Owego Apalachin Central School District

Plan for the Instructional Use of Technology (2008-2011)

Table of Contents

Introduction

The Owego Apalachin Plan for Instructional Technology has been redesigned and adapted to meet the "Regional Model Schools / Common Learning Objectives: Guidelines of Essential Components of a Technology Plan" of the Broome Tioga BOCES. This document conforms to that model, but attempts to provide more detail as is useful to the district.

Our approach to education in the Owego Apalachin Central School District is student centered. In a world of ever increasing complexity we have a vision for using state of the art technology to enhance our instructional program. To that end we have devised a plan that encompasses our mission, our current goals and our strategies for the ongoing growth of a technological infrastructure that will be adaptable to our long term needs. The plan is descriptive in terms of our current technological infrastructure and our plans for the future. It includes the elements we deem to be critical to its success, such as professional development, software inventory, long term funding strategies and finally measures for the assessment and evaluation of this plan.

The Owego Apalachin Central School District is located in the Southern Tier Region of Tioga County, New York. It is a small rural community with strong technology rich economic and educational associations. As a rural district, Owego Apalachin is not removed from large institutions of learning and other cultural and business resources. Many large industrial, retail, and distribution organizations utilizing advanced technology are located within the district or region. Thus, the need for a powerful technological component within our district is intended to bridge the gap between these valuable resources and the Owego Apalachin learning community. The over-riding vision of this plan is that technology is a powerful force in an educational environment, one that fosters the development of lifelong learning skills within an effective and diverse teaching and learning environment.

Over the last twenty years educators and community members created, revisited and revised a plan to implement the use of instructional technologies in the Owego Apalachin Central School District, based on increasing student skills in communication, information processing, and productivity. Since then, considerable work has been accomplished. Indeed, Owego Apalachin has long been recognized as a leader in the Southern Tier in educational technology. Students and staff work within a networked environment in which all classrooms and work areas are equipped with networked computers. All computers are equipped with a suite of applications available to all members of the learning community. All staff and students have network user accounts and all staff have district email accounts. From any computer in the district, network users can access files from their own dedicated space on servers and from shared drives across the district. All rooms in the district are linked through local-area network connections with direct access to the Internet.

The Owego Apalachin School District joins with communities across the nation to envision educational possibilities in the 21st Century. This plan lays out a strategy by which widespread integration will occur. While OACSD has some measure of technology available to students, there is a tremendous amount of work to be done if we are truly going to make technology tools available to all of our students in a meaningful and equitable manner. This plan takes the position that technology is a tool that can be applied broadly across the curriculum. In fact, the value of technology is its value as an integrated curriculum tool or strategy. Our goal therefore is not to teach technology solely for its own sake. Rather, as we plan strategies and integrated curriculum that addresses the New York State and National Educational Technology Standards, we will identify ways in which students and teachers will use technology as a part of their overall educational experience.

This plan will describe a three-year program that will need to be modified each year based on experience, progress and new information. A team of involved teachers and administrators have developed this plan. These representatives will review various components of the plan periodically. In addition, the planning team will interview key informants, review extensive documentation and observe several applications in and outside of the district.

For further information contact Robert Farrell, Chief Information Officer,
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Technology Planning Committee

The District Technology Planning Committee serves as the instructional technology planning committee for the Owego Apalachin district. It has been in existence since 1987. It has overseen the completion of three long term plans for technology, a K-12 scope and sequence and the complete networking of every instructional space in the district.

Each building in the district is represented on the District Technology Planning Committee. The committee uses a variety of strategies to stay in-touch with the needs of the district including: faculty meetings, surveys (online and paper), conferences, and the use of study-groups (or subcommittees).

The committee is part of the larger district-wide administrative and shared decision making structures. The committee is also an integral part of the Curriculum Committee. It works closely with the OATRTC (Teacher Center), and coordinates its effort in curriculum and staff development through respective Curriculum and Staff Development Committees.

History of Technology Planning in Owego Apalachin

This plan is the logical extension of the OA district's long-term commitment to technology planning. It reflects the accomplishments of three long-term plans and has evolved into a more dynamic process of annual planning (reflected in this document). The first long-range plan was adopted in 1987. It recommended the creation of one computer lab in every building and the establishment of a K-12 Computer Education Curriculum.

The second long-range plan first introduced the district to the goal of networking and an expanded set of expectations for instruction and the instructional infrastructure of the district. It was essentially completed in 1994.

The third long-range plan established a set of critical assumptions for student outcomes and called for a complete networking of every instructional space in the district. This plan also moved the district to two building projects that rewired the entire district using state-of-the art industry standards. This plan was essentially completed in 1997.
Since the completion of the district's Third Long Range Plan, it has become apparent that planning must become more dynamic. The focus of our current planning has become more focused, with a shorter time line, while responding to the guidelines of this document.

The specific annual plans (since 1997) have led the district through a structured study and implementation of an Integrated Learning System (SuccessMaker), the creation and adoption of a local Model Schools / Common Learning Objectives service, the

implementation of new district-wide financial services (Munis), a new student records system (eSchoolPlus), a structured plan for the instructional use of the Internet, a three year plan for implementing the use of the district's web presence, the completion of our fast Wide Area Network, the installation of a Fiber optic backbone connecting six of the district's seven buildings, an aggressive plan for using data to improve student instruction, and the integration of staff development under one umbrella the OATRTC.

History of Information and Instructional Technology in OACSD

The history of Information and Instructional Technology in OACSD is best described in phases. These phases generally coincide with the technology plans describe in the above "History of Technology Planning" section. The purpose of the section is to provide more detail and a foundation for building our next phase of the plan.

Phase One: Introduction Phase

- Creation of computer lab in each building (LANS in each Lab) IBM I-Class management system.
- Educational Software in Elementary School
- Programming and CAD in Secondary
- DOS Based

Phase Two: Onset of Networking

- Creation of LAN within each building, OES/AES fully networked with drops and PCs in each classroom
- Not much change regarding computers in the instructional world
- Implementation of Windows 95 – combined with old proprietary O.S.

Phase Three: Creation of the Wide Area Network (Foundation)

- Building LANS now connected to one Central Location through Fiber Connection
- LANClass management system away from IBM I-Class
- Windows 98
- Introduction of email system (GroupWise)
- Office 97
- Still use Educational Software in Elementary and Programming and CAD in Secondary

Phase Four: Strengthening the Network Foundation

- Upgrade the Wide Area Network to be faster and more efficient, management backend switches
- Focus mainly on Infrastructure
- Implementation of ZenWorks replacing LANClass; can now deploy and manage software more efficiently from one location
- Windows XP

- Email becomes primary tool for communication
- Implementation of CCC(Success maker) and Blackboard
- Still using a variety of Educational Software in Elementary School
- Implementation of PLTW; becomes predominant instructional model in Secondary
- Increase in Lab space at all levels
- Data management becomes focal point of system administration
- Onset of State Testing

Phase Five: Improving the Classroom with Instructional Technology

- Begin implementing the Multimedia Classroom; ELMO, Projectors, DVD/VCR, increase of PC clusters in Elementary.
- Wireless Laptop Stations become available
- Network Printing is readily available
- Centralized Data Storage and Backup (Netstorage)
- Focus instructionally is on Literacy and State Tests, student achievement
- Still using a variety of Educational Software in Elementary School
- Success Maker and Blackboard still being used
- Lab space has stayed the same
- PTLW continues to be predominant instructional model at the secondary level
- Intuition on the use of data to drive instruction
- Increased focus on the Microsoft Office applications as well as other appropriate software applications .
- Approx. 1100 PCs/Laptops district wide

This District Technology Planning Committee has brainstormed, debated, and created Phase Six, which this plan will address. Phase Six will be titled, **Implementing an Instructional Technology Curriculum with Associated Instructional Technology Professional Development**.

The District Mission

Mission Statement: The goals of OA's Instructional Technology are meant to be consistent with the district's Mission:

> The Mission of the District is to challenge students, within a caring environment, to become confident, competent, contributing citizens with a lifetime thirst for learning.

The Vision for the Use of Technology in Instruction

OA will be a leader in technology, applying current and emerging technologies as appropriate to enhance the teaching and learning process.

OA will provide and support a technologically rich learning environment in which students and teachers use instructional technology as a natural component of their learning activities.

All teaching staff will be prepared to meet the National Educational Technology Standards and Performance Indicators.

All students will meet or exceed benchmarks at each ability level, graduating from the OA district with the skills and knowledge necessary to succeed beyond K-12 education.

All students will learn to access information in all types of formats and apply it in meaningful and ethical ways. They will become fluent in the tools needed to gather it, analyze it and synthesize it.

All students will learn (and teachers will advocate for) responsible digital citizenship with the idea that what is practiced at school is carried over outside of school as well.

All students will learn how to communicate knowledge, using the appropriate technology platform, in creative and effective ways. Teachers will find ways for students to have an authentic audience for their creations.

All of these statements of vision require continuous training for both teachers and students, so that all available technology is used in the most efficient and enlightened way.

District Technology Goals and Objectives

Goal 1: To integrate voice, video and data networks capable of providing communications at the school, county, state, and national levels

- ☑ Develop guidelines and policies for district-wide networking as it applies to the Internet and continue to expand the possibilities of distance learning
- ☑ Provide each classroom with a SmartClassroom configuration including mounted LCD Projectors, DVD/VCR, Document Camera, Computer, Audio System and the hardware required for these devices to interact with one another
- ☑ Collaborate with agencies and institutions responsible for design and implementation of statewide and national infrastructure to assure compatibility and connections to all schools

Goal 2: To improve teacher and student access to technological resources in classrooms and other learning centers through equitable distribution of equipment, software, and technical assistance

- ☑ Maintain and upgrade the network-ready multimedia computers in PreK-12 classrooms
- ☑ Implement a district-wide Instructional Technology curriculum with clearly defined competencies and strive to integrate it into all existing curricula
- ☑ Encourage staff to communicate program and instructional technology ideas through the technology committee process
- ☑ Encourage teacher participation in on-line projects
- ☑ Maintain and update the district Acceptable Use Policy
- ☑ Develop and implement an electronic portfolio to longitudinally store student activity and project data throughout their time at OACSD
- ☑ Research, develop, and implement a plan to comprehensively evaluate new and existing instructional software at all levels and ensure purchased software is improving technology literacy and increasing academic achievement

Goal 3: Establish extensive training programs and appropriate incentives for teachers to enhance teaching and learning through the use of educational technologies

- ☑ Establish guidelines and specifications for teacher training, specifically to implement NETS for Teachers as a basis for competencies

- ☑ Implement on-going Management Information System training and staff development for all administrative staff and support staff (Munis, eSchool, MyLearningPlan, AISEdge, SchoolDudes, Transfinder, ClearTrack, Nutrikids)
- ☑ Establish a peer mentoring support program for technology integration
- ☑ Encourage attendance and involvement in workshops for Technology Coordinators and Instructors
- ☑ Encourage more teachers to pursue a master's degree in Instructional Technology
- ☑ Train Teachers in the use of technology in the content areas and in the use of presentation equipment and software that will allow them to present state-of-the-art lessons
- ☑ Expand employment of technology-knowledgeable individuals to assist with labs and technical problems
- ☑ Strongly consider technology readiness of all potential employees
- ☑ Use district conference days and half days to instruct teachers in ways to effectively integrate technology within the curriculum
- ☑ Develop and implement a technology skills assessment for staff
- ☑ Work collaboratively with the Teacher Center to continue to provide training and in-service classes according to staff need and skill assessments
- ☑ Embrace the OpenSource movement and educate staff to utilize open source resources
- ☑ Research, design and develop, and implement a Staff Training and Professional Development Lab where staff can receive on-going professional development in the area of technology

Goal 4: Educators and administrators will have access to technologies that provide for the maintenance, reporting, and analysis of student and administrative data

- ☑ Evaluate the effectiveness of our existing software package to support student and administrative data management, analysis and reporting
- ☑ Maintain and improve the processes within our student management software with regards to attendance, grade reporting, medical information, and discipline
- ☑ Train appropriate staff to use data analysis tools such as COGNOS and eSchool
- ☑ Expand the computerized grade book and mark reporting to the elementary school
- ☑ Create and implement additional data analysis systems that address formative data collection at the classroom level
- ☑ Design and implement an efficient work order system that provides necessary data useful for training and staff development
- ☑ Design and implement a strategy to move towards OpenOffice and Linux based operating systems which will alleviate the growing cost of licensing in our network

Goal 5: A system of ongoing evaluation will be established for assessment of technology applications, teacher preparation, and training

- ☑ Develop tools and a consistent process of data collection that can be used to assess progress in implementing the recommendations of this plan
- ☑ Develop a student survey to determine number of computers at home, number with Internet access, number and type of peripherals, use of open labs at school, etc.
- ☑ Continuous emphasis on responsibility and ethics
- ☑ Assess staff use of technology using a custom designed rubric, network information, and professional development data

Goal 6: Improve and maintain the backbone network

- ☑ Assure that all students and staff will be provided with and have equal access to minimum standards of hardware and software
- ☑ Upgrade the servers, fiber backbone and switch infrastructure as needed
- ☑ Design and implement efficient storage structures that provide more opportunity to share data and alleviate retention and purchasing more space
- ☑ Research the possibilities of utilizing our LDAP structure
- ☑ Develop an effective and efficient retention policy for GroupWise and file management
- ☑ Redesign the Project Lead the Way lab structure providing it with internet access and integration with our existing network
- ☑ Research the opportunities of Thin Client solutions
- ☑ Develop and implement a wireless infrastructure for each instructional building within the district
- ☑ Research, develop and consider implementing a Voice over Internet Protocol system that will replace our existing Centrex phone system
- ☑ Connect all backbone closets to building generators ensuring network availability in times of power outages
- ☑ Research, develop, and implement an effective replacement schedule for all hardware
- ☑ Research the opportunities of providing more administrative rights to staff

Current State of Technology

K - 12 Instructional Technology Curriculum

We recognize that the instructional expectations that we set for our students must be revised on a regular basis (especially in the area of instructional technology). The K-12 Technology Curriculum Committee is currently performing a formal study of the Scope and Sequence of our technology literacy curriculum. Additionally, the committee is conducting:

- An Inventory of Faculty Skills
- An assessment of the integration of Instructional Technology skills in every classroom K12
- A study of research and literature related to Instructional Technology including the National Educational Technology Standards (NETS).

Data Management and Student Achievement

The OA district has adopted an aggressive plan for the collection, management and communication of data to support instruction. We systematically collect data including demographic, census-attendance, discipline, Part 200 (CSE), students' grades (6-12), and standardized testing. This data is collected in a well designed and documented relational database system which allows the data to be combined and analyzed in a wide variety of modes. Student privacy is protected through a systematic approach to data consistent with NYS law. Professional staff can follow a streamlined process for accessing data (on a need-to-know basis) in many formats including printed reports, extracts in Microsoft Excel or Access, or via electronic extracts to other specific formats.

Resources and Support Staff

The Owego Apalachin Central School District has developed many resources as part of its technology plan. These resources are stable and reliable and have been developed in a strategic approach since the first technology plan was adopted in 1987. The following will serve as a brief summary:

- Four building LANs and a Wide Area Network connecting every building in the district and every instructional space.
- At least one networked Pentium computer in every instructional space.
- At least two laptops, digital projectors and digital cameras are available in every building for faculty use.
- Over 100 networked software programs.
- Networked printing and color printing in every building.
- Twelve networked computer labs.
- A user friendly management system (ZenWorks) which allows the professional staff to customize the software to which their students have access.

- High speed Internet access in every instructional space and office (connected via T1 or fiber connections)
- A comprehensive office automation system (GroupWise) which provides all staff access to electronic mail, electronic calendars, and resource sharing.
- A World Wide Web presence that is customized to support the instructional and information needs of the district including an Intranet connection available only to district staff.
- A Virtual Library that provides all students and staff with a very rich source of research materials from within the school network. These resources are available to students and staff from home with the use of passwords available through the librarian or the district Intranet.

SUPPORT STAFF

Instructional Technology can only be effective if the networks are up and if the computers are working properly. Data cannot affect student outcomes unless the professional staff can get reliable access to it. The OA Computer Services Department provides support for both administrative and instructional computing.

The district has made a concerted effort to provide technical support at the building level. Each academic building has a network assistant who maintains the computer labs and network access. This network assistant has been trained in the use of Netware administration, ZenWorks, and SuccessMaker. In addition to providing instructional support, they are responsible for first-level workstation support. They serve as the teacher's first contact if there is a technical problem or request. There is also a building level Computer Coordinator, this coordinator is a professional educator who helps promote the use of technology in the building. The coordinator provides instructional support, and assists teachers in locating and previewing software/hardware.

At the district-wide level there is a skilled Computer Services Department that supports our technical infrastructure. The district currently runs 14 servers connected by busy Wide Area Network. A Senior Network Support Specialist maintains the district's Internet access, Novell servers, routers, switches, email server, and firewall. The district's second level Network Support Specialist provides backup to the Senior Specialist, configures the many 'builds' installed on our networked PCs and provides advanced workstation support. The district works in close cooperation with the regional information center to coordinate our firewall configuration.

The Computer Operator coordinates support for activities of the administrative computing (census, attendance, mark reporting, scheduling, and other services. The district's Programmer Analyst maintains our two Unix servers along with a very tightly integrated relational database system. He provides custom programming to meet the district's goal and to support the use of data to improve student performance. The district also employs a PC/LAN Field Technician who is responsible for frontline hardware and software troubleshooting, installation, and maintenance.

Assessment of the Impact of Technology on Instruction and Student Achievement

The role of assessment in the OA district's Instructional Technology Plan is to monitor our progress in the use of technology. We use a variety of approaches for this assessment including: pilot studies, surveys (faculty, parent, student), skills inventories, data from instructional management software, benchmarking, mark reporting data, building level committees (and *ad hoc* focus groups), data from the Teacher's Center and external reviews. The following is a sampling of recent assessment strategies.

- Data Analysis: The district uses a wide variety of data to monitor student achievement and the corresponding impact of instructional technology. The Teacher Center regularly provides courses in the use of technology to monitor student achievement. Pilot Studies: The district uses pilot studies to examine possible uses of instructional technology. Some recent pilot programs include: SmartBoards, Video Studio 11, SmartView, TI Navigator, Art Intuos Tablets, and Formative Data collection.
- Surveys and Inventories: The district often uses surveys to examine particular issues related to instructional technology, to monitor progress and to provide planning feedback. These surveys are delivered in different format (e.g. online, direct mailing of a random sample, etc).
- Benchmarking and Best Practices: The district will on occasion benchmark other school districts with model programs. This benchmarking may be conducted using visitations, interviews, and surveys.
- Building Level Coordinator and Committees: Each building's Computer Coordinator serves as an important link between the classroom and District Technology Planning Committee. Coordinators are regularly asked to conduct needs assessments and evaluations to provide data for planning. In recent years these committees have successfully focused on classroom design, the use of SuccessMaker, software selection, classroom configurations, hardware needs *etc*.

Staff Development

The OA District has a long-standing commitment to providing staff development meeting the training needs of the district. We recognize that our entire staff needs to be kept abreast of the rapidly emerging skills required in the 21st Century. To accomplish this goal, it is essential for all teachers to feel comfortable and proficient using computer technology. Therefore, ongoing staff development is a critical component of our technology plan. It is recognized that teachers need encouragement, support, instruction and hands-on experiences in order to become comfortable using computers creatively in their classrooms. More than any other single factor, professionals must believe that the use of technology will allow them to teach more effectively than was possible before its introduction.

A sound professional development plan provides the foundation for implementing new programs or other innovations into the classroom setting. In order to fully realize the true potential of this technology, it is imperative that an ongoing support program, in the form of training, be developed in order to meet the needs of the varied proficiency levels of our teachers. Such a program of staff development must be continuous and must provide teachers with necessary support throughout the implementation process and beyond. It is recommended that a district-wide survey of computer abilities be conducted to help formulate training.

The existing computer labs are the ideal location for this training under the direction of our computer literate teachers. The computer lab is the optimal setting where staff can work and learn collaboratively and cooperatively utilizing all the available technology. The proposed Teacher Training and Professional Development Lab can also be utilized for more personal and individualized instruction. An analytical approach in planning these activities is required, where the district-based Teacher Center provides the focus for all staff development activities in the district.

Technology-based in-service is funded through the region's Model Schools Co-Ser. We are proud that Owego Apalachin was instrumental in the creation of this service. The district's technology planning committee serves as the Model Schools Steering Committee for the district. We establish the priorities within which Model Schools courses are offered. Because we are part of a larger consortium we experience the advantage of shared resources and a wider variety of courses for our faculty and staff.

Implementation

In order to train every teacher, in-service instruction needs to be conducted during the school day and various other times to meet the needs of all staff. This method has been effectively used for implementing other major curriculum changes (assessment, linking standards to curriculum, curriculum mapping, etc.) With appropriate professional development and technological support, all staff will work diligently to meet the following individual professional development objectives when taking in-service training:

1. Adopt District Technology Standards and Competencies into all curriculum areas
2. Use instructional software with ease
3. Demonstrate the use of technology as a research tool
4. Make technology become part of student assessments
5. Use assessment reports to modify instruction
6. Use technology to enhance teacher-parent communication

To help staff meet these objectives the following instructional approaches will be used:

- In-service courses (taught by teachers in our district and funded by BOCES and Owego Apalachin Technology Resource and Teacher Center)
- In house Staff Development Conference half days
- Mini-workshops (Superintendent Conference Days)
- Grade level instructional training
- In-class technical support
- Peer teaching
- NYSCATE conference sessions and workshop
- Attendance at conferences
- Full day training sessions where staff members are given release time to attend

The following courses will be offered on an ongoing basis in order to insure that the technology be successfully implemented. Some of the courses will be offered on the beginner, intermediate, and advanced levels.

The courses include, but are not limited to:

- Designing classroom activities using integrated software packages (word-processing, database, spreadsheet, presentation)
- Integrating the computer into the curriculum
- Using Teacher Access Center (eSchool)
- Desktop Publishing
- Using and acquiring graphics (digital cameras, scanners, Internet) to create multimedia projects for classroom use
- Using the Internet to teach curriculum content and skills

- Using multimedia authoring software (VideoStudio, PowerPoint)
- File management
- Using peripherals such as SmartBoards, projectors, TI calculators, document cameras)
- Using library resources
- Using Blackboard

Providing these courses as general courses without any instructional training level is considered inefficient. Therefore, this plan has adopted three training levels which each course should be associated with. This will provide staff members an opportunity to plan accordingly to available courses and allow for better use of instructional time within a course.

Training Levels

Introductory Level: This level will provide instruction to meet minimum skill levels.

- System and policy awareness
- Teacher workstation overview
- Word processing
- Email
- Introduction to Teacher Access Center
- Introduction to District Technology Curriculum and Standards

Intermediate Level: This level provides specific instruction and is designed to enhance the teacher's skills.

- Intermediate word processing
- Creating and using spreadsheets and databases
- Enhanced use of Teacher Access Center
- Blackboard Teacher Website
- Integration of Technology into the curriculum using District Technology Curriculum and Standards
- Use of specific software in the classroom
- Data Analysis using Summative Data – State Assessments

Advanced Level: This level provides higher levels of technology instruction that is intended to enable the teacher to develop skills with advanced software applications.

- Multi-media presentations and presentation technologies
- Online searching
- Advanced Blackboard Website
- Video Production and Editing
- Desktop Publishing

- SmartBoard
- Advanced Data Analysis using Formative and Summative Data

Community Use of District Technology

The Owego Apalachin community has a long and close relationship with its schools. The district has a commitment to strengthening this relationship. Our belief is that the resources of the schools belong to the community and that as long as community use does not interfere with instruction we will make every effort to make these resources available to the community. Current examples include:

- TALL Lab - The Tioga Adult Learning Lab which is the product of a partnership between, Headstart, Literacy Volunteers, Tioga County Office of Employment and the Owego Apalachin Central School District
- The use of computer labs for adult education program coordinated through the Broome Tioga BOCES on site
- The district's web page as an outreach to the community: links to community organizations (Tioga Opportunities, Pool Page, Youth Court, Literacy Volunteers, local periodicals). All research tools are made available to the public subject to licensing restrictions

Use of district facilitates is governed by the district's building use policy and procedures. There is an important limitation to the use of the Internet by community groups which is found in our Internet Acceptable Use Policy. Internet access is only made available to students (regular or adult education). That restriction is based on the advice of counsel and is required in order to preserve the district's legal ability to control content viewed on the Internet.

Existing Technology

An important goal of the Owego Apalachin Technology Plan is to monitor the existing technology available in the district. The following should serve as an overview of the existing technology in the district.

- Novell and ZenWorks: are used to provide instructional software, email and other services to the instructional areas
- Administrative Software includes: eSchoolPlus for student information services, Munis for business applications (payroll, accounts payable, general ledger, etc.), CQCS (Cyberscreen) as our relational database management system, GroupWise for office automation (email, calendar), and My Learning Plan (Professional Development Tracking Database)
- Routers, switches and hubs: are coordinated district-wide and are consistent with the Regional Information Center's standards
- Computer Workstations have been purchased from Dell or Seneca Data. Each workstation is equipped with our district standard software image
- The district's default web browser is Internet Explorer 6. We use Microsoft Office 2003 including Word, PowerPoint, Excel, Access, and Publisher as our core application software. Over 100 other software titles are available for faculty and staff

Infrastructure

The district is committed to providing a robust, reliable technological infrastructure that can support the instructional and administrative needs of over 2,600 students, teachers, administrators and other staff.

- The district has seven local area networks based on the TCP/IP protocol. The networks support peer to peer connections, Netware 6.x and AIX. We are systematically converting our client software to secure socket handling
- The local area networks are connected via an integrated Wide Area Network. Wiring between buildings is a combination of fiber optic and T1 leased lines. Network Topology: Each classroom building has at least two star-based wiring closets. The wiring to the classroom was installed and tested according to EIA/TIA 568 standards. It is based on unshielded twisted pair copper
- Networked Printers: We support Hewlett Packard, Xerox, and Dell networked printers and Canon high-speed printer/copiers

Acquisition and Obsolescence

THE AQUISITION OF TECHNOLOGY:

Decisions about the purchase of new technology are made in the context of the district mission and goals. We believe that hardware and software should be acquired in order to meet very specific needs.

REPLACEMENT PLAN:

The district is committed to replacing instructional technology following a logical and on-going process. Subject to unanticipated budget problems we plan on replacing equipment based on the following schedule:

- Servers: Every three years
- Workstations –5 years depending on technological demands of its use (Note: a computer used for Computer Assisted Design will need replacement faster than a computer used for email and terminal emulation) See Appendix C
- Computer Labs – On a 3-5 year schedule depending on the technological demands of its use
- Printers: As needed 3-6 years on average
- Digital Cameras, scanners, and other peripherals - On a 3-5 year schedule
- Software – Is upgraded according to the need of the application and users

OBSOLESCENCE

Although we recognize that instructional technology is changing very quickly we also realize that we have to be good custodians of the financial resources the public entrusts to us. Our goal is to get as much life out of every piece of equipment that we can. We do not remove a device from use while it can still perform a productive purpose. When we do remove equipment from service we do so under the guidelines established by public law.

Funding for Technology

The Owego Apalachin Central School District recognizes the need to provide adequate resources for the use of instructional technology within the resources available. Please refer to the current district budget for details.
Whenever possible the district attempts to work cooperatively with our Regional Information Center (BOCES). This allows us to benefit from economies of scale and to also maximize the state aid available which minimizes the impact of this service on the local share of the budget. Common funding streams include: (also see Appendix A)

- Common Learning Objectives Co-Ser – Hardware and Software
- District-wide Technology: Hardware, Software, Supplies
- Model Schools – Staff Development
- Support Staff - Whenever possible the instructional technology support staff is funded under a BOCES Cooperative Service
- Grants - Since 1987 the district has benefited from over $500,000 in competitive grants related to technology. We see these grants as an opportunity to fund some of our 'research and development' activities. We encourage our staff to apply for and compete in grants that will allow them to explore new and emerging technologies
- Capital Projects - The district has integrated a significant amount of its network infrastructure (i.e. fiber optic cabling, wiring to the classroom, wiring closets) into our recent capital projects

Implementation

Implementation of this plan requires a close collaboration between the District Technology Planning Committee, Computer Services, the Curriculum Council, the OATRTC, building administration, and the other support services of the district. The Chief Information Officer is expected to take the lead in coordinating this implementation. Implementation is planned and coordinated on a project by project basis.

Policies and Procedures

The use of instructional technology and the K12 instructional technology curriculum is subject to Board approved policies, district-wide and building procedures and other guidelines that may be adopted from time to time. (Appendix B)

Certification of Technology Plan

PLEASE NOTE: This plan has been revised to comply with the requirements of the Certification of Technology Plan for Schools and Libraries Universal Service Program as of February 7, 2008. It has been submitted to the Broome Tioga BOCES for certification. Any questions should be directed to Robert Farrell, Chief Information Officer (farrellb@oacsd.org)

Owego Apalachin Central School District

Instructional and Information Technology Budget

PROGRAM DESC	FUNC DESCRIPTION	GROUP	2008-2009	2009-2010	2010-2011
COMPUTER EQUIPMENT	COMPUTER ASSISTED INSTRUCTION	GENERAL	$ 33,957.00	$ 33,957.00	$ 33,957.00
COMPUTER SOFTWARE	COMPUTER ASSISTED INSTRUCTION	GENERAL	$ 32,689.00	$ 32,689.00	$ 32,689.00
OTHER EXPENSES	CENTRAL DATA PROCESSING	GENERAL	$ 1,000.00	$ 1,000.00	$ 1,000.00
COMPUTER SUPPLIES	CENTRAL DATA PROCESSING	GENERAL	$ 3,632.81	$ 3,741.79	$ 3,854.05
EQUIPMENT NON-INSTRUCTIONAL >$1000	CENTRAL DATA PROCESSING	BOCES	$ 76,219.00	$ 76,219.00	$ 76,219.00
EQUIPMENT NON-INSTRUCTIONAL <$1000	CENTRAL DATA PROCESSING	BOCES	$ 3,000.00	$ 3,000.00	$ 3,000.00
HARDWARE/SOFTWARE MAINTENANCE	CENTRAL DATA PROCESSING	BOCES	$ 116,718.00	$ 120,219.54	$ 123,826.13
MISCELLANEOUS CONTRACT EXPENSES	CENTRAL DATA PROCESSING	BOCES	$ 394.00	$ 394.00	$ 395.00
TELECOMMUNICATIONS	CENTRAL DATA PROCESSING	BOCES	$ 41,724.00	$ 42,975.72	$ 44,264.99
INSURANCE	CENTRAL DATA PROCESSING	BOCES	$ 758.00	$ 758.00	$ 758.00
SUPPLIES AND MATERIALS	CENTRAL DATA PROCESSING	BOCES	$ 20,568.00	$ 20,568.00	$ 20,568.00
SOFTWARE	CENTRAL DATA PROCESSING	BOCES	$ 2,500.00	$ 2,500.00	$ 2,500.00
STUDENT CO-OP	CENTRAL DATA PROCESSING	BOCES	$ 14,500.00	$ 14,500.00	$ 14,500.00
SALARIES	CENTRAL DATA PROCESSING	BOCES	$ 178,033.00	$ 185,752.00	$ 193,471.00
OVERTIME	CENTRAL DATA PROCESSING	BOCES	$ 12,000.00	$ 12,000.00	$ 12,001.00
DIGITAL PRINTERS	CENTRAL DATA PROCESSING	BOCES	$ 95,313.00	$ 98,172.39	$ 101,117.56
PROF DEVELOPMENT - NSS	CENTRAL DATA PROCESSING	BOCES	$ 13,000.00	$ 13,000.00	$ 13,001.00
PROF DEVELOPMENT - MODEL SCHOOLS	INSTRUCTION	BOCES	$ 7,190.00	$ 7,405.70	$ 7,627.87
PROF DEVELOPMENT - OATRTC	IN-SERVICE TRAINING	GENERAL	$ 7,725.00	$ 7,956.75	$ 8,195.45
PROF DEVELOPMENT - DISTRICT WIDE OPERATIONS	IN-SERVICE TRAINING	GENERAL	$ 4,120.00	$ 4,243.60	$ 4,370.91
PROF DEVELOPMENT - DISTRICT WIDE EDUCATION	IN-SERVICE TRAINING	GENERAL	$ 14,626.00	$ 15,064.78	$ 15,516.72
MILEAGE	CENTRAL DATA PROCESSING	BOCES	$ 2,400.00	$ 2,400.00	$ 2,400.00
CONFERENCE, TRAVEL, ETC	CENTRAL DATA PROCESSING	BOCES	$ 500.00	$ 500.00	$ 500.00
BENEFITS	CENTRAL DATA PROCESSING	BOCES	$ 95,150.00	$ 98,004.50	$ 100,944.64
NSS BASE SERVICE FEE	CENTRAL DATA PROCESSING	BOCES	$ 25,672.00	$ 26,442.16	$ 27,235.42
NSS ADMIN CHARGE	CENTRAL DATA PROCESSING	BOCES	$ 10,400.00	$ 10,400.00	$ 10,401.00
TECHNOLOGY REPAIR	INSTRUCTION	BOCES	$ 33,171.00	$ 34,166.13	$ 35,191.11
MEDIA LIBRARY/EDUC COMMUNICATIONS	INSTRUCTION	BOCES	$ 27,128.00	$ 27,941.84	$ 28,780.10
DISTANCE LEARNING	INSTRUCTION	BOCES	$ 18,763.00	$ 19,325.89	$ 19,905.67
MISC. MAINT AND BASE FEES	INSTRUCTION	BOCES	$ 10,606.94	$ 10,925.15	$ 11,252.90
SHARED FTE	INSTRUCTION	BOCES	$ 39,123.00	$ 40,296.69	$ 41,505.59
MISCELLANEOUS (IPA 129)	INSTRUCTION	BOCES	$ 122,195.00	$ 172,195.00	$ 172,196.00
STUDENT MANAGEMENT SYSTEM	CENSUS	BOCES	$ 65,126.00	$ 67,079.78	$ 69,092.17
DATAWAREHOUSE	CENSUS	BOCES	$ 26,710.00	$ 27,511.30	$ 28,336.64
			$ 1,156,611.75	**$ 1,233,305.71**	**$ 1,260,573.92**

INTERNET SAFETY POLICY

The Board of Education is committed to undertaking efforts that serve to make safe for children the use of district computers for access to the Internet and World Wide Web. To this end, although unable to guarantee that any selected filtering and blocking technology will work perfectly, the Board directs the Superintendent of Schools to procure and implement the use of technology protection measures that block or filter Internet access by:

- adults to visual depictions that are obscene or child pornography, and
- minors to visual depictions that are obscene, child pornography, or harmful to minors, as defined in the Children's Internet Protection Act.

Subject to staff supervision, however, any such measures may be disabled or relaxed for adults conducting bona fide research or other lawful purposes, in accordance with criteria established by the Superintendent or his or her designee.

The Superintendent or his or her designee also shall develop and implement procedures that provide for the safety and security of students using electronic mail, chat rooms, and other forms of direct electronic communications; monitoring the online activities of students using district computers; and restricting student access to materials that are harmful to minors.

In addition, the Board prohibits the unauthorized disclosure, use and dissemination of personal information regarding students; unauthorized online access by students, including hacking and other unlawful activities; and access by students to inappropriate matter on the Internet and World Wide Web. The Superintendent or his or her designee shall establish and implement procedures that enforce these restrictions.

The computer network coordinator designated under the district's Computer Network or Acceptable Use Policy, shall monitor and examine all district computer network activities to ensure compliance with this policy and accompanying regulation. He or she also shall be responsible for ensuring that staff and students receive training on their requirements.

All users of the district's computer network, including access to the Internet and World Wide Web, must understand that use is a privilege, not a right, and that any such use entails responsibility. They must comply with the requirements of this policy and accompanying regulation, in addition to generally accepted rules of network etiquette, and the district's Acceptable Use Policy. Failure to comply may result in disciplinary action including, but not limited to, the revocation of computer access privileges.

IPA Strategy - Information Technology (Hardware)
Owego-Apalachin Central School District

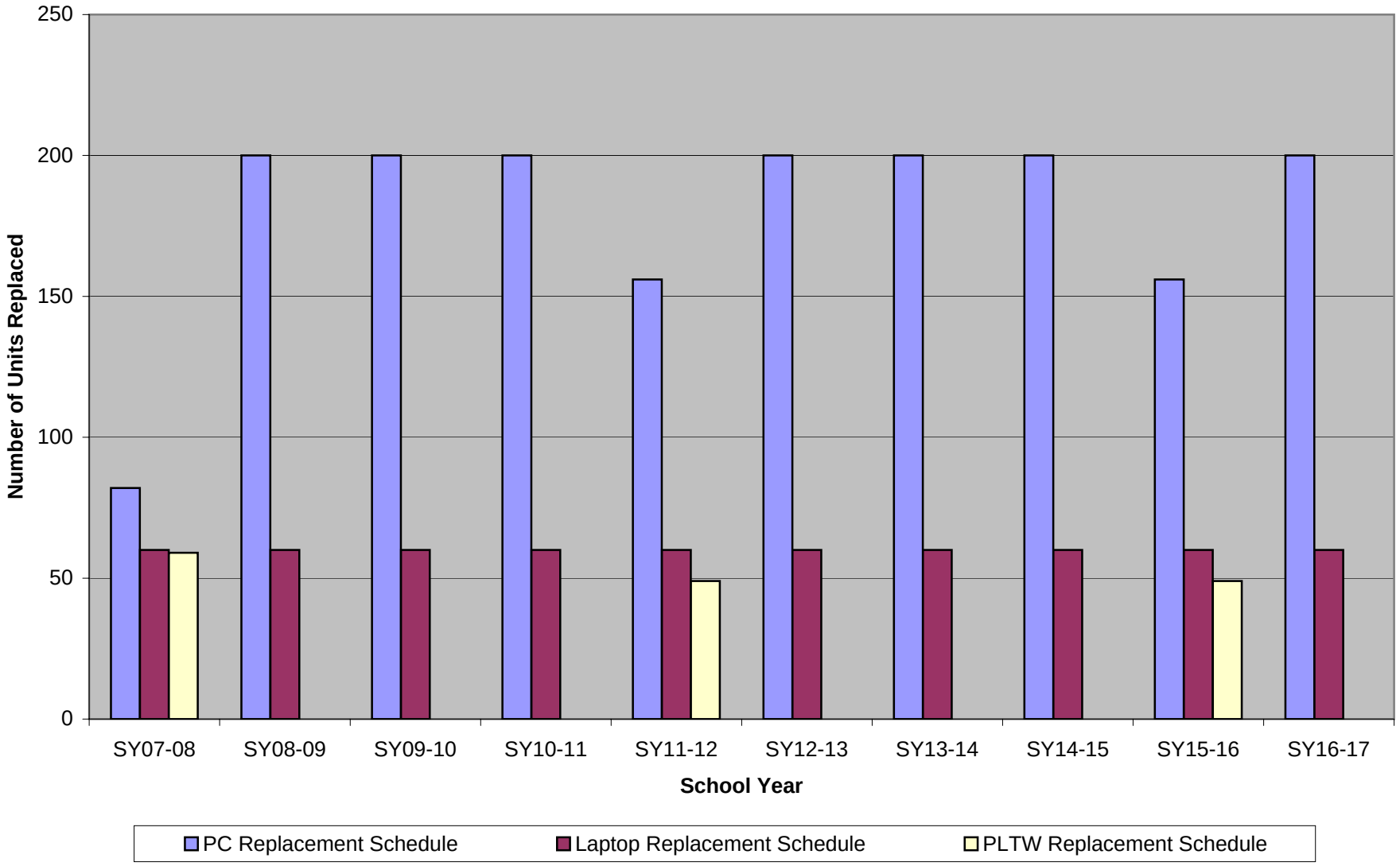
IPA#	SY06-07	SY07-08	SY08-09	SY09-10	SY10-11	SY11-12	SY12-13	SY13-14	SY14-15	SY15-16	SY16-17
#109	$ 6,742	$6,742	$6,742								
#112	$ 5,677	$5,677	$5,677								
#129	$ 79,566	$79,566	$79,566	$79,566							
	Fund Balance Payoff Contribution		($30,000)	($48,000)							
#118	$ 24,673										
New IPA		$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403		
New IPA			$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	
New IPA				$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403
New IPA					$48,403	$48,403	$48,403	$48,403	$48,403	$48,403	$48,403
Total Commitment	$ 116,658	$140,388	$158,791	$176,775	$193,612	$193,612	$193,612	$193,612			
Purchasing Power for IPA		$185,000	$185,000	$185,000	$185,000	$185,000	$185,000	$185,000			
Estimated BOCES Revenue Generated			$135,050	$135,050	$135,050	$135,050	$135,050	$135,050			

	SY07-08	SY08-09	SY09-10	SY10-11	SY11-12	SY12-13	SY13-14	SY14-15	SY15-16	SY16-17
PC Replacement Schedule	82	200	200	200	156	200	200	200	156	200
Laptop Replacement Schedule	60	60	60	60	60	60	60	60	60	60
PLTW Replacement Schedule	59	0	0	0	49	0	0	0	49	0

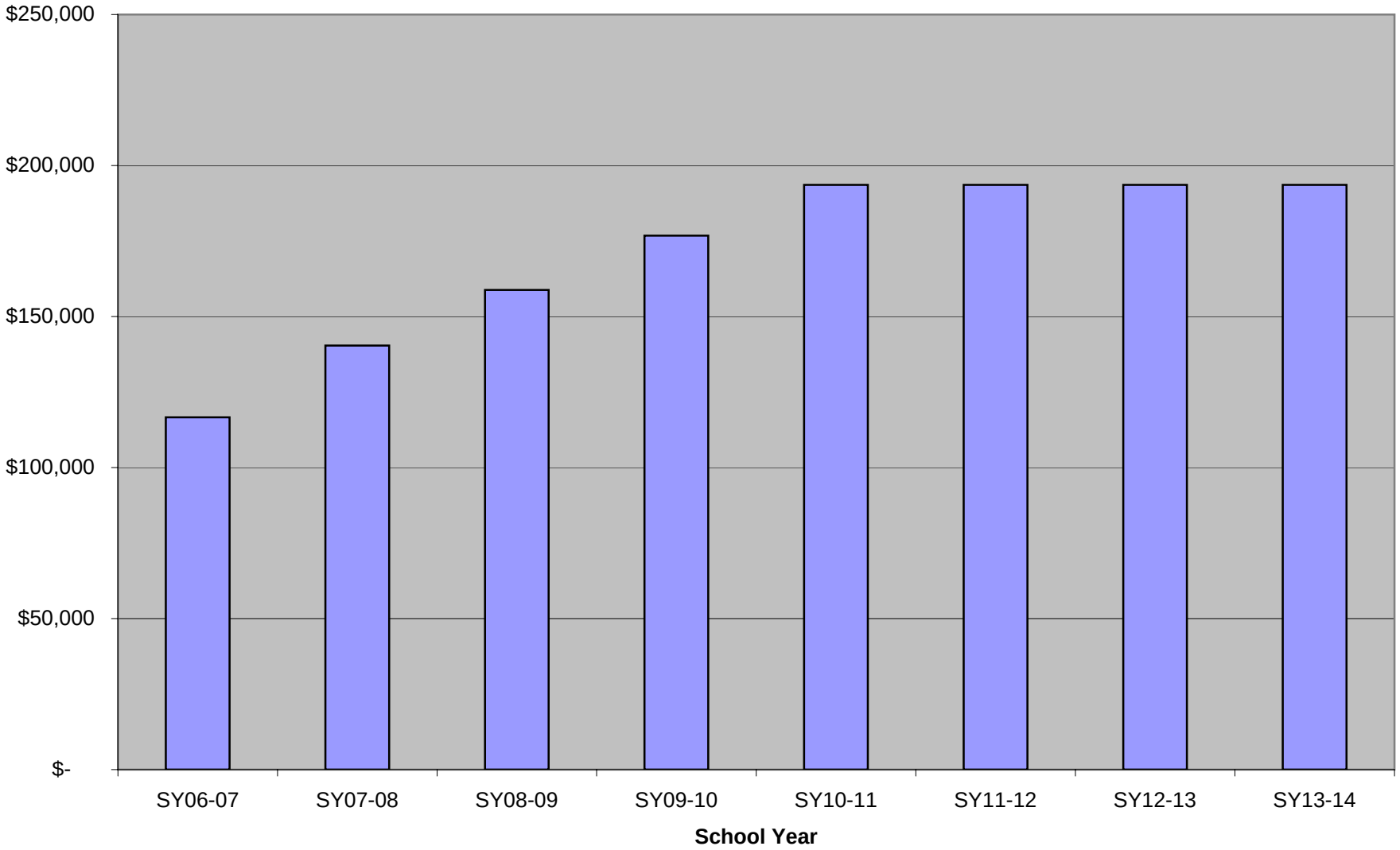
Paid with Fund Balance	
New IPA	
Second Round New IPA	

PC Price	$493
Laptop Price	$925
PLTW PC Price	$1,066

Replacement Schedule 2007 - 2017



Total Commitment to NSS/CLO Budget for IPA Payments



Replacement and Purchase Plan

	SY07-08	SY08-09	SY09-10	SY10-11	SY11-12	SY12-13	SY13-14
PLTW PC Replacement	$ 62,894				$ 52,592		
PC Replacement	$ 40,426	$ 98,600	$ 98,600	$ 98,600	$ 76,908	$ 98,600	$ 98,600
Laptop Replacement	$ 55,500	$ 55,500	$ 55,500	$ 55,500	$ 55,500	$ 55,500	$ 55,500
Backbone Network Upgrades	$ -	$ 15,450	$ 15,450	$ 15,450	$ -	$ 15,450	$ 15,450
Instructional Needs	$ 26,180	$ 15,450	$ 15,450	$ 15,450	$ -	$ 15,450	$ 15,450
Total Spent	**$ 185,000**	**$ 185,000**	**$ 185,000**	**$ 185,000**	**$ 185,000**	**$ 185,000**	**$ 185,000**