delivery to the individual sites.

e. Network Connectivity and Infrastructure.

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The wireless network infrastructure shall connect from the classroom portable computing devices at one end to the building local area network demarcation at the other end. Between the two ends, it will be the Offeror's responsibility only to provide consultative services to ensure connectivity and infrastructure.

Powerover-

Ethernet is preferred. Existing building local area network devices, servers and infrastructure may be utilized by the Offeror's solution at the Offeror's choice.

CDW•G/Lenovo/IBM response:

The proposed solution will connect into the existing local area network in the schools. CDW•G account management will conduct an infrastructure survey. During the consultation and solution building process, the dedicated account manager for each district will conduct a brief survey to assess infrastructure and connectivity readiness. They will provide basic consultation on recommended needs. We can provide this information to the grant office for efficient implementation.



f. Building Readiness.

Each local school district that participates in this program shall be responsible to ensure minimum building readiness for the installation of the proposed solution. The local school district shall address structural issues, construction/renovation, abatement, and electrical wiring needs, based on specifications supplied by the Offeror. The proposed solution should be designed to minimize necessary costs of building preparation. It will be the Offeror's responsibility only to provide consultative services to ensure building readiness.

CDW•G/Lenovo/IBM response:

The proposed solution is designed to be installed in the schools that meet the building readiness specifications listed in the requirement above. CDW•G will provide assessment surveys via the districts/schools. CDW•G account managers, based off that assessment, will propose a solution based around the generic 'Classrooms for the Future' package to minimize costs incurred by the schools. This will ensure maximized performance of the equipment and services procured.

g. Local Network and Access

These network access services will include as a minimum:

i) Wireless Coverage.

The coverage must ensure that all math, science, social studies and English classrooms can function wirelessly. Students and teachers will remain connected to the school's wireless LAN as they move around within the various rooms and areas. The Offeror will ensure access to the school's wireless network from all core academic classrooms for math, science, social studies and English content areas. To the extent necessary, a site survey should be performed to optimize each school's coverage area. A school may expand the coverage area at its own expense using the Offeror's optional equipment offering or another available Offeror.

CDW•G/Lenovo/IBM response:

Initially, CDW•G will administer a readiness survey. Based on the information provided by customer, CDW•G will provide consultation over the phone toward the appropriate solution given the school's environment and resources. If necessary, based on checkpoints, the account manager will engage lan/wan engineers and all technology specialists to determine the appropriate solution.

The proposed solution is designed to connect to the school's existing wireless LAN. Additional surveys upon installation will determine whether additional equipment or services are required to obtain basic or enhanced coverage.

ii) Wireless Access.

Each participating Classrooms for the Future package will be provided with a wireless connection. The portable computing devices will use the wireless access points to connect to the existing local area network, switch, servers, access points, and associated hardware to provide a robust network environment for the student and teacher devices. This includes access from the school environment via the wireless network and provided



servers and the services it provides, including access to shared applications and files. Additional access points, wiring, electrical and equipment (if necessary) will also be provided as a local school option. Each Offeror must describe its solution's capabilities as well as its limitations (e.g., interference susceptibility, distance and object penetration), including what wireless industry standards (e.g., 802.11g, standards) are employed in the solution.

CDW•G/Lenovo/IBM response: The PDE participating classrooms will receive a wireless solution that will

- 1) provide a wireless connection,
- 2) utilize wireless access points to connect to the existing local area network for the portable computing devices,
- 3) provide the necessary associated hardware to provide a robust network environment for the student and teacher devices.

Wireless access and coverage on wireless networks is affected by several conditions. First, understanding the combination of the amount of users with the construction of the school. It is also very important to understand student and teacher usage inside the classroom. With today's increasing demands for video and audio presentations, you have to properly configure your access to accommodate such high bandwidth applications. With the average classroom size of about 20-25 students, we have seen that the rollout of laptop cart computing to be a preferred method to get computing power into the hands of the student at the desktop. Most applications run adequately with 3mps of bandwidth. Since each access point in today's standard can run at a maximum of 54mps, simple math dictates that you can achieve acceptable bandwidth for up to 18 users per AP.

Cisco offers a unique solution that incorporates two antenna's per access point. This technology allows for two benefits to the school and their users. First, you can segregate the antennas (A & G) to securely have teachers on one Channel and students on another. This not only lessens the bandwidth concern but also adds to the overall security of the network by separating the student network and the teacher network on separate channels. Utilizing the A channel allows for 11 different channels to be used to further reduce your bandwidth concerns and still use the G channels (max 3) for the teaching and wireless printing network.

Coverage is also compromised by the construction of the classroom and school. Metal and lead are problematic shields that inhibit wireless frequencies from maximizing their bandwidth. Instituting a design that allows for a minimum of two AP's per classroom enables your signal to stay strong inside the intended classroom, thus maximizing connectivity and bandwidth within those walls. Adding AP's at 50-75' intervals in the hallways is also a good solution for those who want continuous connectivity for users that want to travel throughout the school connected.

iii) Wireless Bandwidth.

For the wireless solution to be effective, sufficient and necessary bandwidth capacity must be included in the package. The solution must not only include sufficient aggregate bandwidth but must also be capable of being customized for varying needs within a school. For example, a concentration of physical classrooms within a school may require additional access points or faster speeds, or both, within that area.



The solution must provide services to all students and teachers concurrently on the wireless network with quality response time that does not hinder or impede effective instruction and learning in the classroom. This requirement includes the ability for students to browse the Internet, download files and use streaming video without unreasonable delay. This requirement also includes the provision that the solution must provide concurrent wireless services to all students and teachers in a manner that, as a minimum, guarantees throughput capability, from host to client, of 3 megabits per second for files 1 megabyte or less in size 90% of the time.

CDW•G/Lenovo/IBM response: Many feel that installing more AP's solve a problem of bandwidth degradation, however without proper throttling of the power yields on the access point you can cause greater harm by just adding AP's. The proper procedure is to analyze the strength of the signal and turn down the power of the AP antenna to serve the area that you intend.

These are some best practices with Wireless connectivity; there are additional solutions that are being introduced as this proposal is being completed. Wireless systems management appliances are one such device. This device will help manage the power, connectivity and serviceability of the AP. It will allow for consolidated pushes of updates and bios changes. It also allows for remote maintenance of your wireless network solution.

iv) Internet Access.

Access to the Internet for Pennsylvania schools is to be provided via each school's connection to their ISP. The Offeror will ensure its solution works with the school's connection and the Offeror will work with each ISP to identify appropriate bandwidth and network infrastructure as needed. Internet content filtering, such as required by C.I.P.A. federal law, will be the ISP's and the local school's responsibility, not the Offeror's. The Offeror shall, to the extent feasible, consult and advise on the availability of cost effective measures for Internet content filtering.

CDW•G/Lenovo/IBM response: The internet and the classroom have become as essential as the blackboard and the chalk that delivered the content to students in the past. Internet connectivity is based mostly on the speed and reliability of your pipe from your internet provider. Cable and telco companies have done a great job of providing protection at their NOC, however the school also has to incorporate solutions on-site to offer best service to the end users. It is most preferred to establish a long term contract with a nationally known provider that can provide the most consistent bandwidth with a network that allows for regional routing and redundant backbones. These added features not only offer extended uptime but also provides the most consistent and continuous internet operation. Proper on-site routing equipment is probably the most important hardware device for the school to install.



v) Growth.

Suitable architecture must be provided to allow for growth in the wireless network infrastructure if there is growth due to additional grades in the school utilizing the infrastructure or growth in the population of the school utilizing the infrastructure.

CDW•G/Lenovo/IBM response: The growth of a wireless network is probably one of the biggest concerns to IT managers. Because the technology inherently shares bandwidth, it is ultra important to deploy technology that will understand how to manage this growth. Cisco uses network appliances to manage, update and track how access points perform. These devices help identify failure, track bandwidth usage and help IT administrators remotely manage the wireless network.

Power over Ethernet switching also becomes an important part of the growth the wireless networks. These switching devices also help AP's to derive their power directly over the CATX wire and do not need power sources for each device. This also helps secure the network by removing any power connection at the classroom (no way for someone to unplug the AP) and allows for power conditioning at your IDF and MDF locations to offer the best performance of your switching and AP devices. Layer 3 switching also creates the ability for VLAN's to separate traffic demands and adds to the overall security of the wired and wireless network.

vi) Print Services.

The portable computing devices will be able to utilize a school's existing networked printers. At local cost, each school may choose to acquire and install additional networked printers.

CDW•G/Lenovo/IBM response:

The proposed Lenovo laptop will be able to utilize a school's existing networked printers. Our offer includes additional networked printer options. Print services via a wireless network are easily obtained through both a wired and wireless design. A good rule of thumb is to hardwire printers any chance you can to do network printing. Wireless printing requires large bandwidth. However, utilizing the teacher channel and creating proper IP scheming will overcome most bandwidth concerns for wireless printing.

vii) Remote Network Access Portability.

The Offeror's portable computing device must enable students and teachers to access the school network.

CDW•G/Lenovo/IBM response:

The proposed Lenovo laptop and connectivity devices will enable students and teachers to access the school network. Remote network access is another area that many school administrators are looking to provide for "guests" to the school network. Once again, best practices, look to segregating channels for the temporary use of the network. Using proper Network authentication procedures such as encryption and SSID authentication will prevent the "guest" from accessing secure data on the school network, while allowing the user to access the internet and limited data, such as the school's web portal.



Once again, self defending network products from Cisco will limit and/or deny services of your wireless network to outside users.

h. Performance Metrics and Reporting.

The Offeror must track and record operational Performance and Quality metrics necessary to ensure the successful management of the project. Such performance metrics will be reported quarterly, by school as necessary, to a PDE identified project lead. The reporting may include such items as setup, deployment and installation of Classrooms for the Future packages. It will also include summary information regarding incidents, device and system failure types, downtime, repair turnaround times, trends, remediation needed, unresolved issues, recommended improvements, other factors necessary to ensure a successful project. Offerors should recommend metrics for consideration by PDE.

CDW•G/Lenovo/IBM response: CDW•G will meet and exceeds the requirements for performance metrics and reporting. CDW•G will provide quarterly reporting supplied by our installation partners for all projects including setup, deployment and installation of Classrooms for the Future packages. Incidents, device and sysetem failure types, downtime, repair turnaround times, trends, remidation needed, unresolved issues, and recommended improvements to ensure a successful project will be tracked. Additionally CDW•G offers the following metrics/reporting and tracking ability for operation performance and quality for this project via our web site:

- Order status and tracking (including box contents photos upon shipment)
- Software license tracking (Adobe and Microsoft licensing programs)
- Invoice tracking and management
- Asset tagging management
- Contact information for account managers and other resources
- Online Technical Support/Chat (Live-'real time')

i. Functional and Asset Security.

i) Wireless Security.

The solution must protect against eavesdropping and unauthorized access. The solution must include encryption or other techniques to provide this assurance which the local school may turn on or off as local policy indicates.

CDW•G/Lenovo/IBM response:

ThinkPad notebooks are equipped with solutions that make wireless communications better, easier and more secure. The most secure wireless computing is available on models with integrated 802.11 a/b/g Wi-Fi wireless which supports the 802.1x security protocol and works in conjunction with the Wired Equivalent Privacy (WEP) encryption. Stronger wireless network security is simple with Cisco Compatibility Extensions (CCX) certified notebooks.



In addition, Access Connections software is a no cost utility on Lenovo laptops that gives users the ultimate in ease of use by saving wireless and wired network settings and easily switching between classroom, office and other environments with one user interface. Access Connections gives a one-stop interface to manage connectivity and



wireless security settings in one program; there is no need to run another utility. For example, with the proposed notebook equipped with 11a/b/g Wi-Fi wireless, PDE will be able to choose between no security, Wired Equivalent Privacy (WEP) encryption, 802.1x (EAP-TLS) authentication, Wi-Fi Protected Access (WPA) or Cisco® LEAP.

Access Connections also provides the capability to create and save connection profiles. The security settings can be configured and saved in centrally controlled connection profiles. These profiles can be deployed with the initial image as well as distributed on a continual basis via the Profile Deployment features of Access Connections.

ii) Damage, Insurance, and Warranty.

In the case of individual fault, the local school district will determine as a matter of local policy whether any or all such local costs should be borne by the individual teacher, student, or parent(s). These local costs shall not be counted as part of the direct or indirect RFP price

CDW•G/Lenovo/IBM response: We offer a "No Questions Asked" optional warranty for Lenovo brand laptops that individual schools might consider as an option. This fee-based offering is best described as an extensive repair or replacement service to cover non-intentional damage that is caused by accidents. These accidents are generally not covered under the standard product warranty offerings, thus the Accidental Damage Protection Service will supplement an already robust set of support offerings. Some examples of the types of non-intentional damage that would be covered with this option are as follows:

- Liquid spills on the keyboard
- Drops and falls
- Electrical surge
- Damage or broken LCD due to a drop or fall
- Excludes theft, loss, or damage due to fire or intentional acts

The incremental cost for Accidental Damage Protection is included in our supplemental cost section.

iii) Theft.

The portable computing device provided must incorporate security features to deter theft. This should include an unavoidable login or greeting, or similar process, which identifies the program and/or owner of the device. These security features must be operative regardless of the physical environment in which the portable computing devices are found. The Offeror will provide a detailed description of security features on the proposed devices to deter theft.

CDW•G/Lenovo/IBM response:

The proposed laptops include security software to deter theft or unauthorized use regardless of the physical environment in which the devices are found. The password-protection mechanisms that are available on the proposed laptops are:



Power-on passwords to help protect the system from unauthorized use
Supervisor password for use by a system administrator
HDD password to help protect data on the removable drive

To further enhance security, we provide a Client Security Solution at no additional charge on the proposed laptops. Client Security Solution supports the use of a password, a passphrase or a fingerprint (optional fingerprint reader required) as authentication credentials for access to protected data. Where central management is an important requirement, Client Security Solution can be integrated into a Windows Domain Services management model. If very sensitive data must be protected on a PC, PDE can create policies that force multi-factor authentication. and can integrate Client Security Solution with best-of-breed data encryption solutions.

Client Security Solution includes Utimaco Private Disk Personal Edition so users can automatically lock valuable data with file and folder encryption. The size of the "disk volume" to be encrypted can be set by IT staff or controlled by the user. Only verified users can unlock the encrypted data, so sensitive information is better protected should a computer be stolen. For users interested in protecting all the data on their computer, full hard drive encryption is also available from Lenovo with Utimaco SafeGuard Easy at an additional cost.

This software-based technology protects school and user information, including vital security information like passwords, encryption keys and electronic credentials, while guarding against unauthorized user access.

In addition, an optional locking device in the Lenovo security slot provides physical security.

iv) Asset Tags.

The Offeror will include an asset tag and recording system. This system will included the fastening of asset tags in the factory during the production of the system. There will be one asset tag type for the entire Classrooms for the Future project. The attributes of the specific tag will be dictated by the Commonwealth. Information gathered and reported on system asset tags and labels may include: customer name, service tag, purchase order number, order number, order date, model number, shipping address, system component data, and/or customer-supplied information. Monitor asset tags and labels may include: customer name, monitor serial number or Offeror-generated asset number sequence. Offeror will establish a standard format for tags working with Commonwealth contract management.



CDW•G/Lenovo/IBM response:

CDW•G will affix asset tags in our configuration centers prior to shipment.

Once the tags are applied to the units, relevant information such as tag number, Order number, serial number and model number is loaded to the customer's website where it can be viewed and augmented. From this site, CDW•G customers can also download asset management reporting.



We look forward to working with the Commonwealth to establish the standard asset tag for use in the Classrooms for the Future project.

j. Technical and Curriculum Integration Training and Consultation.

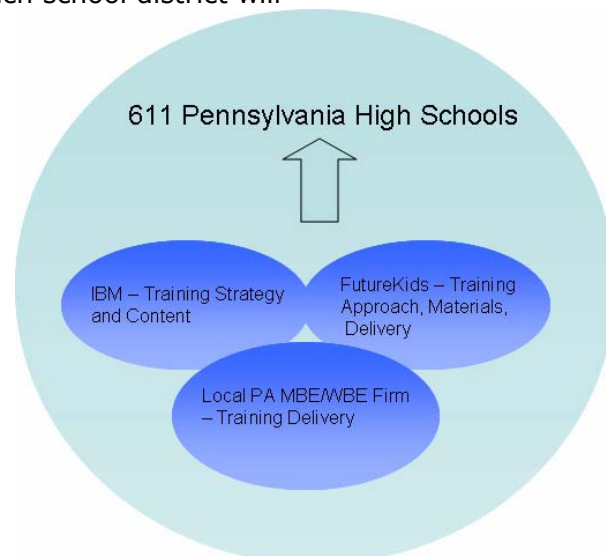
The Offeror shall provide an appropriate level of technical training on the solution, its local support requirements, and its applications for all teachers, school administrative staff, and technical support personnel. Each school district will coordinate the training schedule at the time of purchase.

This training shall include basic use of the entire classroom solution and software, use of the solution in a network environment, both wirelessly and wired Ethernet, use of the solution in standalone mode, and use and access of the server(s). Training should be done in the context of how to use and integrate the Classrooms for the Future package in an educational setting. While PDE will continue to provide regional training, the Offeror's training needs to be contextually relevant and not just a "computer skills" class. The Offeror will also include specific training on trouble-shooting, maintenance, repair procedures, etc. for technical support personnel.

The Offeror shall describe its proposed program to accomplish both training scenarios including a preliminary training plan, content and method, recommended duration, recommended location(s), materials included, instructor to student ratio, and qualifications of each instructor. The Offeror must separately and specifically address its training program for each year of the contract. The Offeror will also make available sufficient teacher training prior to the start of school year 2006-2007. Training times and locations should be convenient to the participating personnel, and school personnel should have multiple options to signup for training in their region at no additional cost. Each school district will schedule its own training sessions.

CDW•G/Lenovo/IBM response:

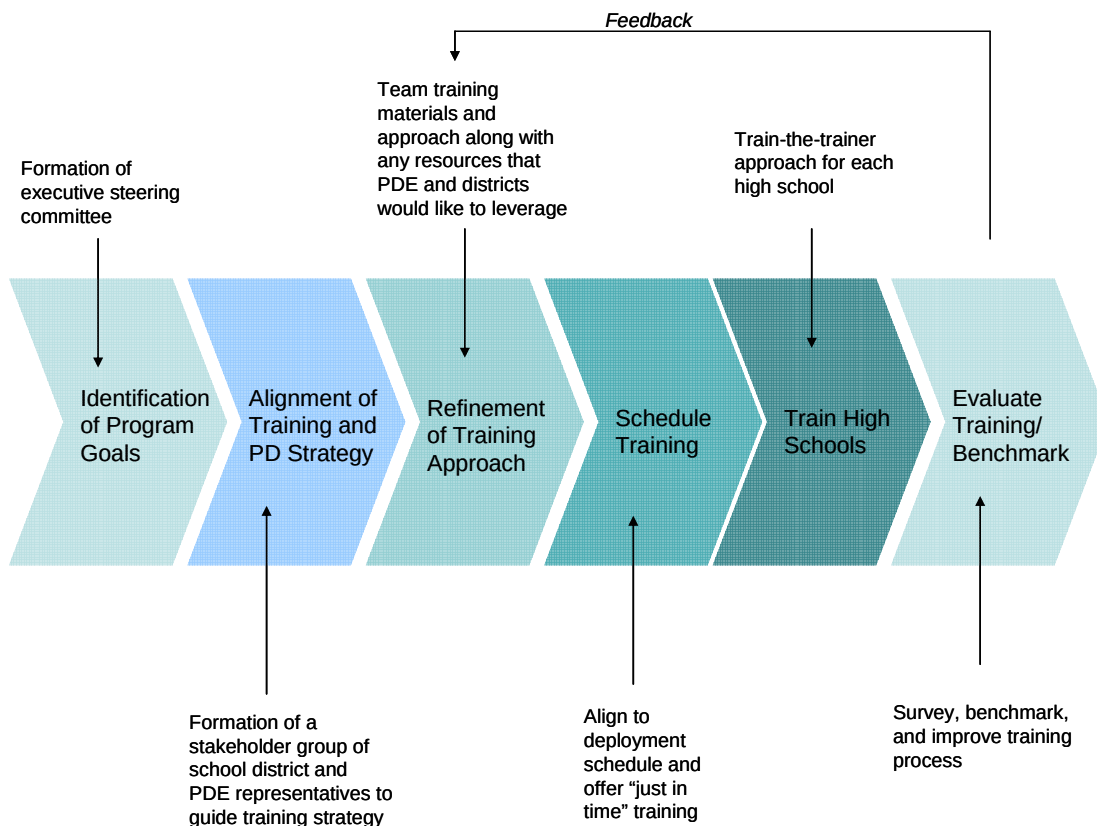
CDW•G Teams' professional development services provide a sustained technology integration program to prepare educators to work in 21st Century classrooms. The CDW•G Teams will work with state DOE'S and school districts to coordinate and design a comprehensive training program that will prepare teachers to incorporate technology into their instructional program to improve student learning. The





professional plan is designed to support and build on state computer skills competencies, ISTE NETS standards for teachers and 21st Century Skills.

CDW•G's strategy includes working with select partners that have demonstrated the capabilities to deliver valuable products and services to educational customers. For this offering, CDW•G is leveraging a group of partners who will be working together to deliver training and professional development to the school districts in the state. Specifically, we are teaming with IBM Global Services and *Futurekids*, a company who also believes that top caliber professional development is the key to realizing a district's technology investments and brings 21st century tools and skills to education. IBM and FutureKids worked together for other customers to build a training and professional development model that addresses a continuum of technology integration needs in the classroom. (See Section L for a more complete description of our training, professional development and content service offerings for this engagement.) The solution empowers educators, students and administrators to be proficient with technology as a learning, instruction, administrative and communication tool that results in better learning outcomes and improved return on investment. The CDW•G Training and Professional Development Team, has been working directly with educators to overcome the "disconnect" that typically exists between a district's investment in technology and its ability to integrate technology into teacher preparation and instruction. Our approach is an 6 step approach as depicted in Figure 4. below.





Overview of the CDW•G Baseline Training Approach

In providing a summary of the proposed approach depicted in the above figure, our model starts with the confirmation of the program goals and then aligning the training and professional development strategy to those goals. The alignment of the training and professional development strategy will involve a stakeholder group of representative school districts and PDE staff working with the CDW•G consultants. The type of consultant that the CDW•G team will leverage for this initial phase is described in Section K. Based on the alignment, the CDW•G Team will work with the stakeholder group to refine our training approach and associated materials. Our base and “a la carte” offerings of courses, materials, and tools are further described in Sections L and M. Upon refining the training approach, the CDW•G Team would then schedule the training, aligning the schedule to the deployment so that “just in time” training schedule can be leveraged by the school district. The CDW•G Training Team would train the school districts. Upon completing a school district training session, the CDW•G training team would request an evaluation of the training session. After a group of training sessions have taken place, the CDW•G Training Team would then meet with the stakeholder group to review training results, benchmark, and introduce process improvements.

While the above provides a summary of our approach, the actual training approach planned for in this response is a train the train (T3) model that offers six educators in every High School an Open Box face-to-face session with hands-on to the wireless laptop, cart and all peripherals listed in the hardware solution. Our assumption is that these six teachers will be a team that will provide training to the other teachers and students in their school. We suggest that at least one of the teachers attending the T3 training should be a Pennsylvania Certified Keystone Teacher. If all six T3 participants are not Keystone Certified Teachers we recommend that the other educators selected would be those who have also harnessed the model to infuse technology into their instructional practices for the purpose of improving student learning. We also advocate that the selection of T3 participant team represent each of the four curriculum areas, Math, Science, Social Studies and English along with a lead technology teacher or specialist, and an administrator or curriculum specialist supporting Classrooms for the Future.

The Open Box Training will be a three and a half hour session and two schools will come together at school locations. When there are two additional COF schools within regional driving distance, a second session will be conducted in the afternoon. When the installation schedule of multiple school districts is in a regional area we will work with Pennsylvania Association of Intermediate Unit to conduct the course in their location.

Materials used in the session are part of the image for Lenovo ThinkPad allowing easy access to T3 trainers, teachers and students. These materials can also be accessed from the IBM Pennsylvania Teachers’ Workplace (TWP) portal. Teacher’s Workplace (TWP) is the solution that evolved from IBM Reinventing Education Grant that makes it possible for teachers to design and produce electronic portfolios; personalize, store and review professional development materials; communicate with mentors and peers about their classroom experiences. The Pennsylvania TWP is a secure web site for educators hosted at the University of Pennsylvania. TWP will be used as a repository for all professional development materials that will be used to support the Open Box Train the Trainer (T3)



sessions for the Classrooms of the Future project. We can register all the T3 participants and they will receive their own User ID and Password.. These T3 participants will have access to the T3 materials; receive their own personal private file repository for storing best practices, a Web Page template for publishing their own Classroom/Teacher Webpage and other collaborated threaded discussions that are lead via the Keystone initiative.

Keystone teachers are currently using TWP to collaborate amongst themselves and share files. We will provide all T3 participants a secure license to access this collaborative site.

Following is Open Box Train the Trainers (T3) Session Course Description:

Open Box Train the Trainers (T3) Session

Course Title: Open Box Training for Using/Integrating the Wireless Laptop, Cart & Peripherals in the Classroom
Delivery: Face-to-Face
Course Description: <i>Using/Integrating the Wireless Laptop, Cart and Peripherals in the Classroom</i> is a 3.5 hour course designed to train the Trainers in the fundamentals of utilizing the technology in the classroom. The training is designed to familiarize participants with the physical attributes of the wireless laptop, storage cart, wireless access points, peripherals features and functionality. By the end of the course, the participants will be able to demonstrate proper handling, correct connections between devices and basic troubleshooting techniques of the equipment. In addition, participants will learn best practices classroom management ideas, student procedures, and examine integration projects to be implemented when introducing the wireless laptop cart and peripherals into the classroom.
Course Objectives By the end of the session T3 trainers should be able to: • Identify and describe physical attributes and capabilities of the wireless laptop, cart and peripherals • Demonstrate proficiency in general operation, connections, maintenance and troubleshooting procedures for the laptop, cart and peripherals • Demonstrate the use of the wireless laptop, cart and peripherals in both stand alone and networked environments in the classroom • Describe sample integration projects in the Smart Classroom
Participant Materials: • Content imaged on laptop detailing wireless laptop, cart and peripherals features, capabilities, general maintenance and troubleshooting techniques • Sample Integration Projects imaged on laptop



Hands-on Projects and Discussions:

- **One-to-one computing, laptop computer and peripherals use**
- **Computer terminology related to the equipment**
- **Physical attributes of the equipment**
- **Utilizing the Printer/Scanner**
- **Utilizing the Web Cam**
- **Utilizing Interactive Whiteboard**
- **Utilizing the Projector**
- **Utilizing the Multimedia Speakers**
- **Utilizing Video and Digital Cameras**
- Utilizing Productivity Software imaged on the laptop including Microsoft Office , Inspiration and Adobe Creative Suite Premium (Includes Adobe Photoshop® CS2 (image editing), Illustrator® CS2(paint), InDesign® CS2 (Desktop publishing), GoLive® CS2 (Webpage creation), and Acrobat® 7.0 Professional (Create and manipulate PDFs software)
- **Accessing training materials from the image on laptop and Teachers' Workplace**
- **Utilizing the external battery charger and swapping out back-up batteries**
- **Power Management features including differences between standby, sleep and hibernate**
- **General Maintenance, troubleshooting, and operation of the wireless laptop**
- **Operating System including Storage, Back-up, Peripherals, Filing System**
- **Icons in the systray unique to the wireless laptop**
- **Differences between technology as a tool and technology as a class**
- **Proper operation and utilization of the laptop, cart and peripherals in Smart Classroom**
- **Classroom management ideas using the laptop, cart and peripherals in the classroom**
- **Sample integration projects for use in class implementation**



The table below details the proposed roll out of the T3 sessions over the three years of this project.

Implementation Recommendation

Year	Number of High Schools	Number of Sessions	Number Days of Training (if two sessions per day)	Total Number of Participants (12 per session)
Year 1	100	50	25	600
Year 2	255	128	64	1536
Year 3	256	128	64	1536
Totals	611	306	153	3672

Additionally, CDW•G will provide training and sponsorships for educators; teachers, aids and administators to the following opportunities:

- Education Technology Roundtables
- Customer Technology Seminars
- Applicable Educational Technology Conferences



k. Curriculum Integration and Professional Development.

The Offeror will become a partner, providing ongoing consultation, advice, and assistance to PDE in the ongoing effort to increase the purposeful integration of learning technology into teaching, learning, and leadership.

CDW•G/Lenovo/IBM response: Armed with rich experience of providing professional development on a global scale, IBM and Futurekids will provide consulting services to the Pennsylvania Department of Education. Instructional approaches evolve; technology evolves; and the relationship between instruction and technology is intricate. We know that top caliber professional development is the key to realizing technology's promise for schoolchildren. Technology must enhance learning, resulting in improved student performance as well as prepare students for the 21st century so they are technologically literate and highly productive.

The CDW•G Training and Professional Development Team will provide an IBM GBS Educational Consultant and a Futurekids Professional Development Consultant to meet with the PDE. We understand that one size does not fit all and that adjustments and enhancements will need to be made during this four year project. We will support the efforts in bringing forth and documenting best practices and strategies for promoting effect utilization of the new digital classrooms. We will schedule specific onsite meetings with PDE and a school district stakeholder group each year, scheduled at the convenience of all parties. In addition, we will work with the PDE via web meetings, e-mails, and conference calls allowing ongoing support through the life of this project. Our consultants will take the strategy offered under Section J and refine it through a series of consultative meetings to ensure that it meets:

- The overarching goals of how the technology is to support teachers and students in the classroom,
- The type of training and professional development that needs to be in place, both in terms of what the CDW•G Training and Professional Development Team can offer as well as the ongoing capability that high schools need to have in place to sustain over the long run,
- The impact of the Classroom of the Future can be measured in terms of student achievement and behavior and the training and professional development can adjusted to better support it the program.

Using the input we derive from these consultative meetings, the CDW•G Training team will adjust the train-the-trainer program in terms of training approach, materials, and delivery.

Our consultants and PDE will establish valuable on-going relationships to support the comprehensive training superstructure being built to ensure that technology is not only integrated, now and in the future. We will work with you so that the technology becomes fully adopted by all teachers and students as essential and fundamental to success for our students in the 21st Century global economy. Resumes of our two key consultants – Paula Simpson from IBM and Dzana Homan from Future Kids is provided behind Tab 2.



Ms. Dzana Homan (President / CEO Futurekids) – Ms. Homan has more than 10 years of experience in the global education market. As an early pioneer in the education technology industry, Ms. Homan helped design and implement a number of successful technology solutions in both school and learning center environments in 65 countries. Her experience helped to establish one of the most successful education technology consulting businesses within the Los Angeles market. As the leader of this successful education technology solutions consulting practice, Ms. Homan helped design and implement several multi-million dollar technology solutions exemplified in:

- Transitioning 19 LAUSD high schools with more than 100,000 students into Digital High Schools
- Technology integration training of 3,500 teachers in South East Technology Consortium based on requirements of Goals 2000 grant
- Technology integration training of more than 5,000 teachers in LAUSD
- Developing an implementation plan for a 1:1 initiative in New York City District 10 building on cooperation and implementation of the Teach to the Future Intel program
- Developing an implementation plan for the transformation of the Higher Ed Language Arts department to a 1:1 model at CUNY

In 1999, Ms. Homan helped manage the buyout of the consulting company by Futurekids, Inc. Since joining the Futurekids, Ms. Homan has held many high level executive rolls including Director of Special Projects, Vice President of International Company Owned Operations and President / CEO. As President / CEO of Futurekids, Ms. Homan has helped design a new solution focused business strategy to help meet the needs of today's education technology market in the US and abroad



I. Services by Offeror.

The Offeror, in its proposal, may provide a full description of the Offeror's interest in, capacity for, and approach to providing additional resources, consultation, or support to the professional development of teachers to integrate fully and successfully personal, portable computer technology in instructional practice. These services would be evaluated as value added when determining the overall quality of the Offeror's Technical Proposal. All resources must be aligned or adaptable to Pennsylvania statewide standards; such standards for educator training and development as may be adopted by PDE; and with Pennsylvania's approach to locally-developed curricula and assessment. The Offeror may include a variety of curriculum integration resources or appropriate content, and assistance with the integration of these tools. These resources might include experts in the field of educational technology and access to research data and results in educational technology. The Offeror should describe the full potential for curriculum integration and system capabilities within the application of the proposed wireless network in the educational setting; describe how it would assist schools in identifying and achieving their desired level of curriculum integration and system capabilities; and describe the Offeror's experience in maximizing student achievement with wireless networks in educational settings.

CDW•G/Lenovo/IBM response:

As identified in the Classroom of the Future RFP, equipping each classroom with a set of wireless devices, whiteboard, printer, web cam, cameras, and associated peripherals is not sufficient to fully harness the power of these technologies and make an impact on the teaching and learning processes in the classroom. This RFP recognizes the key principal that instructional content and technology integration strategies are essential to transforming the educational process. So too are professional development, a solid network infrastructure and maintenance program, concrete goals, and a benchmark by which to measure those goals. The CDW•G Team is helping district meet the demands of computing and achieve designated benchmarks by looking at core elements that, when combined, enable school districts to more effectively change their teaching and learning paradigm and capitalize on the power computing brings to education.

Most research has found that investing in computing has paid off for school districts, helping to improve students' academic achievement, communication, and teacher performance. According to a 2005 report by the Journal for Technology, Learning, and Assessment (JTLA) students in 1:1 programs:

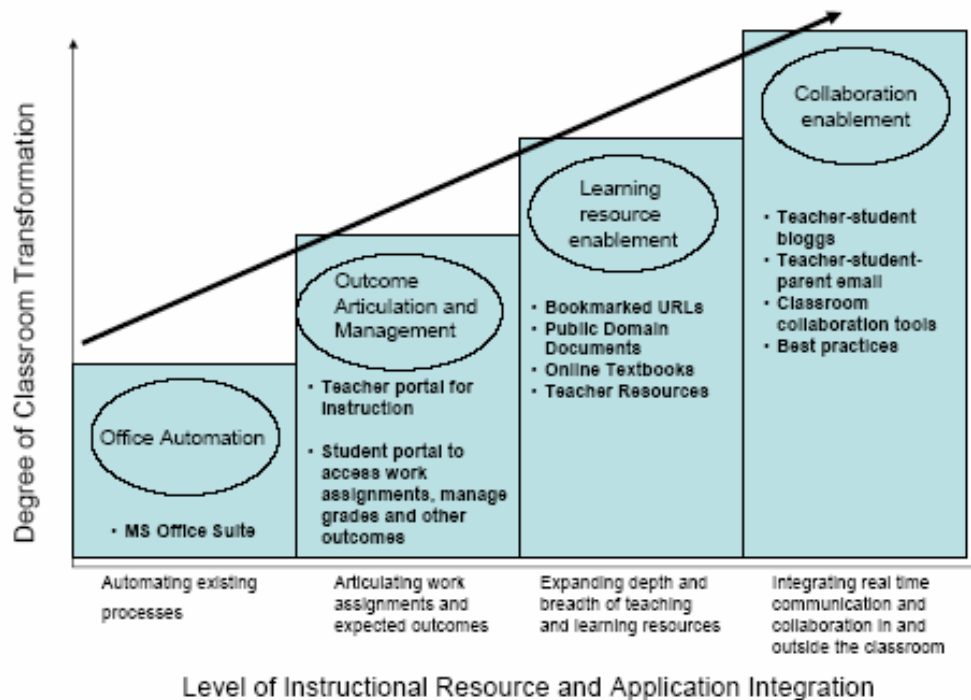
- score higher in writing assessments
- have better analytical skills
- engage more in problem solving
- have higher student achievement.

Although technology continues to change and evolve, the research is clear on one point: Routine access to technology will increase learning in environments where educational expectations have been clearly articulated.



Core to the Classroom of the Future and establishing an environment with multiple devices is to articulate a vision for the program in terms of the type of transformation it wants to achieve in the classroom. Figure 5. illustrates the type of technology integration and transformation strategies that will be highlighted during our train-the-trainer sessions described under Section J. The diagram shows the possible strategies and the types of goals a district can seek to achieve (along the X axis), and the degree to which the achievement among students and teachers in the classroom can be transformed depending on the type of strategy that is implemented (along the Y axis).

As shown in Figure 5., our training first addresses the fundamentals of using the Classroom of the Future devices to support the basic teaching and learning processes in the classroom, which is depicted by the first block. To a large degree, this may support automation of existing classroom teaching and learning processes – use of Microsoft Office for class presentation, writing assignments, math assignments, and group projects. Next, we address integration strategies that would allow a teacher to begin to strive toward a higher level of classroom integration and result in a higher level of transformation in the classroom. These integration strategies address outcome articulation (i.e. posting of assignments and results), learning resource enablement through web resources and content provided by our team, and collaboration enablement through communication tools and best practices.



Pathway to "Classrooms for the Future"



It is this last level – collaboration enablement – where the true transformation takes place in terms of allowing teachers the ability to move into a “coaches” role with students, providing for collaboration amongst teachers for best practices in teaching, leveraging the devices to promote learning outside of the classroom, and promoting differentiated teaching and learning that is geared toward the learning needs of the individual student. As part of basic our train-the-trainer package, we provide the teacher with the framework on how to work toward this higher level teaching and learning transformation. However, through our value added “a la carte” training classes and content offerings which are described in Section m, CDW•G Team is able to offer school districts with additional support if they wish to further delve into the transformation process in integrating technology into the classroom. Table X provides a view of our offerings – both base training and content as well as our value add or “a la carte” offerings – shows how these offerings align to the transformation levels identified in the figure above.



Table (below) Alignment of Base and “A La Carte” Offerings to the Levels of Transformation within the Classroom

(Note: Rows that are highlighted in gray indicate training classes. Rows that are not highlighted indicate content resources or tools to support the teacher and/or student)

Offerings	Automation of Classroom processes	Outcome articulation	Learning Resource Enablement	Collaboration Enablement (Teacher-Student; Student-Student; Teacher-Teacher)
Base Training Courses, Content Offerings and Support				
Open Box Train the Trainer for 6 Educators from High School	✓	✓	✓	✓
Curriculum Integration Example Materials	✓	✓	✓	✓
Microsoft Learn IT Teach IT Tutorials	✓		✓	✓
RE3 Teachers’ Workplace		✓		
TryEngineering			✓	
CSTA (Computer Science Teachers Association)			✓	
IBM Academic Initiative Program			✓	✓
Eternal Egypt			✓	
State Hermitage Museum			✓	
“A la Carte” Course, Content Offerings, and Support				
Online iAssessment and Individual Learning Plan				✓
Online Teacher and Student Workspace				✓
Foundations in Teacher Technology Education	✓	✓	✓	✓
Student Open Box Training	✓		✓	✓
Online Coaching	✓	✓	✓	✓
Face to Face integration in Math, Science, Social Studies, and English	✓		✓	✓
Using the School network Training Course			✓	
VitalSource Library			✓	
VitalSource Library Training Course			✓	
Adobe	✓			
Face to face or Online Custom Classes and Materials	✓	✓	✓	✓
Technology Leadership for Administrators Course	✓	✓	✓	✓
Real Journeys Student Technology Curriculum	✓		✓	✓
Classroom Currents Language Arts Curriculum	✓		✓	✓
Student Lite Criterion package			✓	✓
Student-Teacher Criterion Package			✓	✓
e-School Virtual School Lab on World Wide Education			✓	

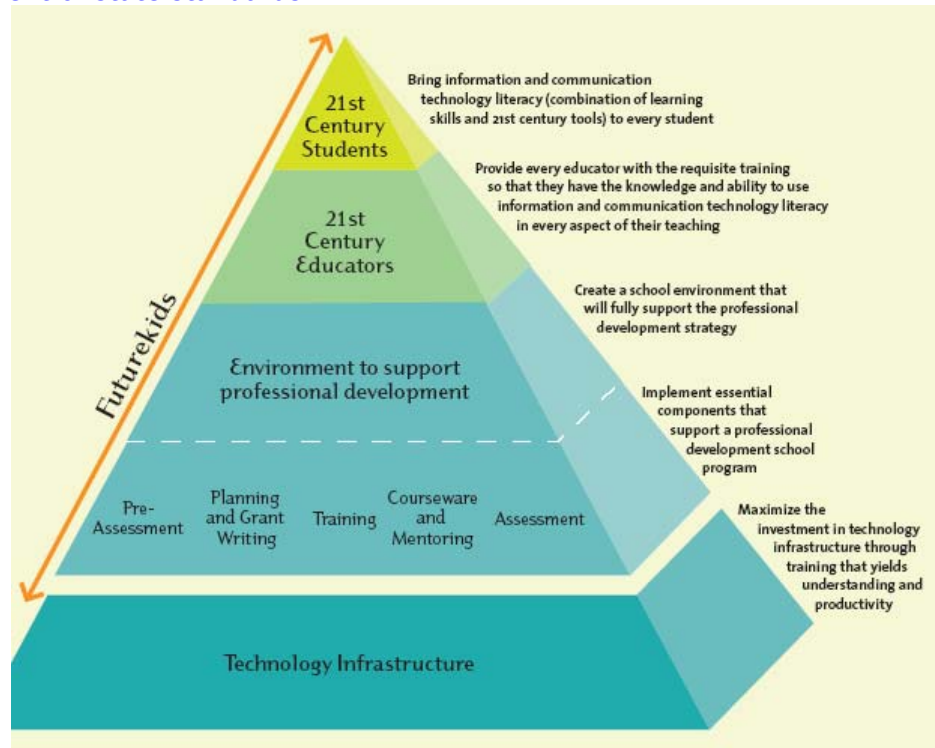


m. Additional Training and Development Resources.

The Offeror may describe optional, additional training, professional development or consulting resources that could be provided beyond the scope of this RFP to PDE or to local school units, with an appropriate additional, optional cost schedule.

CDW•G/Lenovo/IBM response:

For more than two decades, the CDW•G Team member IBM has been providing Professional Development Consulting and Training that enables educators to build creative strategies to enhance learning and teaching experiences using technology. Our educational solutions are designed to provide the highest quality learning for your students and professional development resources to address teacher needs and goals. Working with *Futurekids*, we embraced their 5-step solution encouraging state and districts to support professional development that ultimately leads to student achievement of state standards.



This 5-step process includes:

- Assess the current technology infrastructure, evaluate current administration, teacher and student technology competency levels
- Plan and create Individualized Learning Plans based on each teacher's needs
- Train teachers in technology integration based on their training plans
- Mentor teachers during the implementation process and tailor courseware to meet specific needs
- Assess the results



Utilizing a group of certified instructors, training sessions are designed to focus on the fundamentals of computer literacy, the application of technology in the workplace, curriculum integration, and classroom management with technology. Through a balance of on-line instruction, whole group instruction, small group interactions, and performance-based activities these sessions can be augmented by the use of online work environments to facilitate continuing collaboration, communications, community building, mentoring, and feedback on the development of effective practices.

The CDW•G will coordinate closely with the training implementations, synchronized with other initiatives. The IBM *Futurekids* Training Consultant will work with client Project Managers to plan, design and coordinate staff and teacher training and work with clients on reporting results on an on-going and continuous basis.

The CDW•G training model can be comprised of a blended model of face-to-face sessions, CD-ROM/On-line individual training, student, and parent sessions, and a train the train model that offers your employees sessions and materials that will provide them the opportunity to support on-gong instructional technology integration in the classroom. After the CDW•G training team has completed its training, as described in Section J, the school district has the knowledge and ability to not only operate the solution but the fundamentals on how to integrate the solution into the classroom and use it for instruction. Figure X summarizes the training and content delivered as part of the base training package included in the price of this solution.

In addition, the CDW•G training team offers optional a la carte services that a school district can decide to purchase separately. These a la carte services described below can be selected by item or embraced as a total package. The price for each professional development activity is listed per user allowing flexibility for a school or district to offer on a small scale or for a larger statewide implementation. The custom face to face courses are priced per day with a maximum of fifteen participants per day. Continuing Education Units (CEU's) are available for all courses. These a la carte offerings can be divided into X categories:



- **Additional training services.** School districts may decide that they would like additional training services provided up and beyond the baseline training package. Our additional training services provide a model for educational effectiveness of technology to ensure highly qualified teachers and significantly increased student achievement. Our training services deliver long-term cost effective sustainable solutions to help manage change and systemically achieve school improvement plans. These additional services include:
 - o Ongoing Consulting and Classroom Mentoring
 - o Face to Face or Online courses for students, teachers and administrators which focus on 21st Century Tools and Skills and technology integration
 - o Face to Face or Online Customized Topics
- **Professional development and curriculum integration.** School districts may also decide they would like to utilize these online tools provided up and beyond the baseline training package. These tools and resources are available to educators and students through the desktop portal. Student, teachers, administrators and parents can collaborate and communicate globally. Stakeholders can manage all aspects of school communication, conduct data-driven decision making, assess school or district-wide technology proficiency as well as manage professional development projects. Lesson plan collaboration, alignment of content to standards, professional development and school assignments management are also components of the curriculum integration tools. Online platform will also allow for management of a mentoring relationships within the schools and school districts and serve as a platform for development of the staff. Online learning portfolios and directed learning portfolios will be places in the same space. Personalized Learning plans for each Teacher and optional for each student Online portal will align available training resources for each individual learning plan. As the schools and district develop new classes they will be able to direct them and connect them with the assessment tool and make them relevant to teacher who will need them.
- **Curriculum Supplemental Content:** School districts may decide they would like to utilize these additional curriculum content products beyond the baseline training package which are fully described below in this section
 - o Classroom Currents Supplemental Language Arts Curriculum
 - o Real Journeys in Technology Curriculum
 - o Student Lite Criterion Package
 - o Student-Teacher Criterion Package
 - o VitalSource Library
 - o E-school Virtual School Laboratory



The school districts can use these supplemental offerings to further drive the training and resource support that may needed to effectively support the teacher and student population in Pennsylvania. The following is a listing of the optional training, professional development, and curriculum supplemental content offerings. This is followed by a peek of the web portal with a description of these offerings. Collectively, our base offerings together with our a la carte offerings provide the school districts the ability to transform the learning and teaching processes in the classroom.

Professional Development, Technical Training and Consulting Baseline Services and Resouces

Open Box Train the Trainer Class for 6 Educators from each High School
Open Box Multi-Device Instructions with Curriculum Integration Examples Materials imaged on all wireless computers for use by all Teachers and Students
Materials for How to Conduct Open Box Classes with Students and other Teachers accessible ro all T3 trainers
Microsoft Learn IT Teach IT Tutorials imaged on all wireless computers
Registration and Access to Pennsylvania IBM RE3 Teachers' Workplace for all T3 Participants and Keystone Teachers
Access for All Students and Teachers to TryEngineering, CSTA (Computer Science Teachers Association), IBM Academic Initiative Program, Eternal Egypt, State Hermitage Museum
Technical Training

A La Carte Optional Professional Development Tools and Services

Online iAssessment and Individual Learning Plan
Online Teacher WorkSpace Communication and Collaboration with Standards Manager, Lesson Builder and e-Folios
Online Student WorkSpace Communication and Collaboration with Management of Classroom Assignments
Online Technology Integration Courses: Math, Science, Social Studies, Language Arts
Annual Online Setup and Maintenance of iAssessment and Teacher Workspace
Foundations in Teacher Technology Education (3 graduate credit course)
Train-the Trainer Class for Teachers
Student Open Box Training
Online Coaching with Futurekids EduTech Expert Trainer
Face to Face Integration into Math, Science Social Studies, Science Class
Using the School Network Training Course
VitalSource Library Training Course
Face to Face or Online Custom Classes and Materials
Technology Leadership for Administrators Course



A La Carte Optional Curriculum Classroom Content

Real Journeys Student Technology Curriculum
Classroom Currents Language Arts Curriculum
Student Lite Criterion Package
Student-Teacher Criterion Package
Virtual School Lab for Science, Engineering, and Math
Vital Source Library
e-School Virtual School Lab on Worldwide Education Grid

Assessment

Delivery: Web-Based Interactive

Description:

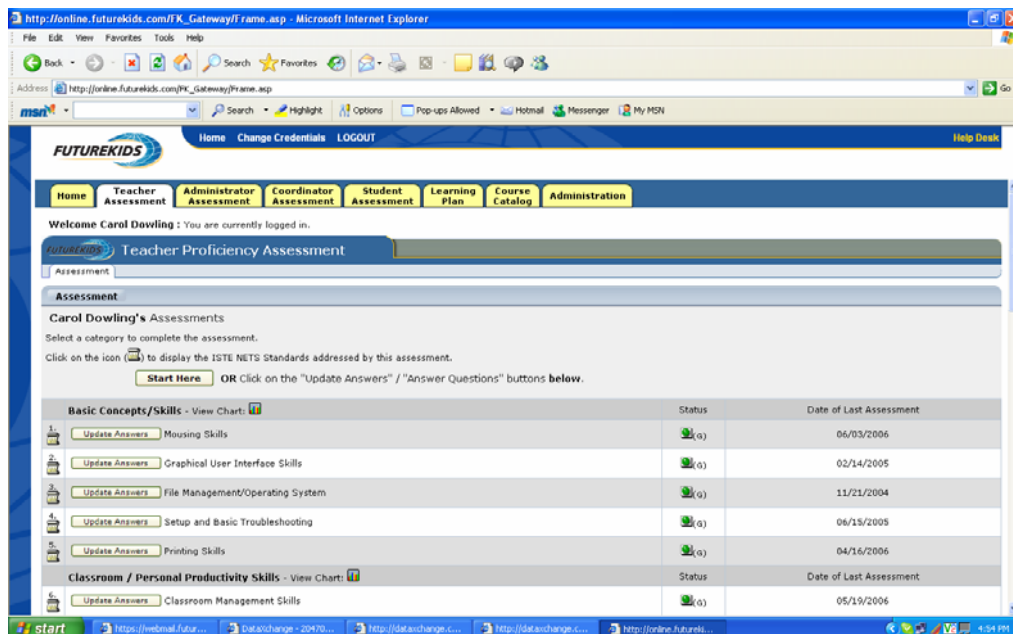
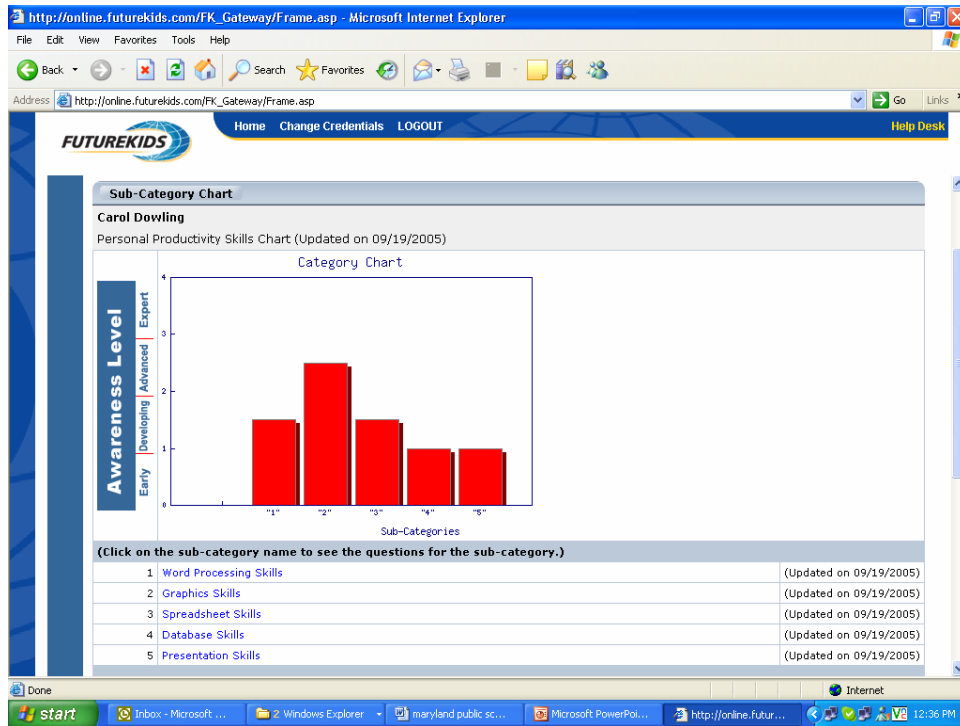
iAssessment is an online diagnostic tool, customized for different audiences, personalized for each user, intended to be ongoing and also provides superior reporting capacities. iAssessment is designed with a starting point for measuring administrators, teachers, students and technology coordinators' technology competency levels, this tool is 100% customizable to address specific needs for maximum flexibility.

iAssessment Tool has the following components:

- Assessments for Administrators, Teachers, Technology Directors/Coordinators, and Students
- Summary Charts reflecting Current Stage of Development
- Opportunity to select Target Levels of Development
- Individual Learning Plans for Each User
- Timeline for Accomplishing Goals and associated Activities
- Appropriately Mapped Local, State and National Resources to Address Target Level Growth Opportunities
- Tangible Lines of Evidence that Goals Have Been Accomplished
- Mentor Communication and Collaboration
- Reports for Comparative Analysis



Samples follow:





Teacher WorkSpace

Delivery: Web-Based Interactive

Description:

The *Futurekids* Teacher WorkSpace contains a collection of digital resources to support lesson building and to assist teachers in constructing technology-rich, task-based lesson plans. The Lesson Builder utilizes an interactive template to simplify the development process. It serves as a disciplined guide for structuring classroom activities. The standard Lesson Builder template can be readily modified to meet the specific needs of your learning community. In addition, the Lesson Builder is completely integrated with the Standards Manager, Unit Builder, and the District's Curriculum.

The Standards Manager

The Standards Manager contains a comprehensive database of state and national standards that enable subscribers to import standards into lessons, units, and electronic portfolios. Educators also create target sets of standards tailored to include only the standards and benchmarks that address their specific needs. Specific local standards can be uploaded to the database by request. In addition, Gap and Frequency Analysis reports can be created to summarize and compare which standards have been addressed.

The Unit Builder

The Unit Builder simplifies the unit development process. This interactive template allows educators to outline a unit of practice while linking to lessons or other learning activities created online. The standard Unit Builder template can be modified to meet the specific needs of your learning community. In addition, the Unit Builder is completely integrated with the Standards Manager as well as with the Lesson Builder and Rubric Wizard described below.

The Lesson Builder

The Lesson Builder utilizes an interactive template to simplify the development process. It serves as a disciplined guide for structuring classroom activities. The standard Lesson Builder template can be readily modified to meet the specific needs of your learning community. In addition, the Lesson Builder is completely integrated with the Standards Manager and Unit Builder as well as with the Rubric Wizard described below.

The **Lesson Builder** consists of two components, **Cybrary** and **Mybrary**:



Cybrary

The Cybrary is a searchable database of thousands of lesson plans submitted by other Lesson Builder subscribers. Lessons can be searched by grade, subject, or keyword. The Cybrary also contains a collection of digital resources to support lesson building and to assist teachers in constructing technology-rich, task-based lesson plans. It includes:

- Tutorials on technology integration in the classroom
- Free and useful software that can be downloaded from the web,
- Supplemental resources that consist of educational methodologies,
- Educational websites
- Training materials and manuals.

Mybrary

The Mybrary is the educator's personal collection of work - it is like a file cabinet for accessing lesson and unit plans, rubrics, web folios, web pages, and files. It also provides direct access to shared resources.

Collaboration Feature

This unique feature enables designated "authors" to share the work they create in the Lesson Builder, Unit Builder, Web Folio Builder, and/or Web Page Builder with designated "reviewers" from their assigned group. Resources and Lesson plans can be shared within any given "community" of users or within the global community of users. Futurekids Online Solution also provides a Web-Based interface to help curriculum developers extend their collaborative efforts beyond face-to face meetings and to collaborate on lessons and units to create shared curriculum libraries. It also allows coordinators to build programs to support their teachers and post collections of resources, such as articles or sample lessons, to the program area to further enhance the participants' learning experiences. Designated "Authors" and "Reviewers" share lessons, units, and electronic portfolios with colleagues for comments and feedback.

The Rubric Wizard

The Rubric Wizard facilitates the easy creation of customized performance-based assessment rubrics to evaluate student performance. Educators choose criteria from a menu of exemplary rubrics, or create their own, and then add and edit the text to reflect the achievements of their specific learning communities.

Lesson plans can be shared within any given "community" of users or within the global community of users. In addition to sharing of lessons, all resources can be shared. *Futurekids* also provides a Web-Based interface to help curriculum developers extend their collaborative efforts beyond face-to face meetings. Educators collaborate on lessons and units to create shared curriculum libraries. It also allows coordinators to build programs to support their teachers and post collections of resources, such as articles or sample lessons, to further enhance the participants' learning experiences. Designated "Authors" and "Reviewers" share lessons, units, and electronic portfolios with colleagues for comments and feedback.



Online Mentoring

Futurekids Online Mentoring facilitates on-going mentoring by providing an environment through which a mentor can directly support program participants anytime and anyplace. Participants create lessons, units, and electronic portfolios and submit them to their mentor for feedback. This process assists mentors in organizing tasks and enhances the review process.

Screen shots follow:

The screenshots illustrate the Futurekids TaskStream web application interface. The top screenshot shows the 'TS Coordinator' dashboard, which includes a sidebar with navigation links like 'Home', 'Help Index', 'Site Management', 'Programs & Resources', 'Web Publication', 'Instructional Design', and 'Communications'. The main content area displays 'Curriculum/Resources Management' and 'Program Management' sections. The middle screenshot shows the 'Standards Manager' interface, which allows users to select subjects and levels for standards. The bottom screenshot shows the 'Resource Manager' interface, which displays a lesson plan for chemistry, including a 'Background' section and a 'Procedure' section with numbered steps.



Foundations in Teacher Technology Education Description (3 graduate credit course)

Delivery: Face-to-Face or Web-Based Interactive

The Foundations in Teacher Technology Education Course is a comprehensive, 45-hour program designed to train professional educators in the fundamentals of computer literacy. The training is not designed to make participants experts on specific software applications, but rather to familiarize them with the basic concepts of operating systems, telecommunications, wordprocessing, graphics, spreadsheets, desktop publishing, databases and multimedia.

The course is activity-oriented, relevant, individually responsive and fun. Both professional tasks (keeping grade books, creating lesson plans and communicating with various educational groups) and classroom teaching (complementing the current curricula) are addressed. Basic skills, methodology and pedagogy are covered at theoretical and applied levels.

The Professional Development Curriculum has been recognized by several colleges, universities and boards of education worldwide. Participants who have successfully completed the course requirements have been awarded undergraduate and graduate school credits, continuing education units and certificates.

Suggestions regarding the implementation of the Professional Development Curriculum can be found within the Technology Instructor Training Manual. Topics addressed include lesson preparation, handouts, templates, syllabus, evaluation, grouping and grading. Throughout the Professional Development Curriculum, the term teachers refers to the people who are taking the Professional Development course. The term facilitator refers to the person who instructs the teachers during the Professional Development course. The term students refers to the teachers' students in their classrooms at school.

Course Structure:

Each lesson is three hours in length.

Lesson 1: Computer Basics

Commonly held opinions about educational technology are discussed. Basic computer skills, such as using the mouse to point, click and drag, are practiced. The history of computers in education is presented. More computer skills are acquired by using a multimedia encyclopedia.

Objectives:

- Discuss commonly held opinions about educational technology.
- Describe important events in the history of educational technology.
- Understand the development of the personal computer.
- Understand the development of software used in education.
- Define common computer terms.
- Demonstrate the proper use of a computer.
- Demonstrate the proper handling of a CD-ROM.
- Use the mouse to click, point and drag.
- Launch a software application.
- Use menus, icons and buttons within a software application.
- Locate information within a multimedia encyclopedia.
- Print a document.
- Exit a software application.



Lesson 2: Operating Systems

Basic concepts related to computers and hardware are learned while viewing an interactive presentation. The operating system is introduced, as are instructions on how to manipulate icons, windows and menus. Skills required to launch programs, open files, use menus, save and organize files, format floppy disks and copy files to floppy disks are also learned.

Objectives:

- Identify the components of a computer system.
- Understand the relative storage capacity of a kilobyte, a megabyte and a gigabyte.
- Understand read-only memory (ROM) and random-access memory (RAM).
- Identify input and output devices.
- Launch the operating system and application software.
- Introduce the components of the computer desktop.
- Move and resize windows.
- Minimize, restore and maximize windows.
- Customize a computer desktop through the Control Panel.
- Organize files and folders on a hard disk drive.
- Create and use a shortcut to an application.
- Open, edit and save a document.
- Format a floppy disk.
- Transfer files from the hard disk drive to a floppy disk.
- Create, rename and delete files and folders.
- Understand the importance of backing up files.

Lesson 3: Internet

The concept of communicating via the Internet is introduced as e-mail, newsgroups and chat rooms are explored. Educational resources on the World Wide Web are investigated and searches performed. Also, evaluating Web sites and using the Internet in the classroom are discussed.

Objectives:

- Define terms related to the Internet.
- Describe the history of the Internet.
- Create and send electronic mail.
- Read messages posted on an Internet discussion group.
- Use an education-related chat room on the Internet.
- Enter an address to locate a specific Web site.
- Explore various sites on the World Wide Web.
- Use hyperlinks in Web pages.
- View educational resources on the World Wide Web.
- Use a search engine to locate information on the World Wide Web.
- Describe good search techniques.
- Examine educational Web sites.
- Critically evaluate a Web site.

Lesson 4: Word processing

Basic wordprocessing concepts and skills are acquired by using formatting and editing commands. These skills are practiced while modifying a history report, a parent letter, a



student worksheet and a report about computers. Practical issues related to using wordprocessing in the classroom are discussed.

Objectives:

- Create a document.
- Open, print and save documents.
- Change text font and size.
- Enter and edit text.
- Use the Find function.
- Cut, copy and paste text.
- Modify the alignment and line spacing of text.
- Bold, italicize and underline text.
- Create headers and footers.
- Insert footnotes.
- Add bullets to a list.
- Modify a document's margins.
- Create a table.
- Insert clipart images.
- Use the Spell Check, Grammar and Thesaurus functions.

Lesson 5: Graphics

In one type of computer graphics program, painting tools are introduced and practiced. Drawing tools are used in another type of computer graphics application as clipart and other images are added to a report and a labeled diagram. A Venn diagram is created to compare painting and drawing programs. Practical issues of using computer graphics in the classroom are discussed and a Web page is designed.

Objectives:

- Distinguish between bitmap graphics and object-oriented graphics.
- Use graphics tools to create and modify images.
- Create shapes and lines.
- Change the colors of an image.
- Create a gradient.
- Modify the layers of objects.
- Group and ungroup objects.
- Select and erase a portion of a graphic.
- Rotate and flip graphics.
- Move and resize graphics.
- Group and ungroup multiple graphics.
- Create graphical text effects.
- Duplicate images.
- Insert and modify clipart.
- Crop an image.
- Create shadows and 3-D effects.

Lesson 6: Spreadsheets

Basic terms and concepts relating to spreadsheets, such as cells, rows and columns, are introduced. A spreadsheet budget is used to learn how to enter values and formulas in cells. Survey information is entered and formatted in a spreadsheet, and a column chart is created. A pie chart is graphed from another spreadsheet. Practical issues related to



using spreadsheets in the classroom are discussed. A grade book spreadsheet for the classroom is developed.

Objectives:

- Identify the parts of a spreadsheet.
- Locate a cell by its column and row position.
- Select a cell and a range of cells.
- Enter data into a cell.
- Modify row heights and column widths.
- Enter a formula into a cell.
- Use a function within a formula.
- Use the Fill function.
- Insert rows and columns.
- Select fonts and styles.
- Modify the number format of a cell.
- Graph spreadsheet data using a pie chart and a column chart.
- Format a chart.
- Add color and shading.
- Print a spreadsheet.
- Use absolute and relative cell references.
- Enter an If...then statement into a spreadsheet.
- Insert a header into a spreadsheet.

Lesson 7: Advanced Spreadsheets

Previous spreadsheet skills are practiced and more advanced spreadsheet skills are introduced. Animal data is analyzed in a spreadsheet and a complex bar chart is created. After a coin toss experiment is performed, the results are entered into a spreadsheet and charted. A spreadsheet containing world population data is completed by entering formulas and generating a line chart.

Objectives:

- Modify the size and position of a chart.
- Use multiple sheets within a spreadsheet file.
- Change the scale of a chart.
- Create a graph with two X axes or two Y axes.
- Sort data within a spreadsheet.
- Modify the colors and text of a chart.
- Analyze, interpret and chart data.
- Create formulas to calculate sums, differences and averages.
- Create a bar, column and line chart.

Lesson 8: Integration Models and Software Evaluation

The first part of the lesson concerns defining meaningful technology integration in the classroom. Case-based scenarios of models of integration are introduced for discussion. In the second half of this lesson, categories of educational software are introduced. Criteria for evaluating software that achieves classroom goals are discussed, and an educational software program is evaluated.

**Objectives:**

- Discuss meaningful integration of classroom technology.
- Analyze classroom content and process goals.
- Examine curricular models of computer use.
- Compare common configurations of computers in schools.
- Identify categories of educational software.
- Describe criteria for evaluating educational software.
- Discuss different methods for evaluating software.
- Critically evaluate an educational software application.

Lesson 9: Desktop Publishing

Basic desktop publishing skills are acquired by creating a classroom sign. A timeline of inventors is generated by using graphics from other sources, such as a multimedia encyclopedia. The creation of a classroom newsletter introduces more advanced desktop publishing skills and practical issues related to using desktop publishing software in the classroom are discussed. Finally, a student-of-the-week certificate is created.

Objectives:

- Define terms related to desktop publishing.
- Use a wizard to create a document.
- Alter the zoom percentage of a document.
- Create a text frame and enter text.
- Insert clipart into a document.
- Incorporate graphics from a multimedia encyclopedia.
- Align objects within a document.
- Layer objects.
- Add a border to a page.
- Modify font, font size and style.
- Move between multiple pages within a document.
- Link text frames.
- Create and format a table.
- Insert page numbers into a multipage document.
- Create and modify a picture frame.
- Modify how text wraps around a graphic.

Lesson 10: Databases

Fundamental database concepts and skills are learned by searching and sorting a database about countries. A database is filtered to locate information on animals. More advanced filtering is performed on a database of planetary facts. Personalized form letters are created using the Mail Merge function, which inserts information from a database file into a wordprocessing document. Practical issues related to using databases in the classroom are discussed.

**Objectives:**

- Define terms related to databases.
- Create a database.
- Move between records and fields.
- Enter and edit information in a database.
- Change a field's number format and data type.
- Hide and reveal selected records and fields.
- Locate records that match criteria.
- Add fields and records.
- Protect a database.
- Insert and delete records.
- Use appropriate database views.
- Sort database records.
- Find and replace data.
- Merge information from a database into a word processing document.

Lesson 11: Advanced Databases

More advanced database skills are learned. A database containing snake information is modified. The layout of a database containing student book reviews is modified, and a report is generated. A database is created from scratch to collect information about traits. A database with student information is used to perform sorts and filters and to create a form and a report.

Objectives:

- Perform a multiple-field sort.
- Add a graphic to a database form.
- Create, format and print reports.
- Change the row height and column width of a report.
- Perform mathematical functions based on selected data.
- Add borders and shading to a report.
- Analyze and interpret data.
- Perform advanced queries using and, or and not.

Lesson 12: Multimedia

A multimedia presentation is created for a parent-orientation night. Multimedia skills are practiced as a presentation about the water cycle is modified. An interactive presentation is generated to enable users to learn about countries of the world.

**Objectives:**

- Create a linear multimedia presentation.
- Insert sound.
- Add clipart images to slides.
- Animate text and objects.
- Alter slide timings.
- Add transitions between slides.
- Insert a video file.
- Modify the background of slides.
- Create buttons and hot spots.
- Change the order of slides.
- Create a branching multimedia presentation.
- Play a multimedia presentation.

Lesson 13: Integrated Unit Design

This lesson begins with an open-computer, open-notes technology examination focusing on the basic skills and concepts of the technology areas covered in the course. After the test, the project design process is begun. Classroom goals and technology integration are discussed. A sample unit that does not incorporate technology is compared to the same unit modified to include technology. Ideas are generated for infusing technology in classroom activities and the integrated unit project is discussed in detail.

Objectives:

- Complete an "open-computer" technology examination.
- Discuss classroom goals.
- View a sample technology-infused unit.
- Practice integrating technology into a sample unit.
- Review and discuss the Integrated Unit project.

Lesson 14: Integrated Unit Creation

After first sharing ideas for the integrated units, the remainder of the lesson is spent creating the units, including creating sample student work, generating screen shots and entering information into the presentation template.

Objectives:

- Share ideas for the Integrated Unit project.
- Integrate technology into a thematic unit.
- Generate samples of student work by using word processing, spreadsheet, database, desktop publishing and graphics applications.
- Create a multimedia presentation for the Integrated Unit project.

Lesson 15: Integrated Unit Presentation

In this final lesson of the Professional Development course, finishing touches are added to the integrated units. Then the units are presented to the rest of the class. Finally, technology skills are assessed and compared with those from before the course.

**Objectives:**

- Finish the Integrated Unit project.
- Present the completed integrated units to the class.
- Assess technology skills acquired throughout the course.

Course Features

Each lesson appearing within the *Professional Development Curriculum* contains a table of contents, a description, a materials box, preparation notes, an opening, activities, a review, handouts, margin notes and icons.

Description

The Description section summarizes the lesson and describes the activities within the lesson.

Materials Box

This box identifies any software titles, handouts, templates and other materials that are required to implement the lesson.

Preparation

This section identifies tasks and decisions that must be completed and determined prior to the start of the lesson, both in general and for specific activities. Suggestions for shortening the lesson are also given.

Opening

The opening is designed to review vocabulary, objectives and activities. It also serves to inform and motivate the teachers about the lesson's activities.

Activities

Activity descriptions are detailed and include definitions of vocabulary words, introductions to handouts, discussion topics and suggestions, and step-by-step instructions.

In addition, several types of screen captures are provided:

- Templates: graphics and text images that the teachers see on their screens upon opening a specific electronic file
- Samples: graphics and text images that show how projects should appear upon completion
- Windows, buttons and tools: graphics and text images that the teachers encounter as they perform specific tasks



Review

The review highlights the lesson's key objectives, vocabulary and activities and provides an opportunity for answering questions, distributing materials and previewing upcoming lessons.

Digital Handouts

Digital Handouts are provided for each lesson.

Infusing Technology into High School Math, Science, Social Studies, Language Arts Curricula Course Description

Delivery: Face to Face or Web-Based Interactive

Infusing Technology into High School Curriculum is offered both as a 12 hour face-to-face "Train the Trainer", and/or as an 8 hour online, professional development course, designed to provide educators with the resources and practical tools to integrate technology into their specific course content in high school. Four specific content areas are covered: Language Arts, Math, Science and Social Studies. This class enables educators to develop an effective process and strategy for technology integration into a specific curriculum area and to make use of classroom methodology. Participants are exposed to a variety of exemplary technology-infused classroom projects that address national, state, and local content standards including the National Council for Teachers of English (NCTE), National Council for Teachers of Math (NCTM), National Science Teachers Association (NSTA), National Council for Social Studies (NCSS) and performance indicators from the Technology Standards International Society for Technology in Education (ISTE). Class members work collaboratively and independently to construct their own integrated projects for use in the classroom and share them with their peers. In addition, a technology integration rubric is provided to assist in providing meaningful feedback on the projects. Participants leave the course with a set of adaptable lessons, a variety of evaluative tools to determine their effectiveness and student performance, a plan for creating original content and a wide range of resources and tutorials to use and share.

Course Objectives:

- Select and use appropriate technology to gather and synthesize data and to create and communicate knowledge in Language Arts, Math, Science and Social Studies
- Use content-specific tools, software and simulations to support and enhance the study, analysis and interpretation of data in Language Arts, Math, Science and Social Studies
- Develop and enhance skills needed in the study of Language Arts, Math, Science and Social Studies through the selection and use of appropriate tools and technology
- Use technology tools to compile, synthesize, produce and disseminate information, to generate ideas and questions, and to identify problems and pose solutions



- Design, develop, publish and present multimedia products that demonstrate and communicate an understanding of Language Arts, Math, Science and Social Studies concepts
- Access local, state and national standards and correlate them to specific technology integration lessons
- Develop a process for technology lesson creation
- Create technology-infused lessons and projects that will support their teaching
- Correlate technology applications with course content material

Topics Covered:

Sample Projects

- Personalizing the Course of Study
- Technology Integration Classroom Projects
- Project Analysis Form

Project Creation

- Project Creation Process
- Selecting Software Applications
- Steps to Create a PowerPoint Presentation
- Creation Process Guidelines
- Electronic Templates
- Sample Rubric for Student Performance

The Internet

- Standards and Performance Indicators
- Web Addresses: Departments of Education
- Lesson Plans on the Web
- Technology Integration Activities on the Web
- Professional Development Sites on the Web

Appendix

- Overviews and Tutorials for Productivity Applications
- Troubleshooting Guide

Course Materials

- 10 Subject-Specific Sample Projects
- Examples and Process Guidelines
- CD-ROM that Contains Adaptable Templates, Samples, Rubrics and Tutorials

Technology Leadership for Administrators Course Description

Delivery: Face-to-Face

Course Description:

Technology Leadership for Administrators is a 36 hour instructor led course based on ISTE standards for school administrators in six areas, with six hours assigned to each section:

- Leadership and Vision
- Learning and Teaching
- Productivity and Professional Practice



- Support, Management and Operations
- Assessment and Evaluation
- Social, Legal and Ethical Issues

This course will help education leaders obtain practical guidance for assessing schools, envisioning how they can prepare schools for the future, and implementing a 21st century education. The outcome from this course is for leaders to have completed a draft of their Technology Plan for their school or district.

Course Overview:

Leadership and Vision

Introduction to Section I

- Handout of the relevant standards with a description of how each one is met by Module along with areas for student comment
- Activity surrounding the handout to get students familiar with the standards - group discussion, standards divided up, where have you been/what have you done that meets the particular standard, report back as a group

Developing a Technology Mission Statement

- Individual effort with group comment
- List and run by stakeholders
- Emphasize the collaborative effort required
- Develop ways to communicate the mission

Special Topic: Data-Driven Decision Making

In subsequent lessons, special topics will include research-based practice, funding sources and acquisition, developing a constructivist environment, e-portfolios and will simultaneously teach a specific technology.

- What this means
- Brief history
- Research activity
- Databases
- Microsoft Access

Learning and Teaching

Introduction to Section II

- Handout of the relevant standards with a description of how each one is met by Module II along with areas for student comment
- Activity surrounding the handout to get students familiar with the standards - group discussion, standards divided up, where have you been/what have you done that meets the particular standard, report back as a group

Developing a Technology Needs Analysis I

- Individual effort with group comment
- Develop committees
- Emphasize the collaborative effort required



Special Topic: Constructivist Pedagogy

What is constructivist pedagogy and why is it important when considering how to integrate technology into the classroom

- Brief history
- Research activity

Searching and Evaluating Web Resources

- How to effectively search the Web for information and provides them with tools to evaluate those resources

Productivity and Professional Practice

Introduction to Section III

- Handout of the relevant standards with a description of how each one is met by Module III along with areas for student comment
- Activity surrounding the handout to get students familiar with the standards - group discussion, standards divided up, where have you been/what have you done that meets the particular standard, report back as a group

Developing a Technology Needs Analysis II

- Participants complete their needs analyses

Special Topic: Learning Communities – Tools and Samples

- Brief history
- Listservs
- Research activity

Instructional Resources and Software

- How does one select, evaluate and implement instructional software and other resources for classrooms

Support, Management and Operations

Introduction to Section IV

- Handout of the relevant standards with a description of how each one is met by Module IV along with areas for student comment
- Activity surrounding the handout to get students familiar with the standards - group discussion, standards divided up, where have you been/what have you done that meets the particular standard, report back as a group

Developing a Technology Plan I: Research and Outline

- Based on their needs analyses, participants begin to develop technology plans for their schools

Special Topic: Technology-Based Management Tools

- Brief history
- Research activity



Using a Spreadsheet to Create a Budget

- Using Microsoft Excel to begin creation of a budget for the Technology Plan

Assessment and Evaluation

Introduction to Section V

- Handout of the relevant standards with a description of how each one is met by Module V along with areas for student comment
- Activity surrounding the handout to get students familiar with the standards - group discussion, standards divided up, where have you been/what have you done that meets the particular standard, report back as a group

Developing a Technology Plan II

- Based on their needs analyses, participants continue to develop technology plans for their schools

Special Topic: The Assessment Cycle

Discussion of different models for an "Assessment Cycle" (e.g., choose/develop assessment, implement, collect data, analyze, communicate, evaluate process)

- Brief history
- Research activity

Using Databases to Help Manage People

- How to use Microsoft Access to help in school management

Social, Legal and Ethical Issues

Introduction to Section VI

- Handout of the relevant standards with a description of how each one is met by Module VI along with areas for student comment
- Activity surrounding the handout to get students familiar with the standards - group discussion, standards divided up, where have you been/what have you done that meets the particular standard, report back as a group

Special Topic: Technology, Ethics, and Safety

In this section, we explore issues surround the ethical use of technology; develop processes to protect and inform teachers, students and staff; and locate helpful resources and tools.

- Brief history
- Research activity

Completing a Technology Plan

- Based on their needs analyses, participants complete technology plans for their schools



e-School Digital School Laboratory

This innovative Education Grid allows high school students, their teachers and parents access to inter-active learning tools for mathematics, physics, biology and chemistry. The education portal provides seamless access to real-world computer simulation examples available and especially prepared for high schools. In addition, via an internet connection, additional powerful application simulation software can be accessed and your own laboratory examples digitally created and run on the enabling and connecting Grid middleware technology. Digital laboratory examples enhance the teacher's existing curriculum in math and sciences, not replace them.

CriterionSM Online Writing Evaluation

For assessing a student's ability to respond to a writing prompt, ETS offers the CriterionSM Online Writing Evaluation service. This web-based service utilizes automated scoring technologies to evaluate a student's essay and provides instant holistic score reporting and trait diagnostic feedback to both the instructor and student. Elements of grammar, usage, mechanics, style, and organization & development are analyzed, potential errors are identified within an annotated version of the essay itself, and targeted feedback is offered for each identified error. For an 8-minute tour, visit <http://www.ets.org/Media/Products/Criterion/tour1/index.html>

The Publisher's Version will be out in mid December, with less functionality than the full Criterion service, but easy for students to use without support from teachers.

CriterionSM Publisher's Version (CPV) was developed as a value-added feature for a publisher's textbooks. It is a subset version of CriterionSM Online Writing Evaluation with limited student functionality only. The Criterion Publisher's Version is a web-based instructional tool that evaluates a student's essay and provides instant holistic score and diagnostic feedback. Elements of grammar, usage, mechanics, style, and organization & development are analyzed, potential errors are identified within the essay itself, and targeted feedback is offered for each identified error or comment. CPV enables publishers to include their company logo and content on ETS's Internet-based service. Student Real Journeys in Technology Curriculum Description

Real Journeys in Technology is a core technology curriculum for grades K-12 that is ideal for both computer labs and classrooms. Built around a scope and sequence of 500 learning objectives in ten key technology areas, *Real Journeys in Technology* meets or exceeds State and ISTE NETS Standards. Included in each color-coded grade level kit is a full-year's curriculum containing thirty-five interactive project-based adventure-themed lessons.

Using projects that are linked with language arts, social studies, math and science content, *Real Journeys in Technology* promotes active student learning in the following technology areas:

- Operating Environments
- Databases
- Wordprocessing
- Spreadsheets
- Graphics
- Internet
- Multimedia
- Programming





- Desktop Publishing
- Applied Technology

Real Journeys in Technology utilizes Scholastic Keys for the K-2 levels and Microsoft Office 2000, XP or 2003 for 3-12 grades. (Futurekids does not provide the software) Each classroom kit is color coded so that teachers may choose the level most appropriate for their classes.

Each kit contains a comprehensive Teacher Guide, 25 Student Workbooks and a CD-ROM containing electronic templates, samples, and handouts.

Student Technology based Classroom Currents Language Arts Curriculum Description



This innovative supplemental Language Arts curriculum is for grades 2-12 and is based on your State Standards. It's one of a kind and one that integrates essential Language Arts skills with computer technology.

“Classroom Currents Language Arts”...Curriculum is:

- Designed to complement your current lesson plans and work hand in hand with your existing curriculum and textbooks.
- Divided into developmentally appropriate units for each grade. They are coded by color rather than by number allowing you to choose your level according to diverse needs of your students and use several levels in one single grade or classroom.

Each “Classroom Currents Language Arts”... lessons is:

- Goal focused and outcome oriented with measurable results
- Correlated to the Pennsylvania State Standards for Language Arts instruction
- Flexible and can be completed in sequence or interchanged to fit your particular lesson plan and calendar

“Classroom Currents Language Arts”... Teacher’s Guide provides:

- A lesson preparation guide including a skills and outcomes table, defining the core learning goals for every lesson.
- Assessment tools, Performance assessment activities and Extension/enrichment activities.
- A copy of the student lesson, exactly as it appears in the Student workbook.
- Variations for each lesson in order to accommodate different classroom needs and multiple learning styles such as Collaborative group learning, ESL/ELL classrooms, and classrooms with limited computer access.
- Technology reference guide.

Futurekids Classroom Currents Language Arts curriculum is a powerful learning tool for your students, sure to live up to the promise of improving student achievement.

Using the School Network Course

Delivery: **Face-to-Face**



Course Description:

This customized, hands-on course provides participants with the knowledge and skills they need to perform tasks using the school or district network. Participants will become familiar with their school network environment, the role and benefits of their school network, and software programs available to teachers and students on their network. Hands-on exercises include accessing, working with and saving information on the network. Participants will work together in a collaborative network environment to share files and folders. In addition, they will learn how to access software applications, the internet, and how to print to network printers.

Course Objectives:

After completing this lesson, participants will be able to

- Recognize basic principles of computer networks
- Share and access network resources
- Work collaboratively on a network
- Access network printers
- Understand social and ethical implications of using a network



Vital Source Course

Delivery: **Face-to-Face**

Course Description:

The VitalSource Course is a one day (6) hour training which details the integration of technology into curriculum areas such as Math, Science, Social Studies, and Language Arts utilizing the VitalSource BookShelf and Library. Through hands-on exercises, participants will access the on-line resources, become proficient in using the annotation tools, an on-line glossary and dictionary within VitalSource and in exporting information into word processing documents. Participants will review a variety of exemplary, technology-infused classroom projects, provided for use as models.

Course Objectives:

- Access on-line VitalSource Bookshelf and Library
- Operate VitalSource annotation tools
- Create classroom projects based on teacher's own curriculum and students' needs
- Demonstrate how students will access and utilize VitalSource content and tools

Course Materials

- VitalSource User Guide
- CD with project templates and resources

Face to Face Custom Courses

Delivery: Face-to-Face or Web-based Interactive

Courses can be created and customized in all areas of technology need and relevancy. These could include:

- Statewide Software Applications
- Adobe Creative Suites
- Multimedia for Education
- Advanced Inspiration



Online Coaching with Futurekids EduTech Expert Trainer

Delivery: Web-Based Interactive

Service Description:

The EduTech Expert Trainer will work online with Keystone Teachers and T3 Teachers to offer coaching, hands-on help and consultation. The EduTech Expert Trainer establishes valuable on-going relationships to assist the teachers in becoming self-sustaining. The participants will create strategies and techniques for the planning and management of the Classrooms for the Future. Ideas and activities for managing the individual student, whole class instruction, and cooperative learning while using technology will be shared and adopted by the teachers. Challenges unique to a technology-rich classroom will be examined and solutions presented.

The EduTech Expert Trainer plays an important part of the comprehensive training superstructure built to ensure that technology gets integrated, now and in the future. Online training enables teachers to ask questions firsthand and receive direct, immediate feedback. The EduTech Expert Trainer is directly responsible for the deliverables of the training, curriculum integration, mentoring, monitoring and reporting.

Train the Trainer (T3): Teaching Out of the Box Classes with Teachers and Students at Schools

Delivery: Face-to-Face

Course Description:

The Train the Trainer (T3): Teaching Out of the Box Classes with Teachers and Students at Schools Course is a 3.5 hour course designed to train Keystone Teachers and T3 trainers to conduct teacher and student sessions at their schools in the fundamentals of utilizing the wireless laptop, cart and peripherals in the classroom. The training is designed to provide participants with Sessions Setup, Out of the Box Course Materials, Facilitator Notes and Step by Step scripts. By the end of the course, the Trainers will be capable of training others in:

- **Handling the Classrooms for the Future equipment**
- **Classroom management ideas**
- **Student procedures**
- **Integration projects**
- **Troubleshooting techniques**

Course Objectives:

- Demonstrate how to present physical attributes and capabilities of the wireless laptop, cart and peripherals to others
- Teach the management and the use of the technology equipment in the classroom

**Course Materials:**

- CD detailing wireless laptop, cart, peripheral features, capabilities, general maintenance and troubleshooting techniques
- One to One Computing Cookbook
- Sample Integration Projects

Hands-on Projects and Discussions:

- One-to-one computing and laptop computer use
- Computer terminology related to the wireless laptop
- Physical attributes of the wireless laptop
- Utilizing the Printer/Scanner
- Utilizing the Web Cam
- Utilizing Interactive Whiteboard
- Utilizing the Projector
- Utilizing the Multimedia Speakers
- Utilizing Video and Digital Camera
- Utilizing Inspiration
- Utilizing Productivity (Instructor) Software (Adobe Creative Suite Premium, InDesign® CS2, GoLive® CS2, Acrobat 7.0 Prof., and Microsoft Office Prof. Version, Inspiration, includes 4 year upgrade)

Student Out of the Box Training

Delivery: Face-to-Face

Course Description:

Student Out of the Box Training is a 2.5 hour course designed to train high school students in the fundamentals and benefits of utilizing the wireless laptop, cart and peripherals at school. The training is designed to familiarize the students with the physical attributes and capabilities of the technology equipment and its capabilities. By the end of the course, the students will know the procedures for handling the equipment and will be prepared with skills to log-on, access software, safely use the Internet and use basic troubleshooting skills. Non-English speaking students will have a choice of materials in foreign language or ESL Trainer.

Course Objectives:

- Identify and understand physical attributes and capabilities of the Classrooms for the Future technology equipment
- Demonstrate general operation, maintenance and troubleshooting techniques
- Manage the possession and use of the technology equipment at school responsibly

Course Materials:

- CD detailing wireless laptop features, capabilities, general maintenance and troubleshooting techniques, and technology resources



Hands-on Projects and Discussions (course will be customized with overview of technology resources):

- One-to-one to computing
- Proper laptop computer use
- Proper Security Measures to observe
- Computer terminology related to the wireless laptop
- Physical attributes of the wireless laptop
- Utilizing the Printer/Scanner
- Utilizing the Web Cam
- Utilizing Interactive Whiteboard
- Utilizing the Projector
- Utilizing the Multimedia Speakers
- Utilizing Video and Digital Cameras
- Utilizing the DVD/CD burner
- Utilizing Student Software (Microsoft Office Prof. Version plus upgrades, Inspiration)
- Swapping out drives and using back-up battery
- Power Management features including differences between standby, sleep and hibernate
- General Maintenance, troubleshooting, and operation of the wireless laptop
- Overview training on Operating System and Software Applications
- School District web sites
- Online databases and other resources
- Acceptable Use Policies



n. Online Instructional Resources.

Any online instructional resources offered need to supplement existing PDE e-Learning initiatives and will provide a means to support more engaged, relevant, and personalized learning for students. Interactive technologies will allow students to build new knowledge by doing, receiving feedback, and refining their understanding. Technologies will also help students visualize difficult-to understand concepts and increase conceptual understanding.

Respondents may include online and/or electronic instructional resources that extend, supplement or enhance learning in the four core curriculum content areas of English language arts, mathematics, science and social studies for grades 9-12. Specific requirements of online and/or electronic instructional resources include the following:

- i) The resources must be provided for both teachers and students.
- ii) The resources must include guides or other clear prompts demonstrating to teachers suggested methods for incorporating the resources into lesson plans and other classroom teaching activities.
- iii) The resources must include a combination of at least two and preferable all of the following information conveyance formats: text, pictures, video and sound.
- iv) The resources must be accessible with and through the wireless mobile computing system proposed as part of the respondent's Classrooms for the Future package.
- v) The resources must be easily viewable on the wireless mobile computing system provided as part of the respondent's Classrooms for the Future package.
- vi) The resources must be available for easy and rapid download on the wireless mobile computing device provided as part of the respondent's Classrooms for the Future package if they are web-based and distributed to the wireless mobile computing system using an ASP model.
- vii) The resources must be able to be stored on the storage media native to the wireless mobile computing device provided as part of the respondent's Classrooms for the Future package if they are electronically-based resources and require device-localized storage on the device to be operable.

CDW•G/Lenovo/IBM response:

The instructional on-line resources provided in our solution support developing the technology skills of students and teachers. Our solution includes resources that are imaged on each laptop allowing easy access by all users. CD's will also be provided to each school for downloading onto the desktop of other computers at each High School.



Out of the Box Materials for Using Classrooms for the Future are the step by step guides created for using the wireless laptop, storage cart and all of the peripheral equipment. The materials provide directions for using the equipment on the schools network and in a stand-alone environment. Where appropriate the on-line documentation provides examples for using the equipment in the four curriculum areas, Math, Science, Social Studies, and English. Students and Teachers will be able to open and select a specific set of directions at any time to guide them in using the equipment. Teachers may also find it useful in printing a set of directions or posting on the white board for using a piece of equipment in a project based learning project with students who are using the equipment for the first time or need an easy reminder. The purpose of these materials is to provide guidance for users in using the equipment by allowing the focus to be on the content of the curriculum lesson not on the technology equipment.

Microsoft Learn IT Teach IT will be imaged onto each laptop computer to allow access to training at any time with or without a connection to a network or the Internet. These are self-paced tutorials help teachers and students learn the Microsoft tools and understand how to use the broad set of features within Microsoft technologies. The tutorials provide techniques for infusing technology into classrooms and transform the learning experience. There are 20 plus hands-on theme-based tutorials, and more than sixty (60) How-To Tips. The more technologically fluent, the more opportunities teachers and students have to achieve outstanding results using these tools.

Also, Microsoft offers the following on line resources to additional information and training:

- **Microsoft's Anytime Anywhere Learning**

Transform your school with Anytime, Anywhere Learning

<http://www.microsoft.com/education/aal.mspx>

Realize student potential with Anytime, Anywhere Learning

<http://www.microsoft.com/Education/AALReality.mspx>

Bring 1:1 computing into the 21st century with Anytime, Anywhere Learning

<http://www.microsoft.com/Education/AALSchools.mspx>

Anytime, Anywhere Learning: Planning for success

<http://www.microsoft.com/Education/AALSupport.mspx>

- **Microsoft Innovative Teachers**

The Microsoft Innovative Teachers program provides opportunities for teachers to continually develop as professionals by focusing on the creation, sharing, reflection and replication of exemplary teaching and learning. The program helps educators use Microsoft technology to connect with their peers in a way that helps them learn from and inspire one another. Through the program Microsoft is awarding up to \$50 million in software grants to promote the creation of exemplary practices and providing educators with access to online learning communities of practice.

<http://www.microsoft.com/education/?ID=InnovativeTeachers>

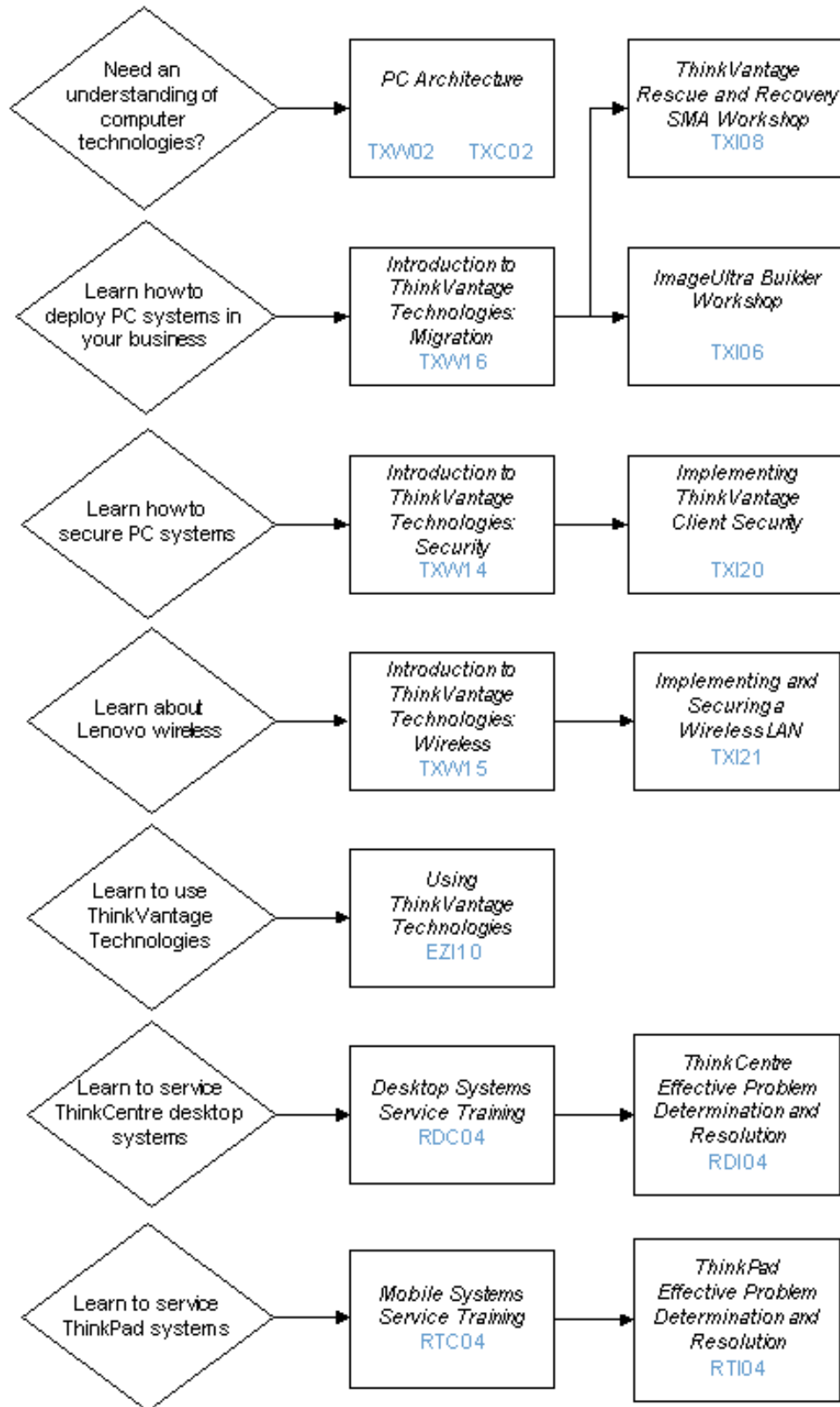


- **Partners in Learning** – partnerships with state governments, education leaders, and other key stakeholders to deliver curricula, tools, resources for comprehensive information and Communications Technologies (ICT) skills training and curriculum leadership - <http://www.microsoft.com/Education/PartnersinLearning.aspx>
- **Microsoft / ISTE Online Technology Assessment** – includes a set of 30-minute formative assessments that students work through to gain technology skills. www.iste.org/resources/asmt/msiste
- **Microsoft / Digital Literacy Curriculum** – the complete online curriculum will include five courses comprised of an eLearning experience and associated assessments. The curriculum will also be available as a printed, ILT solution. A certificate exam will validate an individual's level of knowledge across the objective domain of all five courses. <http://www.microsoft.com/digitalliteracyinstructor>

Microsoft will provide at no additional cost, to participating Classroom of the Future schools under the School Agreement Licensing model Microsoft Developer Network Academic Alliance (MSDNAA) which will assist in preparing Pennsylvania students for their future. <http://www.microsoft.com/india/msdn/academia/msdnaa/default.aspx>

Microsoft competency wheel model, this content provides educators around the world with a valuable tool, helping them develop **great people** and **great organizations**.

Please review the value-add section for additional training enhancements





o. Support and Maintenance.

As part of the cost, the Offeror will provide ongoing support to the schools for the duration of the agreement. Since the cost is to cover the full costs of deploying and supporting the solution, each Offeror must factor a full support package into its price. The components of such a full support package must include those components necessary to assure the Performance and Quality specifications are met continuously and that the solution is sufficiently supported at all times. The support package must include, but is not limited to: Help Desk; repair; preventative maintenance; licensing; fixes and updates for software, firmware, microcode, etc.

This support will include Help Desk or Support Center service available via 1-800 type access, which includes staffing, tools and processes to meet the schools' support requirements including a system of dispatching, tracking, priority setting, reporting and escalation, which ensure timely and satisfactory response and resolution. We are not requiring the Offeror to provide dedicated help desk personnel. The Offeror may also employ other communication systems for delivery of just-in-time support such as Internet audio chat, text chat, web forums, etc. School users of the Help Desk may include teachers, administrators and technical coordinators. The Offeror will describe its Help Desk offering as well as its ongoing technical support provided for its proposed solution.

The Offeror will fully describe the process and plan that will be utilized whenever a break/fix event occurs within the school's computing environment. This will cover the entire process of repairing or replacing a portable computing device or any of the Classrooms for the Future package.

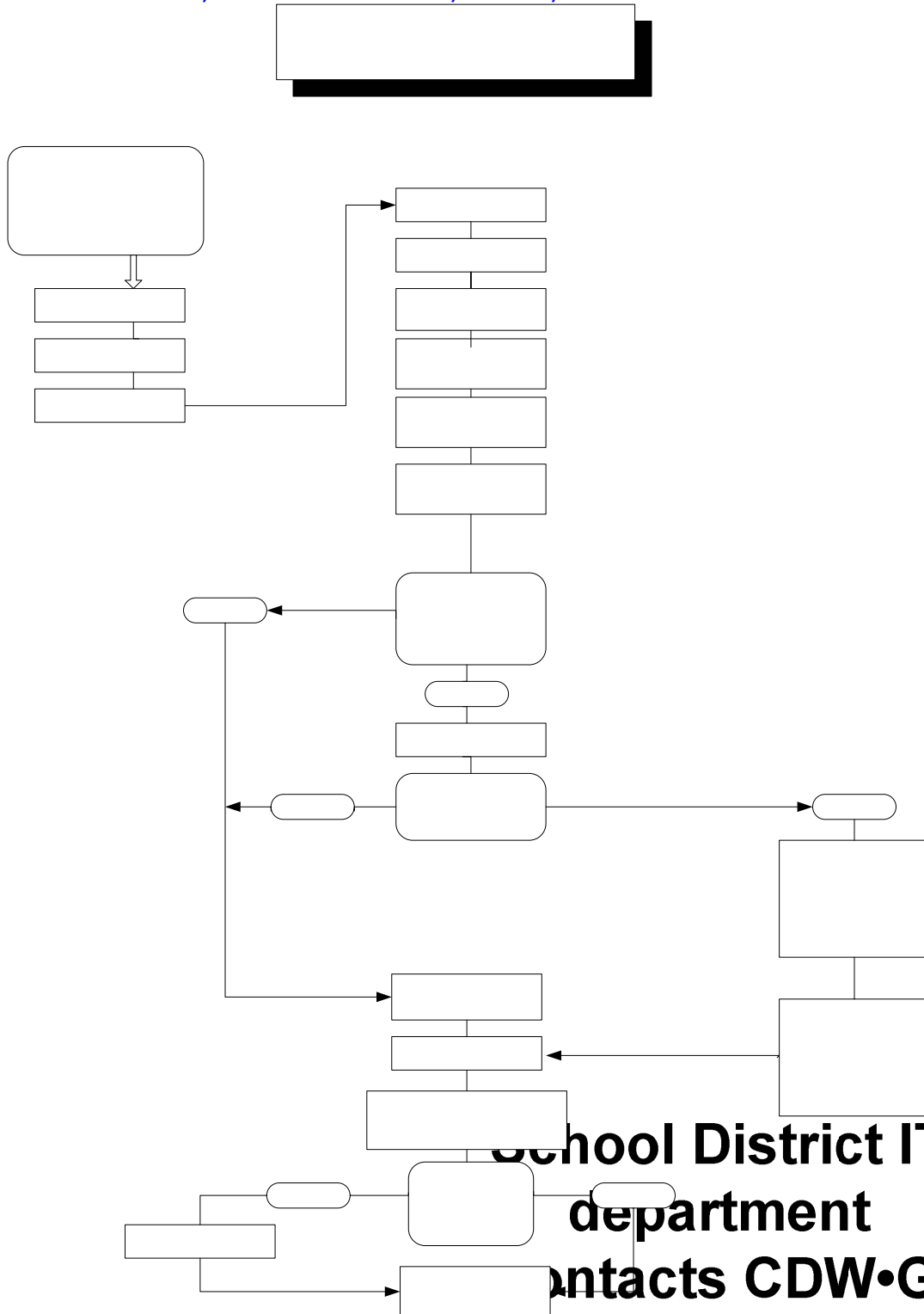
Respondents will be expected to provide their normal level of customer support for all components of the Classrooms for the Future package over the course of the project. If the RFP response is from a partnership of multiple Offerors, then all of the Offerors will be expected to support their contributing component in concert with all other proposing partners. However, a single partner must be designated as the lead technical support partner, and a single point of contact must be specified at that partner for implementing campuses and districts to contact with technical support issues.

CDW•G/Lenovo/IBM response:

CDW•G has a team in place fronted by the dedicated account manager (AM) to oversee all components of the project rollout. The "Classrooms" team will be in constant communication with each of the schools from pre-grant application stage through the final signoff/acceptance. We will assist with a readiness survey to assess building infrastructure, ensuring both logistical ability to receive shipments and easy integration of the products. These account managers will be the first point of contact to handle ordering, consultation, customer relations and technical support/warranty issues. When a customer interacts with the AM, he/she can be expect a seamless experience; one where we will take on the action items and confirm satisfaction.



Warranty calls will be handled in this same manner. The account manager will determine what is required for diagnosis and will transfer the call to our tech support area. See the flow chart for a schematic on how our technicians will either resolve the issue immediately or facilitate warranty work by the various manufacturers.



CDW Government, Inc
Technical Submittal

Dedicated toll-free



Should a replacement laptop be indicated, the customer will receive a new, not refurbished product.

In the area of Maintenance Service Delivery, we are uniquely qualified to provide a comprehensive hardware maintenance solution that meets PDE's requirements and also:

- Minimizes unplanned downtime with proactive, preventive, and predictive maintenance services
- Protects your business with fast, expert service that will get you back in operation quickly when failures occur
- Continuously improves your systems performance
- Reduces Total Cost of Ownership over time by leveraging experienced people, proven processes, and state-of-the-art technologies
- Provides a single source of accountability which you can depend on for all your maintenance needs
- Having one reliable and accountable service provider reduces many of the maintenance complexities that you might be experiencing today. With IBM's global presence, no matter where you need service, we have the reach and capacity to accommodate your increasing need for support.

Service Delivery Overview

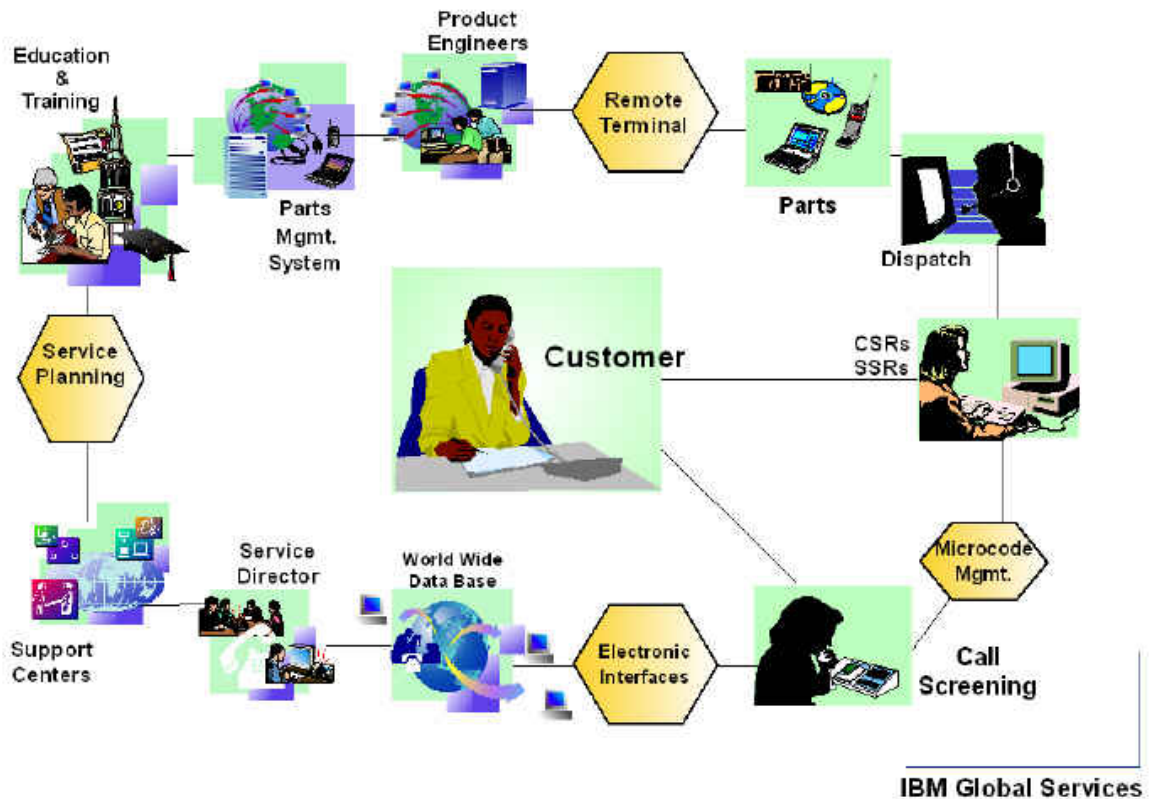




Figure 1. Service Delivery Overview

When a technical POC for the schools places a service call, our Support Center may engage additional technical support through the IBM Problem Resolution Center. They will verify the machine type and serial number, validate your customer profile, and assign a problem number. Your service request will be managed to completion by the Problem Resolution Center

The Problem Resolution Center will:

- Review call record
- Perform problem determination
- Resolve problem over the phone if possible (IBM resolved 45% of all service calls remotely in 2003)
- Determine skills and parts required
- Document customer request, scheduling requirements, special handling instructions
- Dispatch a Systems Services Representative (SSR) to your location. The SSRs arrival time is determined by the contracted level of service.
- Update customer records

CDW•G's proposed maintenance solution leverages IBM's proven support services. This includes stocking standard components within the IBM Parts Inventory Management System (PIMS). SSRs may have the needed parts in their individual parts supplies. If an SSR does not have the necessary part, IBM maintains a network of 5 world wide Hubs which support 300 main stock locations in 180 countries that provides parts across all of our service product lines. 200,000 individual part numbers are utilized world wide and PIMS handles 30 million spare parts movements a year.

Efforts are made to support all geographic areas with an availability level equal to total requirements. Via the portable electronic communication devices, your IBM SSR has electronic access to this entire parts distribution network. With all of this support, backed by the entire IBM infrastructure, your IBM SSR is capable of meeting a variety of requirements such as Same Day, Next Business Day, and preventative maintenance activities.



p. Project Management and Implementation.

The Offeror must ensure a successful implementation for each of the participating sites. This includes necessary site surveys, validation testing, installation and configuration of all hardware and software, training, support program implementation and any other aspects of the solution.

CDW•G/Lenovo/IBM response:

The project management and implementation services to be executed in support of this solution for the PDE is built around a successful and proven project management methodology, approach and delivery. We have customized this approach to deliver a successful implementation. CDW•G team member's are engaging with IBM Global Services (IBM GS) for project management, and have signed on two additional service partners to cover installation across the Commonwealth. Day to day project oversight will be shared between CDW•G and IBM GS, however CDW•G will be the single point of contact. .

IBM Global Services Method (The Method) provides a single method to enable a common language among all practitioners delivering business solutions. It is a fundamental component to accelerating the global implementation of consistent methodologies and best practices across all of IBM Global Services and is published as over 90 engagement models.

The IBM Global Services Method represents a significant investment in IBM's intellectual capital and therefore the detailed process definitions and network flow diagrams are not distributed as part of RFP responses. Facsimiles may be included for demonstration purposes.

One of these models is the Rollout Services Engagement Model. This model is designed to support Project Executives, Project Managers, and the members of the project team involved in a traditional rollout of equipment. We define a traditional rollout as one in which three things are known: where to deploy, what to deploy, and by when.

Description

The Rollout Services Engagement Model provides all the phases, activities and tasks required to execute the delivery of a traditional rollout services project.

Some of the content that the model contains:

- A full set of Project Management activities based on the World Wide Project Management Method (WWPMM)
- A detailed phase for establishing and executing a pilot
 - o Identifying and verifying pilot locations
 - o Acquiring commitment of skilled resources for conducting and supporting the pilot.
 - o Confirming client commitment
 - o Establishing pilot criteria



- Activities to perform Site Survey Readiness
 - o Account Managers will ensure that the customer site is ready and able to have the new equipment shipped to the site
 - o Ensuring that the customer site is prepared to have all components installed
 - o Validating that any installed infrastructure meets the agreed upon acceptance criteria
 - o Documentation of the installed infrastructure and any other relevant physical attributes of the site for archival and service support purposes
- Work Products that support the staging of the solution at an Integration Center
 - o The establishment of the configuration test environment
 - o An approved customer software image
 - o The testing activities to perform on the configured equipment and the acceptance criteria for those tests
 - o Any Security, Performance, or Business Continuity test that are called for
 - o The detailed script that the Integration Technicians will follow on each model of equipment involved in the integration
 - o The development of training materials for the Integration Technicians and the training of those resources
 - o The detailed shipping procedures that the Integration Center will follow
- A detailed Deployment Phase containing activities specific to Rollouts

Each task within the model is supported by:

1. The roles and responsibilities of the project stakeholders associated with the task;
2. The inputs and outputs associated with task work products;
3. The client deliverables resulting from the task and
4. Technique papers that guide the project stakeholders IBM's best practices for completing the task.



q. Project Plan and Deliverables.

The Offeror will develop and implement a project plan that includes, as a minimum, the following deliverables. Offerors must clearly describe their plan for implementing all of the components of their Classrooms for the Future package on a participating campus. A local education agency will be free to choose any one of the Classrooms for the Future packages approved under this RFP.

CDW•G/Lenovo/IBM response:

CDW•G has engaged IBM Global Services as our onsite project management team. Our approach for the Classrooms for the Future project will deliver a project plan that meets the deliverables outlined in this requirement. In the section below, we outline the approach, project plan elements and key activities to support the project plan.

IBM's project management philosophy is one of consistency and control that will provide PDE with the flexibility to accomplish goals in the most efficient and cost effective manner possible. This offers the ability to be creative with our solutions, while at the same time understanding the exposure to risk at all times. The steps we follow provide the tools to identify the challenges and needs of your organization both technologically and politically.

We focus on the organization, taking steps such as identifying and involving stakeholders as early as we can in the process to facilitate technological and political success of the project. We have found that in most technology projects communication is essential and our process ensures we focus on teamwork and communication during every step of the process. This allows for a true partnership and a team environment that is oriented toward delivering value and efficiency as one team.

IBM's project management philosophy follows a framework called WWPMM (Worldwide Project Management Methods) that provides the tools to fit our project to your environment. Depending upon the purpose and scope, IBM employs all or part of the methodology for each of our engagements.

Through employing the WWPMM, PDE will benefit in several key ways:

- Risk is managed more effectively because the project is properly defined, within the business environment, with primary risks clearly identified and managed.
- Productivity is increased by a clear definition of work roles and deliverables resulting in less unproductive time, faster startup through the reuse of intellectual assets, and less rework.
- Customer and IBM project teams form quickly with common terminology for easier and clearer communication.
- Customer satisfaction is increased because our customers have clearer visibility of the plan and actual performance against the project objectives throughout the whole project life cycle.

IBM's leadership in Project Management discipline and Enterprise Project Management (EPM)



IBM has a comprehensive view of an Enterprise Project Management solution that has three dimensions: coverage, depth and scope.

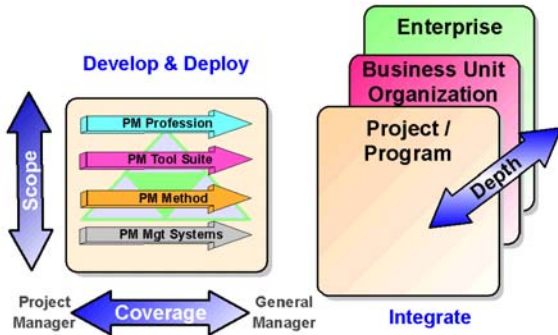


Figure 2. The three dimensions of Enterprise Project Management

The first EPM dimension is scope. IBM has developed the enablers and professionals needed to manage the delivery of projects and programs of all sizes and complexity. These enablers include: a full scope PM method, a PM Tools Suite, PM management systems and a staff of PM professionals that are trained and experienced in these enablers. The enablers are integrated so that they complement and support each other.

The second dimension, coverage, ensures the enablers (method, tool suites and processes) are comprehensive and scaleable to appropriately serve the requirements of the enterprise's management team, from projects to programs and portfolios. IBM's PM professionals also have a range of skills and experience from project manager to executives.

The third EPM dimension is depth. Depth addresses the integration of project/program management disciplines and data with the management systems of the enterprise at all levels.

An Enterprise Project Management solution involves building PM deliverables that have the full scope of items needed to implement and control the delivery of a project or program, have the coverage to be applicable from the top to the bottom of the organization and have the depth to be integrated into the very essence of the enterprise.



IBM's Methods

IBM manages projects by understanding and adapting to meet our clients' needs and environment, primarily at the method and business process level. IBM's approach to managing projects includes four fundamental tenets:

1. Project management process - focusing on an amount of defining and planning work to ensure the sponsoring business understands and accepts that the scope of the project will achieve the required business objectives and that the risk factors are fully recognized
2. Project organization and responsibilities - defining and agreeing the key players who will have to cooperate to ensure a successful outcome - especially the business that is requesting the project and which will be responsible for operating or using the resultant product or service,
3. Project phases - ensuring that the work is broken down into a series of phases that give management the opportunity to reassess risks at key points through the project and
4. Project management system - establishing a management system that will apply the appropriate degree of control over all activities and keep the scope in perspective.

These tenets, which require early coordination between IBM and our clients, provide the basic structure of the project and establish the roadmap for a successful journey to project completion.

To ensure consistent method usage worldwide, IBM has developed:

1. Worldwide Project Management Method (WWPMM), which establishes and provides guidance on the best project management practices for defining, planning, executing and controlling a wide variety of projects,
2. IBM Global Services Method, which provides guidance on the technical aspects of the project and,
3. Integrated Product Development (IPD) / Integrated Services Development (ISD) – which are business process management systems used in business units developing asset-based offerings / solutions.

The goal of IBM's methods is to provide proven, repeatable means of delivering solutions that ultimately result in successful projects and satisfied customers. Supporting the delivery of these methods is the Project Management Tool Suite - a collection of tools spanning the project spectrum from defining a project to executing and controlling and closing that project.



Each must describe its ability to meet these requirements:

i) Project Plan.

The preliminary Project Plan itself will be delivered for approval not later than 30 calendar days after the agreement is fully executed by the Commonwealth. Development of the plan with PDE's involvement is required. The Plan must include all aspects of the project and its deliverables, including coordination with PDE and the schools, communications and reporting, timetable, Validation Testing Subplan, Deployment Subplan, Training Subplan, and the Service and Support Subplan. This Project Plan will be revised and improved periodically as needed, with consultation of PDE.

CDW•G/Lenovo/IBM response: Our responses in each section speak to our plan to implement this project. The proposed services supporting our Classrooms for the Future solution for the PDE will deliver a customized project plan within the 30-day timeframe outlined above. The plan will include all aspects of the project and key deliverables. On a periodic basis, the project plan will be modified and reviewed with PDE personnel and our project management team for approval and execution.

ii) Validation Testing.

This will be system testing, in Commonwealth schools, that confirms that the solution meets or exceeds the functional requirements, and the performance and reliability specifications as required under the agreement between the Offeror and PDE resulting from this procurement process. This Validation Test will enable the Offeror the opportunity to test its equipment in Pennsylvania school environments and will assure PDE that the solution is acceptable for production deployment. The test will include PDE and up to eight schools and must be successfully no later than four weeks after issuance of notice to proceed.

CDW•G/Lenovo/IBM response: CDW•G will create and distribute installation satisfaction surveys during the training and support phase of the Classrooms for the Future project. These surveys will enable schools and the PDE can give feedback regarding their experience, as well as the opportunity to suggest improvements or changes to the process of implementation at any or all phases.

iii) Educational Conferences and Meetings.

Participation in at least 30 educational conferences or meetings annually in conjunction with the Pennsylvania Department of Education, the intent of which is to help inform the educational community of the project plans and to maintain communication and ongoing relationships with the participating schools.

CDW•G/Lenovo/IBM response: We will participate in the educational conferences and meetings in conjunction with the Pennsylvania Department of Education.



CDW•G is an enthusiastic sponsor and exhibitor at several educational events. We sponsor shows and conferences such as NECC, FETC, TCEA, NIGP and literally hundreds of regional education-specific shows throughout the country. We gather data from teachers through these forums as well as through our annual survey, **Teachers Talk Tech**. CDW•G employed QED to conduct the fourth-annual in-depth research study into what K-12 teachers are saying about technology in the classroom. Quantifiable teacher input helps parents and administrators understand the importance of technology investments. Teachers are often in the best position to see the true impact of technology on learning and know what it can and cannot do. Thus, feedback from classroom educators can be essential in helping communities make academic and technological choices that are in the best long-term interests of students and schools.

Specific objectives of this study were to:

- Learn how K-12 teachers use computers in their jobs
- Evaluate technology's role and efficacy in education
- Give K-12 teachers a voice regarding computer technology
- Assess the effectiveness of computers in preparing students for the 21st century work environment

Through IBM, We sponsor an educational cross communication program called ThinkTank. As part of our offer, we encourage the PDE to participate in ThinkTank.

Since 1993, IBM has formalized our work with institutions implementing pervasive mobile computing and 1:1 programs. Through our experience with over 350 institutions throughout the world, IBM has been able, in partnership with educational institutions, to develop and compile best practices for student mobile computing.

ThinkTank is a program is comprised of the following:

- an international users' group,
- a conference and
- a web portal residing on the ibm.com domain.

The goal of ThinkTank is to provide best practices, open discussion and support for ThinkPad 1:1 and ThinkPad University programs across the world. The annual conference is an opportunity for institutions, like the PDE, to network with each other along with IBM and Lenovo executives while learning about one another's programs - both successes and lessons learned. For one such event, annually, a member institution will host an international meeting of "ThinkTank" which brings together schools from around the world for a three-day session. During this meeting, both IBM experts (research, networking, wireless, ThinkPad development teams) and institutions present a variety of topics ranging from laptop distribution and student training approaches to financial, technical and helpdesk issues. The meeting is open only to IBM ThinkPad Academy, ThinkPad University and ThinkPad at School customers implementing similar projects. We believe this offers tremendous value to ThinkPad at School memberships and further facilitate and enhance the information transfer that already exists in the education community. In addition, it will grant the opportunity for each educational participant to highlight their own particular strengths. Participants gather information on best practices in one to one computing from colleagues as well as leaders in the education industry. There are numerous workshops, breakout sessions



and small group meetings.

To further enhance ThinkTank, in 2004, an online best practices institute: ThinkTank Online was established. This is ongoing networking via the ThinkTank Online portal; which is a 24/7 dynamic environment. This portal contains a worldwide data warehouse of best practices and information for mobile computing, exclusively for the benefit of our one to one computing program participants.

This site includes advice, software, templates and enlightened discussion on teaching with technology. In addition, member schools have the opportunity to sponsor one piece of curricula.

iv) Implementation.

Each school installation will include provision of complete, current documentation necessary for effective and successful use of the solution by people such as system administrators, site support personnel, and teachers. This may include manuals, guides, quick reference materials and other documentation. Either hardcopy or electronic versions are required. Each Offeror will describe what documentation they will provide and how they will provide it in order to be effective.

Each installation will include establishment of a site work completion and satisfaction sign-off form. The Offeror's equipment and work at each site will not be considered complete nor will it be paid for until satisfaction sign-offs are obtained from both the responsible site person and the PDE Project Manager.

The respondent must scope their implementation plan to address:

- How the respondent will provide implementation of their Classrooms for the Future package across each campus and how the respondent will assure implementation fidelity across these campuses.

CDW•G/Lenovo/IBM response:

The services provided in support of this project will address all aspects of the implementation tasks as outlined in this requirement.

The Project Manager will work with PDE management to develop a project plan with common understanding of expectations, scheduled milestones, and resource requirements. In addition to the Project Manager and Project Support Office (PSO) will be implemented to provide administrative project support for the Project Manager and reduce overall cost.

The Implementation team will receive training on the installation of the devices provided within the overall "Classroom of the Future" solution. The actual format of the training will be determined upon completion of the installation documentation by the implementation design team.

The Project Manager will confirm the readiness of each site with the site contact provided by PDE. The readiness qualification checklist may contain items such as validation that suitable temporary storage space has been selected and cleared, the



presence of the required network connectivity in each designated classroom, and available power receptacles as defined by the configuration of the classroom.

The Project Manager will arrange precision shipping to deliver the "Classroom of the Future" devices at a specific date and time. The Project Manager will schedule the Installer to arrive within 2-3 days of delivery, install the devices as described in the assumptions of a typical "Classroom of the Future" layout, and notify the Project Manager when the installation is completed.

The project implementation team will work closely with PDE to assure knowledge transfer through the T3 education sessions, resolve implementation issues in a timely manner, and provide ongoing warranty via a centralized customer support center.

v) Project Implementation Plan.

The Offeror must successfully install, configure and test all hardware and software for each participating site. In School Year 1, this must be completed no more than 4 weeks after issuance of notice to proceed.

NOTE: Dates are contingent upon contract award. The specific components required of the technical implementation plan include:

- The method by which the respondent will provide for onsite implementation of the Classrooms for the Future package.

CDW•G/Lenovo/IBM response:

CDW•G will be utilizing our own engineers as well as the following partners dependant on geographical location of the school. For Installation Partner/County coverage, please see the 'CDW•G Installation Partner/PA County Coverage' on page 91.



CDW•G is utilizing IBM Global Services, InShore Technologies, and Veridyne, Inc., for installation services for this project. **Please note: Our offer can extend to installation of Apple laptops and all peripherals, both Apple and Windows platforms (Lot C.)** Cost of the Apple installations are not included in the installation and training price, however, offered in Exhibit D. The price in Exhibit D is allocated for the Windows offering in Lot A. CDW•G has partnered with IBM/Future Kids to provide training as discussed in subsequent sections of this response.

- The resources the respondent will make available during implementation to conduct the implementation of the Classrooms for the Future package—whether specific technical personnel will be provided for implementation, how many and of what type of expertise.

CDW•G/Lenovo/IBM response: CDW•G has provided ample resources; tools and experienced personnel plan for implementation of the Classrooms for the Future package throughout this technical submittal. These resources will enable tasks required during each phase of the assessment, consultation, deployment and support/training, as well as ensuring success of the project at each site.

- The timeline—in days, weeks or months—necessary for accomplishing the implementation of the Classrooms for the Future package on a participating campus and to make all of its components fully operative. The timeline should include all major phases and milestones.

CDW•G/Lenovo/IBM response:

Please see 'Implementation Plan Schedule' above in response to III. Work Plan. We have detailed our timeline in days, weeks and months for complete implementation.

- The management plan for implementation of the Classrooms for the Future package—which partner(s) will be responsible for implementing which components of the Classrooms for the Future package, in what order and under which managing (lead) partner's supervision.

CDW•G/Lenovo/IBM response: CDW•G has provided a management plan for implementation throughout this technical submittal, complete with project staffing, timelines for assessment, consultation and solution building, and deployment (delivery, support and training).

- The single partner that will be responsible for managing and effecting implementation of the Classrooms for the Future package if the response to this RFP involves a partnership of Offerors.

The RFP response and the proposed implementation plan will be assessed on all of the components described previously in this section.

CDW•G/Lenovo/IBM response: CDW•G is ultimately responsible for managing and effectively implementing the Classrooms for the Future package. We have assembled a team of partners in IBM, Lenovo, and our service partners that will best allow us to accomplish this.

**vi) Project Staffing.**

An experienced, qualified, and effective project team will be identified and provided. The Offeror will provide a description of its project staffing plan for all phases and tasks. Identify each senior staff member and complete for each the form in Exhibit C in order to demonstrate your staff's experience with projects similar to this one. **At a minimum, the Offeror will maintain an in-State team for the length of the project made up of a Project Manager, Educational Specialist, Systems Integrator and a Technical Engineer.** These resources do not need to be dedicated solely to this project; however an appropriate level of support must be provided.

CDW•G/Lenovo/IBM response: CDW•G, in partnership with IBM and other service partners for this project have provided an experienced and capable team to ensure each

The CDW•G Project Team for the PAE-‘Classrooms for the Future’		
Sales Team Member	Years Experience	Title
Anthony Russo	18	Project Manager (IBM)
Bob Mjos	17	Back up Project Manager (IBM)
Gregg Meyers	9	Project Manager (CDW•G)
Mo Hamilton	25	Back up Project Manager (CDW•G)
Rick Vasquez	17	Technical Services (Help Desk) Director- Technical Engineer
Sam Medina	12	Manager of Technical Support
Paula Simpson	12	Educational Specialist (FutureKids)
Michele Bonerigo (In-Shore Technologies, Inc.)	12	Systems Integrator (hardware installation)
Sam Patterson (Veridyne, Inc.)	20	Systems Integrator (hardware installation)
Dzana Homan	13	Future Kids, President (Prof. Dev.)
Dave Hutchins	15	K-12 Sales Director
Tara Barbieri	11	Program Sales (Contracts) Director
Maureen O’Connell	11	Program Sales (Proposals/Contracts)
Mike Marty	8	Customer Relations Manager
Amanda Ewertowski	6	Program (Contracts) Manager and E-Rate Specialist
Craig Weinland	26	Field Sales Manager
Jim McDonald	20	Field Account Executive
Dave Partridge	3	Field Account Executive
Joe Kurtz	4	K-12 PA Sales Manager
James Dayoff	1	PAE-COF Lead Account Manager
Jason Wyse	1	Account Manager
Mike Creegan	6	Account Manager
Mike Patka	1	Account Manager
Raj Jhala	1	Account Manager
Sean Irwin	1	Account Manager
Chris Andrews	2	Account Manager
Mark Silverstein	3	Account Manager



Resumes can be found behind Tab 2. These have been submitted in lieu of completing Exhibit C for each of these team members as requested above.

Project Executive / Manager: Anthony Russo (Bob Mjos-Back Up PM)

Provide ongoing project management for the responsibilities defined in the IBM/CDW•G SOW. The purpose of this activity is to provide technical direction and control of designated project personnel and to provide a framework for project planning, communications, reporting, procedural and contractual activity. This activity is composed of the following tasks:

- Planning
 - o Review the SOW and the contractual responsibilities of both parties with the CDW•G/PDE Project Managers.
 - o Maintain project communications through the CDW•G/PDE Project Manager.
 - o Coordinate the establishment of the project environment.
 - o Establish documentation and procedural standards for Deliverable Materials.
 - o Prepare and maintain the project plan for performance of the SOW which lists the activities, tasks, assignments, milestones and estimates.
- Project Tracking and Reporting
 - o Review project tasks, schedules, and resources and make changes or additions, as appropriate. Measure and evaluate progress against the project plan with the CDW•G/PDE Project Managers.
 - o Work with the CDW•G/PDE Project Managers to address and resolve deviations from the project plan.
 - o Conduct regularly scheduled project status meetings.
 - o Prepare and submit monthly Status Reports to the CDW•G/PDE Project Managers.
 - o Administer the Project Change Control Procedure with the CDW•G/PDE Project Managers.
 - o Coordinate and manage the technical activities of the designated project personnel.



Sales / Engagement Team: (Dave Hutchins, Joe Kurtz, Sales leads)

- Contact school / District upon approval of grant
- Create and complete the capability checklist for each school
- Design configuration / requirements for each "Classroom of the Future" to be installed
- Review the site preparation requirements to support the specific configuration for each classroom (This could be an Excel spreadsheet that defines the classroom infrastructure requirements based on the number of devices (laptops / access points) for each classroom. It may also provide the minimum network infrastructure required to support the intended number of users.)
- Negotiate the scheduled installation date (Risk: We are assuming one installation visit per school.... What if they want the classrooms installed over a number of events? We should establish an assumption to protect the delivery team from this potential scope change.)
- Prepare the SOW / Agreement between the School / District and CDW•G
- Obtain signature and PO

Hand off to Delivery

Delivery Team: (Dave Hutchins, Sales lead and Tara Barbieri, Contract Management lead)

- Establish the project schedule for the school / district
- Conduct a site readiness call
- Procure the required devices
- Schedule integration tasks
- Schedule training resources
- Schedule installation resources
- Receive the devices at consolidation center
- Complete device integration, / pick / pack / ship
- Conduct training
- Track shipment and confirm receipt
- Conduct and/or oversee installation (CDW•G, In-Shore Technologies or Veridyne, Inc.)
- Complete installation script and obtain customer sign-off
- Release Installation technician from the school
- Consolidate installation checklists and customer sign-off



Hand off to Day 2 Support and Finance

Help desk / Depot Team: Rick Vasquez (Technical Engineer lead)

- Update entitlement records for school to receive day 2 support
- Create tickets for each call
- Appropriately code each ticket to support the agreed to reporting
 - o Demographics (location, school, district)
 - o Call severity (i.e. 1-4 based on industry standards)
 - o Call Category (i.e. Hardware, network, software)
 - o Call Sub Category (i.e. Specific device, software product)
 - o Problem determination category (i.e. categories that will permit meaningful analysis to identify areas of improvement to improve service, training or other resulting in reduced calls)
- Establish Industry Standard SLA's
 - o Time to answer (30, 45 or 60 seconds)
 - o Call abandon rate (3, 5, 8 percent)
 - o 1st call resolution (non warranty, 65, 75 percent)
- Use existing scripts and or develop new to increase 1st call resolution
- Hand off and track warranty and break-fix calls
- Develop and track battery replacement program
- Monitor and manage outstanding / unresolved tickets to resolution
- Prepare monthly reports for internal review and actions
- Prepare quarterly reports to meet RFP requirements (Monthly may be a value add to improve relations and implement improvements if required)

Contract Management Team: (Amanda Ewertowski, Contract management and reporting lead)

- Prepare invoice for the completed solution including any shipping to be build at actual
- Perform accounts receivable if required
- Maintain project P&L and measure against the established financial baseline for the fiscal period and project
- Identify and communicate variances and negative trends early
- Receive service provider invoices
 - o Reconcile against authorized work and service provider SOW
 - o Escalate and resolve discrepancies
- Prepare monthly financial reports for review by appropriate personnel
- Maintain service provider agreements / SOW's along with schedule for renewal activities



Subcontractors – CDW•G intends to subcontract a portion of the installation/integration services of the following companies for this 'Classrooms for the Future' initiative whose business model and offering is in line with the needs of the PDE and the requirements of the contract. We analyzed the high school enrollment figures across each county to pre-assess the estimated workload. As such, we have put together a preliminary breakout for the subcontractor coverage.

Installation subcontractors include In-Shore Technologies, Inc. and Veridyne, Inc.

County	Installation Firm	County	Installation Firm	County	Installation Firm
Allegheny	In-Shore	Greene	In-Shore	Perry	Veridyne
Westmoreland	In-Shore	Elk	In-Shore	Luzerne	CDW•G
Erie	In-Shore	Fulton	In-Shore	Lackawanna	CDW•G
Washington	In-Shore	Cameron	In-Shore	Lycoming	CDW•G
Butler	In-Shore	Forest	In-Shore	Northumberland	CDW•G
Beaver	In-Shore	Philadelphia	Veridyne	Centre	CDW•G
Mercer	In-Shore	Montgomery	Veridyne	Bradford	CDW•G
Cambria	In-Shore	Bucks	Veridyne	Columbia	CDW•G
Lawrence	In-Shore	Delaware	Veridyne	Susquehanna	CDW•G
Fayette	In-Shore	Lancaster	Veridyne	Tioga	CDW•G
Clearfield	In-Shore	Chester	Veridyne	Wayne	CDW•G
Blair	In-Shore	Berks	Veridyne	Snyder	CDW•G
Crawford	In-Shore	York	Veridyne	Wyoming	CDW•G
Indiana	In-Shore	Lehigh	Veridyne	Mifflin	CDW•G
Armstrong	In-Shore	Northampton	Veridyne	Pike	CDW•G
Somerset	In-Shore	Cumberland	Veridyne	Clinton	CDW•G
Venango	In-Shore	Dauphin	Veridyne	Union	CDW•G
Clarion	In-Shore	Monroe	Veridyne	Potter	CDW•G
Bedford	In-Shore	Schuylkill	Veridyne	Juniata	CDW•G
McKean	In-Shore	Lebanon	Veridyne	Montour	CDW•G
Jefferson	In-Shore	Franklin	Veridyne	Sullivan	CDW•G
Huntingdon	In-Shore	Adams			
Warren	In-Shore	Carbon			

Subcontractors will be managed by the Project Manager.

r. Coordination with Schools.

The Offeror will work with PDE and each school district and its principal or principal designee to determine via any necessary site surveys the local requirements necessary to implement the solution as well as any local change requirements and costs, and will coordinate the installation of its solution with each school's changes. These local change requirements would include not only the basic solution but also any additions or adaptations that a school elects to implement at its own local cost (e.g., switches, hubs, software, hardware, adaptive devices). The Offeror must accommodate school schedules and needs, even if this requires some alteration of the Offeror's customary schedule.

Such accommodation must not include any additional, premium or overtime charges.

CDW•G/Lenovo/IBM response:



Our proposed Classroom of the Future package has been designed for flexibility and ease of implementation. We will work with the PDE and each school district to determine a solution that accommodate schools schedules and needs, even if alteration is necessary.

s. Work Within Schools.

i) Each Offeror will succinctly describe the basic physical characteristics of the proposed equipment including dimensions, weights, electrical, HVAC and any other specifications vital to know. All required cables, wires, mounts and connectors will be specified by the Offeror.

CDW•G/Lenovo/IBM response: Please refer to the project specifications outlined in Exhibit B. Our project team in the planning phases will outline all cables, wires, mounts and connectors required for implementation of the proposed equipment.

ii) ACT 34 COMPLIANCE

The Offeror must submit with their application a copy of a report of Criminal History Record Information from the Pennsylvania State Police or a statement from the Pennsylvania State Police that the State Police Central Repository contains no such information relating to any persons working within the schools. For out-of-state persons who will be working within the schools, the Offeror must submit with their application a copy of a federal criminal record history from the Federal Bureau of Investigation. The criminal record history report must be no more than one year old.

CDW•G/Lenovo/IBM response: CDW•G and/or partners who will be working within the schools will submit a copy of a Pennsylvania State Police Criminal History Record or other documentation upon notice of award. There were conflicting instructions in the RFP as to when this documentation was required. At the outset, an answer to a submitted question indicated that this could be submitted upon award. A subsequent revision to that answer referred respondents to the original document where the ambiguity existed. Since that addendum was issued, we have resumed our solicitation of these documents in anticipation of having them during the award and/or negotiation time frame.

iii) ACT 151 (PA Child Abuse History Clearance)

Each Offeror must submit with their application a copy of an official clearance statement obtained from the Pennsylvania Department of Public Welfare or a statement from the Department of Public Welfare that no record exists for any person(s) working within the schools. The clearance statement must be no more than one year old.

CDW•G/Lenovo/IBM response: As noted above, CDW•G and/or partners who will be working within the schools will submit a copy of an official clearance statement obtained from the Pennsylvania Department of Public Welfare or a statement from the DPW that no record exists for any person working within in the schools upon notice of award and negotiation of the agreement.



iv) All cabling, wiring, connectors and mounts will be installed in a manner which results in safe and secure facilities. No hazards will be created; any identified hazard will be pointed out to appropriate site personnel. Installations must be performed in a manner which does not harm or diminish local site designs, structural integrity or—to the extent feasible—cosmetics. Installations will meet all prevailing local codes and governing body codes as well as IEEE, TIA/EIA and ISO/IEC standards for cabling and wiring.

- IEEE—Institute of Electrical and Electronic Engineers.
- TIA/EIA—Telecommunications Industry Association/Electronic Industry Association
- ISO/IEC—International Organization for Standardization/Equipment Installer's Code.

PDE is seeking a solution which adheres to industry standards and open systems architectures as versus proprietary solutions. Each Offeror must identify whether its solution includes proprietary aspects and, if it does, will provide in its proposal a schedule and a plan to PDE for the Offeror's migration to industry standards - or state that it intends to continue pursuing its proprietary approach.

CDW•G/Lenovo/IBM response: Any hazards created as a result of cabling, wiring, connection or mount will pointing out to appropriate site personnel.

Installations will meet all prevailing local codes and governing body codes, as well as standards for cabling and wiring.

The PDE 'Classrooms for the Future' solution does regarding cabling, wiring, mounting, etc does not include proprietary aspects or approach, and should follow industry standards.

IV-5. Reports and Project Control – As agreed upon between Offeror and PDE

- a. Status Report. A periodic monthly progress report covering activities, problems and recommendations. This report should be keyed to the work plan the Offeror developed in its proposal, as amended or approved by the Issuing Office.
- b. Project Management Reporting. The Offeror will submit on the last working day of each quarter a detailed quarterly progress report to PDE's, starting with the first month of the Agreement. Among other things, this report must include a monthly summary of the performance metrics specified earlier. The Offeror may be requested to supply additional information as warranted.
- c. Problem Identification Report.

CDW•G/Lenovo/IBM response: CDW•G will provide status, project management, and problem identification reporting as agreed upon by PDE and our company in conjunction with the timeframes stipulated above.



II-4. Prior Experience

IBM:

We have extensive experience in managing and delivering large scale projects involving rollouts which includes training and project management of technology solutions in K12 environments. Listed below, we have included client reference information. These customer references reflect our capabilities. We are proud of our work and enthusiastic about having you discuss our qualifications with our clients.

In addition, we have included a synopsis of our capabilities and commitment to K12 marketplace behind Tab 4 of this response.

The descriptions of the following client references are included below:

- **Gwinnett County Public Schools**
- **City University of New York (CUNY)**
- **Clovis Unified School District**
- **Whitfield School**
- **Duval County Public Schools**
- **Palm Beach County Schools.**

Gwinnett County Public Schools

Gwinnett County Public Schools contact:

Gordon Burnett
IBM Corporation
Client Executive - Education Industry
(404) 487-1413

Background

Gwinnett County Public Schools (GCPS) supports the educational needs of the metropolitan Atlanta area. It is the largest school district in Georgia and the 25th-largest in the United States.

Currently, GCPS has over 100 schools providing services to over 135,000 students. The GCPS employs 21,000 full- and part-time employees with an annual budget of US\$1.5 billion. The district's mission is to pursue excellence in academic knowledge, skills and behavior for each student with the ultimate goal of exceeding local and national education standards.

Overview

Gwinnett County Public Schools (GCPS) has long recognized the value of technology in educating students. In May of 1998, GCPS developed their Strategic Technology Plan (STP). As part of the STP, focus groups and surveys were conducted. In 2006, IBM and Lenovo continue to implement technology solutions at GCPS. The information below outlines the origins and history of this successful education technology program.



After analyzing the results, the top eleven wants and needs were identified and approved by the cabinet:

- A clear and focused technology vision
- Technology resources that are current and up-to-date
- Equity of technology resources
- Technology resources that enhance learning for all students
- Professional development for teachers
- Effective two-way communication with parents
- Easy access to technology resources for teachers
- Efficient/effective ways to manage paperwork and administrative tasks
- Availability of technical and instructional support
- Knowledgeable technical support staff

The conclusion of the Strategic Technology Plan was that the district should move forward with an aggressive implementation schedule for providing all students and teachers with access to technology resources as quickly as possible. The Technology Plan warned that to realize an improvement in student learning (from the technology investment) close attention would have to be paid to each of the following areas: communication, finance, human resources, information technology, professional development, teaching and learning, and technical support.

There are several methods to provide access to technology. GCPS is already providing "technology access" to both students and teachers. However, current access is limited to while at school and often involves sharing one resource among twelve students. Having technology only at school limits the learning experience in a world that calls for anytime, anywhere, learning. Access at GCPS is currently desktop computers. As long as desktops (one in each class and two/three labs in each school) remain the primary source of access, computers will just be computers, not learning tools. Teachers do not expect students to learn math just by sitting in a classroom. Students cannot be expected to both learn and integrate technology that they are only exposed to a couple of hours a week. In order to move to an environment where technology enriches teaching and learning, technology must become as central in the learning environment as a pen, pencil, textbook, or notebook.

Putting technology in the hands of teachers and students is no longer just a wish; it is a fundamental part of education. The Technology Enriched Teaching and Learning Strategy require a personal computing device in the hands of every teacher by the end of 2005. The Technology Enriched Teaching and Learning Strategy require integration of that personal computing device into the curriculum. Frankly, the challenge of this strategy is two fold, providing the technology and ensuring that the technology is truly integrated to provide the desired enhancement to learning. The Technology Enriched Teaching and Learning Strategy include hardware, software, staff development, network, and technology support.

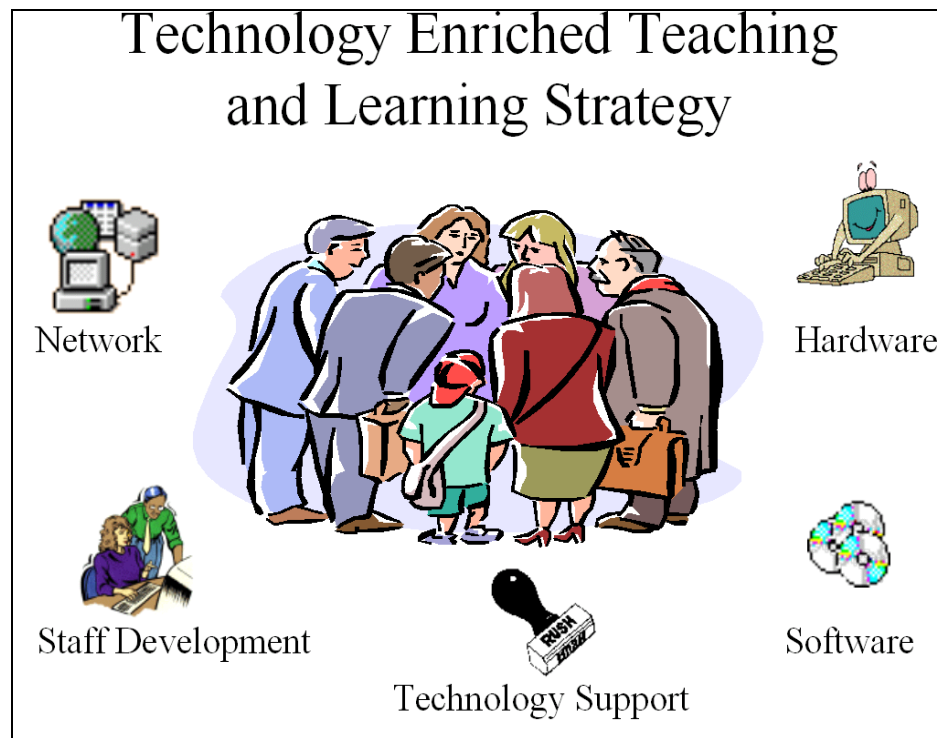


Figure 3: Technology Enriched Teaching and Learning Strategy

GCPS is in a unique position to draw conclusions on the necessity of the student laptop. GCPS has already invested significantly in both technology and staff development to evaluate the benefits of increased technology access for students. During the initial school year of this project, three separate laptop pilots took place.

Sweetwater Middle School – All teachers were given laptop computers. The teacher desktop remained in the classroom. Teachers were also given ACTNow! subscriptions. ACTNow! is a method of teaching productivity tools on-line. All teachers received Laptop 101 training.

Crews Middle School – Three wireless carts were purchased, each cart housed laptops for 30 students. The cart enabled network access and served as a charging station for the laptops. Twenty-two teachers applied to participate in the program, nine were chosen.

Summerour Middle School – In 2000, two teachers shared two wireless carts. There were a total of thirty-seven student machines and two teacher machines, enabling a student machine ratio of 1 machine per 1.6 students. Laptops were sent home with students on an awarded basis. In the summer 2001 the two teachers conducted a computer camp with the laptops. For the 2001-2002 school year students applied and were selected for the full access program. During 2001-2002, the selected students had 24/7 access to a laptop.



Benefits of the Solution

Benefits from the three-laptop pilots are given below. An independent objective evaluation of each of the three-laptop pilots was developed and conducted on behalf of the Division of Organizational Advancement, who sponsored the pilot projects.

- Teachers reported in surveys and interviews overwhelmingly that there was increased student:
 - Interest
 - Motivation
 - Engagement
 - Attendance
 - Completion of tasks
- Teachers noted better overall grades on projects and reports done on the laptops.
- Students and teachers reported many positive effects of having access to current information and resources via the Internet
- Surveys indicated significant acquisition of computer skills when students used the laptops, particularly in the areas of word processing, spreadsheets, and presentation tools.
- Teachers reported an increase in collaborative learning

Laptop Technology Support

Many schools currently have a LSTC, media specialist, and a TST to handle support issues locally. When the issue cannot be resolved locally, they are escalated to the help desk. To implement the technology integration strategy, the following changes occurred:

During teacher rollout, the TST support person is on site at each school for the sole purpose of laptops service during the initial month of the rollout for 3 days/week. When the carts are rolled out, the support increases from 3 days to 5 days/week. In addition, both LSTCs and TSTs are freed from clerical and administrative duties. They are focused on integrating technology for the teachers, seamlessly.

GCPS currently has an estimated 96 local school TSTs. Currently in Elementary Schools and 18 new schools they support the laptop technology for teachers using instructional applications, SIS, ERP, and data warehouse applications. The LSTCs are devoted to the training aspects of the technology and integrating teaching and learning applications for the teachers.



A centrally located single point of contact help desk was the best approach for GCPS. The staff of 4 handles the SIS; ERP and data warehouse application questions 5 days a week 8-5. Laptop related questions are automatically transferred to level 2 analysts working for the Director of Networks.

Warranty Service on the notebooks and workstations is a 3-year warranty purchased with the notebooks and is acquired with the initial purchase requisition. The service is coordinated with the GCPS help desk, a local vendor who supplies the notebooks from IBM, and IBM. IBM Global Services provides on site support teaming with the local TST for a week following the rollout to the school and then on going level 3 support as requested from the level 2 help desk.

2002 Elementary Teacher Notebook Implementation (October 2002 – May 2003)

The deployment and integration of laptops to every elementary school teacher is a complicated undertaking. In this case, the laptops were to replace existing classroom workstations, due to their age, could no longer serve as a teacher classroom workstation. The challenge was to provide for current technology to the teachers while taking care to assure that all existing applications used in a classroom with the old workstation was utilized and supported and could be accessed from home. This was accomplished by a careful assessment and requirement definitions of the old workstation, followed by a comparison with the technical design requirements of the new laptop. The resulting plan provided for a new laptop with remote access capability that performed the same functions in the classroom as well as in a remote location. Over 5,000 laptops were required based on the intended usage and these were procured, configured, and installed along with Laptop 101 and XP fundamental teach-the-teacher training for the Local School Technology Coordinators. Through assuring that equipment was properly matched to design requirements, we were able to meet the technical demands of a cutting-edge teacher workstation while maintaining fiscal responsibility. IBM acted as the systems integrator with EMTEC providing IBM laptops and the installation services, training and technical support, with over 20 people, providing an integrated solution to GCPS.

The project was completed by December 2003 within the actual budget of \$2.7M with an overall evaluation of very satisfied. The following list of IBM support was included in the scope of work:

- LSTC (local school technology coordinator) Training
- Meeting with School
- Delivery of Equipment
- Unboxing Equipment
- Installation of Equipment
- Setting up Image Server
- Customizing Image for Local School
- TST Sign off on Local Image
- Image notebooks
- Customize notebooks for Teachers



- Test all printers
- Deploy Printers into Classrooms
- TST Sign off on each notebook
- Box up replaced workstations and label boxes
- Sign Off from TST/LSTC
- Teacher Training using the LSTC trainer

2003 Eight New Schools and Special Education Laptop Implementation (May 2003 – December 2003)

IBM Global Services undertook a technology integration project in the Summer and Fall of 2003 which included project management, networking design & infrastructure integration services required to integrate (install & configure) the 1450 teacher notebooks (600 wireless) and printers for 8 new schools (all wireless) and all special education teachers that replaced their teacher workstation in the special ed classrooms. Seven elementary schools and one high school were part of GCPS' new schools deployment of wireless laptops, which was completed in the August 2003. The following list of IBM support was included in the scope of work: The following list of IBM support was included in the scope of work:

- LSTC (local school technology coordinator) Training
- Meeting with School
- Delivery of Equipment
- Unboxing Equipment
- Installation of Equipment
- Setting up Image Server
- Customizing Image for Local School
- TST Sign off on Local Image
- Image notebooks
- Customize notebooks for Teachers
- Test all printers
- Deploy Printers into Classrooms
- TST Sign off on each notebook
- Box up replaced workstations and label boxes
- Sign Off from TST/LSTC
- Teacher Training using the LSTC trainer



2004 Ten New Schools and Principals Laptop Implementation (April 2004 – August 2004)

IBM Global Services undertook a technology integration project in the Spring and Summer of 2004 which included project management, networking design & infrastructure integration services required to integrate (install & configure) the 640 teacher notebooks (all wireless) and printers for 10 new schools (all wireless) and 105 Principal laptops. Four elementary schools, five middle schools, and one high school were part of GCPS' new schools deployment of wireless laptops, which was completed in the August 2003. The following list of IBM support was included in the scope of work: The following list of IBM support was included in the scope of work:

- LSTC (local school technology coordinator) Training
- Meeting with School
- Delivery of Equipment
- Unboxing Equipment
- Installation of Equipment
- Developing and testing elementary, middle, high school and administration images
- Customizing Image for Local School
- TST Sign off on Local Image
- Image notebooks
- Customize notebooks for Teachers and Principals
- Test all printers
- Deploy Printers into Classrooms
- TST Sign off on each notebook
- Box up replaced workstations and label boxes
- Sign Off from TST/LSTC
- Teacher Training using the LSTC trainer.



City University of New York (CUNY)

CUNY Queens College contact:

Sue Henderson
Vice President Institutional Advancement
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Flushing, NY 11367
(718) 997-5557
Sue.Henderson@qc.cuny.edu

The CUNY Digital Classroom Project

During the 2005-2006 academic year, two administrators, and two faculty members at Queens College were involved in the Digital Classroom Project. To assist in a proof of concept for a digital classroom pilot project IBM Corporation, through a joint initiative with Intel Corporation, and in conjunction with Lenovo (United States) Inc. and Futurekids, Inc. provided services for a project which initially sought to create a cost justification model for a laptop requirements program. The project's initial goal of determining whether the cost of textbooks to the student was equal to or less than the cost of a personal computer with digital content, was realized. After the cost justification model was established, the project's subsequent goal was to develop a sustainable, comprehensive training model that would enlist faculty participation and support their ongoing efforts in the construction and the application of digital content to their courses.

Consultants with experience in higher education and backgrounds in instructional design, distance learning, and the pedagogically sensitive application of existing and emerging technologies in the teaching/learning environment worked with Queens College faculty members in the pilot program. They worked to find and create digital content for their courses, and establish an interactive online presence in one course of their Spring'06 teaching load. In addition to adapting course content for use in Blackboard they used e-text in lieu of the traditional paper text. Feedback from students indicated that they had acclimated well to using the e-text, and were enthusiastic about their ability to highlight, make notations, bookmark, search and print the e-text. They also used Blog journaling to develop repertoire of Blackboard content and students reported that the interactive nature, ease of access, and permanence of the Blog presented advantages over traditional paper journaling. Additionally, planning, developing, and field testing a technology training model that would meet the needs of the CUNY faculty were major objectives of the project. Teaming with the Assistant to the Provost for Educational Technology, who helped coordinate campus resources culminated in a CUNY Comprehensive Training Model (CCTM) that can be used by faculty across the CUNY system to replicate the project. A "How to" Cookbook was the final work product at the end of the project and contains an overall recipe for duplicating the Digital Classroom throughout Queens College.



Clovis Unified School District

Clovis Unified School District contact:

Chuck Philips
Administrator, Information Technology
559-327-9607
ChuckPhilips@clovisusd.k12.ca.us

IBM partnered with a local value-added reseller to provide the ThinkPad computers, as well as student deployment assistance and on-going technical/hardware support.

Clovis Unified School District is a district with about 2,000 Teachers; 40+ Schools and 35,000 students. Approximately 7,000 students bring parent-purchased laptops to school to participate in their ThinkPad@School Program. The District uses IBM Lotus Notes and QuickPlace for collaboration and classroom content, has IBM servers installed at each school site, and a district AS/400 and RS6000. Clovis Unified School District purchases only IBM desktops & laptops for all administrative functions. IBM and the local reseller participate in the "Open Box Nights" for the ThinkPad distribution and training for students. On-going technical support for the ThinkPads is provided by a group of technicians from the local reseller, who travels to each school. If a hardware problem does occur, the students bring their ThinkPad to a specified site at each school where they turn in their ThinkPads. The coordinator at the school then submits the help call to the repair technicians who come on-site to either repair the ThinkPad there, or take it back to their central repair location and return it once the work is completed.



Whitfield School

Whitfield School contact:

Alex Inman
Director of Technology
Whitfield School
175 South Mason Road
St. Louis, Missouri 63141
P: 314-434-5141

Synopsis:

A college preparatory school in the U.S. achieves a 99 percent savings on its information technology support costs and expects to save US\$257,000 per year on its overall IT costs when it replaces its Hewlett-Packard- and Compaq-based back-end and personal computing environments with IBM eServer BladeCenter servers running the SUSE LINUX Enterprise Server V9 operating system and 300 ThinkPad R50e and R51 laptop computers

Customer Background:

Established in 1952 and located in west St. Louis County, Missouri, Whitfield School is an independent, coeducational college-preparatory day school for students in grades 6 through 12. Whitfield fosters a unique learning environment that is fun and challenging and that empowers students for success. The research-based institution uses the cognitive learning theory, which emphasizes the importance of providing skilled teachers who are capable of accommodating students' unique learning styles. The school currently has 465 students and 61 employees.

Business Need:

Whitfield wanted to increase technology access for its students and teachers. While the school had been supplying its students with Hewlett-Packard and Compaq desktop and laptop computers running the Microsoft Windows operating system, 10 percent of students still used their own laptops and 30 percent of students had to check out cart-based laptops. Faculty and staff used a diverse assortment of desktop and laptop machines. The situation left the school unable to provide as many computing resources as it wanted to for its students and faculty. And the school's existing Windows-based environment required high levels of desktop support and would be expensive to expand.

To reduce expenses and acquire a better-performing information technology (IT) environment, the school sought a solution that would provide:

Robust yet affordable laptops well-suited for student use

- **Access to more technology at lower acquisition costs and for less money per year**
- **Support from a solutions provider experienced with open-standards-based Linux operating systems and Linux-based solutions to reduce its dependency on proprietary systems**
- **A back-end IT environment that would be flexible, easy to support, scalable and highly available.**

**Solution:**

Whitfield engaged IBM to deploy a two-part solution based on IBM eServer BladeCenter servers, ThinkPad laptops and Linux software, which will gradually improve student and faculty access to technology.

In the first phase of the engagement, the school implemented one IBM eServer BladeCenter chassis with eight IBM eServer BladeCenter HS20 Express Model servers running the SUSE LINUX Enterprise Server V9 operating system. Two HS20 blade servers run an EMC VMware ESX Server platform, which hosts ten servers. The client recently migrated four blade servers to virtual machines (VMs) on the VMware platform, and those servers act as Citrix servers to support remote accessibility. An additional VM hosts the SUSE LINUX Enterprise Server V9 operating system, which runs a Novell ZenWorks Suite of software and the Linux Management for Novell Linux Desktop (NLD) solution. The remaining two blade servers run Microsoft Exchange and Microsoft SQL applications.

The VMware platform supports the partitioning, consolidation and management of the school's systems. And the ESX Server and VMware Virtual Infrastructure Nodes solutions provide a highly scalable VM environment and resource management functionality.

The school also implemented an ES400 storage area network (SAN) machine, which it uses to boot its BladeCenter machines and manage data.

During the (ongoing) second phase of the solution, Whitfield is implementing 300 ThinkPad R Series laptops for its students and faculty. The client purchased 150 ThinkPad R50e model laptops with single-boot SUSE LINUX operating systems and 150 ThinkPad R51 laptops with dual-boot Linux and Microsoft Windows operating systems. (Students are licensed to install and create packages on their Linux-based laptops.) The school plans to roll out 150 units per annum until it has achieved a 1:1 laptop-to-student ratio.

Students and teachers will have access to SUSE LINUX Novell Linux Desktop (NLD) systems, which include a Gimp image editor, FireFox browser and Novell Evolution Mail and Open Office clients. Using the Firefox browser and Citrix Web interface, students and faculty will be able to launch their Windows desktop systems and access Windows applications.

Overall, the school saved US\$64,250 on its initial purchase of 150 ThinkPad laptops. (Currently, 96 percent of the laptops on the Whitfield campus are ThinkPad PCs.) When it reaches its 1:1 ratio, which it expects to accomplish with the third-year rollout, the school anticipates savings of approximately US\$257,000 per annum. Also, as the school gradually replaces its Windows-based systems with more open-source solutions, it expects to save even more.



Duval County Public Schools

Duval County Public Schools contact:

John Morrison, DCPS
(904)994-8278
morrisonj@educationcentral.org

Duval County Public Schools (DCPS) is located in Jacksonville, Florida. As the 19th largest school district in the nation, Duval County serves approximately 130,000 students. It is the second largest employer in Jacksonville with approximately 8,000 teachers and a similar number of support staff at 105 elementary schools, 28 middle schools, 17 high schools, two academies of technology, three exceptional student centers, five alternative schools, and five charter schools.

IBM has been the sole provider of laptop and desktop technology to Duval County Public Schools since December of 1998. Since that time, over 50,000 desktops and 10,000 laptops have been deployed throughout the school district.

IBM works with DCPS instructional and technical departments to determine approved configurations for instructional and administrative workstations and laptops. IBM and DCPS work closely together to create and build the image for each approved configuration. All imaging is done by IBM at the factory and then ships either directly to the school or to the local business partner's warehouse. The machines are deployed at schools, tested on the network, and training is initiated.

Palm Beach County Public Schools

Palm Beach County Schools contact:

Linda Mainord, CTO
3344 Forest Hills Blvd.,
West Palm Beach, FL 33406
tygrest@palmbeach.k12.fl.us
561-434-8830

Palm Beach County Schools (PBCS) is located in West Palm Beach, Florida. As the 10th largest school district in the nation, PBCS serves approximately 176,000 students. It is the largest employer in Palm Beach County with approximately 12,000 teachers and a similar number of support staff at 103 elementary schools, 32 middle schools, 23 high schools, and 6 other schools.

IBM has recently been named the sole provider of laptop technology to Palm Beach County Schools and is in the process of deploying approximately 500 ThinkPads across the district. IBM was awarded this contract based on the lowest total cost of ownership as well as unique management tools that differentiated the ThinkPad from the competition.



IBM works with PBCS instructional and technical departments to determine approved configurations for instructional and administrative laptops. IBM and PBCS work closely together to create and build the image for each approved configuration. All imaging and asset tagging is done by IBM at the factory and then ships either directly to the school. The machines are deployed at schools, tested on the network, and training is initiated.

CDW • G:

The Beaumont Foundation

The Beaumont Foundation

John L. Carman, Director of Procurement

470 Orleans/First Floor
Beaumont, TX 77701
(409) 896-5718

CDW•G was awarded the Beaumont Foundation of America's award (2004/2005 school year) to distribute laptops to schools as well as non-profit agencies such as the Boy's and Girl's Club of America and the Salvation Army.

Concurrent quantity rollouts were as follows:

Education:

of laptops: 3587

Community--non-profits

of laptops: 4989

Hinsdale Township High School

Tim Hohman, Director of Technology

Hinsdale Township High School District 86
630-655-6155
thohman@hinsdale86.org

This public Illinois school district moved to a 1:1 program in 2004. They currently have approximately 800 Tablets and will be purchasing 150 additional units this summer. Hinsdale started off purchasing the tablets for teachers and added full professional development for all teachers and staff. Then they moved to students with one large purchase with partial curriculum integration, followed by several smaller purchases.

Kent School

Adam Fischer

Director of Technology
Kent School
860-927-6393
adam.fischer@kent-edu.com

They purchased 1000 units from CDW•G over the last 4 years (225 per year). They selected CDW•G over the manufacturer directly because of our logistical strengths and inventory capabilities.



Avon Old Farms School

Deb Case

Dir of IT
Avon Old Farms School
860-673-3201
cased@avonodfarms.com

Lenovo Program - they are very satisfied with the ThinkPad product line. CDW•G handles all aspect of their 1:1 program.

Springfield-Clark School District

Jason Graver

Network Administrator
Springfield-Clark School District
1901 SELMA RD
Springfield, OH 45505
JasonGraver@scjvs.k12.oh.us
(937)325-7368 x110

CDW•G images and deploys approximately 700 ThinkPad units for this yearly 1:1 initiative.

Ohio Hi-Point Career Center

John Case

Technology Coordinator
Ohio Hi-Point Career Center
2280 STATE ROUTE 540
BELLEFONTAINE, OH 43311
jcase@ohp.k12.oh.us
(937) 599-3010 x370

As in the Springfield-Clark program, CDW•G supplies unique total solutions for their ThinkPad 1:1 program including protective cases and damage insurance.

Volusia County School Board

John Parsons, MIS Technology Manager

Volusia County School Board
Deland, Florida
JPARSONS@volusia.k12.fl.us
386-947-8786 x20450

IBM/Lenovo – This district has been buying IBM/Lenovo units for quite some time. ALL notebooks in the school district are from this IBM/Lenovo.

Mills Springs Academy

Paul Barkley, Information Technology Director

Mills Springs Academy
770-360-1336
pbarkley@millsprings.org



IBM/Lenovo - School 1-1 program directly from CDW•G. They utilize the IBM/Lenovo self maintainer program.

The Sagement School

Gary Judycki, Director of Technology

The Sagement School

2585 Glades Circle

Weston, FL, 33327

gjudycki@sagemont.com

954-389-2454 x347

This account uses CDW•G to coordinate shipping, configuration and management of their R51 and X series IBM/Lenovo Thinkpad program. We set up a secondary website for students/parents to simplify their ordering process.

St. Thomas Episcopal Parrish School

Terry Butcher – Director of Instructional Technology

5692 N KENDALL DR

Coral Gables, FL, 33156

tbutcher@stepsmia.org

786- 268-3491 (direct)

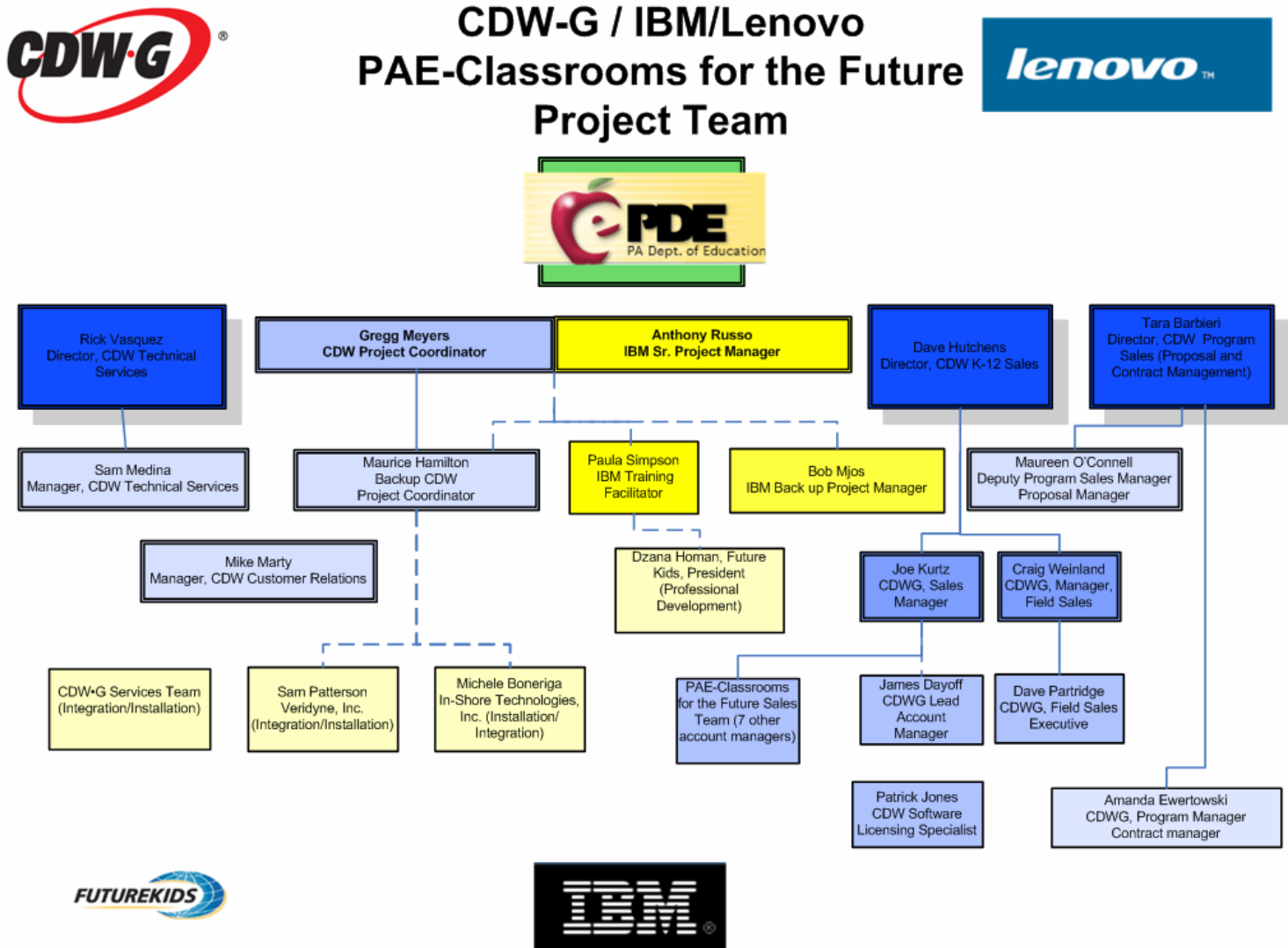
70 IBM/lenovo X series notebooks

We handle the ordering from an individual student standpoint. Our local field representative goes out on "order day" with the IBM/Lenovo rep-- we provide demo unit, order assistance, and recommendations for each individual family. Further, we manage the Microsoft licensing of each notebook, set it up with ADP service and do all necessary hardware installs. We track serial #'s and accessories to make sure each order is identified by specification.



II-5. Personnel

Following is the overview of the team we have assembled to implement this project:





II-6. Training

For more than two decades, CDW•G team partner-IBM, for this project in partnership with CDW•G, has been providing Professional Development Consulting and Training that enables educators to build creative strategies to enhance learning and teaching experiences using technology. Our educational solutions are designed to provide the highest quality learning for your students and professional development resources to address teacher needs and goals. Working with *Futurekids*, we embraced their 5-step solution encouraging state and districts to support professional development that ultimately leads to student achievement of state standards.

Process Steps for Training in the Context of Hardware Deployment

	Phase 1	Phase 2	Phase 3 Up to six weeks	Phase 4 Week 7 and 8	Phase 5 Ongoing
SOLUTION PROCESS STEPS	Assessment of the Funding and the Infrastructure	PO	Hardware Deployed	T3 Training	Training Support
	During this phase school districts and schools will identify the funding lg sources We need to identify in responsible for creating the criteria of the needed underlying infrastructure for the deployment of the hardware and services	Once funding and the infrastructure are in place schools will issue POs	It will take up to six weeks to deliver the hardware to the school sites	Train the Trainer T3 implementation	Trainers trained by us take on responsibility to train the school teachers. We have also optional support during this process but not in the base offering. Online, imaged resources and the additional training sessions are broadcasted
Training Preparation Process	Potential training locations are identified as well as training participants	Based on POs actual invitations to the training participants issued	Participants signup for the training sessions	Training implementation	Additional resources available for post training support
Logistics of determining Training Locations	The most effective training will include access to all devices in the same configuration that will be in the actual classroom. We will setup a website to communicate with the trainees about the locations and the schedule.	Based on POs we will know which schools or IUs will have the needed setup. We think that these are actual school sites. IF we want to use IU at this time of the deployment we will need to know, how are IUs receiving the needed hardware and how long is it going to stay there?	Participants will be invited as well as they will have an option to signup for the classes online	Classes will be offered	Website will manage the online offering as well as during the training we will point out the resources imaged on the machines for the refresher of the on box training.

Figure 3. Five Phases of Hardware Solution and Deployment w/Training Preparation



II-7. Financial Capability

Our pursuit of excellence is widely recognized throughout the industry. With over \$6.29 billion in annual sales, over \$611 million in positive cash flow, and ZERO debt, working with CDW•G is working with confidence.

Please see CDW Annual Report for fiscal year of 2005 and first quarter earnings reports from the quarters of 2006:

http://www.cdw.com/webcontent/inside/investor/invest_annual.asp
http://www.cdw.com/webcontent/inside/investor/invest_quarterly.asp

Please see the two bank references below as well.

The Northern Trust Company
50 S. LaSalle Street
Chicago, IL 60675
Phone: 312-444-3987
Fax: 312-444-7028
Contact: Brian Beitz

LaSalle National Bank
135 S. LaSalle Street
Chicago, IL 60603
Phone: 312-904-7295
Fax: 312-904-6242
Contact: Henry Munez

CDW•G Duns number is 026-15-7235 (D&B 5A1 credit rating--highest possible)

Please consider CDW/CDW•G's recent awards and recognition regarding our financial strength and company performance:

FORTUNE® magazine

- *Most Admired Company, #1 in our Industry for 2004, 2005 and 2006*
- Fortune 500® company, **No. 343**

As compared to other FORTUNE 500 companies, CDW is:

- No. 5 in "Total Return To Shareholders - Last Ten Years"
- No. 21 in "Most Bang For The Buck -- Most Revenues per Dollars of Assets"
- No. 49 in "Most Bang For The Buck -- Most Revenues per Employee"



II-8. Objections and Additions to Standard Contract Terms and Conditions

All requests for proposed language changes to the Standard Contract Terms and Conditions follow [this page](#).

REQUEST FOR PROPOSALS FOR

Classrooms for the Future

ISSUING OFFICE



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

**Department of General Services
Bureau of Procurement**

RFP NUMBER

RFP CN00019758

DATE OF ISSUANCE

5/31/06

REQUEST FOR PROPOSALS FOR

Classrooms for the Future

Number RFP CN00019758

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CALENDAR OF EVENTS

The Commonwealth will make every effort to adhere to the following schedule:

Activity	Responsibility	Date
Deadline to submit Questions via email to RA-itpurchases@state.pa.us	Potential Offerors	6/13/06
Answers to Potential Offeror questions posted to the DGS website (<u>http://www.dgsweb.state.pa.us/comod/main.asp</u>) no later than this date.	Issuing Office	6/21/06
Please monitor website for all communications regarding the RFP.	Potential Offerors	6/13/06
Sealed proposal must be received by 5PM EST in the Issuing Office at Department of General Services, 555 Walnut Street, Forum Place 6 th floor, Harrisburg, Pa 17101	Offerors	7/14/06

PART I

GENERAL INFORMATION

I-1. Purpose. This request for proposals (RFP) provides to those interested in submitting proposals for the subject procurement (“Offerors”) sufficient information to enable them to prepare and submit proposals for the Commonwealth of Pennsylvania’s (“Commonwealth”) consideration to satisfy a need for the *Classrooms for the Future* (“Project”). The end users of the contract resulting from this RFP will be local public high schools and Area Vocational Technical Schools and Career Technical Centers (AVTS/CTC) that receive *Classrooms for the Future* funding from the Commonwealth of Pennsylvania, Department of Education.

I-2. Issuing Office. The **Department of General Services** (“Issuing Office”) has issued this RFP on behalf of the Commonwealth. The sole point of contact in the Commonwealth for this RFP shall be Susan Rojas, 555 Walnut Street, Forum Place, 6th Floor, Harrisburg, PA 17101, RA-itspurchases@state.pa.us, the Issuing Officer for this RFP. Please refer all inquiries to the Issuing Officer at this email address only.

I-3. Scope. This RFP contains instructions governing the requested proposals, including the requirements for the information and material to be included; a description of the service to be provided; requirements which Offerors must meet to be eligible for consideration; general evaluation criteria; and other requirements specific to this RFP.

I-4. Problem Statement. *Classrooms for the Future* is a \$200 million initiative to put a laptop on every public high school and Area Vocational Technical Schools and Career Technical Center’s (AVTS/CTC) English, Math, Science and Social Studies desk and create “Smart Classrooms.” This initiative is also intended to provide the Commonwealth’s secondary school teachers with the training necessary to master the technology utilized to transform their classrooms. Additional detail is provided in **Part IV** of this RFP.

I-5. Type of Contract. It is proposed that if the Issuing Office enters into a contract as a result of this RFP, it will be a Statewide Value contract containing the Standard Contract Terms and Conditions as shown in **Exhibit A** and available at <http://www.dgs.state.pa.us>. The Issuing Office, in its sole discretion, may undertake negotiations with Offerors whose proposals, in the judgment of the Issuing Office, show them to be qualified, responsible and capable of performing the Project.

I-6. Rejection of Proposals. The Issuing Office reserves the right, in its sole and complete discretion, to reject any proposal received as a result of this RFP, in whole or part.

I-7. Incurring Costs. The Issuing Office is not liable for any costs the Offeror incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of the contract.

I-8. Preproposal Conference. There will be no preproposal conference for this RFP. If there are any questions, please forward them to the Issuing Officer in accordance with Part I, Section I-9.

I-9. Questions & Answers. If an Offeror has any questions regarding this RFP, the Offeror must submit the questions by email (**with the subject line “RFP CN00019758”**) to the Issuing Officer named in **Part I, Section I-2** of the RFP. If the Offeror has questions, they must be submitted via email **no later than** the date indicated on the Calendar of Events. The Offeror shall not attempt to contact the Issuing Officer by any other means. The Issuing Officer shall post the answers to the questions on the DGS website by the date stated on the Calendar of Events.

All questions and responses as posted on the DGS website are considered as an addendum to, and part of, this RFP in accordance with RFP **Part I, Section I-10**. Each Offeror shall be responsible to monitor the DGS website for new or revised RFP information. The Issuing Office shall not be bound by any verbal information nor shall it be bound by any written information that is not either contained within the RFP or formally issued as an addendum by the Issuing Office. The Issuing Office Does not consider questions to be a protest of the specifications or of the solicitation. The required protest process for Commonwealth procurements is described on the DGS website.

I-10. Addenda to the RFP. If the Issuing Office deems it necessary to revise any part of this RFP before the proposal response date, the Issuing Office will post an addendum to the DGS website at www.dgsweb.state.pa.us/comod/main.asp. It is the Offeror’s responsibility to periodically check the website for any new information or addenda to the RFP. Answers to the questions asked during the Questions & Answers period also will be posted to the website as an addendum to the RFP.

I-11. Response Date. To be considered for selection, hard copies of proposals must arrive at the Issuing Office on or before the time and date specified in the RFP Calendar of Events. The Issuing Office will **not** accept proposals via email or facsimile transmission. Offerors who send proposals by mail or other delivery service should allow sufficient delivery time to ensure timely receipt of their proposals. If, due to inclement weather, natural disaster, or any other cause, the Commonwealth office location to which proposals are to be returned is closed on the proposal response date, the deadline for submission will be automatically extended until the next Commonwealth business day on which the office is open, unless the Issuing Office otherwise notifies Offerors. The hour for submission of proposals shall remain the same. The Issuing Office will reject unopened, any late proposals.

I-12. Proposals. To be considered, Offerors should submit a complete response to this RFP, using the format provided in **Part II**, providing **eight paper** copies of the proposal to the Issuing Office. In addition to the paper copies of the proposal, Offerors shall submit **one complete and exact** copy of the technical proposal on CD-ROM in Microsoft Office or Microsoft Office-compatible format. The Offeror shall make no other distribution of its proposal to any other Offeror or Commonwealth official or Commonwealth consultant. Each proposal page should be numbered for ease of reference. **An official authorized to bind the Offeror to its provisions**

must sign the proposal. For this RFP, the proposal must remain valid for **120** days or until a contract is fully executed. If the Issuing Office selects the Offeror's proposal for award, the contents of the selected Offeror's proposal will become, except to the extent the contents are changed through Best and Final Offers or negotiations, contractual obligations. The information in the proposal will become a public record upon contract execution, except as limited by Section 106 (b)(1) of the *Commonwealth Procurement Code*, 62 Pa. C.S. § 106 (b)(1).

Each Offeror submitting a proposal specifically waives any right to withdraw or modify it, except that the Offeror may withdraw its proposal by written notice received at the Issuing Office's address for proposal delivery prior to the exact hour and date specified for proposal receipt. An Offeror or its authorized representative may withdraw its proposal in person prior to the exact hour and date set for proposal receipt, provided the withdrawing person provides appropriate identification and signs a receipt for the proposal. An Offeror may modify its submitted proposal prior to the exact hour and date set for proposal receipt only by submitting a new sealed proposal or sealed modification, which complies with the RFP requirements.

I-13. Disadvantaged Business Information. The Issuing Office encourages participation by small disadvantaged businesses as prime Offerors, joint ventures and subcontractors/Offerors and by socially disadvantaged businesses as prime Offerors.

Small Disadvantaged Businesses are small businesses that are owned or controlled by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantages. The term includes:

- a. Department of General Services Bureau of Minority and Women Business Opportunities (BMWBO)-certified minority business enterprises (MBEs) and women business enterprises (WBEs) that qualify as small businesses; and
- b. United States Small Business Administration-certified small disadvantaged businesses or 8(a) small disadvantaged business concerns.

Small businesses are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than 100 persons and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

Socially disadvantaged businesses are businesses in the United States that BMWBO determines are owned or controlled by a majority of persons, not limited to members of minority groups, who are subject to racial or ethnic prejudice or cultural bias, but which do not qualify as small businesses. In order for a business to qualify as "socially disadvantaged," the Offeror must include in its proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person's color, ethnic origin or gender.

Questions regarding this Program can be directed to:

Department of General Services
Bureau of Minority and Women Business Opportunities
Room 611, North Office Building
Harrisburg, PA 17125
Phone: (717) 787-6708
Fax: (717) 772-0021
Email: gs-bmwbo@state.pa.us

Program information and a database of BMWBO-certified minority- and women-owned businesses can be accessed at www.dgs.state.pa.us, DGS Keyword: BMWBO. The federal Offeror database can be accessed at <http://www.ccr.gov> by clicking on *Dynamic Small Business Search* (certified companies are so indicated).

I-14. Information Concerning Small Businesses in Enterprise Zones. The Issuing Office encourages participation by small businesses, whose primary or headquarters facility is physically located in areas the Commonwealth has identified as *Designated Enterprise Zones*, as prime Offerors, joint ventures and subcontractors/Offerors.

Small businesses are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than 100 persons and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

There is no database or directory of small businesses located in Designated Enterprise Zones. Information on the location of *Designated Enterprise Zones* can be obtained by contacting:

Aldona M. Kartorie
Center for Community Building
PA Department of Community and Economic Development
4th Floor, Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120-0225
Phone: (717) 720-7409
Fax: (717) 787-4088
Email: akartorie@state.pa.us

I-15. Economy of Preparation. Offerors should prepare proposals simply and economically, providing a straightforward, concise description of the Offeror's ability to meet the requirements of the RFP.

I-16. Alternate Proposals. The Issuing Office has identified the basic approach to meeting its requirements, allowing Offerors to be creative and propose their best solution to meeting these requirements. The Issuing Office will not accept alternate proposals.

I-17. Discussions for Clarification. Offerors may be required to make an oral or written clarification of their proposals to the Issuing Office to ensure thorough mutual understanding and Offeror responsiveness to the solicitation requirements. The Issuing Office will initiate requests for clarification.

I-18. Prime Offeror Responsibilities. The contract will require the selected Offeror to assume responsibility for all supplies and services offered in its proposal whether it produces them itself or by subcontract. The Issuing Office will consider the selected Offeror to be the sole point of contact with regard to contractual matters.

I-19. Proposal Contents. Offerors should not label proposal submissions as confidential or proprietary. The Issuing Office will hold all proposals in confidence and will not reveal or discuss any proposal with competitors for the contract, unless disclosure is required:

- i) Under the provisions of any Commonwealth or United States statute or regulation; or
- ii) By rule or order of any court of competent jurisdiction.

After a contract is executed, however, the successful proposal is considered a public record under the *Right-to Know Law*, 65 P.S. § 66.1—66.9, and therefore subject to disclosure. The financial capability information submitted under **Part II, Section II-7** shall not be disclosed in the final contract. All material submitted with the proposal becomes the property of the Commonwealth of Pennsylvania and may be returned only at the Issuing Office's option. The Issuing Office, in its sole discretion, may include any person other than competing Offerors on its proposal evaluation committee. The Issuing Office has the right to use any or all ideas presented in any proposal regardless of whether the proposal becomes part of a contract.

I-20. Best and Final Offers. The Issuing Office reserves the right to conduct discussions with Offerors for the purpose of obtaining "best and final offers." To obtain best and final offers from Offerors, the Issuing Office may do one or more of the following:

- i) Enter into pre-selection negotiations;
- ii) Schedule oral presentations; and
- iii) Request revised proposals.

The Issuing Office will limit any discussions to responsible Offerors (those that have submitted responsive proposals and possess the capability to fully perform the contract requirements in all respects and the integrity and reliability to assure good faith performance) whose proposals the Issuing Office has determined to be reasonably susceptible of being selected for award. The Criteria for Selection found in **Part III, Section III-4**, shall also be used to evaluate the best and final Offerors. Dollar commitments to Disadvantaged Businesses and Enterprise Zone Small Businesses may be reduced only in the same percentage as the percent reduction in the total price offered through negotiations.

I-21. News Releases. Offerors shall not issue news releases, Internet postings, advertisements or any other public communications pertaining to this Project without prior written approval of the Issuing Office, and then only in coordination with the Issuing Office.

I-22. Restriction of Contact. From the issue date of this RFP until the Issuing Office selects a proposal for award, the Issuing Officer is the sole point of contact concerning this RFP. Any violation of this condition may be cause for the Issuing Office to reject the offending Offeror's proposal. If the Issuing Office later discovers that the Offeror has engaged in any violations of this condition, the Issuing Office may reject the offending Offeror's proposal or rescind its contract award. Offerors must agree not to distribute any part of their proposals beyond the Issuing Office. An Offeror who shares information contained in its proposal with other Commonwealth personnel and/or competing Offeror personnel may be disqualified.

I-23. Debriefing Conferences. Offerors whose proposals are not selected will be notified of the name of the selected Offeror and given the opportunity to be debriefed. The Issuing Office will schedule the time and location of the debriefing. The debriefing will not compare the Offeror with other Offerors, other than the position of the Offeror's proposal in relation to all other Offeror proposals. An Offeror's exercise of the opportunity to be debriefed does not constitute the filing of a protest.

I-24. Issuing Office Participation. Offerors shall provide all services, supplies, facilities and other support necessary to complete the identified work, except as otherwise provided in this **Part I, Section I-24**. The Issuing Office will not provide office space, reproduction facilities or other logistical support for this project.

I-25. Term of Contract. The term of the contract will commence on the Effective Date and will end **in three (3) years, with two (2) one-year renewals**. The Issuing Office will fix the Effective Date after the contract has been fully executed by the selected Offeror and by the Commonwealth and all approvals required by Commonwealth contracting procedures have been obtained. The selected Offeror shall not start the performance of any work prior to the Effective Date of the contract and the Commonwealth shall not be liable to pay the selected Offeror for any service or work performed or expenses incurred before the Effective Date of the contract.

I-26. Offeror's Representations and Authorizations. By submitting its proposal, each Offeror understands, represents, and acknowledges that:

a. All of the Offeror's information and representations in the proposal are material and important, and the Issuing Office may rely upon the contents of the proposal in awarding the contract(s). The Commonwealth shall treat any misstatement, omission or misrepresentation as fraudulent concealment of the true facts relating to the Proposal submission, punishable pursuant to 18 Pa. C.S. § 4904.

b. The Offeror has arrived at the price(s) and amounts in its proposal independently and without consultation, communication, or agreement with any other Offeror or potential Offeror.

- c. The Offeror has not disclosed the price(s), the amount of the proposal, nor the approximate price(s) or amount(s) of its proposal to any other firm or person who is an Offeror or potential Offeror for this RFP, and the Offeror shall not disclose any of these items on or before the proposal submission deadline specified in the Calendar of Events of this RFP.
- d. The Offeror has not attempted, nor will it attempt, to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
- e. The Offeror makes its proposal in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.
- f. To the best knowledge of the person signing the proposal for the Offeror, the Offeror, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last **four** years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as the Offeror has disclosed in its proposal.
- g. To the best of the knowledge of the person signing the proposal for the Offeror and except as the Offeror has otherwise disclosed in its proposal, the Offeror has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Offeror that is owed to the Commonwealth.
- h. The Offeror is not currently under suspension or debarment by the Commonwealth, any other state or the federal government, and if the Offeror cannot so certify, then it shall submit along with its proposal a written explanation of why it cannot make such certification.
- i. The Offeror has not made, under separate contract with the Issuing Office, any recommendations to the Issuing Office concerning the need for the services described in its proposal or the specifications for the services described in the proposal.
- j. Each Offeror, by submitting its proposal, authorizes Commonwealth agencies to release to the Commonwealth information concerning the Offeror's Pennsylvania taxes, unemployment compensation and workers' compensation liabilities.
- k. Until the selected Offeror receives a fully executed and approved written contract from the Issuing Office, there is no legal and valid contract, in law or in equity, and the Offeror shall not begin to perform.

I-27. Notification of Selection. The Issuing Office will notify the selected Offeror in writing of its selection for negotiation after the Issuing Office has determined, taking into consideration all of the evaluation factors, the proposal that is the most advantageous to the Issuing Office.

I-28. RFP Protest Procedure. The RFP Protest Procedure is on the DGS website at <http://www.dgs.state.pa.us>. A protest by a party not submitting a proposal must be filed within **seven** days after the protesting party knew or should have known of the facts giving rise to the protest, but no later than the proposal submission deadline specified in the Calendar of Events of the RFP. Offerors may file a protest within **seven** days after the protesting Offeror knew or should have known of the facts giving rise to the protest, but in no event may an Offeror file a protest later than **seven** days after the date the notice of award of the contract is posted on the DGS website. The date of filing is the date of receipt of the protest. A protest must be filed in writing with the Issuing Office.

I-29. Use of Electronic Versions of this RFP. This RFP is being made available by electronic means. If an Offeror electronically accepts the RFP, the Offeror acknowledges and accepts full responsibility to insure that no changes are made to the RFP. In the event of a conflict between a version of the RFP in the Offeror's possession and the Issuing Office's version of the RFP, the Issuing Office's version shall govern.

I-30. Usage Reports

The Offeror shall furnish to DGS an electronic semi-annual usage report, preferably in spreadsheet format, no later than the **15th** of the following month. The first usage report shall be submitted on the 15 day of the seventh month after the Contract has been fully executed. The successful Contractor shall e-mail usage reports to ra-itpurchases@state.pa.us. Each usage report shall indicate the name and address of Offeror, contract number and period covered by the report. The following information should be listed on the report for each order received, (however, further clarification as to included information may be negotiated with the selected Contractor):

- a. Item no. (If applicable)
- b. Material code (If applicable)
- c. Description.
- d. Quantity.
- e. Unit price.
- f. Total price.
- g. School district.

PART II

PROPOSAL REQUIREMENTS

Offerors must submit their proposals in the format, including heading descriptions, outlined below. To be considered, the proposal must respond to all requirements in this part of the RFP. Offerors should provide any other information thought to be relevant, but not applicable to the enumerated categories, as an appendix to the Proposal. Each Proposal shall consist of the following **four** separately sealed submittals:

- a. Cost Submittal, in response to RFP **Part II, Section II-10**;
- b. Technical Submittal, in response to RFP **Part II, Sections II-1—II-8**;
- c. Disadvantaged Business Submittal, in response to RFP **Part II, Sections II-9**; and
- d. Value Add Submittal, which shall be a response to RFP **Part III, Section III-4**.

The Issuing Office reserves the right to request additional information, which in the Issuing Office's opinion, is necessary to assure that the Offeror's competence, number of qualified employees, business organization, and financial resources are adequate to perform according to the RFP.

The Issuing Office may make investigations as deemed necessary to determine the ability of the Offeror to perform the Project, and the Offeror shall furnish to the Issuing Office all requested information and data. The Issuing Office reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Offeror fails to satisfy the Issuing Office that such Offeror is properly qualified to carry out the obligations of the RFP and to complete the Project as specified.

II-1. Statement of the Problem. State in succinct terms your understanding of the problem presented or the service required by this RFP.

II-2. Management Summary. Include a narrative description of the proposed effort and a list of the items to be delivered or services to be provided.

II-3. Work Plan. Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in **Part IV** of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task. Include a Program Evaluation and Review Technique (PERT) or similar type display, time related, showing each event. If more than one approach is apparent, comment on why you chose this approach.

II-4. Prior Experience. Include experience in technical training and project management. Experience shown should be work done by individuals who will be assigned to this project as well as that of your company. Studies or projects referred to must be identified and the name of the customer shown, including the name, address, and telephone number of the responsible official of the customer, company or agency who may be contacted.

II-5. Personnel. Include the number of executive and professional personnel, analysts, auditors, researchers, programmers, consultants, etc., who will be engaged in the work. Show where these personnel will be physically located during the time they are engaged in the Project. For key personnel include the employee's name and, through a resume or similar document, the Project personnel's education and experience in project management. Indicate the responsibilities each individual will have in this Project and how long each has been with your company. Identify by name any subcontractors you intend to use and the services they will perform.

II-6. Training. Indicate recommended training of public high school and AVTS/CTC personnel. Include the personnel to be trained, the number to be trained, duration of the program, place of training, curricula, training materials to be used, number and frequency of sessions, and number and level of instructors. See Part IV, Section **IV-4** for greater detail.

II-7. Financial Capability. Describe your company's financial stability and economic capability to perform the contract requirements. Offerors shall provide Dunn & Bradstreet number, if available; otherwise, financial documents such as audited financial statements or recent tax returns will be acceptable to the Commonwealth.

II-8. Objections and Additions to Standard Contract Terms and Conditions. The Offeror will identify which, if any, of the terms and conditions (contained in **Exhibit A**) it would like to renegotiate and what additional terms and conditions the Offeror would like to add to the standard contract terms and conditions. The Offeror's failure to make a submission under this paragraph will result in its waiving its right to do so later, but the Issuing Office may consider late objections and requests for additions if to do so, in the Issuing Office's sole discretion, would be in the best interest of the Commonwealth. The Issuing Office may, in its sole discretion, accept or reject any requested changes to the standard contract terms and conditions. The Offeror shall not request changes to the other provisions of the RFP, nor shall the Offeror request to completely substitute its own terms and conditions for **Exhibit A**. All terms and conditions must appear in one integrated contract. The Issuing Office will not accept references to the Offeror's, or any other, online guides or online terms and conditions contained in any proposal.

Regardless of any objections set out in its proposal, the Offeror must submit its proposal, including the cost proposal, on the basis of the terms and conditions set out in **Exhibit A**. The Issuing Office will reject any proposal that is conditioned on the negotiation of terms and conditions other than those set out in **Exhibit A**.

II-9. Disadvantaged Business Submittal

a. Disadvantaged Business Information.

- i) To receive credit for being a Small Disadvantaged Business or a Socially Disadvantaged Business or for entering into a joint venture agreement with a Small Disadvantaged Business or for subcontracting with a Small Disadvantaged Business (including purchasing supplies and/or services through a purchase agreement), an Offeror must include proof of Disadvantaged Business qualification in the Disadvantaged Business Submittal of the proposal, as indicated below:
 - 1) A Small Disadvantaged Businesses certified by BMWBO as an MBE/WBE must provide a photocopy of their BMWBO certificate.
 - 2) Small Disadvantaged Businesses certified by the U.S. Small Business Administration pursuant to Section 8(a) of the *Small Business Act* (15 U.S.C. § 636(a)) as an 8(a) or small disadvantaged business must submit proof of U.S. Small Business Administration certification. The owners of such businesses must also submit proof of United States citizenship.
 - 3) All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must attest to the fact that the business has 100 or fewer employees.
 - 4) All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must submit proof that their gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax return or audited financial statement.
- ii) All businesses claiming status as a Socially Disadvantaged Business must include in the Disadvantaged Business Submittal of the proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person's color, ethnic origin or gender. The submitted evidence of prejudice or bias must:

- 1) Be rooted in treatment that the business person has experienced in American society, not in other countries.
- 2) Show prejudice or bias that is chronic and substantial, not fleeting or insignificant.
- 3) Indicate that the business person's experience with the racial or ethnic prejudice or cultural bias has negatively impacted his or her entry into and/or advancement in the business world.

BMWBO shall determine whether the Offeror has established that a business is socially disadvantaged by clear and convincing evidence.

iii) In addition to the above verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:

- 1) The name and telephone number of the Offeror's project (contact) person for the Small Disadvantaged Business.
- 2) The business name, address, name and telephone number of the primary contact person for each Small Disadvantaged Business included in the proposal. The Offeror must specify each Small Disadvantaged Business to which it is making commitments. The Offeror will not receive credit for stating that it will find a Small Disadvantaged Business after the contract is awarded or for listing several businesses and stating that one will be selected later.
- 3) The specific work, goods or services each Small Disadvantaged Business will perform or provide.
- 4) The estimated dollar value of the contract to each Small Disadvantaged Business.
- 5) Of the estimated dollar value of the contract to each Small Disadvantaged Business, the percent of the total value of services or products purchased or subcontracted that will be provided by the Small Disadvantaged Business directly.
- 6) The location where each Small Disadvantaged Business will perform these services.
- 7) The timeframe for each Small Disadvantaged Business to provide or deliver the goods or services.

- 8) The amount of capital, if any, each Small Disadvantaged Business will be expected to provide.
- 9) The form and amount of compensation each Small Disadvantaged Business will receive.
- 10) For a joint venture agreement, a copy of the agreement, signed by all parties.
- 11) For a subcontract, a signed subcontract or letter of intent.
- iv) The Offeror is required to submit only **one** copy of its Disadvantaged Business Submittal. The submittal shall be clearly identified as Disadvantaged Business information and sealed in its own envelope, separate from the remainder of the proposal.
- v) The Offeror must include the dollar value of the commitment to each Small Disadvantaged Business in the same sealed envelope with its Disadvantaged Business Submittal. The following will become a contractual obligation once the contract is fully executed:
 - 1) The amount of the selected Offeror's Disadvantaged Business commitment;
 - 2) The name of each Small Disadvantaged Business; and
 - 3) The services each Small Disadvantaged Business will provide, including the timeframe for performing the services.
- vi) A Small Disadvantaged Business can be included as a subcontractor with as many prime Offerors as it chooses in separate proposals.
- vii) An Offeror that qualifies as a Small Disadvantaged Business and submits a proposal as a prime Offeror is not prohibited from being included as a subcontractor in separate proposals submitted by other Offerors.

b. Enterprise Zone Small Business Participation.

- i) To receive credit for being an enterprise zone small business or entering into a joint venture agreement with an enterprise zone small business or subcontracting with an enterprise zone small business, an Offeror must include the following information in the Disadvantaged Business Submittal of the proposal:

- 1) Proof of the location of the business' headquarters (such as a lease or deed or Department of State corporate registration), including a description of those activities that occur at the site to support the other businesses in the enterprise zone.
 - 2) Confirmation of the enterprise zone in which it is located (obtained from the local enterprise zone office).
 - 3) Proof of United States citizenship of the owners of the business.
 - 4) Certification that the business employs 100 or fewer employees.
 - 5) Proof that the business' gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax return or audited financial statement.
 - 6) Documentation of business organization, if applicable, such as articles of incorporation, partnership agreement or other documents of organization.
- ii) In addition to the above verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:
- 1) The name and telephone number of the Offeror's project (contact) person for the Enterprise Zone Small Business.
 - 2) The business name, address, name and telephone number of the primary contact person for each Enterprise Zone Small Business included in the proposal. The Offeror must specify each Enterprise Zone Small Business to which it is making commitments. The Offeror will not receive credit for stating that it will find an Enterprise Zone Small Business after the contract is awarded or for listing several businesses and stating that one will be selected later.
 - 3) The specific work, goods or services each Enterprise Zone Small Business will perform or provide.
 - 4) The estimated dollar value of the contract to each Enterprise Zone Small Business.
 - 5) Of the estimated dollar value of the contract to each Enterprise Zone Small Business, the percent of the total value of services or products purchased or subcontracted that each Enterprise Zone Small Business will provide.

- 6) The location where each Enterprise Zone Small Business will perform these services.
 - 7) The timeframe for each Enterprise Zone Small Business to provide or deliver the goods or services.
 - 8) The amount of capital, if any, each Enterprise Zone Small Business will be expected to provide.
 - 9) The form and amount of compensation each Enterprise Zone Small Business will receive.
 - 10) For a joint venture agreement, a copy of the agreement, signed by all parties.
 - 11) For a subcontract, a signed subcontract or letter of intent.
- iii) The dollar value of the commitment to each Enterprise Zone Small Business must be included in the same sealed envelope with the Disadvantaged Business Submittal of the proposal. The following will become a contractual obligation once the contract is fully executed:
- 1) The amount of the selected Offeror's Enterprise Zone Small Business commitment;
 - 2) The name of each Enterprise Zone Small Business; and
 - 3) The services each Enterprise Zone Small Business will provide, including the timeframe for performing the services.

II-10. Cost Submittal. The information requested in this **Part II, Section II-10** shall constitute the Cost Submittal. The Cost Submittal shall be placed in a separate sealed envelope within the sealed proposal, separated from the technical submittal. Any proposal failing to meet this requirement will be automatically disqualified. Offerors should **not** include any assumptions in their cost submittals. If the Offeror includes assumptions in its cost submittal, the Issuing Office may reject the proposal. Offerors should direct in writing to the Issuing Office pursuant to **Part I, Section I-9**, of this RFP any questions about whether a cost or other component is included or applies. All Offerors will then have the benefit of the Issuing Office's written answer so that all proposals are submitted on the same basis. All costs **must** be included on Exhibit D.

PART III

CRITERIA FOR SELECTION

III-1. Mandatory Responsiveness Requirements. To be eligible for selection, a proposal must be:

- a. Timely received from an Offeror;
- b. Properly signed by the Offeror; and
- c. Formatted such that all cost data relating to this proposal and all Disadvantaged Business cost data is kept separate from and not included in the Technical Submittal.

III-2. Technical Nonconforming Proposals. The Issuing Office reserves the right, in its sole discretion, to waive technical or immaterial nonconformities in an Offeror's proposal.

III-3. Evaluation. The Issuing Office has selected a committee of qualified personnel to review and evaluate timely submitted proposals. Independent of the committee, BMWBO will evaluate the Disadvantaged Business Submittal and provide the Issuing Office with a rating for this component of each proposal. The Issuing Office will notify in writing of its selection for negotiation the responsible Offeror whose proposal is determined to be the most advantageous to the Commonwealth as determined by the Issuing Office after taking into consideration all of the evaluation factors. The Issuing Office will award a contract only to an Offeror determined to be responsible in accordance with the most current version of Commonwealth Management Directive 215.9, *Contractor Responsibility Program*.

III-4. Criteria for Selection. The following criteria will be used, in order of relative importance from the highest to the lowest weighted factors, in evaluating each proposal.

- a. **Cost:** Overall cost per device that includes all required services. The quality/performance of the proposed device will also be evaluated as part of this criterion. This is the pricing spreadsheet (Exhibit D).
- b. **Technical:**
 - i) **Service Model:** Outline service plan for interaction with the School Technician, pickup/deliver of equipment to off-site repair facility and estimate turnaround time for such repairs, asset tagging, management and tracking of Commonwealth and Offeror equipment.
 - ii) **Demonstrated Effectiveness:** Evidence of prior successful experience in working on projects similar in scope and scale to that requested in this solicitation. All Offerors must include at least **three** references that are not associated with the Commonwealth of Pennsylvania, Department of Education (PDE).

- iii) **Organizational Capacity:** Level of technical and professional ability to meet required services. This scoring area will focus on strength of organization and on your response to the project management aspect of this RFP. Include an organizational chart listing the names and titles of the proposed individuals who will provide the support services requested. This criteria will also look at evidence of fiscal stability/staying power that demonstrates long-term stability of your company.
- iv) **General responsiveness:**
 - 1) How completely the resources support each of the specifications required.
 - 2) How well the RFP response demonstrates that the resources cover the four core curriculum areas of English language arts, mathematics, science and social studies.
 - 3) How well the RFP response demonstrates that the resources allow for greater levels of student interaction, conceptual understanding, problem solving, analysis and synthesis, creative and critical thinking, collaboration, and engagement.
- b. **Value Add:** Please describe what additional products and services you are prepared to offer to the Commonwealth and public high schools and AVTS/CTCs under this RFP at no additional cost if your company is awarded a contract pursuant to this RFP.
- c. **Disadvantaged Business Participation:** Evaluation will be based upon the following in order of priority:

Priority Rank 1	Proposals submitted by Small Disadvantaged Businesses.
Priority Rank 2	Proposals submitted from a joint venture with a Small Disadvantaged Business as a joint venture partner.
Priority Rank 3	Proposals submitted with subcontracting commitments to Small Disadvantaged Businesses.
Priority Rank 4	Proposals submitted by Socially Disadvantaged Businesses.

Each proposal will be rated for its approach to enhancing the utilization of Small Disadvantaged Businesses and/or Socially Disadvantaged Businesses. Each approach will be evaluated, with Priority Rank 1 receiving the highest score and the succeeding options receiving scores in accordance with the above-listed priority ranking

To the extent that an Offeror qualifies as a Small Disadvantaged Business or a Socially Disadvantaged Business, the Small Disadvantaged Business or Socially Disadvantaged Business cannot enter into subcontract arrangements with businesses that are not Small Disadvantaged Businesses for more than **40%** of the total estimated dollar amount of the contract. If a Small Disadvantaged Business or a Socially Disadvantaged Business subcontracts more than **40%** of the total estimated dollar amount of the contract to other businesses that do not qualify as Small Disadvantaged Businesses, the Disadvantaged Business Participation scoring shall be proportionally lower for that proposal.

- d. **Enterprise Zone Small Business Participation:** The following options will be considered as part of the final criteria for selection:

Priority Rank 1	Proposals submitted by an Enterprise Zone Small Business will receive the highest score.
Priority Rank 2	Proposals submitted by a joint venture with an Enterprise Zone Small Business as a joint venture partner will receive the next highest score for this criterion.
Priority Rank 3	Proposals submitted with a subcontracting commitment to an Enterprise Zone Small Business will receive the lowest score for this criterion.
Priority Rank 4	Proposals with no Enterprise Zone Small Business Utilization shall receive no points under this criterion.

To the extent that an Offeror is an Enterprise Zone Small Business, the Offeror cannot enter into contract or subcontract arrangements with businesses that do not qualify as Enterprise Zone Small Businesses for more than **40%** of the total estimated dollar amount of the contract in order to qualify as an Enterprise Zone Small Business for purposes of this RFP.

PART IV

WORK STATEMENT

IV-1. Introduction.

Technology is one of the most significant tools available today to facilitate and support new models of teaching, learning, and meaningful assessment. Yet, according to the most recent Commonwealth Technology Inventory survey, student technology use is not increasing throughout the state and school computer deployment remains at 2002 levels. On average, eight students must share one computer in Commonwealth classrooms. The same survey indicates technology-related professional development activities are decreasing and 25% of the Commonwealth's teachers remain non-users or beginners.

Under Governor Edward G. Rendell's vision and leadership and on the platform for infrastructure established through the E-Fund and E-rate, the Commonwealth is currently building high-speed connectivity to all classrooms to enable 21st Century education to flourish in Pennsylvania. These connections will make it possible to support timely and global communication and collaboration in classrooms.

The Commonwealth must now take the next steps toward ensuring that schools take advantage of this infrastructure by putting appropriate tools into the hands of our students and training our teachers and administrators. It is with these goals in mind that the Commonwealth is undertaking this initiative.

Commonwealth students live in a digital world and Commonwealth schools must adapt instruction to complement learning in today's environment. The Commonwealth has the opportunity and the responsibility to utilize research-based technology-enabled practices to thrill, to inspire, and to capture the imagination of our students. *Classrooms for the Future* is about creating environments for deeper cognitive development through inquiry, real and relevant project-based learning, and differentiated instruction. In a *Classroom for the Future*, teachers are facilitators, guides, and co-investigators; students are producers, apprentices, and co-explorers.

To support this reform, *Classrooms for the Future* is designed to ensure there is a laptop on every public high school classroom desk in English, math, science and social studies in all public high schools and AVTS/CTCs in the Commonwealth. A robust companion professional development program will guarantee that public high school teachers are prepared to integrate these and other technologies into their instructional practices.

Public high schools students are poised to enter the global marketplace or to continue their education beyond preK-12. The Commonwealth has an obligation to prepare them, within a short window of opportunity, for a "flat" world in which opportunities for jobs and higher education are highly competitive. By focusing on public high schools, the Commonwealth will be providing these critical 21st Century skills while expanding learning opportunities, creating relevant and personalized information-driven learning environments, and ensuring the Commonwealth's other investments in the success of these students, such as the

Commonwealth's Project 720, Dual Enrollment, Keystones: Technology Integrators, and Job Ready PA initiatives, are fully leveraged.

IV-2. Objectives.

a. Background.

Classrooms for the Future seeks to comparably equip every core curricular classroom in public high schools and AVTS/CTCs across the Commonwealth; however, this initiative is not about what schools get—it is about what they get out of it.

The introduction of technology into a classroom focuses, at first, on the technology as teachers and students alike become familiar with a new tool. However, once the novelty is gone and technology is as common as a textbook or a pencil, it becomes transparent through its ubiquity and may be overlooked and under-utilized. Just as a teacher creates lesson plans based upon textbook passages or assigns written work, technology must be frequently and similarly employed if it is to become seamlessly integrated with teaching and learning.

Classrooms for the Future is about cultural and pedagogical evolution. It is about recognizing and embracing the need for reform, understanding the role of technology as change agent, and adopting practices foreign to our native habits.

For teachers, it can be about moving from lecturer to facilitator of student-driven work. However, every destination begins with a single step and technology-enabled project-based modules are a great way to start the journey. For instance:

- A Social Studies teacher might have students create a weblog to identify views on the most significant causes of World War II, which can then be used as theses for collaborative multimedia presentations.
- Math teachers might use the design and construction of virtual stair systems as a meaningful, standards-based approach to bridge theory and practice.
- English teachers might develop webquests with rubrics that support critical literacy and advanced research skills through producing digital movies, composing songs, or writing narrative essays on Langston Hughes's poetry.
- Science teachers might lead students on a NASA eMission where they need to analyze jet propulsion forces and cargo load requirements to outmaneuver a meteorite.

As evidenced by these examples, not only is technology relevant to the world in which we live, it can transform the learning experience—but it requires a fundamental shift in methodologies. Therefore, the Commonwealth has provided selected guidelines and indicators for developing 21st Century students, teachers, and instructional settings, as well as some recent research and reports on analogous programs on the PDE website (http://www.pde.state.pa.us/ed_tech).

b. Specific Overview.

- i) The Commonwealth's *Classrooms for the Future* program must provide for:
 - 1) A portable computing device with appropriate software on every student's desk in English, math, science and social studies classes;
 - 2) State-of-the-art technology at the teacher's fingertips, including:
 - a) A portable multimedia computer device;
 - b) An interactive whiteboard and projector;
 - c) Productivity software;
 - d) A web camera;
 - e) Digital video and still cameras; and
 - f) Multifunction printer/scanner.
 - 3) Building technical infrastructure, such as local network and Internet access; and
 - 4) Technical support.

Estimated Figures	Estimated Totals	Year 1	Year 2	Year 3
Number of School Districts	501			
Number of Public High Schools:	611	100	255	256
Classrooms to be outfitted (4/7):	20,000	3,273	8,347	8,380
Total New Computers Needed: (Teachers and Students equipped at 4/7)	263,918	17,471	123,338	123,109

	Est. Total Qty			
Classroom Package	Required	Year 1	Year 2	Year 3
Printer/Scanner	20,000	3,273	8,347	8,380
Productivity Software	20,000	3,273	8,347	8,380
Web Cam	20,000	3,273	8,347	8,380
Student Software (based on # of students stations)	243,918			

	Est Total Qty			
Instructional Tools	Required	Year 1	Year 2	Year 3
Interactive Whiteboard	20,000	3,273	8,347	8,380
Projector	20,000	3,273	8,347	8,380
PC multimedia speakers	20,000	3,273	8,347	8,380

	Est Total Qty			
Laptop Related Items	Required	Year 1	Year 2	Year 3
Laptop Storage Cart	20,000	3,273	8,347	8,380
Wireless Access Point (2 per classroom)	40,000	6,547	16,694	16,759

	Est Total Qty			
Laptops	Required	Year 1	Year 2	Year 3
Total number of PC & MAC Laptops	263,918	17,471	123,338	123,109
Estimated 87% PC 13% MAC				

	Est Total Qty			
Building Wide Costs	Required	Year 1	Year 2	Year 3
Video Cameras - 4 per building	2,444	400	1,020	1,024
Digital Still Camera - 4 per bldg	2,444	400	1,020	1,024

ii) **Scope of Procurement: Wireless Classroom Solution**

In order to secure the vision described in this RFP, the Commonwealth seeks to procure services that would provide portable computing devices with suitable basic applications for all public high school and AVTS/CTC students and teachers in the math, science, social studies and English content areas. In addition to these devices, the Commonwealth seeks to procure installed peripheral devices including web cameras, digital video cameras, digital still cameras, interactive whiteboards, video projectors, a multifunction printer/scanner, external multimedia speakers, mobile storage carts and wireless access points for all participating high schools, training and technical support. The Offeror must include resources, services or consulting pertaining to systems integration and professional development for technology and curriculum integration support.

The awarded Offeror must provide a solution that is both functionally complete and cost-effective. The Offeror must demonstrate the ability, capacity, and flexibility to collaborate successfully and actively with PDE and Commonwealth public high schools and AVTS/CTCs.

Product Details
Minimum Laptop Specifications
Minimum PC Laptop Specifications
Intel® Pentium® M Processor 740 or equivalent (1.73GHz/2MB Cache/400MHz FSB)
Genuine Windows XP Professional Operating System
15.4in WXGA Display
512MB DDR2 533MHz SDRAM, 2 DIMMS
24X CD Burner/DVD Combo Drive (Teacher PC must have DVD-RW/CDRW Drive)
60GB Hard Drive, 9.5MM, 5400RPM
Integrated Intel® Media Accelerator 900 Graphics (32mb RAM minimum)
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)
Built in Firewire IEEE 1394
Built-in Ethernet (10/100/1000)
Internal Wireless (802.11g, 54Mbps)
4 Year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries.
7 pound maximum weight limit

Minimum MAC Laptop Specifications	
1.33 GHz PowerPC G4 or equivalent	
512 MB memory (DDR333 SDRAM)	
MAC OS 10.4	
14-inch TFT Display 1024x768 resolution	
ATI Mobility Radeon 9550 32MB DDR video memory	
60GB Ultra ATA hard drive	
Combo Drive (DVD-ROM/CD-RW) (Teacher PC must have DVD-RW/CDRW Drive)	
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	
Built-in Firewire IEEE 1394	
Built-in Ethernet (10/100/1000)	
Software: FileMaker Pro	
Built-in AirPort Extreme (802.11 g)	
Built-in Bluetooth 2.0+EDR	
Scrolling Trackpad	
4 year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries.	
7 pound maximum weight limit	
Minimum Classroom Package	
Printer/Scanner	All-in-One - Multifunction (scanner & printer) - 19200dpi scanner, 30ppm (mono) / 24ppm (color), 1 USB, 1 Ethernet, must include initial set of ink cartridges (Black, Cyan, Yellow, and Magenta) and connectivity cables. 4 year, on-site Warranty to include Next Business Day replacement of parts.
(Instructor) Productivity Software	Adobe Creative Suite Premium (Includes Adobe Photoshop® CS2 (image editing), Illustrator® CS2 (paint), InDesign® CS2 (Desktop publishing), GoLive® CS2 (Webpage creation), and Acrobat® 7.0 Professional (Create and manipulate PDFs software) Microsoft Office Professional Version, Inspiration, Include 4 year upgrade
Web Cam	640x480 video resolution, high-quality 1.3 megapixel photo resolution, zoom in or out, even pan and tilt to get the right shot, Compatible with USB 2.0 and 1.1. 4 year, on-site Warranty to include Next Business Day replacement of parts.
Student Software	Inspiration

Minimum Classroom Instructional Tools	
Interactive Whiteboard Solution	Interactive Whiteboard 65 1/4" W × 49 1/2" H × 5 1/8" D (165.7 cm × 125.7 cm × 13.0 cm), 77" diagonal, Touch resolution of 4000 × 4000, USB 2.0 includes floorstand and/or wall mount if interactive whiteboard solution requires it. Must also include all cables for connecting the device to the computer. The solution may also have the ability to convert an existing whiteboard into an interactive whiteboard. 4 year, on-site Warranty to include Next Business Day replacement of parts.
Projector	2000 ANSI lumens, DLP/LCD Projector, Native resolution to support VGA (640x480,) SVGA(800x600), and XGA(1024x768) at a minimum, 2000:1 contrast ratio, , 3000 hrs of Lamp life; internal 5 watt speaker. The device should have the ability to accept various types of inputs and outputs such as S-Video, USB, SVGA, XGA, composite (RCA) audio/video and be HDTV compatible. Minimum of two computer/component video inputs and RS232C. 4 year, on-site Warranty to include Next Business Day replacement of parts.
PC multimedia speakers	3.6 Watt, 2.5W RMS/ch, volume control, On/Off switch with LED indicator and headphone jack warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.
Minimum Laptop Related Items	
Laptop Storage Cart	Stores and charges up to 30 notebook computers in individual compartments. Includes two UL-Listed, 15-outlet electrical units and a three-outlet electrical unit. Top shelf is a non-slip rubber with 2 grommet holes for cord management. Doors, rear and side panels are perforated to provide for adequate ventilation. All doors come with individual locking mechanisms. Warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.
Wireless Access Point (2 per classroom)	54Mbps 802.11g Wireless access point, DHCP support, Manageable, IPX/SPX, TCP/IP, Ethernet 10Base-T/100Base-TX, 128-bit WEP, 152-bit WEP, 64-bit WEP warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.

Additional laptop battery and charger	External system to charge batteries outside of laptop. Included in this warranty, 4 year, on-site Warranty to include Next Business Day replacement of parts.

Minimum Peripherals per Building	
Video Cameras - 4 per building	Mini DV Digital camcorder, 200x Zoom, NTSC, MJPEG, Built-in flash, Digital photo mode, LCD display - TFT active matrix - 2.5 in - Color, 1 x IEEE 1394 (FireWire/i.LINK), 1 x USB, 1 x Composite video/audio (input/output), 1 x Microphone, 1 x DC power input, 1 x S-Video input / output warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.
Digital Still Camera - 4 per bldg - 1 per content area	5.0 megapixels, 24x total zoom (4x optical, 6x digital), 1.8" color image display, 32MB memory, expandable with memory cards, In-camera red-eye removal, panorama preview, image enhancement, Includes Camera Dock Series 3. 4 year, on-site Warranty to include Next Business Day replacement of parts.

iii) **Services Provided By Other Entities.**

This subsection describes in general terms the services critical to the success of the statewide initiative, that are provided in whole or in part by an entity other than the Offeror. Some of these items are described more fully hereafter in conjunction with the relevant specifications. Note that this list is not exhaustive.

- 1) **Building Preparedness.** Each local school unit that participates in this program will be responsible to ensure minimum building readiness for the installation of the proposed solution. The public high school or AVTS/CTC will address structural issues, construction/renovation, abatement, and electrical wiring needs, based on specifications supplied by the Offeror. The proposed solution should be designed to minimize necessary costs and provide basic consultative services for building preparation.
- 2) **Professional Development.** PDE has comprehensive resources and partnerships to support the leadership and professional development for teaching and learning. Beyond the scope of this RFP, a variety of resources will be utilized to meet the identified needs for curriculum and technology integration. However, in support of or in complement to the activities that may be undertaken by PDE, the Offeror should describe its interest, capacity, and approach for providing resources, services or consultation on professional development and technology integration.

- 3) Content, Assessment and Integration. The Commonwealth is a “local control” state with regard to curriculum and selection of instructional materials. Pennsylvania’s statewide standards describe what children should know and be able to do at each grade span. Although the Offeror may include options for services regarding content, assessment tools, and other materials, any such services should be aligned to Pennsylvania’s state standards and assessment anchors as well as support a system of locally developed and selected curriculum, instruction and assessment.
- 4) Program Evaluation and Assessment. PDE will make provision outside the scope of this RFP for outside analysis and evaluation of the impact and success of the *Classrooms for the Future* project. The Offeror should be prepared to support that effort.

IV-3. Nature and Scope of the Project.

a. Participation by Schools.

It is estimated that six hundred and eleven (611) public high schools and AVTS/CTCs are eligible to participate in the program—and the vast majority of them are expected to do so. The number of classrooms and students within these schools varies widely. The Commonwealth has many small, rural schools.

The state Legislature and PDE provides statewide policy direction, each of Pennsylvania’s 501 school units, organized on a municipal or regional basis, has an elected school board with general statutory responsibility for policy and operational oversight of each school.

b. Full Deployment.

All participating public high schools and AVTS/CTCs that are initially funded are required to submit an implementation plan to PDE for the start of the 2006-07 school year. Every participating public high school or AVTS/CTC will be required to roll out its program over a minimum of two years.

c. Personal Computing Device & Software Applications.

Portable computing devices with suitable basic applications will be provided to all public high school and AVTS/CTC classrooms in the math, science, social studies and English content areas, where there are no mid and high capacity computing devices. In addition to these devices, the Commonwealth seeks to procure installed peripheral devices including web cameras, digital video cameras, digital still cameras, interactive whiteboards, video projectors, a multifunction printer/scanner, external multimedia speakers, mobile storage carts, wireless access points, training and technical support for all participating high schools.

Wireless mobile computing systems will allow each core curricular classroom on a *Classrooms for the Future* campus to have on-demand access to technology for learning.

Respondents must demonstrate that the system can easily integrate with all of the other components of the package and with the technology environment that is available in high schools. Respondents will be expected to provide a wireless mobile computing system to each core curricular classroom on an implementing campus.

d. **Teachers and Staff.**

Each public high school or AVTS/CTC classroom teacher in the four core content areas will be equipped with a portable computing device (hereafter referred to as the “teacher’s” device).

e. **Students.**

Each public high school or AVTS/CTC classroom in the four content areas of math, science, social studies and English will be equipped with sufficient portable computing devices to ensure each student within each of the four content classes is equipped with a device. The educational requirement is a 1:1 ratio—one device per student within these specific classrooms.

IV-4. Requirements.

a. **Device Specifications.**

The minimum specification for the device is listed on Part IV, Section IV-2. ii). The devices (as defined in the detailed specification chart) will support the latest technology for example: The minimum specifications on Part IV, Section IV-2b.ii) were designed so that the mobile computing device will have sufficient processor speed, RAM, optical drives and hard disk storage to function in a classroom throughout the life of the contract. As per 2005 PA Technology Inventory, the school districts, AVTS/CTC utilize 87% PC and 13% MAC. Please prepare your proposal accordingly.

b. **Device Connectivity.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device will be able to connect to the wireless network and also be able to also access the school’s pre-existing local network, and the Internet, either wirelessly and wired within the school. The Offeror must describe its connectivity solution in detail. The system must support wireless Internet and WLAN access using the 802.11g standards.

c. **Device Portability.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device will be able to be carried conveniently and easily by students and teachers. The portable computing device shall be lightweight.

e. **Device Power.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The portable computing device will have a battery(s) that will allow the device to be used throughout a standard school day. The battery will need to have the ability to be recharged through a type of multi-unit re-charger at the school, and will need to be able to be recharged overnight or sooner. The device shall also be able to be powered by a standard electrical plug.

The Offeror must specify the recharge time, electrical load, battery life, and other relevant electrical specifications of its solution

f. **Software and Function**

i) **Applications**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The solution must, at a minimum, provide the students and teachers with software to facilitate the following educational needs: writing (e.g., word processing, journaling, email, etc.), data analysis (e.g., spreadsheet, graphing and charting, GIS, etc.), presentations and publishing (e.g., slide shows, web authoring, etc.), multimedia creation (e.g., manipulation of digital images, audio, video, etc.), information management (e.g., database, concept mapping, etc.), research (e.g., Internet browsing with the ability to access and utilize multimedia and interactive content like streaming audio/video, javascripting, java applets, flash/shockwave, etc). This software is further defined in the detailed specification chart. While the Offeror is not required to provide educational content, it is encouraged to do so as a Value Added option. It will be considered Value Added, if the content is aligned with tools and resources with Pennsylvania's standards and assessment anchors. (See http://www.pde.state.pa.us/a_and_t/site/default.asp).

The most cost effective licensing options should be provided through the Microsoft Select plus software assurance and School Agreement programs. Schools will own the Laptops during the course of the **four**-year lifecycle with the option to buy-out the software at the end of the **four** years. Please address licensing options to support. For additional information regarding Microsoft products, contact Pratik Chanda, pchanda@microsoft.com.

ii) **Network and Device Connectivity.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device must be able to connect to network file servers using common networking protocols (e.g., smb, afp, nfs, ftp, etc.). The device must be able to utilize common peripherals for input and output (e.g., networked and stand-alone printers, digital cameras, digital video cameras, scanners, etc).

iii) **Stand-alone.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The device must be able to function in a stand-alone mode sufficient to enable the user to perform basic functions (e.g., writing, data analysis, multimedia, information management) without requiring network access. The Offeror must describe the differences, if any, in the function of the device when it is network-connected versus in stand-alone mode.

iv) **Software Restore.**

The portable computing device will be able to be restored easily and in a reasonable timeframe. The Offeror is responsible for providing any CD, DVD and/or electronic image necessary to restore the device to a base state.

v) **Operating System.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The Offeror must include current and upgraded (including new operating system) versions of the core operating system software through the term of the agreement in order to maintain usability with upgrades and enhancements to educationally relevant software. The Offeror must provide a device which will not require hardware upgrades in order to reasonably keep up with possible future software upgrades.

d. **Additional Peripherals.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The Commonwealth wishes to enable public high schools and AVTS/CTCs to enhance or complement the portable computing device with additional software and hardware.

The Offeror shall include only those products, models and features that it will support when configured and connected to the proposed solution. The Offeror shall also warrant these additional peripherals for four years.

The Offeror is to provide the manufacturer name, model, short description, and warranty. Also, include any additional cables, connectors and adapters required. If any software upgrades or additional features are required, so state. These devices, cables, connectors and adapters must be available through the Offeror's corporation for delivery to the individual sites.

e. **Network Connectivity and Infrastructure.**

The minimum specification for the device is listed on Part IV, Section IV-2b.ii). The wireless network infrastructure shall connect from the classroom portable computing devices at one end to the building local area network demarcation at the other end. Between the two ends, it will be the Offeror's responsibility only to provide consultative services to ensure connectivity and infrastructure. Power-over-Ethernet is preferred. Existing building local area network devices, servers and infrastructure may be utilized by the Offeror's solution at the Offeror's choice.

f. **Building Readiness.**

Each local school district that participates in this program shall be responsible to ensure minimum building readiness for the installation of the proposed solution. The local school district shall address structural issues, construction/renovation, abatement, and electrical wiring needs, based on specifications supplied by the Offeror. The proposed solution should be designed to minimize necessary costs of building preparation. It will be the Offeror's responsibility only to provide consultative services to ensure building readiness.

g. **Local Network and Access**

These network access services will include as a minimum:

i) **Wireless Coverage.**

The coverage must ensure that all math, science, social studies and English classrooms can function wirelessly. Students and teachers will remain connected to the school's wireless LAN as they move around within the various rooms and areas. The Offeror will ensure access to the school's wireless network from all core academic classrooms for math, science, social studies and English content areas. To the extent necessary, a site survey should be performed to optimize each school's coverage area. A school may expand the coverage area at its own expense using the Offeror's optional equipment offering or another available Offeror.

ii) **Wireless Access.**

Each participating *Classrooms for the Future* package will be provided with a wireless connection. The portable computing devices will use the wireless access points to connect to the existing local area network, switch, servers, access points, and associated hardware to provide a robust network environment for the student and teacher devices. This includes access from the school environment via the wireless network and provided servers and the services it provides, including access to shared applications and files. Additional access points, wiring, electrical and equipment (if necessary) will also be provided as a local school option. Each Offeror must describe its solution's capabilities as well as its limitations (e.g., interference susceptibility, distance and object penetration), including what wireless industry standards (e.g., 802.11g, standards) are employed in the solution.

iii) **Wireless Bandwidth.**

For the wireless solution to be effective, sufficient and necessary bandwidth capacity must be included in the package. The solution must not only include sufficient aggregate bandwidth but must also be capable of being customized for varying needs within a school. For example, a concentration of physical classrooms within a school may require additional access points or faster speeds, or both, within that area.

The solution must provide services to all students and teachers concurrently on the wireless network with quality response time that does not hinder or impede effective instruction and learning in the classroom. This requirement includes the ability for students to browse the Internet, download files and use streaming video without unreasonable delay. This requirement also includes the provision that the solution must provide concurrent wireless services to all students and teachers in a manner that, as a minimum, guarantees throughput capability, from host to client, of 3 megabits per second for files 1 megabyte or less in size 90% of the time.

iv) **Internet Access.**

Access to the Internet for Pennsylvania schools is to be provided via each school's connection to their ISP. The Offeror will ensure its solution works with the school's connection and the Offeror will work with each ISP to identify appropriate bandwidth and network infrastructure as needed. Internet content filtering, such as required by C.I.P.A. federal law, will be the ISP's and the local school's responsibility, not the Offeror's. The Offeror shall, to the extent feasible, consult and advise on the availability of cost effective measures for Internet content filtering.

v) **Growth.**

Suitable architecture must be provided to allow for growth in the wireless network infrastructure if there is growth due to additional grades in the school utilizing the infrastructure or growth in the population of the school utilizing the infrastructure.

vi) **Print Services.**

The portable computing devices will be able to utilize a school's existing networked printers. At local cost, each school may choose to acquire and install additional networked printers.

vii) **Remote Network Access Portability.**

The Offeror's portable computing device must enable students and teachers to access the school network.

h. **Performance Metrics and Reporting.**

The Offeror must track and record operational Performance and Quality metrics necessary to ensure the successful management of the project. Such performance metrics will be reported quarterly, by school as necessary, to a PDE identified project lead. The reporting may include such items as setup, deployment and installation of *Classrooms for the Future* packages. It will also include summary information regarding incidents, device and system failure types, downtime, repair turnaround times, trends, remediation needed, unresolved issues, recommended improvements, other factors necessary to ensure a successful project. Offerors should recommend metrics for consideration by PDE.

i. **Functional and Asset Security.**

i) **Wireless Security.**

The solution must protect against eavesdropping and unauthorized access. The solution must include encryption or other techniques to provide this assurance which the local school may turn on or off as local policy indicates.

ii) **Damage, Insurance, and Warranty.**

In the case of individual fault, the local school district will determine as a matter of local policy whether any or all such local costs should be borne by the individual teacher, student, or parent(s). These local costs shall not be counted as part of the direct or indirect RFP price.

iii) **Theft.**

The portable computing device provided must incorporate security features to deter theft. This should include an unavoidable login or greeting, or similar process, which identifies the program and/or owner of the device. These security features must be operative regardless of the physical environment in which the portable computing devices are found. The Offeror will provide a detailed description of security features on the proposed devices to deter theft.

iv) **Asset Tags.**

The Offeror will include an asset tag and recording system. This system will include the fastening of asset tags in the factory during the production of the system. There will be one asset tag type for the entire *Classrooms for the Future* project. The attributes of the specific tag will be dictated by the Commonwealth. Information gathered and reported on system asset tags and labels may include: customer name, service tag, purchase order number, order number, order date, model number, shipping address, system component data, and/or customer-supplied information. Monitor asset tags and labels may include: customer name, monitor serial number or Offeror-generated asset number sequence. Offeror will establish a standard format for tags working with Commonwealth contract management.

j. **Technical and Curriculum Integration Training and Consultation.**

The Offeror shall provide an appropriate level of technical training on the solution, its local support requirements, and its applications for all teachers, school administrative staff, and technical support personnel. Each school district will coordinate the training schedule at the time of purchase.

This training shall include basic use of the entire classroom solution and software, use of the solution in a network environment, both wirelessly and wired Ethernet, use of the solution in standalone mode, and use and access of the server(s). Training should be done in the context of how to use and integrate the *Classrooms for the Future* package in an educational setting. While PDE will continue to provide regional training, the Offeror's training needs to be contextually relevant and not just a "computer skills" class. The Offeror will also include specific training on trouble-shooting, maintenance, repair procedures, etc. for technical support personnel.

The Offeror shall describe its proposed program to accomplish both training scenarios including a preliminary training plan, content and method, recommended duration, recommended location(s), materials included, instructor to student ratio, and qualifications of each instructor. The Offeror must separately and specifically address its training program for each year of the contract. The Offeror will also make available sufficient teacher training prior to the start of school year 2006-2007. Training times and locations should be convenient to the participating personnel, and school personnel should have multiple options to sign up for training in their region at no additional cost. Each school district will schedule its own training sessions.

k. **Curriculum Integration and Professional Development.**

The Offeror will become a partner, providing ongoing consultation, advice, and assistance to PDE in the ongoing effort to increase the purposeful integration of learning technology into teaching, learning, and leadership.

l. **Services by Offeror.**

The Offeror, in its proposal, may provide a full description of the Offeror's interest in, capacity for, and approach to providing additional resources, consultation, or support to the professional development of teachers to integrate fully and successfully personal, portable computer technology in instructional practice. These services would be evaluated as value added when determining the overall quality of the Offeror's Technical Proposal. All resources must be aligned or adaptable to Pennsylvania statewide standards; such standards for educator training and development as may be adopted by PDE; and with Pennsylvania's approach to locally-developed curricula and assessment. The Offeror may include a variety of curriculum integration resources or appropriate content, and assistance with the integration of these tools. These resources might include experts in the field of educational technology and access to research data and results in educational technology. The Offeror should describe the full potential for curriculum integration and system capabilities within the application of the proposed wireless network in the educational setting; describe how it would assist schools in identifying and achieving their desired level of curriculum integration and system capabilities; and describe the Offeror's experience in maximizing student achievement with wireless networks in educational settings.

m. **Additional Training and Development Resources.**

The Offeror may describe optional, additional training, professional development or consulting resources that could be provided beyond the scope of this RFP to PDE or to local school units, with an appropriate additional, optional cost schedule.

n. **Online Instructional Resources.**

Any online instructional resources offered need to supplement existing PDE e-Learning initiatives and will provide a means to support more engaged, relevant, and personalized learning for students. Interactive technologies will allow students to build new knowledge by doing, receiving feedback, and refining their understanding. Technologies will also help students visualize difficult-to-understand concepts and increase conceptual understanding.

Respondents may include online and/or electronic instructional resources that extend, supplement or enhance learning in the four core curriculum content areas of English language arts, mathematics, science and social studies for grades 9-12. Specific requirements of online and/or electronic instructional resources include the following:

- i) The resources must be provided for both teachers and students.
- ii) The resources must include guides or other clear prompts demonstrating to teachers suggested methods for incorporating the resources into lesson plans and other classroom teaching activities.
- iii) The resources must include a combination of at least two and preferable all of the following information conveyance formats: text, pictures, video and sound.
- iv) The resources must be accessible with and through the wireless mobile computing system proposed as part of the respondent's *Classrooms for the Future* package.
- v) The resources must be easily viewable on the wireless mobile computing system provided as part of the respondent's *Classrooms for the Future* package.
- vi) The resources must be available for easy and rapid download on the wireless mobile computing device provided as part of the respondent's *Classrooms for the Future* package if they are web-based and distributed to the wireless mobile computing system using an ASP model.
- vii) The resources must be able to be stored on the storage media native to the wireless mobile computing device provided as part of the respondent's *Classrooms for the Future* package if they are electronically-based resources and require device-localized storage on the device to be operable.

o. Support and Maintenance.

As part of the cost, the Offeror will provide ongoing support to the schools for the duration of the agreement. Since the cost is to cover the full costs of deploying and supporting the solution, each Offeror must factor a full support package into its price. The components of such a full support package must include those components necessary to assure the Performance and Quality specifications are met continuously and that the solution is sufficiently supported at all times. The support package must include, but is not limited to: Help Desk; repair; preventative maintenance; licensing; fixes and updates for software, firmware, microcode, etc.

This support will include Help Desk or Support Center service available via 1-800 type access, which includes staffing, tools and processes to meet the schools' support requirements including a system of dispatching, tracking, priority setting, reporting and escalation, which ensure timely and satisfactory response and resolution. We are not requiring the Offeror to provide dedicated help desk personnel. The Offeror may also employ other communication systems for delivery of just-in-time support such as Internet audio chat, text chat, web forums, etc. School users of the Help Desk may include teachers, administrators and technical coordinators. The Offeror will describe its Help Desk offering as well as its ongoing technical support provided for its proposed solution.

The Offeror will fully describe the process and plan that will be utilized whenever a break/fix event occurs within the school's computing environment. This will cover the entire process of repairing or replacing a portable computing device or any of the *Classrooms for the Future* package.

Respondents will be expected to provide their normal level of customer support for all components of the *Classrooms for the Future* package over the course of the project. If the RFP response is from a partnership of multiple Offerors, then all of the Offerors will be expected to support their contributing component in concert with all other proposing partners. However, a single partner must be designated as the lead technical support partner, and a single point of contact must be specified at that partner for implementing campuses and districts to contact with technical support issues.

p. Project Management and Implementation.

The Offeror must ensure a successful implementation for each of the participating sites. This includes necessary site surveys, validation testing, installation and configuration of all hardware and software, training, support program implementation and any other aspects of the solution.

q. **Project Plan and Deliverables.**

The Offeror will develop and implement a project plan that includes, as a minimum, the following deliverables. Offerors must clearly describe their plan for implementing all of the components of their *Classrooms for the Future* package on a participating campus. A local education agency will be free to choose any one of the *Classrooms for the Future* packages approved under this RFP. Each must describe its ability to meet these requirements:

i) **Project Plan.**

The preliminary Project Plan itself will be delivered for approval not later than 30 calendar days after the agreement is fully executed by the Commonwealth. Development of the plan with PDE's involvement is required. The Plan must include all aspects of the project and its deliverables, including coordination with PDE and the schools, communications and reporting, timetable, Validation Testing Subplan, Deployment Subplan, Training Subplan, and the Service and Support Subplan. This Project Plan will be revised and improved periodically as needed, with consultation of PDE.

ii) **Validation Testing.**

This will be system testing, in Commonwealth schools, that confirms that the solution meets or exceeds the functional requirements, and the performance and reliability specifications as required under the agreement between the Offeror and PDE resulting from this procurement process. This Validation Test will enable the Offeror the opportunity to test its equipment in Pennsylvania school environments and will assure PDE that the solution is acceptable for production deployment. The test will include PDE and up to **eight** schools and must be successfully no later than **four** weeks after issuance of notice to proceed.

iii) **Educational Conferences and Meetings.**

Participation in at least **30** educational conferences or meetings annually in conjunction with the Pennsylvania Department of Education, the intent of which is to help inform the educational community of the project plans and to maintain communication and ongoing relationships with the participating schools.

iv) **Implementation.**

Each school installation will include provision of complete, current documentation necessary for effective and successful use of the solution by people such as system administrators, site support personnel, and teachers. This may include manuals, guides, quick reference materials and other documentation. Either hardcopy or electronic versions are required. Each Offeror will describe what documentation they will provide and how they will provide it in order to be effective.

Each installation will include establishment of a site work completion and satisfaction sign-off form. The Offeror's equipment and work at each site will not be considered complete nor will it be paid for until satisfaction sign-offs are obtained from both the responsible site person and the PDE Project Manager.

The respondent must scope their implementation plan to address:

- How the respondent will provide implementation of their *Classrooms for the Future* package across each campus and how the respondent will assure implementation fidelity across these campuses.

v) **Project Implementation Plan.**

The Offeror must successfully install, configure and test all hardware and software for each participating site. In School Year 1, this must be completed no more than 4 weeks after issuance of notice to proceed.

NOTE: Dates are contingent upon contract award.

The specific components required of the technical implementation plan include:

- The method by which the respondent will provide for onsite implementation of the *Classrooms for the Future* package.
- The resources the respondent will make available during implementation to conduct the implementation of the *Classrooms for the Future* package—whether specific technical personnel will be provided for implementation, how many and of what type of expertise.

- The timeline—in days, weeks or months—necessary for accomplishing the implementation of the *Classrooms for the Future* package on a participating campus and to make all of its components fully operative. The timeline should include all major phases and milestones.
- The management plan for implementation of the *Classrooms for the Future* package—which partner(s) will be responsible for implementing which components of the *Classrooms for the Future* package, in what order and under which managing (lead) partner’s supervision.
- The single partner that will be responsible for managing and effecting implementation of the *Classrooms for the Future* package if the response to this RFP involves a partnership of Offerors.

The RFP response and the proposed implementation plan will be assessed on all of the components described previously in this section.

vi) **Project Staffing.**

An experienced, qualified, and effective project team will be identified and provided. The Offeror will provide a description of its project staffing plan for all phases and tasks. Identify each senior staff member and complete for each the form in Exhibit C in order to demonstrate your staff’s experience with projects similar to this one. At a minimum, the Offeror will maintain an in-State team for the length of the project made up of a Project Manager, Educational Specialist, Systems Integrator and a Technical Engineer. These resources do not need to be dedicated solely to this project; however an appropriate level of support must be provided.

r. **Coordination with Schools.**

The Offeror will work with PDE and each school district and its principal or principal designee to determine via any necessary site surveys the local requirements necessary to implement the solution as well as any local change requirements and costs, and will coordinate the installation of its solution with each school’s changes. These local change requirements would include not only the basic solution but also any additions or adaptations that a school elects to implement at its own local cost (e.g., switches, hubs, software, hardware, adaptive devices). The Offeror must accommodate school schedules and needs, even if this requires some alteration of the Offeror’s customary schedule. Such accommodation must not include any additional, premium or overtime charges.

s. **Work Within Schools.**

- i) Each Offeror will succinctly describe the basic physical characteristics of the proposed equipment including dimensions, weights, electrical, HVAC and any other specifications vital to know. All required cables, wires, mounts and connectors will be specified by the Offeror.

ii) ACT 34 COMPLIANCE

The Offeror must submit with their application a copy of a report of Criminal History Record Information from the Pennsylvania State Police or a statement from the Pennsylvania State Police that the State Police Central Repository contains no such information relating to any persons working within the schools. For out-of-state persons who will be working within the schools, the Offeror must submit with their application a copy of a federal criminal record history from the Federal Bureau of Investigation. The criminal record history report must be no more than **one** year old.

iii) ACT 151 (PA Child Abuse History Clearance)

Each Offeror must submit with their application a copy of an official clearance statement obtained from the Pennsylvania Department of Public Welfare or a statement from the Department of Public Welfare that no record exists for any person(s) working within the schools. The clearance statement must be no more than **one** year old.

- iv) All cabling, wiring, connectors and mounts will be installed in a manner which results in safe and secure facilities. No hazards will be created; any identified hazard will be pointed out to appropriate site personnel. Installations must be performed in a manner which does not harm or diminish local site designs, structural integrity or—to the extent feasible—cosmetics. Installations will meet all prevailing local codes and governing body codes as well as IEEE, TIA/EIA and ISO/IEC standards for cabling and wiring.

- **IEEE**—Institute of Electrical and Electronic Engineers.
- **TIA/EIA**—Telecommunications Industry Association/Electronic Industry Association
- **ISO/IEC**—International Organization for Standardization/Equipment Installer's Code.

PDE is seeking a solution which adheres to industry standards and open systems architectures as versus proprietary solutions. Each Offeror must identify whether its solution includes proprietary aspects and, if it does, will provide in its proposal a schedule and a plan to PDE for the Offeror's migration to industry standards - or state that it intends to continue pursuing its proprietary approach.

IV-5. Reports and Project Control – As agreed upon between Offeror and PDE

- a. **Status Report.** A periodic monthly progress report covering activities, problems and recommendations. This report should be keyed to the work plan the Offeror developed in its proposal, as amended or approved by the Issuing Office.
- b. **Project Management Reporting.** The Offeror will submit on the last working day of each quarter a detailed quarterly progress report to PDE's, starting with the first month of the Agreement. Among other things, this report must include a monthly summary of the performance metrics specified earlier. The Offeror may be requested to supply additional information as warranted.
- c. **Problem Identification Report.** An "as required" report, identifying problem areas. The report should describe the problem and its impact on the overall project and on each affected task. It should list possible courses of action with advantages and disadvantages of each, and include Offeror recommendations with supporting rationale.

IV-6. Contract Requirements—Disadvantaged Business Participation and Enterprise Zone Small Business Participation

All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must also include a provision requiring the selected Offeror to meet and maintain those commitments made to Disadvantaged Businesses and/or Enterprise Zone Small Businesses at the time of proposal submittal or contract negotiation, unless a change in the commitment is approved by the BMWBO. All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must include a provision requiring Small Disadvantaged Business subcontractors, Enterprise Zone Small Business subcontractors and Small Disadvantaged Businesses or Enterprise Zone Small Businesses in a joint venture to perform at least **50%** of the subcontract or Small Disadvantaged Business/Enterprise Zone Small Business participation portion of the joint venture.

The selected Offeror's commitments to Disadvantaged Businesses and/or Enterprise Zone Small Businesses made at the time of proposal submittal or contract negotiation shall be maintained throughout the term of the contract. Any proposed change must be submitted to BMWBO, which will make a recommendation to the Contracting Officer regarding a course of action.

If a contract is assigned to another Offeror, the new Offeror must maintain the Disadvantaged Business participation and/or Enterprise Zone Small Business participation of the original contract.

The selected Offeror shall complete the Prime Offeror's Quarterly Utilization Report (or similar type document containing the same information) and submit it to the contracting officer of the Issuing Office and BMWBO within **10** workdays at the end of each quarter the contract is in force. This information will be used to determine the actual dollar amount paid to Small Disadvantaged Business and/or Enterprise Zone Small Business subcontractors and Offerors, and Small Disadvantaged Business and/or Enterprise Zone Small Business participants involved in joint ventures. In addition, this information will serve as a record of fulfillment of the commitment the selected Offeror made and for which it received Disadvantaged Business and Enterprise Zone Small Business points. If there was no activity during the quarter then the form must be completed by stating "No activity in this quarter."

NOTE: EQUAL EMPLOYMENT OPPORTUNITY AND CONTRACT COMPLIANCE STATEMENTS REFERRING TO COMPANY EQUAL EMPLOYMENT OPPORTUNITY POLICIES OR PAST CONTRACT COMPLIANCE PRACTICES DO NOT CONSTITUTE PROOF OF DISADVANTAGED BUSINESSES STATUS OR ENTITLE AN OFFEROR TO RECEIVE CREDIT FOR DISADVANTAGED BUSINESSES UTILIZATION.

CONTRACT STANDARD TERMS AND CONDITIONS**1. PURPOSE OF CONTRACT**

The Department of General Services ("DGS") is establishing this Contract ("Contract") for the use of Pennsylvania public schools that receive *Classrooms for the Future* funding from the Commonwealth of Pennsylvania, Department of Education. ("Purchasers") in accordance with the requirements of Act 77 of 2004, amending Section 1902 of the Commonwealth Procurement Code, 62 Pa. C.S. § 1902.

2. PURCHASERS UNDER THE CONTRACT

a. The Contractor understands that it will not be providing any items directly to DGS or to any Commonwealth agency under the Contract. DGS is acting as a facilitator for the Purchasers, who may wish to purchase supplies under the Contract.

b. Purchasers who participate in this Contract and issue purchase orders ("POs") to the Contractor are third party beneficiaries who have the right to sue and be sued for breach of this contract without joining the Commonwealth or DGS as a party.

3. TERM OF CONTRACT

The term of the Contract shall commence on the Effective Date (as defined in this Section 3) and shall end on the Expiration Date identified in the Contract, subject to the other provisions of the Contract.

a. The Effective Date shall be:

1) the date the contract is fully executed and all approvals have been obtained as required by Commonwealth contracting procedures, or

2) the date identified in the Contract Special Terms and Conditions ("Special Terms and Conditions"), whichever is later. The Contract shall not be legally binding until after DGS sends the fully-executed Contract to the Contractor.

b. The Contractor shall not start performance under this Contract, nor shall the Contractor represent to any prospective Purchaser that the Contractor is authorized to provide supplies under this Contract, until the Effective Date has arrived and the Contractor has received a copy of the fully-executed Contract from DGS. The Contractor understands and accepts that a Purchaser has no obligation to pay the Contractor for any supply furnished, work performed, or expenses incurred under this Contract at any time, and that only a PO from a Purchaser shall trigger any delivery under this Contract.

c. DGS reserves the right, upon notice to the Contractor, to extend the Contract or any part of the Contract for up to three months upon the same terms and conditions. DGS will extend the Contract only to prevent a lapse in Contract coverage for Purchasers, and only for up to three months, until DGS enters into a new contract covering the Contract items.

4. PURCHASE ORDERS

Purchasers may issue POs against the Contract either directly using the Contractor's dedicated website ("online orders") or through any other means acceptable to the Contractor. Each PO will incorporate the terms and conditions set forth in the Contract.

Any PO delivered or transmitted to the Contractor after 4:00 p.m. will be considered received the following business day.

For electronically-issued POs, the following terms apply:

a. Upon receipt of a PO, the Contractor shall in return promptly deliver or transmit an acknowledgement to the Purchaser. A PO shall not give rise to any Contractor obligation to deliver or to any Purchaser obligation to receive and pay for delivered products, unless and until the Purchaser has received a Contractor acknowledgement of the PO.

b. The parties agree that no writing in addition to the PO and acknowledgement shall be required to make the PO legally binding, notwithstanding contrary requirements in any law. The parties agree not to contest the validity or enforceability of an electronic PO or acknowledgement under the provisions of a statute of frauds or any other applicable law relating to whether certain agreements are required to be in writing signed by the parties. A printed record of any electronic PO or acknowledgement will be admissible as evidence in any judicial, arbitration, mediation, or administrative proceedings to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of POs or acknowledgements under either the business records exception to the hearsay rule or the best evidence rule on the basis that the PO or acknowledgement were not in writing or signed by the parties. A PO or acknowledgment shall be deemed to be genuine for all purposes if it is transmitted to the location designated in these Terms and Conditions for such documents.

c. Each party will immediately take steps to verify any document that appears to be garbled in transmission or improperly formatted, including re-transmission of any such document.

5. INDEPENDENT CONTRACTOR

In performing the required Contract obligations, the Contractor agrees that it will act as an independent contractor, and not as an employee or agent of the Commonwealth, DGS, or any Purchaser.

6. THIRD PARTY BENEFICIARIES

The Contractor understands and acknowledges that there is no guarantee that any prospective Purchaser will place a PO under this Contract, and that it is within the sole discretion of the Purchaser whether to procure from the Contract or to use another procurement vehicle.

a. The selection of a particular contractor to provide a Contract item to a particular Purchaser will be based upon best value or return on investment, within the sole discretion of the Purchaser. The Contractor shall have no right to protest Purchaser's selection of a contractor under this procurement or any other contract.

b. The Contractor agrees that any dispute concerning a particular PO will be resolved between the Contractor and the Purchaser, without DGS participation.

7. COMPLIANCE WITH LAW

The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in the performance of this Contract.

8. ENVIRONMENTAL PROVISIONS

In the performance of this Contract, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

9. CONTRACTOR DEDICATED WEBSITE

DGS strongly encourages the Contractor to provide a dedicated website for Purchasers ("Contract Website"), including a complete listing with Contract pricing for all items required under the Contract, product and customer support information, and the capability for Purchasers to place online orders for Contract items. If the Contractor provides a Contract Website, the Contractor agrees to permit DGS to provide a link from the DGS website to the Contract Website to facilitate access by prospective Purchasers.

10. PRICING, COMPENSATION, AND INVOICES

The Contractor shall be required to furnish the awarded item(s) to Purchasers issuing POs under this Contract at the price(s) quoted in the Contractor's bid for the term and any and all renewals of this Contract, as further specified in this Section 10. After delivering the Contract item(s) to the Purchaser, the Contractor shall promptly send an invoice, including the PO number and itemized by line item, to the Purchaser's address specified in the PO. The invoice should include only those amounts due under the PO for items timely and satisfactorily delivered to the Purchaser.

a. The Contractor may offer voluntary price reductions and provide Contract items at prices lower than the Contractor's Contract prices for the items. The Contractor shall be compensated only for item(s) delivered to and accepted by the Purchaser.

b. The pricing for each Contract item shall include the cost of delivery to any destination within the Commonwealth of Pennsylvania as may be further limited by the Special Terms and Conditions, and there shall be no minimum order for shipments qualifying for F.O.B. delivered prices.

c. Because some smaller Purchasers may not have readily available Internet access, awarded Suppliers will also be required to provide hard copies of pricing information via fax or mail to any Purchaser requesting such information within five (5) working days after receipt of the Purchaser's request.

d. The Contractor's price shall include the warranty specified in Paragraph 13 below.

11. PAYMENT

Purchasers electing to participate in the Contract will order items directly from the Contractor and be responsible for payment directly to the Contractor. DGS shall require the Purchaser to put forth reasonable efforts to make payment by the Required Payment Date, defined as (a) the date on which payment is due under the PO terms, (b) 30 days after a Purchaser receives a completed invoice for items the Purchaser has accepted at its "Bill To" address on the PO if no payment date is specified in the PO, or (c) any later payment date specified on the invoice.

a. The Purchaser may delay payment if the invoice amount is greater than the Contract price(s).

b. The Contractor shall not construe any payment as the Purchaser's acceptance of any Contract item(s).

c. DGS, on behalf of the Purchasers, reserves the right for any Purchaser to conduct testing and inspection after payment within a reasonable time after delivery, and for that Purchaser to reject any or all Contract item(s) if such post payment testing or inspection discloses any defect or failure to meet Contract specifications.

d. The Contractor agrees to accept any Purchaser payment made through the use of a VISA card or MasterCard.

12. TAXES

A Purchaser may be exempt from excise taxes imposed by the Internal Revenue Service, Pennsylvania state sales tax, local sales tax, public transportation assistance taxes, and fees and vehicle rental taxes. A Purchaser may be registered with the Internal Revenue Service to make tax-free purchases. DGS will require each Purchaser claiming any tax exemption to complete the appropriate areas on the PO form to notify the Contractor of the applicable tax exemptions. The Pennsylvania Department of Revenue's regulations provide that exemption certificates are not required for sales made to governmental entities and no such certificates are issued.

13. WARRANTY

The Contractor warrants that all item(s) furnished by the Contractor, either itself or through its agents and subcontractors, shall be free and clear of any defects in workmanship or materials.

a. The Contractor shall pass through to the Purchaser the manufacturer's warranty for all Contract Items. The Contractor shall correct any problem with the Contract Item(s) and/or replace any defective part with a part of equivalent or superior quality, without additional cost to the Purchaser.

b. The Contractor warrants that all items to be provided under the Contract meet the requirements set forth in Part IV of the RFP.

c. The warranty period for a Contract Item shall commence upon delivery of the Contract Item to the Purchaser at the Purchaser's specified address.

14. DELIVERY

The Contractor shall deliver all item(s) F.O.B. Destination to the address specified on the PO.

a. The Contractor shall deliver all items ordered from this Contract within time period specified in the Contract, and, if no time period is specified, within a reasonable time, not to exceed 30 calendar days after receipt of any order, unless the Contractor and the Purchaser shall otherwise agree in writing. Time is of the essence in the performance of this Contract and, in addition to any other remedies, the Purchaser may terminate any PO for failure to make delivery as specified in this Contract and the PO.

b. The Contractor agrees to bear the risk of loss, injury, or destruction of the item(s) ordered prior to the Purchaser's receipt of the items. The Contractor also agrees that such loss, injury, or destruction shall not release the Contractor from any of its contractual obligations to the Purchaser or DGS.

15. PATENT, COPYRIGHT, AND TRADEMARK INDEMNITY

The Contractor warrants that it is the sole owner or author of, or has entered into a suitable legal agreement concerning either: a) the design of any item(s) or process covered by a patent, copyright, or trademark registration or other right duly authorized by state or federal law or b) any copyrighted matter in any report document or other material provided or used in the performance of this Contract or any PO issued under this Contract. The Contractor shall defend any suit or proceeding brought against DGS or any Purchaser on account of any alleged patent, copyright, or trademark infringement in the United States of the item(s) provided or used in the performance of this Contract or any PO, upon condition that DGS or the Purchaser shall provide prompt notification to the Contractor in writing of such suit or proceeding; full right, authorization, and opportunity to conduct the defense; and all reasonable information and cooperation required for the defense. As principles of governmental or public law may be involved, DGS or any Purchaser may participate in or choose to conduct, in its sole discretion, the defense of any such action. If DGS or any Purchaser furnishes information and assistance at the Contractor's written request, it shall be furnished at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written authorization.

The Contractor shall indemnify and hold DGS and any Purchaser harmless from all damages, costs, and expenses, including attorney's fees that the Contractor, DGS, or the Purchaser may pay or incur by reason of any infringement or violation of the rights occurring to any holder of copyright, trademark, or patent interests and rights in any item(s) provided or used in the performance of the Contract or any PO. If any of the item(s) provided by the Contractor are held in such suit or proceeding to constitute infringement and the use is enjoined, the Contractor shall, at its own expense and at its option, either procure the right to continue use of such infringement item(s), replace them with noninfringing equal performance item(s), or modify them so that they are no longer infringing. If the Contractor is unable to do any of the preceding,

the Contractor agrees to remove all the equipment or software which is obtained contemporaneously with the infringing item(s), or, at the option of the Purchaser, only those items of equipment or software which are held to be infringing, and to pay the Purchaser 1) any amounts the Purchaser paid towards the item(s) of the product, less straight line depreciation; 2) any license fee the Purchaser paid for the use of any software, less a reasonable amount for the period of usage; and 3) the pro rata portion of any maintenance fee representing the time remaining in any period of maintenance the Purchaser paid to the Contractor. The Contractor's obligations under this Section 15 continue without time limit. No costs or expenses shall be incurred for the Contractor's account without its written consent.

16. OWNERSHIP RIGHTS

Each Purchaser issuing a PO under this Contract shall have unrestricted authority to reproduce, distribute, and use any submitted report, data, or material, and any software or modifications and any associated documentation that is designed or developed and delivered to the Purchaser as part of the performance of the PO.

17. ASSIGNMENT OF ANTITRUST CLAIMS

The Contractor and DGS recognize that in actual economic practice, overcharges by the Contractor's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Purchaser under each Contract PO. As part of the consideration for the award of the Contract, and intending to be legally bound, the Contractor assigns to each Purchaser issuing a Contract PO all right, title and interest in and to any claims the Contractor now has, or may acquire, under state or federal antitrust laws relating to the supplies and services which are the subject of the Contract PO.

18. HOLD HARMLESS PROVISION

The Contractor shall hold the Commonwealth and each Purchaser harmless from, and indemnify them against, any and all claims, demands, and actions based upon or arising out of any activities the Contractor and its employees and agents may perform under this Contract and any PO. At the request of DGS or any Purchaser, the Contractor shall defend any and all actions brought against DGS or any Purchaser based upon any such claims or demands. The Contractor shall hold the Commonwealth and DGS harmless from any liability whatsoever arising out of the specifics of a Purchaser-issued PO under this Contract.

19. AUDIT PROVISIONS

DGS and its designees, including without limitation any Purchaser issuing a PO under this Contract, shall have the right, at reasonable times and at a site DGS may designate, to audit the Contractor's books, documents, and records to the extent that such books, documents, and records relate to costs or pricing data for the Contract. The Contractor agrees to maintain records that will support its prices charged and costs incurred for the Contract.

The Contractor shall preserve books, documents and records that relate to costs or pricing data for the Contract for a period of three (3) years from date of final payment. The Contractor shall give full and free access to all records to DGS, Purchasers who have issued Contract POs, and/or their authorized representatives.

20. INSPECTION AND REJECTION

No item(s) received by any Purchaser issuing a Contract PO shall be deemed accepted until the Purchaser has had a reasonable opportunity to inspect the item(s). The Purchaser may reject any item(s) discovered to be defective or failing to conform to the Contract specifications upon initial inspection or at any later time if the defects contained in the item(s) or the noncompliance with the specifications were not reasonably ascertainable upon the initial inspection. The Contractor shall have the duty to remove rejected item(s) from the Purchaser's premises without expense to the Purchaser within fifteen (15) days after notification. Rejected item(s) left longer than fifteen (15) days will be regarded as abandoned, and the Purchaser shall have the right to dispose of the item(s) as its own property and shall retain that portion

of the proceeds of any sale that represents the Purchaser's costs and expenses for the storage and sale of the item(s). Upon notice of rejection, the Contractor shall immediately replace all such rejected item(s) with other non-defective items conforming to the specifications. If the Contractor fails, neglects, or refuses to do so, the Purchaser shall then have the right to procure a corresponding quantity of such item(s), and deduct from any monies then or later due to the Contractor, the difference between the price stated in the Contract and the actual cost of the item(s) to the Purchaser.

21. DEFAULT

a. DGS or any Purchaser may, subject to the provisions of Section 22 of this Contract ("Force Majeure"), and in addition to its other rights under this Contract, declare the Contractor in default under the Contract as to DGS, or under any PO issued under the Contract as to the issuing Purchaser, by written notice to the Contractor. DGS may terminate (as provided in Section 23 of this Contract, "Termination Provisions") the whole or any part of this Contract, or in the case of any Purchaser, terminate a PO issued under this Contract, for any of the following reasons:

1. Failure to deliver the awarded item(s) within the time specified in the Contract or PO or as otherwise specified;
2. Improper delivery;
3. Failure to provide an item or items conforming with the specifications referenced in the Invitation For Bids;
4. Delivery of a defective item;
5. Failure or refusal to remove and replace any item(s) rejected as defective or nonconforming within fifteen (15) days after notification;
6. Insolvency or bankruptcy;
7. Assignment made for the benefit of creditors;
8. Failure to protect, to repair, or to make good any damage or injury to property; or
9. Breach of any provision of this Contract or any PO.

b. In the event that any Purchaser terminates a PO as provided in Subsection a. of this Section 21, any Purchaser may procure, upon such terms and in such manner as it determines, on item(s) similar or identical to those in any PO so terminated, and the Contractor shall be liable to Purchaser for any reasonable excess costs for such similar or identical item(s) included within the terminated part of the Contract.

c. If the Contract is terminated in whole or in part as provided in Subsection a. above, a Purchaser, in addition to any other rights provided in this Section 21, may require the Contractor to transfer title and deliver immediately to the Purchaser in the manner and to the extent directed by the Purchaser, such partially manufactured or delivered item(s) as the Contractor has specifically produced or specifically acquired for the performance of such part of the PO as has been terminated. Except as provided below, payment for any partially manufactured or delivered item(s) accepted by the Purchaser shall be in an amount agreed upon by the Contractor and the Purchaser. The Purchaser may withhold from amounts otherwise due the Contractor for such partially manufactured or delivered item(s), such sum as the Purchaser determines to be necessary to protect the Purchaser against loss.

d. The rights and remedies of DGS and the Purchaser provided in this Section 21 shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

e. Failure to exercise any rights or remedies provided in this Section 21 shall not be construed to be a waiver by DGS or the Purchaser of any rights and remedies in regard to the event of default or any succeeding event of default.

f. Following exhaustion of the Contractor's administrative remedies against DGS as set forth in Section 24 of this Contract, the Contractor's exclusive remedy against DGS shall be to seek damages in the Board of Claims.

g. In the event a Purchaser terminates a PO under this Contract, the Contractor's exclusive remedy shall be against the Purchaser and not against DGS. The Contractor shall seek remedies against any Purchaser under a PO under the laws of the Commonwealth of Pennsylvania as they relate to contract disputes against non-Commonwealth parties, unless the Purchaser is subject to the jurisdiction of the Board of Claims, in which event the Contractor's exclusive remedy shall be to seek damages against the Purchaser before the Board as provided in Title 63 Pa. C.S. Part II, Subchapter C.

22. FORCE MAJEURE

No Purchaser will incur any liability to the Contractor, and the Contractor shall not incur any liability to any Purchaser, if its performance of any obligation under this Contract is prevented or delayed by causes beyond its control and without its fault or negligence. Causes beyond the control of the Contractor or Purchaser may include, but are not limited to, acts of God or war, changes in controlling law, regulations, orders or the requirements of any governmental entity, severe weather conditions, civil disorders, natural disasters, fire, epidemics and quarantines, general strikes throughout the trade, and freight embargoes.

The Contractor shall notify the Purchaser and the DGS Commodity Specialist orally within five (5) days, and in writing within ten (10) days, of the date on which the Contractor becomes aware, or should have reasonably become aware, that such cause would prevent or delay its performance. Such notification shall (i) describe fully such cause(s) and its effect on performance, (ii) state whether performance under the contract is prevented or delayed and (iii) if performance is delayed, state a reasonable estimate of the duration of the delay. The Contractor shall have the burden of proving that such cause(s) delayed or prevented its performance despite its diligent efforts to perform and shall produce such supporting documentation as the Purchaser and the DGS Commodity Specialist may reasonably request. After receipt of such notification, the Purchaser and the DGS Commodity Specialist may individually elect either to cancel the Contract or PO, as applicable, or to extend the time for performance as reasonably necessary to compensate for the Contractor's delay.

In the event of a declared emergency by competent governmental authorities, the Purchaser and DGS, by notice to the Contractor, may suspend all or a portion of the Contract or PO, as applicable.

23. TERMINATION PROVISIONS

DGS has the right to terminate this Contract, and any Purchaser shall have the right to terminate a PO issued under this Contract, upon written notice to the Contractor, for any of the following reasons:

a. DGS shall have the right to terminate this Contract, and any Purchaser shall have the right to terminate any PO issued under this Contract, for its convenience if DGS or the Purchaser, as applicable, determines termination to be in its best interest. The Contractor is entitled to complete any PO initiated prior to the effective date of the termination for which the Purchaser receives delivery of a satisfactory product, but in no event shall the Contractor fill any POs received after the termination date of this Contract.

b. DGS shall have the right to terminate this Contract, and any Purchaser shall be entitled to terminate any PO issued under this Contract, for Contractor default as defined in Section 21 of this Contract, or for any other cause specified in this Contract or by law upon written notice to the Contractor. If it is later determined that DGS or the Purchaser erred in terminating the Contract or

PO for cause, then, at the discretion of DGS or the Purchaser, as applicable, the Contract shall be deemed to have been terminated for convenience under Subsection a. of this Section 23

24. CONTRACT CONTROVERSIES

a. In the event of a controversy or claim arising out of this Contract (except when the claim relates to a specific PO, as specified in Subsection d. of this Section 24) the Contractor must, within six months after the cause of action accrues, file a written claim with the DGS contracting officer for a determination and, in the case of a claim involving a PO, with the Purchaser. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum.

b. The DGS contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.

c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

d. In the event of a controversy or claim arising out of a PO, the Contractor shall file a written claim directly with the Purchaser.

25. ASSIGNABILITY AND SUBCONTRACTING

a. Subject to the terms and conditions of this Section 25, the Contract shall be binding upon the parties and their respective successors and assigns.

b. The Contractor shall not subcontract with any person without the Purchaser's prior written consent, which consent may be withheld at the Purchaser's sole and absolute discretion.

c. The Contractor may not assign, in whole or in part, this Contract or any rights, duties, obligations, or responsibilities under this Contract without DGS's prior written consent, which consent may be withheld at DGS's sole and absolute discretion.

d. Notwithstanding anything else in this Contract, the Contractor may, without DGS's consent, assign its rights to payment under this Contract or any PO issued under this Contract, provided that the Contractor provides written notice of such assignment to the DGS Commodity Specialist and the Purchaser together with a written acknowledgement from the assignee to DGS that any such payments are subject to all of the terms and conditions of this Contract.

e. For the purposes of this Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor, provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.

f. DGS's consent to any assignment, other than an assignment of payment as specified in subsection d. of this Section 25, shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all

Contract terms and conditions and to assume the Contract duties, obligations, and responsibilities being assigned.

g. Any Contractor change of name that does not change the Contractor's federal identification number shall not be considered an assignment of this Contract. The Contractor shall give the DGS Commodity Specialist and the Purchaser written notice of any such change of name.

26. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of the Contract, Contractor agrees as follows:

a. In the hiring of any employees for the manufacture of supplies, performance of work, or any other activity required under the Contract or any subcontract, the Contractor, subcontractor or any person acting on behalf of the Contractor or subcontractor shall not by reason of gender, race, creed, or color discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

b. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work or any other activity required under the Contract on account of gender, race, creed, or color.

c. The Contractor and subcontractors shall establish and maintain a written sexual harassment policy and shall inform its employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.

d. The Contractor shall not discriminate by reason of gender, race, creed, or color against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

e. The Contractor and each subcontractor shall furnish all necessary employment documents and records to and permit access to its books, records, and accounts by the contracting officer and the Department of General Services' Bureau of Minority and Women Business Opportunities for purposes of investigation to ascertain compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause. If the Contractor or any subcontractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting officer or the Bureau of Minority and Women Business Opportunities.

f. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.

g. The Commonwealth may cancel or terminate the Contract, and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

27. CONTRACTOR INTEGRITY PROVISIONS

a. For purposes of this Section 27 only, the words "confidential information," "consent," "contractor," "financial interest," and "gratuity" shall have the following definitions.

1. **Confidential information** means information that is not public knowledge, or available to the public on request, disclosure of which would give an unfair, unethical, or illegal advantage to another desiring to contract with the Commonwealth.

2. **Consent** means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in

writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this agreement.

3. **Contractor** means the individual or entity that has entered into the Contract with the Commonwealth, including directors, officers, partners, managers, key employees and owners of more than a five percent interest.

4. **Financial interest** means:

A. Ownership of more than a five percent interest in any business; or

B. Holding a position as an officer, director, trustee, partner, employee, or the like, or holding any position of management.

5. **Gratuity** means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind.

b. The Contractor shall maintain the highest standards of integrity in the performance of the Contract and shall take no action in violation of state or federal laws, regulations, or other requirements that govern contracting with the Commonwealth.

c. The Contractor shall not disclose to others any confidential information gained by virtue of the Contract.

d. The Contractor shall not, in connection with this or any other agreement with the Commonwealth, directly, or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any officer or employee of the Commonwealth.

e. The Contractor shall not, in connection with this or any other agreement with the Commonwealth, directly or indirectly, offer, give, or agree or promise to give to anyone any gratuity for the benefit of or at the direction or request of any officer or employee of the Commonwealth.

f. Except with the consent of the Commonwealth, neither the Contractor nor anyone in privity with him or her shall accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of work under the Contract except as provided therein.

g. Except with the consent of the Commonwealth, the Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material on this project.

h. The Contractor, upon being informed that any violation of these provisions has occurred or may occur, shall immediately notify the Commonwealth in writing.

i. The Contractor, by execution of the Contract and by the submission of any bills or invoices for payment pursuant thereto, certifies, and represents that he or she has not violated any of these provisions.

j. The Contractor, upon the inquiry or request of the Inspector General of the Commonwealth or any of that official's agents or representatives, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to the Contractor's integrity or responsibility, as those terms are defined by the Commonwealth's statutes, regulations, or management directives. Such information may include, but shall not be limited to, the Contractor's business or financial records, documents or files of any type or form that refers to or concern the Contract. Such information shall be retained by the

Contractor for a period of three years beyond the termination of the Contract unless otherwise provided by law.

k. For violation of any of the above provisions, the Commonwealth may terminate this and any other agreement with the Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all expenses incurred in obtaining another Contractor to complete performance hereunder, and debar and suspend the Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or nonuse of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

28. CONTRACTOR RESPONSIBILITY PROVISIONS

a. The Contractor certifies, for itself and all its subcontractors, that as of the date of its execution of the bid/contract, that neither the Contractor, nor any subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid, a written explanation of why such certification cannot be made.

b. The Contractor must also certify, in writing, that as of the date of its execution of the bid/contract, it has no tax liabilities or other Commonwealth obligations.

c. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

d. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

e. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth, which results in the suspension or debarment of the Contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

f. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the internet at <http://www.dgs.state.pa.us> or contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No. (717) 783-6472
FAX No. (717) 787-9138

29. AMERICANS WITH DISABILITIES ACT

a. Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Contract or from

activities provided for under this Contract on the basis of the disability. As a condition of accepting this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.

b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of subsection a above.

30. HAZARDOUS SUBSTANCES

The Contractor shall provide information to DGS and any Purchaser under this Contract about the identity and hazards of hazardous substances the Contractor may supply or use in the performance of this Contract. The Contractor must comply with Act 159 of October 5, 1984, known as the "Worker and Community Right to Know Act" (the "Act") and the regulations promulgated at 4 Pa. Code Section 301.1 *et seq.*

a. Labeling. The Contractor shall insure that each individual product (as well as the carton, container, or package in which the product is shipped) of any of the following substances (as defined by the Act and the regulations) supplied by the Contractor is clearly labeled, tagged, or marked with the information listed in Paragraph (1) through (4):

1. Hazardous substances:

- A. The chemical name or common name,
- B. A hazard warning, and
- C. The manufacturer's name, address, and telephone number.

2. Hazardous mixtures:

- A. The common name or, if no common name exists, the trade name;
- B. The chemical or common name of special hazardous substances comprising .01% or more of the mixture;
- C. The chemical or common name of hazardous substances comprising 1.0% or more of the mixture;
- D. A hazard warning; and
- E. The manufacturer's name, address, and telephone number.

3. Single chemicals:

- A. The chemical or common name;
- B. A hazard warning, if appropriate; and
- C. The manufacturer's name, address, and telephone number.

4. Chemical Mixtures:

- A. The common name or, if no common name exists, the trade name;

- B. A hazard warning, if appropriate;
- C. The manufacturer's name, address, and telephone number; and
- D. The chemical or common name of either the top five substances by volume or those substances comprises 5.0% or more of the mixture.

A common or trade name may be used only if such a name more easily or readily identifies the true nature of the hazardous substance, hazardous mixture, single chemical, or mixture involved.

Container labels shall provide a warning as to the specific nature of the hazard arising from the substance in the container.

The Contractor shall give the hazard warning in conformity with one of the nationally recognized and accepted systems of providing such warnings, consistent with one or more of the recognized systems throughout the workplace. Examples are:

- NFPA 704, Identification of the Fire Hazards of Materials.
- National Paint and Coatings Association: Hazardous Materials Identification System.
- American Society for Testing and Materials, Safety Alert Pictorial Chart.
- American National Standard Institute, Inc., for the Precautionary Labeling of Hazardous Industrial Chemicals.

Labels must be legible and prominently affixed to and displayed on the product and the carton, container, or package so that employees can easily identify the hazardous substance or mixture present.

b. The Contractor shall provide Material Safety Data Sheets (MSDS) with the information required for each hazardous substance or hazardous mixture by the Act and regulations. The Contractor must provide an appropriate MSDS to the Purchaser with the initial shipment and with the first shipment after an MSDS is updated or product changed. For any other chemical, the Contractor shall provide an appropriate MSDS if the manufacturer, importer, or supplier produces or possesses the MSDS. The Contractor shall also notify the Purchaser when a substance or mixture is subject to the provisions of the Act. The MSDS may be attached to the carton, container, or package to be delivered to the Purchaser at the time of shipment.

31. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract on any agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies the Contractor may maintain for the purpose of securing business. For breach or violation of this warranty, the Commonwealth shall have the right to terminate this Contract without liability.

32. APPLICABLE LAW

This Contract shall be governed by and interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania, waiving any claim or defense that such forum is not convenient or proper. The Contractor agrees that any such court shall have *in personam* jurisdiction over it, and consents to service of process in any manner authorized by Pennsylvania law.

33. INTEGRATION

The RFP, any Addenda and exhibits thereto, the Contractor's Technical, Cost, Disadvantaged Business and Value Add (if applicable) proposals and any other referenced documents in the Contract, as well as the applicable provisions of the POs issued by the Purchasers, constitute the entire agreement between the parties. No agent, representative, employee, or officer of DGS or the Contractor has authority to make, or has made, any oral or written statement, agreement, or representation which may in any way be deemed to modify, add to, detract from, or otherwise change or alter the terms and conditions of, this Contract. No negotiations between the parties, nor any custom or usage, shall modify or contradict any of the terms and conditions of this Contract. No modifications, alterations, changes or waiver to the Contract or any of its terms, other than in a PO authorized by any individual Purchaser, shall be valid or binding unless accomplished by a written amendment signed by both parties or by a DGS- signed change order on the appropriate Commonwealth form.

34. CHANGES

DGS reserves the right to make changes at any time during the term of this Contract, including any renewals or extensions:

- a. to increase or decrease the quantities resulting from variations between any estimated and actual quantities;

- b. to make changes to the supply within the scope of the Contract;

- c. to notify the Contractor that the Commonwealth is exercising any Contract termination, renewal, or extension option; or

- d. to modify the time of performance so long as the modification does not alter the scope of the Contract or extend the Contract completion date beyond the Expiration Date specified in the Contract, including any renewals or extensions.

Any such change shall be made by the contracting officer shown on the Contract form, by notifying the Contractor in writing. The change shall be effective as of the date of the notification of change, unless the change specifies a later effective date. Such increases, decreases, changes, or modifications will not invalidate the Contract. The Contractor agrees to provide the supply to all subsequent Purchasers in accordance with the change. Any dispute by the Contractor in regard to the performance required by any notification of change shall be handled through Section 24 of this Contract ("Contract Controversies").

Supplier Name and Date:

Product Details	Supplier Proposed Specifications
Minimum PC Laptop Specifications	
Intel® Pentium® M Processor 740 or equivalent (1.73GHz/2MB Cache/400MHz FSB)	
Genuine Windows XP Professional	
15.4in WXGA Display	
512MB DDR2 533MHz SDRAM, 2 DIMMS	
24X CD Burner/DVD Combo Drive (Teacher PC must have DVD-RW/CDRW Drive)	
60GB Hard Drive, 9.5MM, 5400RPM	
Integrated Intel® Media Accelerator 900 Graphics (32mb RAM minimum)	
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	
Built in Firewire IEEE 1394	
Built-in Ethernet (10/100/1000)	
Internal Wireless (802.11g, 54Mbps)	
4 Year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries.	
7 pound maximum weight limit	
Minimum MAC Laptop Specifications	
1.33 GHz PowerPC G4 or equivalent	
512 MB memory (DDR333 SDRAM)	
OS 10.4 (latest MAC OSX Version)	
14-inch TFT Display 1024x768 resolution	
ATI Mobility Radeon 9550 32MB DDR video memory	
60GB Ultra ATA hard drive	
Combo Drive (DVD-ROM/CD-RW) (Teacher PC must have DVD-RW/CDRW Drive)	
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	
Built-in Firewire IEEE 1394	
Built-in Ethernet (10/100/1000)	
Software: FileMaker Pro	
Built-in AirPort Extreme (802.11 g)	
Built-in Bluetooth 2.0+EDR	
Scrolling Trackpad	
4 year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries.	

7 pound maximum weight limit	
Printer/Scanner	
All-in-One - Multifunction (scanner & printer) - 19200dpi scanner, 30ppm (mono) / 24ppm (color), 1 USB, 1 Ethernet, must include initial set of ink cartridges (Black, Cyan, Yellow, and Magenta) and connectivity cables. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Productivity Software (Instructor)	
Adobe Creative Suite Premium (Includes Adobe Photoshop® CS2 (image editing), Illustrator® CS2 (paint), InDesign® CS2 (Desktop publishing), GoLive® CS2 (Webpage creation), and Acrobat® 7.0 Professional (Create and manipulate PDFs software) Microsoft Office Professional Version, Inspiration, Include 4 year upgrade	
Web Cam	
640x480 video resolution, high-quality 1.3 megapixel photo resolution, zoom in or out, even pan and tilt to get the right shot, Compatible with USB 2.0 and 1.1. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Student Software	
Microsoft Office Professional Version plus upgrades, Inspiration	
Interactive Whiteboard Solution	
Interactive Whiteboard 65 1/4" W × 49 1/2" H × 5 1/8" D (165.7 cm × 125.7 cm × 13.0 cm), 77" diagonal, Touch resolution of 4000 × 4000, USB 2.0 includes floorstand and/or wall mount if interactive whiteboard solution requires it. Must also include all cables for connecting the device to the computer. The solution may also have the ability to convert an existing whiteboard into an interactive whiteboard. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Projector	
2000 ANSI lumens, DLP/LCD Projector, Native resolution to support VGA (640x480,) SVGA(800x600), and XGA(1024x768) at a minimum, 2000:1 contrast ratio, , 3000 hrs of Lamp life; internal 5 watt speaker. The device should have the ability to accept various types of inputs and outputs such as S-Video, USB, SVGA, XGA, composite (RCA) audio/video and be HDTV compatible. Minimum of two computer/component video inputs and RS232C. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
PC multimedia speakers	

3.6 Watt, 2.5W RMS/ch, volume control, On/Off switch with LED indicator and headphone jack warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Laptop Storage Cart	
Stores and charges up to 30 notebook computers in individual compartments. Includes two UL-Listed, 15-outlet electrical units and a three-outlet electrical unit. Top shelf is a non-slip rubber with 2 grommet holes for cord management. Doors, rear and side panels are perforated to provide for adequate ventilation. All doors come with individual locking mechanisms. Warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Wireless Access Point (2 per classroom)	
54Mbps 802.11g Wireless access point, DHCP support, Manageable, IPX/SPX, TCP/IP, Ethernet 10Base-T/100Base-TX, 128-bit WEP, 152-bit WEP, 64-bit WEP warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Additional laptop battery and charger	
External charging system to charge laptop batteries outside of laptop. Included in this warranty, . 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Video Cameras - 4 per building	
Mini DV Digital camcorder, 200x Zoom, NTSC, MJPEG, Built-in flash, Digital photo mode, LCD display - TFT active matrix - 2.5 in - Color, 1 x IEEE 1394 (FireWire/i.LINK), 1 x USB, 1 x Composite video/audio (input/output), 1 x Microphone, 1 x DC power input, 1 x S-Video input / output warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts.	
Digital Still Camera - 4 per bldg - 1 per content area	
5.0 megapixels, 24x total zoom (4x optical, 6x digital), 1.8" color image display, 32MB memory, expandable with memory cards, In-camera red-eye removal, panorama preview, image enhancement, Includes Camera Dock Series 3. 4 year, on-site Warranty to include Next Business Day replacement of parts.	

Wireless Local Area Network (WLAN)

Manufacturer _____

Wireless Transmission Rate of _____ MB/sec at a range of 50 feet
 _____ MB/sec at a range of 100 feet
 _____ MB/sec at a range of 200 feet
 Maximum Range of _____ feet

Full disclosure of the capabilities and limitations of the wireless technology proposed must be included such as interference between classrooms, distance and object penetration data, and susceptibility to interference from outside sources.

Describe the actual throughput for the installed wireless network (KB/sec, MB/sec, GB/sec) for a 1MB file, 1 MB Streaming Audio File, and 1 MB Streaming Video File for the following number of simultaneous users:

Number of Simultaneous Users	1 MB Data File	1 MB Streaming Audio File	1 MB Streaming Video File
10 students			
30 students			
100 students			
500 students			
1,000 students			

Please describe the average amount of time in hours per month the system will be down for regular scheduled maintenance. Also describe how maintenance will be accomplished so that the impact on system availability is minimized.

Please describe how backup systems will be utilized so that the impact on system availability is minimized.

Please describe other WLAN specifications

Software

Identify and fully describe the applications associated with your system:

LAN Software _____

Writing _____

Data analysis _____

Presentation _____

Publishing _____

Multimedia Creation _____

Multimedia Viewing _____

Information management _____

Research _____

Anti-Virus _____

Internet Browser _____

Curriculum Development _____

Other software _____

Other educational software installed in solution

Supplier Name and Date: _____

PRICING SHEET LOT A, PC

	Insert Cost
Laptop Prices	
PC Laptops (ea)	
Integration & Training Costs (ea)	
Total EA	\$ -
Software	
Genuine XP Windows	
Genuine XP Windows, 4 year upgrade	
Total EA	\$ -
Productivity Software (instructor)	
Productivity Software (instructor), 4 year upgrade	
Total EA	\$ -
Inspiration	
Inspiration, 4 year upgrade	
Total EA	\$ -
Microsoft Office Professional XP	
Microsoft Office Professional XP, 4 year upgrade	
Total EA	\$ -
Classroom Package	
Printer/Scanner (ea)	
Web Cams (ea)	
Instructional Tools	
Interactive White Boards	
PC Multimedia Speakers	
Projector	
Laptop Related Items	
Laptop Storage Cart for PC (ea)	
Wireless Access Point (ea)	
Building Wide Items	
Digital Video Cameras	
Digital Still Camera	

PRICING SHEET LOT A, PC

Combined Projected Spend Totals		\$ -	\$ -	\$ -	\$ -
		Yr 1 Purchases	Yr 2 Purchases	Yr 3 Purchases	Total Purchases
Laptop Prices					
PC Laptops (ea)	\$ -	15199	107304	107104	
Integration & Training Costs (ea)	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Software					
Genuine XP Windows	\$ -	15199	107304	107104	
Genuine XP Windows, 4 year upgrade	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Productivity Software (instructor)	\$ -	2848	7262	7291	
Productivity Software (instructor), 4 year upgrade	\$ -	2848	7262	7291	
Total EA		\$ -	\$ -	\$ -	\$ -
Inspiration	\$ -	15199	107304	107104	
Inspiration, 4 year upgrade	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Microsoft Office Professional XP	\$ -	15199	107304	107104	
Microsoft Office Professional XP, 4 year upgrade	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Classroom Package					
Printer/Scanner (ea)	\$ -	400	1020	1024	
Web Cams (ea)	\$ -	400	1020	1024	
		\$ -	\$ -	\$ -	\$ -
Instructional Tools					
Interactive White Boards	\$ -	3273	8347	8380	
PC Multimedia Speakers	\$ -	3273	8347	8380	
Projector	\$ -	3273	8347	8380	
		\$ -	\$ -	\$ -	\$ -
Laptop Related Items					
Laptop Storage Cart for PC (ea)	\$ -	2848	7262	7291	
Wireless Access Point (ea)	\$ -	5696	14524	14582	
		\$ -	\$ -	\$ -	\$ -
Building Wide Items					
Digital Video Cameras	\$ -	400	1020	1024	
Digital Still Camera	\$ -	400	1020	1024	
		\$ -	\$ -	\$ -	\$ -

Totals			\$	-	\$	-	\$	-	\$	-

Supplier Name and Date: _____

PRICING SHEET, LOT B, Mac

	Insert Cost
Laptop Prices	
Apple Laptops (ea)	
Filemaker Pro	
Integration & Training Costs (ea)	
Total EA	\$ -
Software	
Productivity Software (instructor)	
Productivity Software (instructor), 4 year upgrade	
Microsoft Office for MAC	
Microsoft Office for MAC, 4 year upgrade	
Total EA	\$ -
Inspiration	
Inspiration, 4 year upgrade	
Total EA	\$ -
Classroom Package	
Printer/Scanner (ea)	
Web Cams (ea)	
Instructional Tools	
Interactive White Boards	
PC Multimedia Speakers	
Projector	
Laptop Related Items	
Laptop Storage Cart for Apple (ea)	
Wireless Access Point (ea)	
Building Wide Items	
Digital Video Cameras	
Digital Still Camera	

Supplier Name and Date: _____

PRICING SHEET, LOT C, Combined A&B

	Insert Cost
Laptop Prices	
PC Laptops (ea)	
Integration & Training Costs (ea)	
Total EA	\$ -
Apple Laptops (ea)	
Filemaker Pro	
Integration & Training Costs (ea)	
Total EA	\$ -
Software	
Genuine XP Windows	
Genuine XP Windows, 4 year upgrade	
Total EA	\$ -
Productivity Software (instructor)	
Productivity Software (instructor), 4 year upgrade	
Total EA	\$ -
Inspiration	
Inspiration, 4 year upgrade	
Total EA	\$ -
Microsoft Office Professional XP	
Microsoft Office Professional XP, 4 year upgrade	
Total EA	\$ -
Microsoft Office for MAC	
Microsoft Office for MAC, 4 year upgrade	
Total EA	\$ -
Classroom Package	
Printer/Scanner (ea)	
Web Cams (ea)	
Instructional Tools	
Interactive White Boards	
PC Multimedia Speakers	
Projector	
Laptop Related Items	
Laptop Storage Cart for PC (ea)	
Laptop Storage Cart for Apple (ea)	
Wireless Access Point (ea)	
Building Wide Items	
Digital Video Cameras	
Digital Still Camera	

PRICING SHEET, LOT C, Combined A&B

Combined Projected Spend Totals		\$ -	\$ -	\$ -	\$ -
		Yr 1 Purchases	Yr 2 Purchases	Yr 3 Purchases	Total Purchases
Laptop Prices					
PC Laptops (ea)	\$ -	15199	107304	107104	
Integration & Training Costs (ea)	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Apple Laptops (ea)	\$ -	2272	16034	16005	
Filemaker Pro	\$ -	2272	16034	16005	
Integration & Training Costs (ea)	\$ -	2272	16034	16005	
Total EA		\$ -	\$ -	\$ -	\$ -
Software					
Genuine XP Windows	\$ -	15199	107304	107104	
Genuine XP Windows, 4 year upgrade	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Productivity Software (instructor)	\$ -	3273	8347	8380	
Productivity Software (instructor), 4 year upgrade	\$ -	3273	8347	8380	
Total EA		\$ -	\$ -	\$ -	\$ -
Inspiration	\$ -	17471	123338	123109	
Inspiration, 4 year upgrade	\$ -	17471	123338	123109	
Total EA		\$ -	\$ -	\$ -	\$ -
Microsoft Office Professional XP	\$ -	15199	107304	107104	
Microsoft Office Professional XP, 4 year upgrade	\$ -	15199	107304	107104	
Total EA		\$ -	\$ -	\$ -	\$ -
Microsoft Office for MAC	\$ -	2272	16034	16005	
Microsoft Office for MAC, 4 year upgrade	\$ -	2272	16034	16005	
Total EA		\$ -	\$ -	\$ -	\$ -
Classroom Package					
Printer/Scanner (ea)	\$ -	400	1020	1024	
Web Cams (ea)	\$ -	400	1020	1024	
		\$ -	\$ -	\$ -	\$ -
Instructional Tools					
Interactive White Boards	\$ -	3273	8347	8380	
PC Multimedia Speakers	\$ -	3273	8347	8380	
Projector	\$ -	3273	8347	8380	
		\$ -	\$ -	\$ -	\$ -
Laptop Related Items					
Laptop Storage Cart for PC (ea)	\$ -	2848	7262	7291	
Laptop Storage Cart for Apple (ea)	\$ -	425	1085	1089	
Wireless Access Point (ea)	\$ -	6547	16694	16759	
		\$ -	\$ -	\$ -	\$ -
Building Wide Items					
Digital Video Cameras	\$ -	400	1020	1024	
Digital Still Camera	\$ -	400	1020	1024	
		\$ -	\$ -	\$ -	\$ -

Totals \$ - \$ - \$ - \$ - \$ -

VALUE ADD PROPOSAL

Please provide a listing of products or services you would be willing to provide at no additional cost.

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**Classrooms for the Future
RFP Number: CN00019758
Addendum #1**

Date posted: June 19, 2006

This Addendum #1 revises RFP No. CN00019758 as follows:

- 1. The Commonwealth of Pennsylvania, Department of General Services, has opted to extend the Bid Opening Date and Time from July 14, 2006 at 5:00pm EST to July 28, 2006 at 5:00pm EST.**
- 2. Page 17 Value Add: becomes section c, Disadvantaged Business Participation becomes section d and Enterprise Zone Small Business Participation becomes section e.**
3. Software and operating systems comparable to those mentioned in this RFP will be considered. Offeror must provide evidence of it's compatibility with RFP technical submission.
4. Also, please note that as stated in Exhibit B, supplier should provide their solution using Microsoft Office Professional Version plus upgrades and Inspiration, as well as Genuine XP Windows OS, Apple Productivity Software and Apple OS or their equal counterparts
5. Please note changes in Exhibit D.
6. Answers to submitted questions will be answered by COB, June 21, 2006.

**Classrooms for the Future
RFP Number: CN00019758
Addendum #2**

Date posted: June 21, 2006

This Addendum #2 revises RFP No. CN00019758 as follows:

- 1. Just to reiterate, the Commonwealth of Pennsylvania, Department of General Services, has opted to extend the Bid Opening Date and Time from July 14, 2006 at 5:00pm EST to July 28, 2006 at 5:00pm EST.**
- 2. We are posting the answers to your questions on a separate spreadsheet.**
- 3. We are providing Exhibit B and an updated Exhibit C as word documents.**

1	Due to the length of the contract, will the willing vendor be allowed to provide updated versions of products as progresses, or will the winning vendor need to warehouse product and distribute throughout the contract?	The units will be updated as technology changes and standardizes. Because of the ever-changing specifications of this equipment, the supplier will not have to warehouse the originally specified equipment.
2	If so, will these revisions need to be approved by the Commonwealth in the form of an evaluation unit?	All revisions to equipment will need to be approved. An evaluation unit is not mandatory but only upon request.
3	Is the publisher tech support for the Inspiration software included?	Yes
4	Can a non-PA based company respond to this RFP?	Yes
5	Is installation included or spelled out as part of the RFP?	This is included as part of the costs of the components. Please note Exhibit D.
6	Is this RFP a "all or nothing proposal," i.e., all components and services must be considered and offered?	Yes, offerors must offer to provide all components and services. The awarded supplier will be required to provide all components and services and will be the primary point of contact. In order for an offeror to provide all the products and services, the offeror may need to collaborate with other suppliers.
7	Is there anyone in the Procurement department that can fully explain the bid request process from the manufacturer's standpoint?	The RFP process is explained on the DGS website: http://www.dgs.state.pa.us/procurement This web site will provide all information necessary on the RFP process.
8	Is it correct to assume that the awarded vendor(s) must supply the Inspiration software for each computer?	Yes
9	Do the school districts have to work with one of the awarded vendors, or can they work with their current network integrator?	Funding provided by PDE grants for "Classrooms for the Future" must be used in conjunction with this contract only. School districts will not be allowed to use this funding with any other contract or supplier. This RFP will be awarded to one supplier.
10	Is it the intent of DGS to select one vendor or is there flexibility to select multiple qualified vendors?	Yes, only one offeror will be selected and awarded a contract.
11	If only one vendor is to be selected, is it correct that that vendor must provide MAC and PC compatible devices to the schools?	Yes
12	Should the installation be included in the price or called out separately? Is removal of all packaging materials a part of the installation costs?	Installation must be included as part of the unit price. Removal of the packaging will be the supplier's responsibility at no extra cost. Please note Exhibit D.
13	Is training to be included as part of the cost or called out separately?	Training is to be included as part of the costs. Please refer to Exhibit D in the RFP.
14	Would DGS agree to extend the due date to the 30th of the following month for receipt of semi-annual usage reports?	This can be discussed in final negotiations with concurrence of PDE.
15	What manufacturer and model number were the specifications requested derived from? Can we have Exhibit B and C provided to us in a Word document rather than a PDF?	Impetus for specifications are not relevant to the RFP. The Commonwealth will repost Exhibits B and C in Word-format documents.
16	Does the winning vendor need to include the MAC laptops, or can a vendor omit this portion of the bid?	Macintosh computers need to be included as part of the package price.
17	Of the four required submittals, where would Exhibit B and C reside?	Exhibits B and C are to be included as part of the technical submittal.

18	There are several features in storage carts that affect the overall price, such as UL listing for the entire cart, (not just the outlets,) the addition of timers and the size of the casters. In the interest of comparing like units, does the Commonwealth wish to see options on the pricing sheet such as these for carts as well as other products?	The proposed cart must meet the minimum specifications as listed in the RFP and include wheels/casters.
19	Will the Awarded Vendor be able to add additional products in support of this effort after award?	Additional products cannot be added to this contract after the award.
20	What is the process of removing discontinued items and adding their respective replacement?	Model additions and subtractions will take place over the contract period by taking advantage of market forces and technology developments.
21	Section g. v) Growth – What size growth is anticipated by the State of PA?	Best estimates are provided in the RFP for usage rates and growth.
22	Section q. Project Plan - To adequately assure all requirements are met, does the State of PA require a Project Plan per Classroom/School?	The Project Plan is per district.
23	Will payment be made upon receipt or installation and acceptance?	Refer to Part IV, Section IV-4, q, iv), located on Page 42 of the RFP. Payment terms can be found in Exhibit A, Section 11.
24	If awarded vendor delivers and classrooms are not ready, will the State of PA pay the invoice at that time?	Refer to Part IV, Section IV-4, q, iv), located on Page 42 of the RFP. Payment terms can be found in Exhibit A, Section 11.
25	Can a site visit be scheduled prior to proposal submission date to assist with accurately pricing the classrooms?	No
26	Will you consider additional specs, or evaluation of the carts for adherence or violations of electrical/building/safety codes?	All specifications are minimum required to participate in the RFP. Carts must meet all applicable building and safety codes.
27	Does this RFQ assume there will be wheels on the cart?	The proposed cart must meet the minimum specifications as listed in the RFP and include wheels/casters.
28	With respect to the response, is it possible to respond to select portions of the RFP? Specifically, can the services components of the bid be responded to separately from the hardware component?	According to Part III, Criteria for Selection, it is the purpose of the Commonwealth to identify a solution. If suppliers need to partner in order to complete this solution, they should do so.
29	How often will the State change the “base state” image?	The state identifies changes on an as needed basis.
30	Will the State provide any software distribution capabilities to electronically update OS Software or Application Software?	As in Part IV, Work Statement, it is the duty of the supplier to suggest a meaningful solution.
31	Are there any other responsibilities in Asset Management other than tagging the devices?	No
32	Does the State of Pennsylvania intend to award this contract to one single PC manufacturer for a total of 229,608 units (87%) and 34,309 (13%) units to Apple? If no, what target volumes should the vendors base their pricing models upon? If no, please proceed to question number 2?	Yes, only one offeror will be selected and awarded a contract.
33	Will the Districts have the opportunity to select from multiple contracts negotiated with the State and thus be in a position to acquire the equipment from a preferred vendor?	One prime supplier will be selected from this process.

34	Does the State support the utilization of open source content and applications if a specified support model for the content and applications is clearly defined within the response?	We will consider open source proposals.
35	Does LAM or any other one vendor have to supply ALL equipment listed on the RFP?	Our goal is collaboration between suppliers. If one supplier can provide all the products, then they do not need to collaborate.
36	Must a 4 year warranty be provided for a 3 year contract?	Yes
37	Does the vendor provide software upgrades at no charge?	According to Part IV, Section IV-2,b,ii), Page 24, software includes 4-year upgrade.
38	Please confirm that vendors are allowed to provide for an on-site repair solution in lieu of an off-site repair solution	According to Part IV, Section IV-2,b,ii), supplier is to provide on-site repair.
39	Is the pricing spreadsheet a guideline? Does the offeror have the latitude of providing costs at a per school or per classroom level OR to provide different scenarios of costs based on different service options? (For instance, in section IV-4 m. - you allow for proposal of additional training, professional development, and consulting services with an optional cost schedule. Could the offeror provide something similar for other services?)	No. Supplier should provide any and all pricing scenarios in their cost proposal.
40	You state the requirement of a portable multimedia computer device but do not separately spec such a devices the RFP referring to the laptop?	Yes
41	DGS has specified digital video cameras in the classroom package, but has not identified video editing software for either teachers or students. Please consider including this as a standard part of the teacher and student package to ensure they have the tools they need to fully integrate multimedia in teaching and learning.	The software for both the teacher stations and the student stations should include Windows MovieMaker, Microsoft Photostory or iMovie and iPhoto or equivalent software titles. If your solution includes additional products, please include them in our Value Add section, Exhibit E.
42	Should offeror assume that the specs listed are minimums or approximate range of specifications for these packages and that there is latitude to propose products that exceed these specifications?	All specifications are listed as Minimum Specifications
43	Are the specs outlined for the printer/ scanner minimum specs? If yes, please consider adjusting the ppm specs to enable the state and schools to receive competitive pricing a broader range of models. There are more models available at the lower ppm end that will provide high quality printing at an affordable price.	All specifications are listed as Minimum Specifications, but must work as a total solution.
44	Should offeror assume that the specs listed are guidelines and that as long as we propose a product that comes close to meeting or exceeding the specs our solution will be considered? For instance, there are multiple white board vendors and not all vendors offer a 77" diagonal but offer boards in the 75 to 78" range. The diagonal drives the overall board dimensions so therefore these boards would have slightly different dimensions. Requiring the set of specs outlined in the RFP would limit the state's ability to receive competitive bids by limiting the respondents to one brand of board.	The device must meet or be comparable to the minimum specifications as listed in the RFP.

45	Are you seeking a four-year warranty on the overall solution or just the individual products that make up the solution?	Warranties would be on each individual product.
46	Does the provider have flexibility to provide certain implementation and training cost on a site basis rather than a per unit basis?	Our Exhibit D is looking for a total of training costs. You can break out your cost in your cost proposal.
47	Because this is a 3 year program, some products will go end of life and be replaced. Will it be acceptable as part of a break/fix process to replace broken product with the new model?	Yes, providing it is compatible.
48	It is unclear regarding DGS' intent to make single or multiple awards as a result of this RFP. Please clarify.	DGS intends to make only one award.
49	We have noticed that DGS states a MAC and Windows configuration. Will there be more than one Windows vendor award if all requirements are satisfied (Dell, HP, Lenovo, Gateway etc.)	DGS intends to make only one award. The awarded offeror will be required to provide all products and services.
50	Can we assume that Apple will automatically get an award on the MAC platform? How will DGS determine if the price submitted is competitive as Apple is a sole source vendor.	No, it cannot be assumed that Apple will get an award. The awarded offeror will be required to provide all products and services including Apple products and services.
51	Will the school districts receiving grant awards have the final decision as to what platform and vendor to select based upon those given an award from the RFP.	Contract renewals will be decided based upon contractor performance, prevailing market prices and other factors within the discretion of the Commonwealth.
52	How will the contract renewals be decided for the awarded vendor(s)? Will it be on overall performance?	Contract renewals will be determined according to performance.
53	Software Restore. We are assuming that DGS is requesting that media be provided to restore the basic OS and other SW drivers to the system. This is not to be interpreted as a common image with application SW to be developed for all units.	The base image for the machine should include all of the required software as specified in the RFP and any updates/patches as of the date the image was created.
54	Is DGS requiring a software or hardware theft deterrent installed on all laptop units.	Yes
55	What is the remedy in the event that an Offeror cannot directly provide 4 year warranties or upgrades for third-party products due to restrictions imposed by the third-party provider?	The specifications require a 4 year warranty. If a 4 year warranty is not provided, the proposal will be rejected.
56	Beginning on Page 38, the RFP describes a Project Plan but it is not clear if this is required with the RFP or is due 30 calendar days after the executed agreement, as stated in Section IV-4 q: i.	The Project Plan will be delivered for approval not later than 30 calendar days after the agreement is fully executed. The Project Plan is the finalized proposal which is created once a supplier is identified from this RFP.
57	Page 22 lists 20,000 total laptop storage, which averages to 12 laptops per cart. The ratio for laptops to carts is different from Year 1 and Years 2 and 3. Will the carts be used for new equipment or new and existing equipment?	Carts will be used for equipment purchased from this contract, regardless of which year.
58	Until what time today will you be accepting questions on the above RFP?	Questions were due by 5pm EST on June 13, 2006.

59	It's the Offeror's understanding that this clause allows for clarification requests in Offeror's response to the RFP of those terms noted in Exhibit A. Offeror's response will not be rejected if Offeror requests negotiation changes to the terms in Exhibit A. Please confirm that this is correct.	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> , specifically the second paragraph.
60	Is it acceptable that the peripherals would be covered by the third party manufacturer's warranty?	Please refer to Page 26 of the RFP, Part IV-2,b,ii, <i>Scope of Procurement: Wireless Classroom Solution</i> , "Minimum Peripherals per Building," for warranty requirements.
61	Would DGS consider extending the report due date to thirty (30) days after the end of each quarter?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
62	Would DGS agree that acceptance is defined to take place upon delivery, however, Buyer would have thirty (30) days to return the equipment should they determine there are defects or the equipment does not meet specifications?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
63	Would DGS agree to allow warranty to commence upon date of shipment?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
64	Would DGS agree that Offeror's obligation under this clause extends only to liability incurred by buyer as a result of a claim of infringement of a US patent, copyright or trademark caused by Offeror's manufactured hardware products and that Offeror would have no responsibility for: a) any product or part not manufactured by it; b) any product or part manufactured by it which has been changed, modified, adapted or refitted without the express written authorization of Offeror; c) any product or part not within Offeror's standard inventory but purchased by Offeror at the specific direction of buyer; d) any product or part manufactured to buyer's design; e) any claim of infringement arising from the use of any product in conjunction with any other product as a combination not furnished by Offeror; or f) any software provided with such products, including the operating system?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
65	Would DGS agree to a modification that advised Offeror would not be required to waive any of its rights, interests or title to the defense of a claim or claims alleging any state or federal antitrust violation since assigning all rights, interest and title to the defense of such a claim or claims would prevent Offeror from vigorously defending itself?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
66	Would DGS agree that Offeror's obligation under this clause shall extend only to liability incurred by the buyer proximately caused by Offeror's sole negligence and shall not include any liability caused by any acts, omissions or the negligence of the buyer or any of its employees or agents and in no case shall it include any consequential, incidental, exemplary or punitive damages?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
67	Would DGS agree to limit the "later time" in determining defects or noncompliance with the specifications after delivery to be within thirty days after delivery of the product or service?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .

68	Would DGS consider removing the liquidated damages requirement?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .
69	Please define a Disadvantaged Business; for example, are there any State of PA requirements?	Small Disadvantaged Business and "Socially Disadvantaged Business" are defined in Part I-13 of the RFP. A company that meets the definition for Small or Socially Disadvantaged Business, and is able to submit adequate proof supporting that fact (see Parts II-9.a.i and II-9.a.ii), can be considered a Disadvantaged Business for this RFP.
70	Due to the size and scope of year one (1), will the State of PA pre-pay Small Disadvantaged Businesses in order to achieve the 40% goal due to lack of credit line available to Small Businesses to meet the four (4) week deadline?	No. This RFP has no utilization goals or set-asides for Disadvantaged Businesses. The 40% referenced in Part III-4c is stating the a Disadvantaged Business that is submitting a proposal as a prime contractor for this RFP may not subcontract out more than 40% of the total estimated dollar amount of the contract to other contractors.* If it does, it may not be considered a prime contractor for the sake of the Disadvantaged Business scoring, and any points it earns for Disadvantaged Business participation will be proportionally lower.
71	The products that are included in this RFP will be provided by Large Businesses therefore it would be impossible to achieve the 40% Small Business utilization goal, please revise the goal to be services only.	This RFP has no utilization goals or set-asides for Disadvantaged Business. The 40% referenced in Part III-4c is stating that a Disadvantaged Business that is submitting a proposal as a prime contractor for this RFP may not subcontract out more than 40% of the total estimated dollar amount of the contract to other contractors.* If it does, it may not be considered a prime contractor for the sake of the Disadvantaged Business scoring, and any points it earns for Disadvantaged Business participation will be proportionally lower.
72	Since Apple only sells direct to the education market, please remove Apple products from the product requirements due to only one provider.	The Macintosh laptops are a requirement for the RFP
73	What is the dispute escalation process?	Please refer to Exhibit A, Page 8, Section 24, <i>Contract Controversies</i> .
74	Would the state consider resources that by copyright law do not allow for download from the web to individual devices?	The state will not consider any resource that violates copyright laws.
75	Why wouldn't a Pennsylvania manufacturer such as Numonics be contacted and possibly favored for a bid like this in Pennsylvania?	This RFP has been advertised on the DGS website. Anyone who is interested in submitting a proposal is encouraged to do so.
76	Part II-8 on Page 9 of the RFP provides that the Offeror shall identify terms and conditions it would like to negotiate or add, and states that Offeror shall not "request to completely substitute its own terms and conditions..." Rather than Offeror terms and conditions, would the Commonwealth consider substituting terms and conditions under an existing contracting vehicle already in place between the Commonwealth and the Offeror?	Please refer to Page 10 of the RFP, Part II, Section 8, <i>Objections and Additions to Standard Contract Terms and Conditions</i> .

77	Can you offer a list any background materials used to formulate the content of this RFP, and a list of the resource persons you have called upon in the production of this RFP, their qualifications, and their backgrounds, as an addendum to the RFP, or at least to the RFP responders? Likewise, could you include the same information for those that will be used for the RFP evaluation?	Any relevant background information has been included in the RFP. Only Commonwealth employees and officials will be involved in the RFP evaluation process.
78	How will the Inspiration software upgrades be distributed?	Upgrades to all software should be available via either a direct download or CD/DVD dependant upon the size of the file(s).
79	Will it be necessary for the winning vendor to distribute a new image each time an update is released?	No, however hardware and/or software changes or enhancements could require a different image.
80	Regarding training times and locations, does the offeror have to be prepared to provide training in each of the school districts at the districts' convenience, in addition to regional sessions?	Yes, that is the intent of the training.
81	Is it the plan to have the teachers from at least several dozen high schools go through training the last two weeks of August?	The timing for the training is dependant upon the rollout and extent of the equipment.
82	Is the assumption with regard to the training sessions discussed that all training will be on a train-the-trainer model and that the Keystone teachers will be the trainers trained?	No, however the Keystones Technology Integrator and the Classrooms for the Future Coach will be an integral part of the train the trainers model.
83	Details on training and installation are somewhat unclear. Please elaborate if this is to be a "turnkey" solution.	This depends on the RFP response.
84	Is removal of all packaging materials a part of the installation costs?	Yes, this is a requirement for the RFP.
85	Does the installation price include ceiling mounts for projectors?	No.
86	Does that include wall mounting for the interactive whiteboards or just stand mounts?	Minimum specs are for stand mounts. Only the stand mounts are included in the specifications. The Offeror is welcome to provide additional mounting options.
87	The Interactive Whiteboard spec appears to be a Smartboard specification from Smart Technologies.	The goal is to supply specifications for an electronic whiteboard and not a specific vendor's product.
88	What is the Smartboard's lines/inch resolution?	The resolution for the electronic whiteboard has a minimum requirement of 4000x4000.
89	What minimum training expectations should be met?	Please see the grant guidelines at: http://www.pde.state.pa.us/ed_tech/
90	What should the school do or perhaps the bidder, to make sure a minimum Windows or MAC operating system competency for the teachers...so there is not additional, unplanned training needed just to bring teachers up to the level where they can learn the new computer, software or whiteboard?	The training will be designed and coordinated with PDE, the Offeror and the Local Education Agency (LEA). The LEA is also indicating readiness as part of the grant application.
91	What metrics do you have to ensure that this infusion of technology will indeed make the difference in the classroom?	This is not relevant to the RFP.
92	Please clarify what is meant by the term "application." Can official clearance statements and criminal record history reports be submitted upon award or request, when a specific project is being staffed?	Suppliers and subcontractor employees, who will be in the school environment, must have background reviews in accordance with ACT 34 and ACT 151. The reviews will be required upon award. A separate addendum will be issued to add a provision relating to background checks.

93	On the RFP it states minimum of two computer/component video inputs and RS232C. Please clarify exactly what and how many inputs/outputs are being asked for in this statement.	Two (2) computer inputs; one (1) component video input and audio input; and one (1) RS232C input.
94	On the RFP it asks for a 5 watt speaker. Is this a 'must' requirement? It is our understanding that the standard is 2 watt speakers.	We are requiring 5 watt to ensure adequate audio distribution throughout the entire classroom.
95	Is the Commonwealth looking for native XGA resolution?	Yes
96	Will blue prints of the classrooms be made available during this proposal process to more accurately price and insure ability to perform correctly the classroom projects?	No
97	Section g. iii) Wireless Bandwidth – How does the State of PA intend on testing this?	The Offeror must provide documentation, reporting and assurances that their wireless solution meets or exceeds the minimum specifications. The performance of the wireless network will also be reported via HelpDesk reports and LEA reports.
98	Will the State of PA insure Building Readiness, Adequate Personnel and Contacts for installation of classrooms at 163 classrooms a day for 20 working days in order to meet the four (4) week deadline?	Installation is dependant on the time and rollout of the program.
99	what does this interactive whiteboard spec mean? "4000 x 4000 touch res".	The resolution for the electronic whiteboard has a minimum requirement of 4000x4000.
100	i offer a multimedia pen based solution that has 1000x1000 dpi (dots per inch).	Any comparable hardware and/or software must meet or exceed the minimum specifications set forth in the RFP.
101	it sounds like this is specifying a primitive membrane solution, and not a digital solution. it sounds like this is specifying a primitive membrane solution, and not a digital solution. Does a better solution meet the spec?	Any comparable hardware and/or software must meet or exceed the minimum specifications set forth in the RFP.
102	Is this spec for IEEE 1394a (400) or 1394b (800)	The minimum specification is IEEE 1394a (400).
103	Will the State provide architectural details for each of the 501 districts LAN prior to submission?	No
104	In the event a local district LAN is not compatible with the proposed LAN hardware, will the local Districts agree to a "standard" new design and LAN hardware, or will each District be able to request a unique design?	PDE and the local districts will work with the successful Offeror to ensure maximum compatibility with the local district networks.
105	Does the State have any specific targeted grades in the high schools it is recommending to the districts?	The targeted grades for Classrooms for the Future is 9-12 provided that 9th grade is included in the local high school building.
106	How is the State determining the readiness of the District's technology infrastructure to support the implementation of the new equipment and services?	Readiness assessment is part of the grant application process. Additional information related to the grant application can be found at: http://www.pde.state.pa.us/ed_tech .
107	In section IV-3 of the RFP, it states, " It is estimated that six hundred and eleven (611) public high schools and AVTS/CTCs are eligible to participate in the program-and the vast majority of them are expected to do so. The number of classrooms and students within these schools varies widely." Does the State have any projections regarding the number of students and then number of teachers that shall receive laptops.	Yes, these projections are provided within the RFP on pages 21 and 22.

108	Does the State or do each of the Districts currently maintain an asset management repository detailing the following information per school site: number of devices, type of devices and configuration of devices?	The local districts may or may not have a current asset management repository.
109	Is the State receptive to the idea of initially targeting all teachers for the deployment in year 1 and thus possibly increasing the deployment size beyond 20,000 units?	Classrooms for the Future is focused on providing equipment to instructional settings and not to a specific teacher. The rollout is also dependent on local district implementation plans. See Grant Guidelines at: http://www.pde.state.pa.us/ed_tech .
110	Will the students be able to take the laptops home with them or will this be a decision point that is made on a district by district basis?	The purpose of Classrooms for the Future is to provide technology-enriched instructional settings to improve learning in four fundamental areas as a vehicle for high school reform. It is not focused on a student-to-computer ratio. See Grant Guidelines at: http://www.pde.state.pa.us/ed_tech .
111	Under the project implementation section in the RFP, it states," The Offeror must successfully install, configure and test all hardware and software for each participating site. In School Year 1, this must be completed no more than 4 weeks after issuance of notice to proceed." Do the support services also need to be operational within 4 weeks?	Yes, all of the support services will need to be fully operational within the allotted time period.
112	Does the State or individual districts currently maintain a repository or system that tracks teachers technology skills (i.e., courses taken, certifications, workshops)?	The local districts may or may not have a current repository of teacher technology skills. For additional information, please see the Pennsylvania Technology Inventory Report at: http://reports.pa.ontargetus.com/
113	Does the State already have an approved quality assurance for testing the proposed units for deployment, if yes can the State include in the quality assurance process in the addendum to the RFP?	No. The awarded Supplier will be responsible for quality.
114	Will the State or Districts consider an enterprise portal solution that allows the Districts to deploy web based applications utilizing an identity management system to provide for single sign on? The system would allow the Districts to customize the User Interface Design and acquire/integrate any specified web based application.	Yes, the PDE would be willing to consider an enterprise portal solution.
115	Will the State or Districts consider utilizing web based content for the delivery of instructional services?	Yes, the PDE would be willing to consider utilizing web based content.
116	If students are permitted to take the units home, will the State or Districts offer free or discounted internet access?	Students will not be able to take the units home. Offering free or discounted internet access to students is not within the scope of this project.
117	Will the PDE leverage Intel's "Teach to the Future" program for professional development?	Currently, the PDE is developing a variety of professional development programs.
118	IF PO's and payments are coming directly from the school, is DGS reimbursing the school for the purchases?	Grant monies will be given directly to the local districts which will then be used to purchase items directly on the contract.

119	Please provide clarification/requirements of Student Software? Inspiration is the only student software listed in the specifications section yet in section IV-4- Section f. I) Applications you list a range of software capabilities that the student laptops must have. Should we assume that the student computers should be loaded with the same Productivity Suite as the Instructors laptop? If not, please provide a complete list of required software.	The minimum software specifications are listed in the RFP. The Offeror may provide additional software options.
120	Please specify the number of batteries per classroom that the charger must be able to accommodate at one time. (The way the specs are listed it appears you seek one additional battery per classroom and a charger for this battery)	The intent is to have one spare battery per laptop with a charger that will simultaneously charge the batteries that are not in the laptops.
121	What professional development activities do you expect the PDE will offer around curriculum and technology integration to support this initiative?	See Grant Guidelines at: http://www.pde.state.pa.us/ed_tech .
122	Will the vendor work with the DOE on the development of technical and staff development training modules to be delivered to each customer upon installation?	Yes
123	Please confirm that vendors should assume 20,000 teachers (1 teacher per classroom).	20,000 is an estimated number of teachers based on the number of instructional settings. Therefore, the number of teachers may be larger or smaller than 20,000.
124	To clarify, Are you requesting that the offeror provide both school-based preliminary training for staff as well as offer ongoing regionally based optional professional development opportunities?	Yes
125	What hours do you require of the helpdesk (for example, 24x7 or a five-day per week 8 am to 5 pm)	The minimum expectation is that the Help Desk will be operational from 6am to 9pm Monday thru Friday.
126	What are the expected hours of operations of the help desk?	The minimum expectation is that the Help Desk will be operational from 6am to 9pm Monday thru Friday.
127	What are the expected Service Level Agreements (SLA) for Help Desk services?	Please note IV-4 Requirements, subsection O, Support and Maintenance.
128	How many authorized people will there be to call into the help desk in year 1, year 2, year 3 and year 4?	This is a local district decisions, however it is our expectation that most districts will limit the number to better serve their buildings.
129	What are the expected Service Level Agreements (SLA) for software updates?	Please note IV-4 Requirements, subsection O, Support and Maintenance.
130	What software distribution tools are current in place? If none, does the state have a software distortion tool preference?	This varies by district and the PDE does not have preference. As in Part IV, Work Statement, it is the duty of the supplier to suggest a meaningful solution.
131	What are the state's expectations of an Offeror around managing licenses (as referenced on page 37, paragraph one)?	The Offeror must ensure that the licenses are genuine OEM and in sufficient quantities to support the initiative. The Offeror will provide all software licensing information to the local district in both hardcopy and electronic format.
132	What information does the State desire to receive in its periodic Help Desk reports?	The Help Desk reports should contain information related to, but not limited to, the following: number of calls, types of calls (i.e. hardware, software, whiteboard, etc), calls by building, repair time, etc.

133	What are the State's expectations around when and where a machine can/should be worked on?	This is a local district decision, however the PDE has a minimum expectation that the Offeror will provide for on-site, off-site, return to depot, and advance replacement of equipment.
134	Can machines be worked on during business hours (8 to 5)? Onsite or Offsite?	This is a local district decision, however the PDE has a minimum expectation that the Offeror will provide for on-site, off-site, return to depot, and advance replacement of equipment.
135	Please elaborate on the requirement to participate in at least 30 educational conferences and /or meetings annually in conjunction with the PA Department of Education.	This will be coordinated during contract negotiations.
136	If the funding mechanism for Classroom for the Future as proposed in the Governor's budget were to be changed by the legislature, what would that mean for this RFP?	The RFP will be modified accordingly and the scope and sequence may vary.
137	Page 33, Section IV-4-.g-vii. The first paragraph of this section states: "Offeror's portable computing device must enable students and teachers to access the school network." Does this refer to access to the school's network from home?	No, only within the local building.
138	Please describe a "Statewide Value contract" (see page 1 of RFP). Exhibit A clearly states that DGS is acting as a "facilitator" (see page 1) and that the decisions as to platform, solution, etc. will be made by individual "Purchasers" or school districts. This has obvious implications for the ratios/numbers coded in Exhibit D. Please explain.	DGS manages the RFP process and contract. Districts will make choices as to platform. Current ratios by platform are stated in the RFP.
139	Page 40, Project Staffing asks Offerors to complete Exhibit C but there is no place in Exhibit C to provide Project Staffing information. Please clarify or provide any additional form.	Exhibit C will be amended accordingly.
140	On page 21, it lists 4/7 after Classrooms to be outfitted and Teachers and Students equipped. Please clarify what 4/7 means?	Any instructional setting (i.e., classroom) that will be used the majority of instructional time during a school day (i.e., a minimum of four (4) periods out of seven (7) periods of the instructional day) for subject matter credited core circular instruction will be eligible to be outfitted as a Classroom for the Future.
141	Page 3- Educational Conferences and Meetings Can you further define the requirements of the offeror with regard to participation in at least 30 education conferences and meetings? Will the offeror be given a schedule of these events at the time the contract is awarded and if multiple vendors are selected will each vendor be responsible for sending personnel to these meetings?	This is negotiable and will provide on-going examples and updates. This will be coordinated during contract negotiations.
142	Does the State have any collaboration software (i.e. Microsoft SharePoint) that could be utilized for training via a common secure portal?	No
143	Will this be a sole sources bid - one PC vendor and one Apple vendor, or will there be multiple bids awarded for each category?	One supplier will be awarded the contract for all goods and services. Our expectation is that suppliers collaborate with each other to provide the entire solution.

144	Is the state receptive to the idea of initially targeting all teachers for the deployment in year 1 and thus possibly increasing the deployment size beyond 20,000 units?	Please provide your proposal as per the specifications set forth in Part IV, Work Statement.
145	Under the project implementation section in the RFP, it states," The Offeror must successfully install, configure and test all hardware and software for each participating site. In School Year 1, this must be completed no more than 4 weeks after issuance of notice to proceed." Do the support services also need to be operational within 4 weeks?	Yes
146	Section I20 Best and Final Offers: We respectfully request that the last sentence of this clause be modified to state: "Dollar commitments to Disadvantaged Businesses and Enterprise Zone Small Businesses may only be reduced to the extent the reduction in the total amount of work for such Disadvantaged Businesses or Enterprise Zone Small Businesses was actually reduced."	The language in the RFP will not be changed.
147	School districts be restricted to the use of this contract for the defined Classroom of the Future equipment and services in order for them to obtain grant funding?	The district must utilize this contract when expending their grant funds.
148	Are funds for this project specifically designated and only to be used for Classroom of the Future equipment and services?	Yes
149	the RFP describes the resulting contract with the awarded vendor to be a "Value Contract". What specific terms and conditions or environment for bidding make this a value contract? Please provide your definition of a value contract.	Definitions can be found on our website at www.dgs.state.pa.us .
150	Would you please provide further information on the makeup of the evaluation committee, such as people with IT knowledge, people with educational technologies background, consultants, Commonwealth agency representation, school district representation, Intermediate Unit representation, etc?	This is not relevant to the RFP.
151	Are there specific DBE or Enterprise Zone Small Business target numbers established for this procurement?	Please see Part 1, General Information, I-13 and I-14.
152	Can an electronic copy of the RFP be obtained for use to facilitate entry of the response outline format for proposals?	Exhibits will be available in a format that can be used for the RFP.
153	Page 9, Part II Proposal Requirements. In the third paragraph, the RFP states the Issuing Office reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Offeror fails to satisfy the Issuing Office that such Offeror is properly qualified... What criteria will be used in determining such qualification?	The Issuing Office shall determine whether an offeror is capable of performing in accordance with the RFP requirements based upon information submitted by the offeror with its proposal and/or information obtained by the Issuing Office in investigating the offeror's capability to perform.
154	Page 9: I13 Work Plan. Will a GANTT chart be an acceptable alternative to use of a PERT chart to convey the project work plan details, tasks and timing?	Yes, provided that there is supporting documentation available to fully understand the proposal.

155	Page 17: III4b (second occurrence of b) Value Add. A. How will the Value Added items provided at no cost be evaluated, specifically what value judgments will be used, and what criteria and/or assumptions may be already established that will be used in evaluation? b. Also, will the evaluation team be assigning a value or measure to the items proposed as value added?	The value added elements are not part of the formal RFP review process, but demonstrate commitment on the part of the offeror to our broader context of improving education in PA. Value add here is used as a term for free vendor concessions or additional commitments that the offeror might make outside the specifics of the RFP requests.
156	Page 22: IV2 b Specific Overview. The tables in the RFP provide a breakdown of the yearly requirements for laptops. A. How were the numbers for each year developed, e.g. Geographical or other priority?	Projections were based on the number of classrooms to be outfitted in conjunction with funding expectations.
157	B. Of the 611 school districts that are eligible to take part in this grant, what is the percentage of schools that have already fulfilled requirement?	As this is a new initiative, no local districts have fulfilled the requirement to be a Classroom for the Future.
158	Page 26: IV2b iii) 1) Building Preparedness. Is each school unit also addressing the data wiring requirements for the wireless access points or does this need to be included as part of the WAP installation costs?	Each school is required to have all infrastructure ready for installation.
159	page 27: IV3 nature and Scope of the Project. As part of the scope involving multimedia, does the Commonwealth expect that contracts may be asked to provide assistance with integration of systems to phone and/or intercom systems and the building PA systems?	No
160	Page 27: IV3 a. participation by Schools and b. Full Deployment a. How many of the 611 high schools, AVTS/CTC's have received initial funding?	As this is a new initiative, no local districts have fulfilled the requirement to be a Classroom for the Future.
161	What percent of the 611 school districts comprise the "Vast majority"?	Greater than 90%
162	Paragraph IV2 provides information in the tables on deployment over a three year period, however, in the Full Deployment paragraph it is stated that each public high school or AVTS/CTC must roll out its program over a minimum of two years. Please explain?	The PDE expects every public high school or AVTS/CTC participating in Year One to engage in a multi-year roll out.
163	How many of the 611 school districts already have equipped classrooms with: wireless technology and classroom installed notebooks for students and teachers?	This is unknown until the grant applications are received and reviewed.
164	Page 28: IV3 d. Teachers and Staff. The RFP states that each teacher in the core content subject areas will be equipped with "teacher's devices". Are these the same as the notebook PC and MAC computers specified on pages 23 and 24 of the RFP?	Yes
165	If the answer to the above question is yes, will the breakdown of PC vs. Mac be the same 87% and 13% numbers provided in paragraph IV4 Requirements?	This is the overall ratio that is not specific to teachers and students.
166	Page 28: IV4 a Device Specifications. Are school districts either all PC or all MAC in the 87% and 13% breakdown, or are the percentages indicative of the mix within a school district?	Each district is different. Some are all PC or all MAC, and others are a mixture.
167	page 31: IV4 f. Building Readiness. Will there be any recommendations/documentation provided to the schools to detail readiness and requirements prior to moving forward with rollout of Laptops?	Yes
168	a. What percentage of the buildings are currently considered ready?	This is unknown until the grant applications are received and reviewed.
169	a. Who has the responsibility for integration of the school's existing network with the new wireless LAN?	This will be a combination of the Offeror and local school district.

170	If part of this project, are these integration costs to be included as part of this contract or negotiated with each individual unit?	No
171	18. Page 32: IV-4. g. iii) Wireless Bandwidth. Given that there is a requirement for students to browse the internet, download files and use streaming video, who is responsible for the monitoring and application of security standards on the PC's and Access Points?	The school districts will monitor this.
172	Page 32: IV-4. g. iii) Wireless Bandwidth. To meet the standards in the RFP for wireless response, the school's host network will need to be robust enough to support this standard. Is a review and assessment of the schools network infrastructure and host systems, servers, etc. part of the scope of the readiness assessment parts of this project?	As part of the Grant application process, buildings are required to show readiness. For more information please see the guidelines and FAQ at http://www.pde.state.pa.us/ed_tech .
173	a. How will the successful contractors compliance with this standard be measured given the network infrastructure and host system will have a major part in assuring this standard is met?	The Offeror must provide documentation, reporting and assurances that their wireless solution meets or exceeds the minimum specifications. The performance of the wireless network will also be reported via Help Desk reports and LEA reports.
174	20. Page 33: IV-4. i. ii) Damage, Insurance and Warranty. What procedures will be employed by PDE in the event there is a dispute in determining whether a problem is warranty related, normal maintenance related or damage related?	Please refer to Exhibit A, Page 8, Section 24, Contract Controversies.
175	21. Page 34: IV-4. i. iv) Asset Tags. Is the Commonwealth considering RFID for Asset Tags?	No
176	22. Page 34: IV-4 j. Technical and Curriculum Integration Training and Consultation. Do all school districts have technical support personnel?	Not relevant to the RFP.
177	Would you please provide some further information on technical support personnel, for example, are they typically employees, part time/full time, consultants/contractors, etc.?	Not relevant to the RFP.
178	Are technical support services provided to school districts by Intermediate Units in some cases?	Yes
179	Would you please provide some additional detail on the acceptable range of possible times for training scheduling for teachers, such as during vacation and holiday times, after school hours, in-service days only, weekends, etc.?	Training will be coordinated between the school district and the awarded Supplier.
180	23. Page 39: IV-4. q. iv) Implementation. What level of equipment installation can be expected to take place during weekends, holiday and/or vacation periods for schools?	Installations will be take place during normal business hours. Advantages will be given to an Offeror who is willing to do installations during "off-hours" at no additional costs.
181	24. Exhibit D: Would you please provide a detailed explanation or instructions for completing the spreadsheet provided at Exhibit D? How are the two workbooks, the Pricing Sheet, and the Tally Sheet to be used? What are the cost figures already inserted in the Tally Sheet?	Simply fill in the pricing sheet and the tally sheet fills in automatically with formats. The figures already inserted are estimated quantities.
182	Has funding for this RFP been budgeted and fully approved by the legislature?	No
183	Is it the Commonwealth's intent to award the entire RFP to a single prime vendor?	Our goal is collaboration between suppliers. If one supplier can provide all the products, then they do not need to collaborate.

184	Will the Commonwealth consider awarding separately to a vendor providing Apple products as well as a separate vendor for IBM compatible products?	Our goal is collaboration between suppliers. If one supplier can provide all the products, then they do not need to collaborate.
185	How is pricing expected to be maintained over the 3 year period with numerous product transitions anticipated? Is any replacement product expected to be sold at the same price as the original or will that item's pricing be tied to a discount from list or cost plus scenario?	Pricing will be maintained over the contract period by taking advantage of market forces.
186	Is the Commonwealth planning on leasing these purchases for any particular term, or planning to just purchase Net30 from purchase orders?	Purchases only.
187	It is not clear whether the Commonwealth/DGS will be issuing individual PO's for each school, or whether that will be the school's responsibility, please clarify?	Yes, offerors must offer to provide all components and services. The awarded supplier will be required to provide all components and services and will be the primary point of contact. In order for an offeror to provide all the products and services, the offeror may need to collaborate with other suppliers.
188	Is it the State's intention to provide a menu list of different options for the schools to choose from including different brands of laptop, different brands of printer, etc?	No, DGS intends to make only one award to an offeror who must offer to provide all products and services.
189	Can a bidder submit a response with multiple brands and prices for the same item (i.e.....a Sony camcorder and a JVC camcorder option or an HP laptop and a Lenovo Laptop option) assuming that all other portions of the RFP response would remain unaffected by the choice?	As long as they meet the Minimum Specifications.
190	Who will be creating the hard drive image? Are all systems expected to have a single/uniform image, or will there be separate images for each subject area and teachers? Will these images be the same for all schools?	The supplier must create the hard drive image. The images will be different for teacher stations and student stations based on the RFP. The images may be the same for all schools.
191	On page 33, letter "s", section VII, you mention Remote Network Access Portability. Is this referring to being able to access the school network from outside the building? This would entail a great deal of security review, VPN access, physical asset protection, etc.	No
192	On page 38 and 39, there seems to be a timeline conflict. The RFP states that the validation testing should be completed within 4 weeks. Then on page 39, it states that all School Year 1 sites should be completed within 4 weeks, please clarify.	Validation testing is for selected schools to participate. This will be a one-time event. The Project Implementation Plan will be by school as they are approved funding.
193	Page 41 of the RFP refers to Act 34 and 151 requirements. Because each of these clearances has costs associated with completing, can the offeror secure such approvals once they receive notice of award?	Yes
194	Page 9 of the RFP, section II-3 refers to task descriptions in section IV. However, there does not seem to be any specific mention of task descriptions in section IV, please clarify?	Section IV Work Statement has all the task descriptions throughout that section.
195	Page 38, section q-iii, requires the successful offeror participate in at least 30 educational conferences. Will there be any charge to the offeror to do so....i.e. booth space, registration fees, etc?	Complimentary registration fees to conferences will be considered as long as the Supplier is a Presenter statewide technology conferences. Both space will not be provided.

196	The RFP does not clarify whether certain items such as projectors, wireless access points, etc are expected to be hard mounted to ceilings or walls, or whether those items should remain mobile. This could create difficulty with uniform responses due to different construction types like drop ceiling, concrete, historical buildings, etc. Please clarify.	They are to remain mobile, however the local district may decide to mount them at their own expense.
197	The RFP repeatedly mentions a 4 year on-site warranty for all items. Is it an acceptable alternative for the offeror to provide a replacement unit via shipping carrier for next day delivery, along with a pre-paid shipping label and packaging for the defective unit to be returned for items that would not require reconfiguration for functionality within the system...i.e. webcam, printer, digital camera? This would save the Commonwealth a large amount of money for support services due to the remote nature of many of the school districts. It is not common practice for such items to have an on-site warranty option.	No
198	On page 30, section f-IV, software restore, there is a statement regarding restore. Is the offeror required to provide a CD/DVD and/or hidden partition within each laptop for restore within the box of the original shipment, or can these be provided to each district centrally, 1 per image?	The Offeror is responsible for providing any CD, DVD and/or electronic image necessary to restore the device to a base state. This may be delivered to the district centrally, however there must be a minimum of three copies of each image.
199	On page 30, section d, additional peripherals, there is a statement regarding additional hardware and software. Are these potential items to be included as part of the RFP response with separate pricing in an a-la-carte fashion? Examples may include security cables, notebook carrying cases, etc.	Yes.
200	On page 32, section iv, please confirm that any network infrastructure upgrades needed for internet access and connectivity would be provided at separate charges from the basic cost response of the RFP. Such items could be available via an additional peripherals and services listing.	This is outside the scope of the RFP.
201	On page 33, section g-vi, are installing printer drivers that would not be part of the standard image, expected to be provided at an additional charge? It is assumed that these drivers would be for existing printers.	Printer drivers are only required for the supplied printers.
202	Are all labor and services required within this RFP subject to union labor and/or prevailing wage rates in addition to the standards mentioned on page 41, section s-iv?	The contractor will be required to pay prevailing wages to the installer of any cabling that is performed.
203	How firm are the estimates stated in the RFP?	The number of schools is static. The number of students varies but is fairly firm.
204	Will the award be made to one or multiple vendors? Must the respondent bid on everything in the RFP?	DGS intends to make only one award to an offeror who must offer to provide all products and services.
205	Considering the complexity of the RFP and the upcoming holiday, will the Department of General Services consider offering an extension to respondents?	We have extended this RFP by two (2) weeks. The new deadline is July 28, 2006 at 5pm EST.
206	Section IV, Requirement, Item q. Project plan and Deliverable, sub-item vi, project staffing references an Exhibit C. Yet the supplied Exhibit C is related to WLAN and its capabilities. Will the Department supply an additional Exhibit C in order for respondents to present project staffing as the Department requires?	Yes

207	Please confirm that the Department requires 8 hard copies of each of the 4 proposals (Cost, Technical, Disadvantaged, Value Add), but only one CD of the Technical proposal.	Yes
208	Do the Access points have to be fixed or do they travel with the carts? Is this potentially a decision the individual School will make?	The access point are intended to move with the carts.
209	If a standard 15" screen offers cost savings to the state, would a 15" screen laptop be an acceptable hardware platform?	The device must meet or be comparable to the minimum specifications as listed in the RFP.
210	Can DGS give examples of a typical technology environment that is currently available in the high schools?	Local district infrastructure and instructional models vary from district to district.
211	Is there an existing wireless network in any of the schools?	Yes
212	What is the date of award?	Please note RFP.
213	When do you anticipate rollout/installation/training to begin?	This will be addressed after the award.
214	Regarding Page 24: The requirement states the Printer/Scanner must have a USB and Ethernet port; it also asks for "connectivity cables". Does that mean that 1 USB cable and 1 Ethernet cable must be provided with each Printer/Scanner?	Yes, both cables are required.
215	Is the State or Local Control to provide images of the curriculum for Math, Science, Social Studies, and English?	Only images for the restore of the laptops as listed in the RFP are required.
216	Are these images to be imaged at the factory?	Images for the restore of the laptops is to be completed at the factory.
217	Is the Laptop issued Per Student or Per Classroom? Is the classroom (Math) going to have 1 laptop used by several students at different periods of class during the day?	The laptops are issued per classroom. Yes, different students will use each laptop each day.
218	If the Student is to be assigned the laptop independent of others using this laptop, will they be allowed to bring their laptop home, overnight, during weekends, on school vacations?	No
219	In regards to Wireless Access Points, do they need to be fixed or could they be mobile and installed on a Laptop Cart?	The access point are intended to move with the carts.
220	What is total number of schools that actually require Wireless installation and integration?	The total number will not exceed 611.
221	How many schools are currently wired for wireless communications?	Not currently known.
222	On the issue of theft, who is responsible for product replacement?	This is a local school district decision.
223	On training the Support Personnel, can this all be coordinated to be conducted in one class setting? Could this be done in a Virtual Classroom setting with online courses?	This can be discussed in final negotiations with concurrence of PDE.
224	What is the estimated count of Teachers, Administrators and Support personnel that will be supported via the Helpdesk and require training?	This is a local district decision, however it is our expectation that most districts will limit the number to better serve their buildings.
225	Do you have a general breakdown of the level of needs for training related to the academic and technical requirements? If yes, please offer a brief description of each level.	No
226	Is wiring for Internet connectivity the responsibility of the awarded vendor or the specific School District?	It is the school district's responsibility.

227	Please clarify the timeline of events upon successful engagement. The RFP mentions a preliminary project plan 30 days post signing of a contract and validation testing 4 weeks post issuance of notice to proceed. Are these to be performed in conjunction? Pg. 38	Yes
228	Please clarify the timeline for the Project Implementation Plan on pg. 39. It calls for School year 1's activities to be complete 4 weeks after issuance of notice to proceed. Is this direction separate from the contract agreement signing? If yes, what is the expected gap between the two events?	This is not a correct statement. Please note timeline in RFP.
229	Should pricing for all services be contained in the per device pricing or would you like to capture the service components separately?	It should be captured separately.
230	Please supply a list of the schools participating including the address and approximate number of classrooms, teachers, administrators and students.	This information will be given to the awardee.
231	Regarding on-line professional development (PD) and educational content: Given the fact that a single optimum solution is unavailable for both the MAC and PC platforms, is the state willing to consider a solution comprised of: The best PD and educational content for the PC platform (87% of the total laptop population)?	Professional development needs to be in support of the awarded solution.
232	A separate optimum PD and educational content solution for the MAC platform?	Professional development needs to be in support of the awarded solution.
233	The RFP indicates the 2005 PA Technology Inventory shows 87% PCs and 13% MAC (see Section IV-4.a.) The RFP also indicates the future requirement is for 263,918 laptops, estimated at 87% PC and 13% MAC (see Section IV-2.a.) Are the projected laptop purchases to mirror the current ratio of 87/13 PC/MAC? Or could that ratio change with future purchases?	This ratio could change.
234	Will the state define one solution for implementation by districts, or will the state provide a set of solutions that districts can choose from? Further to this, will districts be able to choose various components to build their own package?	We are looking to define one solution. Districts can purchase some or all of that solution.
235	Do the cabling requirements of this RFP fall under the Prevailing wage Act? If so what are the wages or where do we find a list a prevailing wages that must be paid?	This is not relevant to the RFP.
236	Will there be one bill to address or one for each school district?	Invoices will be done for each school district.
237	Who was the consulting firm who helped prepare this RFP and are they allowed to compete for the business?	There was no consulting firm hired.
238	While some services required to meet specifications are not necessarily tied to products solicited, are those responding allowed to price those separately? An example may be content training and software for teachers, which would be possible to spread amongst individual skus such as notebooks, and MFP's.	Yes
239	Will the laptops need to be Microsoft Vista capable to support future software upgrades from Windows XP to Vista? If so, what version of Microsoft Vista will the hardware need to support? Would you like to see both a Windows XP capable laptop price and a Vista capable laptop price?	Yes. Please note page 30 of the RFP.
240	Is the warranty requirement in the RFP asking for "next day repair by vendor person onsite" or "parts to be delivered onsite the next day"?	Warranty is for next day on-site repair.

241	Would it be considered an acceptable response or a non-responsive response if the vendor were to propose an on-site spare or next day asset replacement program versus the next day on-site repair as a way to reduce lifecycle support costs?	Warranties are 4-year, on-site, which includes Next business day replacement of parts.
242	Will the RFP be awarded to a single offeror or to multiple offerors?	DGS intends to make only one award to an offeror who must offer to provide all products and services.
243	Will a response that does not include pricing for Apple laptops be considered or will it be eliminated for being non-responsive?	Any proposal that does not address all requirements in the RFP will be considered nonresponsive.
244	As specified on the PDE website, will each school district procure the COF solution directly with the selected offeror?	Yes
245	For the wireless access, will the schools handle all cabling infrastructure requirements?	Yes
246	Under Section IV-2-b, estimated figures chart – please clarify 4/7. What does 4/7 mean?	Any instructional setting (i.e., classroom) that will be used the majority of the instructional time during a school day (i.e., a minimum of 4 periods out of 7 periods of the instructional day) for subject matter credited core curricular instruction will be eligible to be outfitted as a Classroom for the Future.
247	IBM is interested in providing a proposal for professional development as part of this RFP or as part of a separate offering. Please clarify the professional development (PD) activities required in this RFP. Also, please provide input on the following which will help formulate our response.	Refer to Part IV, Section -2, located on Page 26 of the RFP.
248	Per the RFP, 25% of all teachers are beginners or non-users of technology. Is face-to-face training expected?	Yes
249	Does a train the trainer model meet the expected design?	Yes
250	Is there currently some formalized, organized way to assess the technology competency and integration practices of teachers?	Basic technology competency is listed in last year's PATI survey at http://reports.pa.ontargetus.com
251	What is the goal in terms of self-sustainability of Professional Development (or does the PDE lean towards full outsourcing)?	This is not in the scope of the RFP.
252	Would PDE like face-to-face and train the trainer proposals?	Yes
253	Is there interest in Professional Development for school administrators?	Yes and required in the RFP.
254	How much of the budget is allocated to Professional Development?	Not relevant
255	Are there technology coordinators in the schools and what are their primary functions?	This is a local decision to each school district; job functions vary from each district. Please see the PATI report for more information at: http://reports.pa.ontargetus.com/
256	Are there technology integration related teams in the district?	This is a local decision to each school district; job functions vary from each district. Please see the PATI report for more information at: http://reports.pa.ontargetus.com/
257	Are there technology integration related teams in PDE?	Yes
258	What are the currently used on-line learning platforms?	Not relevant to the RFP.
259	Would in-class mentoring be viewed as an intrusion or would schools welcome the presence of expert mentors?	Not relevant to the RFP.
260	What are PD best practices the PDE has experienced, and what types of implementations have had the best response from teachers and districts?	Not relevant to the RFP.

261	What are the current state of competencies, attitudes, and support staff that already exists in the districts? Can you point us to “great schools or districts” that do PD in the right way?	Not relevant to the RFP.
262	How do the schools collect the data on student assessments?	Not relevant to the RFP.
263	Do schools have student technology use survey results?	Please see the PATI report for more information at: http://reports.pa.ontargetus.com/
264	Which other specific currently-used technology platforms and application tools does PDE want to integrate with this solution? (Only MS Office and Inspiration were identified.). Please identify all other specific items that need to be integrated.	Please respond only to the RFP requirements.
265	Which other specific textbook publishers need to be integrated with their content to the new platform? Please identify all other specific items that need to be integrated.	Please respond only to the RFP requirements.
266	When will installations of Classrooms for the Future occur? Examples: Weekdays, 8:00AM – 5:00PM throughout the year Weekdays, 8:00AM – 5:00PM when school is not in session Other	Weekdays 8:00am-5:00pm throughout the year.
267	Will it be considered acceptable or non-responsive if the vendor were to propose a solution that includes leasing the assets over a four year term to leverage cash flow and buying power over the initial three years of the project? Would the Commonwealth be interested in this solution as an alternative proposal?	No
268	Will each local school district be responsible for deploying the software, firmware, microcode fixes/upgrades, as well as antivirus definition files?	Yes
269	School users of the Help Desk include teachers, administrators, and technical coordinators. Please provide the estimated number of users in each group?	This is a local district decision, however it is our expectation that most districts will limit the number to better serve their buildings.
270	Is the Help Desk limited to hardware warranty and break fix? Does it include the productivity and student software as identified in the RFP? Please identify all hardware and software that needs to be supported by the vendor Help Desk?	The HelpDesk will be limited to hardware warranty and break-fix. The Offeror should also provide system level software support (operating system, and all applications within the RFP) for the technology coordinator from the district.
271	Will it be considered an acceptable or non-responsive proposal if the vendor were to propose that software troubleshooting, software problem identification and software problem resolution, including telephone support and desk-side support are out of scope for the vendor?	Non-responsive.
272	Please explain in detail what is the minimum requirement for the vendor-provided software support via the vendor Help Desk? Please explain for each software product the level of required Help Desk support, such as [a] none, meaning the users have access to other software Help Desk resources, [b] Level 1 Help Desk, providing answers to frequently asked questions, or [c] some other requirements which will be provided in response to this question.	Please see Part IV in the RFP.
273	Does the web cam require an integrated microphone?	Yes, the web camera requires a microphone.
274	Will the multifunction printer/scanner be used primarily by the teacher or the students or both?	Both
275	Is it a requirement for the multifunction printer to be used while attached to the network (a more expensive solution) or via a USB cable (a less expensive solution)?	This is a local decision, however the device must support both network and USB connectivity.

276	Will the laptops remain within the classroom or will the students carry them between rooms? Will the students occasionally take the laptops home?	They will remain in the classroom, and students will not take them home.
277	Please provide an address list of the 611 school locations along with the current enrollment of each?	This information will be provided to the awarded supplier.
278	The pricing sheet lists integration and training costs under the Laptop prices category. Is integration (which includes onsite set-up/installation) and training required on the other peripherals such as printers/scanners, web cams, wireless access points, whiteboards, projectors, etc.? If so, where should these prices be provided?	Please note Exhibit D.
279	Will each local school unit install all of the components of the <i>Classrooms for the Future</i> initiative as a single project with a single installation event? Or will the initiative be installed for an individual school over a period of time with multiple installation events?	Each school's solution must be installed within the same timeframe.
280	Page 28 2nd Paragraph states the “Respondents must demonstrate that the system can easily integrate with all of the other components of the package and with the technology environment that is available in high schools.” Can the Commonwealth provide a description of the existing technology environment?	No
281	Where will the students store their individual work products (on the PC or on a local server within the school unit)?	They will store information on the server.
282	Will the students work be backed up to avoid loss of data and will the school assist with recovery efforts?	Yes

Supplier Name and Date:

Product Details	Supplier Proposed Specifications
Minimum PC Laptop Specifications	
Intel® Pentium® M Processor 740 or equivalent (1.73GHz/2MB Cache/400MHz FSB)	
Genuine Windows XP Professional	
15.4in WXGA Display	
"512MB DDR2 533MHz SDRAM, 2 DIMMS"	
24X CD Burner/DVD Combo Drive (Teacher PC must have DVD-RW/CDRW Drive)	
"60GB Hard Drive, 9.5MM, 5400RPM"	
Integrated Intel® Media Accelerator 900 Graphics (32mb RAM minimum)	
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	
Built in Firewire IEEE 1394	
Built in Ethernet (10/100/1000)	
Internal Wireless (802.11g, 54Mbps)	
4 year, on-site Warranty to include next business day replacement of parts. Warranty includes replacement of batteries.	
7 pound maximum weight limit	
Minimum MAC Laptop Specifications	
1.33 GHz PowerPC G4 or equivalent	
512 MB memory (DDR333 SDRAM)	
OS 10.4 (Latest MAC OSX Version)	
14 inch TFT display 1024x768 resolution	
ATI Mobility Radeon 9550 32MB DDR video memory	
60GB Ultra ATA hard drive	
Combo Drive (DVD-ROM/CD-RW) (Teacher PC must have DVD-RW/CDRW Drive)	
6 Cell Primary Battery (minimum 4 hour battery life; 30 minute recharge)	
Built-in Firewire IEEE 1394	
Built-in Ethernet (10/100/1000)	
Software: FileMaker Pro	
Built-in AirPort Extreme (802.11 g)	
Built-in Bluetooth 2.0+EDR	
Scrolling Trackpad	

"4 year, on-site Warranty to include Next Business Day replacement of parts. Warranty includes replacement of batteries."	
7 pound maximum weight limit	
Printer/Scanner	
"All-in-One - Multifunction (scanner & printer) - 19200dpi scanner, 30ppm (mono) / 24ppm (color), 1 USB, 1 Ethernet, must include initial set of ink cartridges (Black, Cyan, Yellow, and Magenta) and connectivity cables. 4 year, on-site Warranty to include Next Business Day replacement of parts. "	
Productivity Software (Instructor)	
"Adobe Creative Suite Premium (Includes Adobe Photoshop® CS2 (image editing), Illustrator® CS2 (paint), InDesign® CS2 (Desktop publishing), GoLive® CS2 (Webpage creation), and Acrobat® 7.0 Professional (Create and manipulate PDFs software) Microsoft Office Professional Version, Inspiration, Include 4 year upgrade"	
Web Cam	
"640x480 video resolution, high-quality 1.3 megapixel photo resolution, zoom in or out, even pan and tilt to get the right shot, Compatible with USB 2.0 and 1.1. 4 year, on-site Warranty to include Next Business Day replacement of parts. "	
Student Software	
"Microsoft Office Professional Version plus upgrades, Inspiration"	
Interactive Whiteboard Solution	
"Interactive Whiteboard 65 1/4" W × 49 1/2" H × 5 1/8" D (165.7 cm × 125.7 cm × 13.0 cm), 77" diagonal, Touch resolution of 4000 × 4000, USB 2.0 includes floorstand and/or wall mount if interactive whiteboard solution requires it. Must also include all cables for connecting the device to the computer. The solution may also have the ability to convert an existing whiteboard into an interactive whiteboard. 4 year, on-site Warranty to include Next Business Day replacement of parts. "	
Projector	
"2000 ANSI lumens, DLP/LCD Projector, Native resolution to support VGA (640x480,) SVGA(800x600), and XGA(1024x768) at a minimum, 2000:1 contrast ratio, , 3000 hrs of Lamp life; internal 5 watt speaker. The device should have the ability to accept various types of inputs and outputs such as S-Video, USB, SVGA, XGA, composite (RCA) audio/video and be HDTV compatible. Minimum of two computer/component video inputs and RS232C. 4 year, on-site	

Warranty to include Next Business Day replacement of parts. "	
PC multimedia speakers	
"3.6 Watt, 2.5W RMS/ch, volume control, On/Off switch with LED indicator and headphone jack warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts."	
Laptop Storage Cart	
"Stores and charges up to 30 notebook computers in individual compartments. Includes two UL-Listed, 15-outlet electrical units and a three-outlet electrical unit. Top shelf is a non-slip rubber with 2 grommet holes for cord management. Doors, rear and side panels are perforated to provide for adequate ventilation. All doors come with individual locking mechanisms. Warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts."	
Wireless Access Point (2 per classroom)	
"54Mbps 802.11g Wireless access point, DHCP support, Manageable, IPX/SPX, TCP/IP, Ethernet 10Base-T/100Base-TX, 128-bit WEP, 152-bit WEP, 64-bit WEP warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts."	
Additional laptop battery and charger	
"External charging system to charge laptop batteries outside of laptop. Included in this warranty, . 4 year, on-site Warranty to include Next Business Day replacement of parts."	

Video Cameras - 4 per building	
"Mini DV Digital camcorder, 200x Zoom, NTSC, MJPEG, Built-in flash, Digital photo mode, LCD display - TFT active matrix - 2.5 in - Color, 1 x IEEE 1394 (FireWire/i.LINK), 1 x USB, 1 x Composite video/audio (input/output), 1 x Microphone, 1 x DC power input, 1 x S-Video input / output warranty. 4 year, on-site Warranty to include Next Business Day replacement of parts."	
Digital Still Camera - 4 per bldg - 1 per content area	
"5.0 megapixels, 24x total zoom (4x optical, 6x digital), 1.8" color image display, 32MB memory, expandable with memory cards, In-camera red-eye removal, panorama preview, image enhancement, Includes Camera Dock Series 3. 4 year, on-site Warranty to include Next Business Day replacement of parts."	

Wireless Local Area Network (WLAN)

Manufacturer _____

Wireless Transmission Rate of _____ MB/sec at a range of 50 feet
 _____ MB/sec at a range of 100 feet
 _____ MB/sec at a range of 200 feet
 Maximum Range of _____ feet

Full disclosure of the capabilities and limitations of the wireless technology proposed must be included such as interference between classrooms, distance and object penetration data, and susceptibility to interference from outside sources.

Describe the actual throughput for the installed wireless network (KB/sec, MB/sec, GB/sec) for a 1MB file, 1 MB Streaming Audio File, and 1 MB Streaming Video File for the following number of simultaneous users:

Number of Simultaneous Users	1 MB Data File	1 MB Streaming Audio File	1 MB Streaming Video File
10 students			
30 students			
100 students			
500 students			
1,000 students			

Please describe the average amount of time in hours per month the system will be down for regular scheduled maintenance. Also describe how maintenance will be accomplished so that the impact on system availability is minimized.

Please describe how backup systems will be utilized so that the impact on system availability is minimized.

Please describe other WLAN specifications

Software

Identify and fully describe the applications associated with your system:

LAN Software _____

Writing _____

Data analysis _____

Presentation _____

Publishing _____

Multimedia Creation _____

Multimedia Viewing _____

Information management _____

Research _____

Anti-Virus _____

Internet Browser _____

Curriculum Development _____

Project Staffing _____

Other software _____

Other educational software installed in solution

**Classrooms for the Future
RFP Number: CN00019758
Addendum #3**

Date posted: July 6, 2006

This Addendum #3 revises RFP No. CN00019758 as follows:

1. Section II-10. Cost Submittal. A second paragraph has been added to read as follows:

“For the purposes of this RFP, the providing of laptops, peripherals and related services has been divided into three lots: Lot A) PC laptops, and all PC peripherals and related services; Lot B) MAC laptops and all MAC peripherals and related services; and Lot C) PC & MAC laptops and all PC & MAC peripherals and related services. If the Offeror cannot provide all of the items listed in a particular lot, then the Offeror is ineligible to propose on that lot. Unless the Commonwealth elects to reject all proposals, the Commonwealth will either award Lot C to one supplier, or in the alternative award Lots A and B to the successful offerors for each of those lots. The Commonwealth would prefer to purchase all hardware and services from one supplier (Lot C); however, Commonwealth reserves the right to award Lot A and Lot B separately if it is in the best interest of the Commonwealth.”

2. Section III-4. Criteria for Selection. Subsection a has been revised by adding the following second paragraph to read as follows:

“For the purposes of this RFP, the providing of laptops, peripherals and related services has been divided into three lots: Lot A) PC laptops, and all PC peripherals and related services; Lot B) MAC laptops and all MAC peripherals and related services; and Lot C) PC & MAC laptops and all PC & MAC peripherals and related services. If the Offeror cannot provide all of the items listed in a particular lot, then the Offeror is ineligible to propose on that lot. Unless the Commonwealth elects to reject all proposals, the Commonwealth will either award Lot C to one supplier, or in the alternative award Lots A and B to the successful offerors for each of those lots. The Commonwealth would prefer to purchase all hardware and services from one supplier (Lot C); however, Commonwealth reserves the right to award Lot A and Lot B separately if it is in the best interest of the Commonwealth.”

3. Take note that we have made changes to Exhibit D. Please make changes accordingly.

Classrooms for the Future
RFP Number: CN00019758
Addendum #4

Date posted: July 7, 2006

This Addendum #4 revises RFP No. CN00019758 as follows:

1. Section I-1 Purpose: The last sentence has been revised to read as follows:

“The end users of the contract or contracts resulting from this RFP will be local public high schools and Area Vocational Technical Schools and Career Technical Centers (AVTS/CTC) that receive *Classrooms for the Future* funding from the Commonwealth of Pennsylvania, Department of Education.”
2. Section III-4. Criteria for Selection. Subsection c has been revised by replacing the last paragraph with the following:

"To the extent that an Offeror qualifies as a Small Disadvantaged Business or a Socially Disadvantaged Business, the Small Disadvantaged Business or Socially Disadvantaged Business cannot enter into subcontract arrangements for more than 40% of the total estimated dollar amount of the contract. If a Small Disadvantaged Business or a Socially Disadvantaged Business subcontracts more than 40% of the total estimated dollar amount of the contract to other contractors, the Disadvantaged Business Participation scoring shall be proportionally lower for that proposal."
3. Section III-4. Criteria for Selection. Subsection d has been revised by replacing the last paragraph with the following:

"To the extent that an Offeror is an Enterprise Zone Small Business, the Offeror cannot enter into contract or subcontract arrangements for more than 40% of the total estimated dollar amount of the contract in order to qualify as an Enterprise Zone Small Business for purposes of this RFP."
4. Section IV-4,o, Support and Maintenance. This subsection has been revised by adding the following sentence to the end of the second paragraph:

“The minimum expectation is that the Help Desk will be operational from 6am to 9pm Monday thru Friday.”
5. Section IV-4,p, Project Management and Implementation. This subsection has been revised by adding the following sentence:

“Removal of the packaging will be the successful Offeror’s responsibility at no extra cost.”

6. Section IV-4,q iii), Educational Conferences and Meetings. This paragraph has been amended with the addition of a second paragraph which reads as follows:

“Complimentary registration fees to conferences will be considered as long as the supplier is a presenter at statewide technology conferences. Booth space will not be provided.”

7. Exhibit A, *Contract Standard Terms and Conditions*, Section 1 Purpose of Contract: This section has been revised to read as follows:

“The Department of General Services (“DGS”) is establishing one or more contracts for the use of Pennsylvania public schools that receive *Classrooms for the Future* funding from the Commonwealth of Pennsylvania, Department of Education (“Purchasers”) in accordance with the requirements of Act 77 of 2004, amending Section 1902 of the Commonwealth Procurement Code, 62 Pa. C.S. § 1902.”

8. Please note the clarification of our previously answered offeror’s questions:

6. Question: Is this RFP a "all or nothing proposal," i.e., all components and services must be considered and offered?

Original Answer: Yes, offerors must offer to provide all components and services. The awarded supplier will be required to provide all components and services and will be the primary point of contact. In order for an offeror to provide all the products and services, the offeror may need to collaborate with other suppliers.

Revised Answer: The RFP has been revised at Section I-1 and Section II-10 to read as follows:

“The Commonwealth has determined that the providing of laptops, peripherals and related services has been divided into three lots: Lot A) PC and MAC laptops, and all PC and MAC peripherals and related services; Lot B) PC laptops and all PC peripherals and related services; and Lot C) MAC laptops and all MAC peripherals and related services. If the Offeror cannot provide all of the items listed in a particular lot, then the Offeror is ineligible to propose on that lot. The Commonwealth will either award Lot A to one supplier, or in the alternative award Lots B and C to the successful offerors for each of those lots. The Commonwealth would prefer to purchase all hardware and services from one supplier (Lot A); however, Commonwealth reserves the right to award Lot B and Lot C separately if it is in the best interest of the Commonwealth.”

10. Is it the intent of DGS to select one vendor or is there flexibility to select multiple qualified vendors?

Original Answer: Yes, only one offeror will be selected and awarded a contract.

Revised Answer: Please refer to Question 6.

11. If only one vendor is to be selected, is it correct that that vendor must provide MAC and PC compatible devices to the schools?

Original Answer: Yes.

Revised Answer: Please refer to Question 6.

16. Does the winning vendor need to include the MAC laptops, or can a vendor omit this portion of the bid?

Original Answer: Macintosh computers need to be included as part of the package price.

Revised Answer: Please refer to Question 6.

32. Does the State of Pennsylvania intend to award this contract to one single PC manufacturer for a total of 229,608 units (87%) and 34,309 (13%) units to Apple? If no, what target volumes should the vendors base their pricing models upon? If no, please proceed to question number 2?

Original Answer: Yes, only one offeror will be selected and awarded a contract.

Revised Answer: Please refer to Question 6.

33. Will the Districts have the opportunity to select from multiple contracts negotiated with the State and thus be in a position to acquire the equipment from a preferred vendor?

Original Answer: One prime supplier will be selected from this process.

Revised Answer: Please refer to Question 6.

34. Does the State support the utilization of open source content and applications if a specified support model for the content and applications is clearly defined within the response?

Original Answer: We will consider open source proposals.

Revised Answer: We will consider open source proposals. Please refer to Page 42 of the RFP, Part IV-4,s,iv.

48. It is unclear regarding DGS' intent to make single or multiple awards as a result of this RFP. Please clarify.

Original Answer: DGS intends to make only one award.

Revised Answer: Please refer to Question 6.

49. We have noticed that DGS states a MAC and Windows configuration. Will there be more than one Windows vendor award if all requirements are satisfied (Dell, HP, Lenovo, Gateway etc.)

Original Answer: DGS intends to make only one award. The awarded offeror will be required to provide all products and services.

Revised Answer: Please refer to Question 6.

50. Can we assume that Apple will automatically get an award on the MAC platform? How will DGS determine if the price submitted is competitive as Apple is a sole source vendor.

Original Answer: No, it cannot be assumed that Apple will get an award. The awarded offeror will be required to provide all products and services including Apple products and services.

Revised Answer: Please refer to Question 6.

51. Will the school districts receiving grant awards have the final decision as to what platform and vendor to select based upon those given an award from the RFP.

Original Answer: Contract renewals will be decided based upon contractor performance, prevailing market prices and other factors within the discretion of the Commonwealth.

Revised Answer: [Districts will be able to determine which platform they want to select.](#)

72. Since Apple only sells direct to the education market, please remove Apple products from the product requirements due to only one provider.

Original Answer: The Macintosh laptops are a requirement for the RFP.

Revised Answer: Please refer to Question 6.

92. Please clarify what is meant by the term "application." Can official clearance statements and criminal record history reports be submitted upon award or request, when a specific project is being staffed?

Original Answer: Suppliers and subcontractor employees, who will be in the school environment, must have background reviews in accordance with ACT 34 and ACT 151. The reviews will be required upon award. A separate addendum will be issued to add a provision relating to background checks.

Revised Answer: Please refer to Page 41 of the RFP, Part IV-4,s,ii and iii.

182. Has funding for this RFP been budgeted and fully approved by the legislature?

Original Answer: No.

Revised Answer: The first year of this project has been budgeted and fully approved by the legislature.

183. Is it the Commonwealth's intent to award the entire RFP to a single prime vendor?

Original Answer: Our goal is collaboration between suppliers. If one supplier can provide all the products, then they do not need to collaborate.

Revised Answer: Please refer to Question 6.

184. Will the Commonwealth consider awarding separately to a vendor providing Apple products as well as a separate vendor for IBM compatible products?

Original Answer: Our goal is collaboration between suppliers. If one supplier can provide all the products, then they do not need to collaborate.

Revised Answer: Please refer to Question 6.

188. Is it the State's intention to provide a menu list of different options for the schools to choose from including different brands of laptop, different brands of printer, etc?

Original Answer: No, DGS intends to make only one award to an offeror who must offer to provide all products and services.

Revised Answer: Please refer to Question 6.

231. Regarding on-line professional development (PD) and educational content: Given the fact that a single optimum solution is unavailable for both the MAC and PC platforms, is the state willing to consider a solution comprised of: The best PD and educational content for the PC platform (87% of the total laptop population)?

Original Answer: Professional development needs to be in support of the awarded solution.

Revised Answer: Please refer to Question 6.

232. A separate optimum PD and educational content solution for the MAC platform?

Original Answer: Professional development needs to be in support of the awarded solution.

Revised Answer: Please refer to Question 6.

233. Will the state define one solution for implementation by districts, or will the state provide a set of solutions that districts can choose from? Further to this, will districts be able to choose various components to build their own package?

Original Answer: We are looking to define one solution. Districts can purchase some or all of that solution.

Revised Answer: Please refer to Question 6.

266. When will installations of Classrooms for the Future occur?

Examples: Weekdays, 8:00AM – 5:00PM throughout the year
Weekdays, 8:00AM – 5:00PM when school is not in session
Other

Original Answer: Weekdays 8:00am-5:00pm throughout the year.

Revised Answer: Please refer to Page 40 of the RFP, Part IV-4r,
Coordination with Schools.

**Classrooms for the Future
RFP Number: CN00019758
Addendum #5**

Date posted: July 14, 2006

This Addendum #5 revises RFP No. CN00019758 as follows:

1. Take note that we have made changes to Exhibit D. Please make changes accordingly.

Classrooms for the Future
RFP Number: CN00019758
Addendum #6

Date posted: July 20, 2006

This Addendum #6 revises RFP No. CN00019758 as follows:

1. The Commonwealth, in Addendum #4, Number 8, Question 6, misrepresented the components of each lot. Therefore, that response has been revised as follows:

6. Question: Is this RFP a "all or nothing proposal," i.e., all components and services must be considered and offered?

Original Answer: Yes, offerors must offer to provide all components and services. The awarded supplier will be required to provide all components and services and will be the primary point of contact. In order for an offeror to provide all the products and services, the offeror may need to collaborate with other suppliers.

Revised Answer: The RFP has been revised at Section I-1 and Section II-10 to read as follows:

"For the purposes of this RFP, the providing of laptops, peripherals and related services has been divided into three lots: **Lot A) PC laptops, and all PC peripherals and related services; Lot B) MAC laptops and all MAC peripherals and related services; and Lot C) PC & MAC laptops and all PC & MAC peripherals and related services.** If the Offeror cannot provide all of the items listed in a particular lot, then the Offeror is ineligible to propose on that lot. Unless the Commonwealth elects to reject all proposals, the Commonwealth will either award Lot C to one supplier, or in the alternative award Lots A and B to the successful offerors for each of those lots. The Commonwealth would prefer to purchase all hardware and services from one supplier (Lot C); however, Commonwealth reserves the right to award Lot A and Lot B separately if it is in the best interest of the Commonwealth."

2. Please verify that you are utilizing the most current version of Exhibit D, which is currently on our website.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 1
Change Effective Date: December 13, 2006

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Beginning Date of November 17, 2006 and Ending June 30, 2009
Commodity Specialist Name: Susan Rojas 717-346-8187

CHANGE SUMMARY:

Due to some administrative omissions, the following changes to the contract are hereby effective on the CDW-G section;

- 1) The model number for the CDW printer will change from C4180 to C5180, but remain at the same price. This was a typographical error on the original document.
- 2) Standard memory offered is 512MB. An upgrade to the teacher and student memory is available and adds \$50.00 to the laptop - this gets them to 1GB instead of 512MB. This information was inadvertently omitted

CONTRACTING OFFICER:

**Dennis Fellin
defellin@state.pa.us
Bureau of Procurement
Forum Place, 6th Floor
555 Walnut Street
Harrisburg, PA 17101-1914**

**ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS
ORIGINALLY WRITTEN.**

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 2
Change Effective Date: January 30, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

CHANGE SUMMARY:

Please note: as per CDW-G contract, Section 11. CONTRACTING OFFICER:

Dennis Fellin
defellin@state.pa.us
Bureau of Procurement
Forum Place, 6th Floor
555 Walnut Street
Harrisburg, PA 17101-1914

Also, please find attached the most current Product and Warranty Schedule and Price Sheet. They are updated because of a change in the Canon Digital Video Camera. The ZR500 has been discontinued, and is being replaced by the ZR800 at a lower price of \$296.00

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Product and Warranty Schedule APPLE (Updated 9-10-2007)		Apple Solution				
Item	Cost per	Specifications	Manufacturer	Manufacturer Part Number	Model Number	Warranty
Student MAC Laptop (ea) Standard Bundle (includes Training, Integration, Software and Warranties)	\$1,140.90	Software includes: Mac OS X 10.4.10 (Tiger), iLife '08, iWork '08, Apple Mail, Office 2004, NeoOffice, Inspiration, Dictionary, Thesaurus, Grapher, GRASS GIS, FileMaker 8.5, Google Earth, Site Sucker, Journler, SubEthaEdit, GIMP, Audio Recorder, Safari, Spotlight, Sherlock, QuickTime, iChat & Photo Booth, Java, Firefox, Dashboard, iCal, Grab, ClamXav and other software as noted in agreement. 2.0GHz Intel Core 2 Duo, 13.3 TFT 1280x800 Glossy Widescreen Display, 1 GB (2 x512MB) DDR2 SDRAM, 24x Combo drive (DVD-ROM/CD-RW), 80GB HD Serial ATA, 5400rpm, Intel GMA 950 graphics processor with 64MB of DDR2 SDRAM shared with main memory, 6 Cell, 55 watt hour lithium polymer battery with integrated charge indicator LED. Up to 6 hours on a single charge depending upon usage., One Built In FireWire (IEEE 1394) Port, One Built in 10/100/1000 (Gigabit) Base-T Ethernet, Built in AirPort Extreme (WiFi 802.11a/b/g/n), Built in Bluetooth 2.0+EDR, 5.2Lbs.	Apple	K0ES8LL/A	MacBook	Three Year custom warranty: AppleCare Protection Plan (3-Year Next Business Day On-site Repair)
Teacher MAC Laptop (ea) Standard Bundle (includes Training, Integration, Software and Warranties)	\$1,246.47	Software includes: Mac OS X 10.4.10 (Tiger), iLife '08, iWork '08, Apple Mail, Office 2004, NeoOffice, Inspiration, Dictionary, Thesaurus, Grapher, GRASS GIS, FileMaker 8.5, Google Earth, Site Sucker, Journler, SubEthaEdit, GIMP, Audio Recorder, Safrari, Spotlight, Sherlock, QuickTime, iChat & Photo Booth, Java, Firefox, Dashboard, iCal, Grab, ClamXav and other software as noted in agreement. 2.16 GHz Intel Core 2 Duo, 13.3 TFT 1280x800 Glossy Widescreen Display, 1 GB (2 x512MB) DDR2 SDRAM, 8X double-layer SuperDrive (DVD+R DL/DVD+RW/CD-RW), 120GB Serial ATA, 5400rpm, Intel GMA 950 graphics processor with 64MB of DDR2 SDRAM shared with main memory, 6 Cell, 55 watt hour lithium polymer battery with integrated charge indicator LED. Up to 6 hours on a single charge depending upon usage., One Built In FireWire (IEEE 1394) Port, One Built in 10/100/1000 (Gigabit) Base-T Ethernet, Built in AirPort Extreme (WiFi 802.11a/b/g/n), Built in Bluetooth 2.0+EDR, 5.2Lbs.	Apple	K0ETBLL/A	MacBook	Three Year custom warranty: AppleCare Protection Plan (3-Year Next Business Day On-site Repair)
Printer/Scanner (ea)	\$250.00		HP	TK619LL/A	PhotoSmart C6180	1 Year, 5 Business Day Exchange Parts
Web Camera	N/C	Built-in	Apple	Built Into MacBook	iSight Built In	Covered as part of laptop warranty
MacBook Multimedia Speakers	\$33.12		Harmon Kardon	TB998LL/A	JBL Duet 2.0	1 Year Warranty, Parts Depot
Airport Extreme Base Station (Gigabit Ethernet)	\$148.53		Apple	MA073LL/A	APX Base Station	Covered as part of laptop warranty
Projector	\$725.00		Epson	BC418LL/A	Power Light 83C	2 Year Warranty, Parts Depot

Bretford Cart for 32 Notebooks (Assembled)	\$1,250.00		Bretford	TH152LL/A	32 Laptop Mobile Cart	12 Year Warranty, Parts Depot
Digital Video Cameras	\$232.05		Canon	BC178LL/A	ZR830	1 Year Warranty, Parts Depot
Digital Still Camera	\$218.79		Casio	TJ380LL/A	Exilim EX-S600	1 Year Warranty, Parts Depot
Interactive White Board - WT series	\$1,300.00	Includes: PolyVision Walk & Talk WT1610 Whiteboard (TM091LL/A and Custom Integration (D2344LL/A)	Polyvision	BC176LL/A	WT1610	5 Year NBD Parts
Interactive White Board - TS Series	\$1,300.00	Includes: PolyVision TS610ET Whiteboard (TM090LL/A), MS Series Stand (TF911LL/A), and Custom Integration (D2344LL/A)	Polyvision	BC177LL/A	TS610ET	5 Year NBD Parts
Technical Training	Included	4 days for a 2 person team	Apple			
Professional Development	Included	2 Days for all Teachers 2 Days for 4 person School Leadership Team 8 Days for the site Coach 2 Day Principal Institute	Apple			
Optional Upgrades to Standard Bundles	Cost Per	Please Note: Each option below is in addition to the CFF funded Base Unit Price and is applied on a per notebook basis.			OPTION NOTES	
Student Option A	\$65.00	Student MacBook - 1 GB RAM, 3-Yr AppleCare, & Extra Battery		BC692LL/B	CFF monies are not authorized for Available Options A-G. These options can only be purchased with school district funds. Additionally, schools must use a separate purchase order when procuring options.	
Student Option B	\$82.00	Student MacBook - 1 GB RAM, 4-Yr AppleCare		BC691LL/B		
Student Option C	\$126.00	Student MacBook - 1 GB RAM, 4-Yr AppleCare, & Extra Battery		BC690LL/B		
Student Option D	\$125.00	Student MacBook - 2 GB RAM, 3-Yr AppleCare		BC671LL/B		
Student Option E	\$190.00	Student MacBook - 2 GB RAM, 3-Yr AppleCare, & Extra Battery		BC689LL/B		
Student Option F	\$207.00	Student MacBook - 2 GB RAM, 4-Yr AppleCare		BC688LL/B		
Student Option G	\$251.00	Student MacBook - 2 GB RAM, 4-Yr AppleCare, & Extra Battery		BC687LL/B		
Teacher Option A	\$65.00	Teacher MacBook - 1 GB RAM, 3-Yr AppleCare, & Extra Battery		BC686LL/B	CFF monies are not authorized for Available Options A-G. These options can only be purchased with school district funds. Additionally, schools must use a separate purchase order when procuring options.	
Teacher Option B	\$82.00	Teacher MacBook - 1 GB RAM, 4-Yr AppleCare		BC685LL/B		
Teacher Option C	\$126.00	Teacher MacBook - 1 GB RAM, 4-Yr AppleCare, & Extra Battery		BC684LL/B		
Teacher Option D	\$125.00	Teacher MacBook - 2 GB RAM, 3-Yr AppleCare		BC669LL/B		
Teacher Option E	\$190.00	Teacher MacBook - 2 GB RAM, 3-Yr AppleCare, & Extra Battery		BC683LL/B		
Teacher Option F	\$207.00	Teacher MacBook - 2 GB RAM, 4-Yr AppleCare		BC682LL/B		
Teacher Option G	\$251.00	Teacher MacBook - 2 GB RAM, 4-Yr AppleCare, & Extra Battery		BC681LL/B		

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 3
Change Effective Date: March 19, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

CHANGE SUMMARY:

Please find attached the most current Product and Warranty Schedule and Price Sheet. They are updated because of an addition to the Projector selection, adding the Mitsubishi XD206U XGA 2000 Lumens Projector.

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 4
Change Effective Date: April 30, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

CHANGE SUMMARY:

Please find attached the most current Product and Warranty Schedule and Price Sheet. They are updated because of an addition to the Digital Camera selection. The R725 Digital Camera has been replaced by the M537 HP camera. The new camera is as follows:

Model number M537

Part number L2449A#ABA

Price: \$199.87

Includes the camera, doc, cable and a 128MB memory card (the original spec called for a 32MB card)

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 5
Change Effective Date: May 7, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

CHANGE SUMMARY:

Please note the HP M537 Digital Still camera will now come with a 256MB card instead of the 128MB card. The price and all other specifications remain the same as change notice #4.

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 6
Change Effective Date: May 9, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending date of June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

CHANGE SUMMARY:

Please note on the Apple contract, Epson 82C Video Projector now upgraded to Epson 83C Video Projector. This change increases the brightness and audio capability and adds closed captioning functionality to meet ADA guidelines. They also upgraded the Canon ZR600 Digital Video Camcorder to the Canon ZR830 Video Camcorder. This change increases the Zoom capability from 25X to 35X. Also changing is the Airport Extreme Base Station to an upgraded version. The price and all other specifications remain the same as change notice #2.

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Contract Reference Number: 5810-15
 Collective Number: CN00019758
 SAP Contract Number:
 Change Number: 7
 Change Effective Date: June 14, 2007

**COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF GENERAL SERVICES
 HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

**CHANGE SUMMARY:
 CDW-G Media Pricelist**

This table is to be used by districts planning to change, modify or completely erase the state approved CFF image and create a unique base image to meet district technology requirements. In order to ensure you are receiving the most cost effective re-imaging solution, please contact your CDW-G Account Manager to order.

Microsoft	Vista	\$10
	XP	\$10
	Office 2007	Included with office
	MovieMaker	Included with office
	PhotoStory	Included with office
	Microsoft Publisher	Included with office
Inspiration	Inspiration	\$10
FutureKids	Learn It Teach It	\$10
Adobe Creative Suite 3.0	Photoshop	\$10
	Illustrator	Included
	InDesign	Included
	GoLive	Included
	Acrobat	Included
	Version Cue	Included
	Bridge	Included
	Stock Photos	Included
	Dreamweaver	Included
Promethean	ActivStudio	*Please note these CD's are included with the Interactive
Polyvision	EZTeach, Webster	White Boards
Freeware	Web Stripper	*Free download.
	Audacity	Contact your CDWG Account Manager for details.
	GIMP	
	NVU	

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORGINALLY WRITTEN.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 8
Change Effective Date: June 22, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

**CHANGE SUMMARY:
Apple Pricelist**

Please find attached to change notice #2 the most current Product and Warranty Schedule and Price Sheet. They are updated because of upgrades to the laptop offered by Apple, Inc.

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 9
Change Effective Date: September 11, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

**CHANGE SUMMARY:
Apple Pricelist**

Attached to change #2, please find the most current Product and Warranty Schedules and Price Sheets. Also take note to the options section of this change. This section specifically states that "CFF funds are not authorized for the upgraded options. These options must be funded by the school district. Schools must issue a separate purchase order (PO) when procuring these options for CDW-G or Apple products." The school district must reference the original PO number which utilized CFF funds on the 2nd PO issued for optional items.

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Contract Reference Number: 5810-15
Collective Number: CN00019758
SAP Contract Number:
Change Number: 10
Change Effective Date: September 28, 2007

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG**

For: All using Agencies of the Commonwealth
Subject: IT Hardware: Classrooms for the Future
Contract Period: Effective date of November 17, 2006 and Ending June 30, 2009
Buyer Name: Susan L. Rojas 717-346-8187

CHANGE SUMMARY:

Please note on the CDW-G contract, Quickcam Fusion Webcam now upgraded to Lenovo USB Webcam, PN: 40Y8519. This change is due to the manufacturer discontinuing this model. The price and all other specifications remain the same as change notice #2.

ALL OTHER TERMS AND CONDITIONS OF THIS AGREEMENT NOT CHANGED BY THIS CHANGE NOTICE REMAIN AS ORIGINALLY WRITTEN.

Product and Warranty Schedule	(updated 9/10/07)	CDW-G Solution				
Item	Cost per	Specifications	Manufacturer	Manufacturer Part Number	Model Number	Warranty
Student PC (ea) (includes Training, Integration software and warranties)	\$719.51	Software includes: Windows Vista Business License (XP load), Inspiration + 4 year upgrade ability, Microsoft Office 2007 and other software as noted in agreement. This also now includes a full license version of Trend Micro Office Scan Antivirus. 512MB (1DIMM), Intel M540 1.8GHz (Santa Rosa), 80GB 5400 RPM, 15.4" Widescreen WXGA, Intel Integrated GMA 965, Combo optical drive, Gigabit Ethernet & Modem, ABG Wireless, 6 cell battery & power adapter, PC card/4:1 Media Card reader, 6.4 lbs	Lenovo	Custom	R61	Standard warranty: 3-year next business day onsite repair
Teacher PC (ea) (includes Training, Integration, Software and warranties)	\$883.96	Software includes: Windows Vista Business License (XP load), Inspiration + 4 year upgrade ability, Microsoft Office 2007, Adobe Creative Suite + 2 year upgrade ability and other software as noted in agreement. This also now includes a full license version of Trend Micro Office Scan Antivirus. 512MB (1DIMM), Intel M540 1.8GHz (Santa Rosa), 80GB 5400 RPM, 15.4" Widescreen WXGA, Intel Integrated GMA 965, DVD-R optical drive, Gigabit Ethernet & Modem, ABG Wireless, 6 cell battery & power adapter, PC card/4:1 Media Card reader, 6.4 lbs	Lenovo	Custom	R61	Standard warranty: 3-year next business day onsite repair
Printer/Scanner (ea)	\$ 146.14		HP	Q8220A#ABA	Photosmart C5180	1 year, 5 business day exchange parts
Web Cams (ea)	\$71.00		Lenovo	40Y8519	USB Webcam	2 year limited warranty, parts
PC Multimedia Speakers	\$8.50		Logitech	970152-0403	R-10	2 year limited warranty, parts
Wireless Access Point (ea)	\$119.00		D-Link	DWL-3200AP	3200AP	1 year parts depot
Epson Projector	\$683.00		Epson	V11H176020	83C	3 year NBD (replacement sent overnight to school)
Laptop Storage Cart for PC (ea)	\$898.00		Bretford	LAP30EBA-GM	LAP30EBA-GM	12 year parts depot
Digital Video Cameras	\$296.00		Canon	1880B001	ZR800	1 year parts depot

Digital Still Camera	\$199.87		HP	L2449A#ABA	M537	1 year, 5 business day exchange depot
Interactive White Boards	\$1,032.10		Promethean	1-PRM-AB78B-US2	Activeboard	5 year parts depot
Interactive White Boards	\$1,032.10		Polyvision	TS600ET	TS-600ET	5 year parts depot
Mitsubishi Projector	\$679.00	Mitsubishi Projector has filterless technology and a higher contrast ratio. IT Managers don't have to clean the filter every 3 months and helps the bulb last longer . New contrast ratio is 2000:1		XD206U	XD206U XGA 2000 LUMENS	3 year Fed Ex Next day

Available Options		OPTION NOTES
A. At time of laptop purchase, add extra battery and extra charger	\$ 124.90	CFF monies are not authorized for Available Options A-G. These options can only be purchased with school district funds. Additionally, schools must use a separate purchase order when procuring options. Schools will no longer be authorized to increase laptop on-site warranty to 4 years.
B. Extra Battery charger	\$ 77.42	
C. Extra 9 cell battery	\$ 63.44	
D. Extra 6 cell battery	\$ 47.48	
E. At time of purchase, add 1GB memory	\$ 50.00	
For installation of component items outside of the classroom package, schools will arrange for installation through their own suppliers.		
F. Promethean Whiteboard Option 1 - Interactive white board installation concurrent with standard classroom package installation:		
General board installation (not including configuration/overview)	\$110.00	
Above install, configure with projector/wireless plus overview:	\$195.00	

G. Promethean Whiteboard Option 2 - Interactive whiteboard installation (not concurrent with standard classroom installation):	
General board installation (not including configuration/overview)	\$165.00
Above install, configure with projector/wireless plus overview:	\$300.00

Notes:

- 1. Each school's dedicated CDW-G Account Manager will provide the school with a freight price at the time of order to be included as a line item on the school's purchase order and resulting invoice. Freight charges will be a pass through on classroom shipments.
- 2. Installation is included in all standard CFF classroom orders. A standard classroom includes 11-30 laptop units, 2 access points and quantity 1 of the component items. If schools require a classroom purchase with less than 11 laptop units, \$25.84 will be charged per unit less than 11.