

“*Lighting the way to the future*”
Warwick Public Schools, Warwick, Rhode Island



Technology Supporting Proficiency FY2008-2010

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Warwick Technology Mission, Goals and Action Plan

Introduction

Warwick students, teachers and staff need access to current, reliable technology along with appropriate professional development that supports instruction and assessment. This plan is a guideline for appropriate and effective use of technology for all Warwick schools and administration.

Technology Mission

We firmly believe that in order to prepare our students to succeed in a world made ever-changing by technology, we must create powerful, technology-rich learning environments in which our investment in technology and training matches our students' educational needs, supports our curricular designs, and prepares our students to be lifelong learners by making them competent users of technology.

Technology Goals

1. Communication

Employ technology for communication and collaboration among staff, parents, students, the larger community and the world.

Communication Action Plan

Results Statement	1. Provide continued support and expansion for the ConnectEd Notification System 2. Provide continued support and expansion for the FirstClass Communication and Collaboration System
Evaluation	1. Review logs and messages for site users, data errors and delivery statistics quarterly. 2. Utilize the Log Analyzer for usage statistics and review quarterly.

1. Action Steps – ConnectEd notification system

Provide and support automated data interface from SIS

Provide continued support to existing users

- District emergency and community outreach use
- Elementary, Jr. and Sr. High principals for parent, student and staff notification
- Sr. High principals and staff for automated daily attendance

Expand utilization to the Jr High schools for automated daily attendance

- Automated attendance calls to parents of students twice a day.
- Implementation of the JHS to be complete first quarter of the 2008-09 school year.

Expand utilization to the Elementary schools for automated daily attendance

- Automated daily attendance calls to parents of students.
- Implementation of the elementary schools to be complete during the 2009-2010 school year.

Research expanded uses of other components

- Utilize the survey capabilities, audience groupings and e-mail notification messages

Note: with School Committee approval

Provide PD sessions for new users and expanded components.

- As needed sessions will be scheduled

2. Action Steps – FirstClass Communication/Collaboration System

Maintain and customize to WPS

- Create and maintain users mailboxes, desktop structure and security levels
- Develop new forms
- Collaboration conferencing

- Automate student and teacher collaboration and workflow
 - Maintain automated workflow to support helpdesk functions and work order requests
- Provide continued support to existing users
- School Committee members, district administrators and staff
 - Sr. High administrator, staff and students
 - Elementary and Jr. High administrators and staff
- Expand utilization to facilitate Graduation By Proficiency
- Out of district high school students that attend the CTC
- Expand the use of web pages to administrators and staff
- Guidelines complete and posted on district website
 - Training/development of department and individual webpages and links to main site
- Research further uses of FirstClass for communication and collaboration
- Wikis, Blogs and Pod Casts
- Provide PD sessions for new users and expanded components
- As needed sessions will be scheduled
- Install and implement FirstClass Archive Services
- Ensuring regulatory compliance for the storage and retrieval of electronic content
- Develop district procedures and archive rules
- Archive every message sent or received
 - Search the message archive
 - Restore archived mail
 - Set retention periods
 - Reduce costs for storage

2. Data Management

Provide data, information and reporting to the state, staff and parents to improve student achievement and support assessment.

Data Management Action Plan

Results Statement	<ol style="list-style-type: none"> 1. Provide continued support and expansion for the Star_Base/Star_Portal Student Information System and Student Assessment 2. Provide and support data accuracy, download and upload for RIDE State and Federal Reporting 3. Provide continued support to all data management systems
Evaluation	<ol style="list-style-type: none"> 1. Assessment and PLP data reports sent quarterly to each school for review and correction. 2. Defined reports sent to schools quarterly for review, correction and follow-up to ensure data is accurate.

1. Action Steps - Star_Base/Star_Portal Student Information System

Continue to provide support to users

- Computer Center provides ongoing user support via phone and site-based technical support
- Assist with student scheduling, attendance, grade reporting, report card process and printing

Provide continued support with student assessment

- Online Assessment and PLP data entry, reporting, accounts, security and training for Elementary director, ELA supervisor, principals, classroom teachers, special educators, reading specialists
- Online PLP data entry, reporting, accounts, security and training for Secondary director, ELA supervisor, principals, Tier 3 ELA teachers, special educators, reading specialists
- Expand the use of the PLP, implement a Tier 2 group PLP solution to Secondary Tier 2 ELA teachers, Secondary director, ELA supervisor, principals, special educators, and reading

- specialists
- Provide district wide scanning, database maintenance and reporting for GRADE Assessments
 - Collaborate 3 times per year to review student progress in Literacy placement
 - Utilize GRADE database, scanning and reports as replacement of DRP testing for grade 6–12
 - Significant cost savings by elimination of the DRP assessment process
- Continue to support and expand the READ 180 program

Active participation in state leadership committee and legislative commission for the adoption of a statewide SIS

- Recommendation for WPS to transition to a State SIS when the legislation is adopted.
- WPS RFP for an SIS purchase and phase 1 implementation beginning July 2010

2. Action Steps – State and Federal Reporting

Support state and federal data reporting requirements

- NECAP Data Reporting requirements
- eRide and Data Warehouse State Data Reporting Requirements
 - provide instruction to the schools for data accuracy
 - extract, massage and upload data to meet reporting schedules
- Federal Civil Rights Data Reporting Requirements
 - provide instruction to the schools for data accuracy
 - extract, massage and upload data to meet reporting schedules
- Military Options Reporting Requirements
 - provide instruction to the schools for data accuracy
 - extract, massage and upload data to meet reporting schedules

3. Action Steps – Library Media Support

Support of school library transition to FSC Destiny, provide data interface from SIS

- JHS converted to Destiny
- SHS convert during the 2009-2010 school year
- Propose elementary conversion for the 2010-2011 school year

4. Action Steps – Digital Portfolio

Support and expansion of Richer Picture Digital Portfolio System

- Collaborate with vendor to customize system for our teachers and students needs and state required reporting.
- Expand the use of digital portfolio to JHS
- Develop and incorporate ILP in digital portfolio

5. Actions Steps – Transportation System

Provide data interface from SIS to EDULOG transportation system

6. Actions Steps – Financial/Human Resource System

Support the Pentamation Financial/Human Resource system

- Data integrity
- Security
- Maintenance
- Client installation
- Backup, restore and create databases
- Development of reports
- Development of external databases and/or spreadsheets

7. Action Steps – Professional Development to Support Data Management

Provide PD sessions for new users and expanded components.

- As needed sessions will be scheduled

3. Teaching and Learning

Provide and support a learning community with appropriate technology tools and professional development to enhance instruction, improve student achievement and support assessment.

Teaching and Learning Action Plan

Results Statement	Continue to implement and support the integration and use of technology to support teaching, learning and assessment.
Evaluation	• See Impact below

Action Steps	Impact
Continue to support the use of the digital portfolio system	To all high school principals, department heads, teachers, HS students, support staff and central administration Expand the use of digital portfolio to JHS administrators, department heads, teachers, support staff and students Develop and incorporate ILP in digital portfolio
Expand the use of the digital portfolio system	Intro Guidance Counselors and Library Media Specialists Intro Health, Physical Education and Family and Consumer Science teachers Evaluation: Review usage reports regularly
Continue to support and write the E2T2 grant	To current target audience
Continue to support the iSafe -Internet Safety Program	Assist the Library Media Specialists and parents to integrate the program Research Federal requirements for teaching Internet Safety K-12
Continue to support and expand the READ 180 program	To Gorton Reading Teachers Evaluation: Review usage reports regularly
Expand and support the Robotics and Vex programs	To Technology Education teachers Evaluation: Review status annually

<p>Implement assessment of technology literacy for all 8th grade students</p>	<ul style="list-style-type: none"> • Jr. High School Business teachers to attend the PD session • Administer the tech literacy assessment to administrators, teachers and library media specialists <p>Evaluation: Review reports/results</p>
<p>Research instructional software to support, supplement, remediate instruction and assessment</p>	<p>Curriculum department and Technology departments collaborate to view, evaluate and recommend programs.</p>
<p>Continue to support and expand the Warwick Diploma System</p>	<p>Graduation By Proficiency, Richer Picture Digital Portfolio, Senior Project</p> <p>Continue to develop curriculum for TE 170 for graduation portfolio.</p> <p>Evaluation: Continue bi-weekly GBP committee meeting</p>
<p>Provide PD sessions to integrate and support teaching learning using technology.</p>	<p>Provide Microsoft IT Academy on-line courses</p> <p>Provide Thinkfinity.org-Literacy Network on-line courses</p> <p>Evaluation:</p> <ul style="list-style-type: none"> • Technology integration rubric will be used to monitor technology integration into the curriculum • Simple Assessment will be used for teacher and administrator technology literacy monitoring towards the ISTE standards
<p>Administer the Tech Literacy Assessment to all 8th grade students.</p>	<p>To get a baseline for NCLB requirement all students technologically literate by 8th grade.</p> <p>Evaluation: Analyze the results of the student assessment at the 3 JHS.</p>
<p>Instructional Technology Project</p>	<p>Participate in statewide Instructional Technology Leadership Council</p> <p>Bring back recommendations from ITLC to district administration/instructional technology project for discussion and implementation.</p> <p>Meet regularly with all secondary technology teachers to review current technology courses, curriculum, and assessments.</p> <p>Develop/align technology courses, curriculum and common assessments across district in support of technology literacy for students.</p> <p>Research becoming a Microsoft IT Academy for students and</p>

	<p>evening program for Warwick community members.</p> <p>Evaluation: Monitor student 8th grade literacy assessment and digital portfolio for technology proficiency.</p>
Thinkfinity	<p>Identify teachers/administrators to become Thinkfinity certified trainers to offer professional development in using Thinkfinity.org as a means for teachers to incorporate technology into daily teaching and learning.</p> <p>Use the Verizon Thinkfinity grant \$5,000 to pay stipends to trainers to deliver professional development in using Thinkfinity resources.</p> <p>Evaluation: Monitor participation in PD sessions. Administer survey on effective use of Thinkfinity.org</p>

4. Emerging Technologies

Advance innovative technologies to enhance instruction, improve student achievement, support assessment and expand efficiency.

Emerging Technologies Action Plan

Results Statement	<p>Expand and improve the district Network</p> <p>Provide continued support, expansion and research for current technology resources.</p>
Evaluation	<p>Review current status as needed of each action step by the Informational and Instructional Technology departments</p>

1. Action Steps - Network infrastructure

- Expand Wireless network coverage
- Replace aging switches on a specified cycle
- Continue to improve site to site bandwidth with RINET
- Continue to expand EMC storage platform
- Storage groups for all users (students, faculty, staff)
- Enhance data backups
 - work with city hall on a data de-duplication system using each data center as offsite repository using fiber optic cable already in place
- Expand IP video security system to secondary schools
- Implement centralized printing, save on toner, paper, maintenance costs
- Provide IS staff training on current technology

2. Action Steps - Expand and maintain high quality end user support and maintenance cycles

- NComputing
- Desktop Virtualization
- Replacement / refresh cycle
- Inventory Maintenance; include software licenses and upgrades concurrent with curriculum needs
- Create and maintain digital maps of schools that feeds directly into inventory
- Provide IS staff training on current technology

NETWORK RECOMMENDATIONS/IMPROVEMENTS:

The technology plan will be implemented with integrated district and school based delivery priorities. The first priority will be to continue to adapt our basic core of technology common to all buildings. The second priority will be to continue to generate school based delivery options to allow each school to address the unique physical structure, mix of students, and staff at that building.

Network Improvements:

New switch gear at the high schools purchased with State Set Aside funds were upgraded over two years 2008-2009 and 2009-2010. The new devices will provide for a unified communications platform. These communications include but are not limited to, VOIP, physical security, information security, video streaming and broadcasting.

Information Services began implementing a new domain structure in 2008-2009. IS will continue restructuring at each school to allow for teacher and student account creation to follow them wherever they go in the district. Eventually we would like them to have access to this information from home.

Information Services is recommending future storage expansion to support home directories for users (students and employees), which ties into above domain restructure.

Continue support of adopted/implemented VMWare solution.

- VMWare provides consolidation and high availability of critical services and servers.

- Provides reduced hardware maintenance costs.

- Reduce power and cooling costs by reducing the physical number of servers with fewer, more powerful energy efficient systems.

- Support proposed expansion of VMWare into a virtual desktop environment to allow individual virtual desktops for every user accessible from anywhere any time. This will also allow us to retrofit older machines into "thin clients" reducing the need for upgrades and maintenance of these systems.

- Information Services will conduct a pilot of a "thin client" solution in the spring of 2010 focused on older model desktops.

Continue support and expansion of EMC/Dell SAN Storage

- Expansion plan and replacement cycle of existing equipment

- Purchase NAS system for data backup to disk. This will remove the need for expensive unreliable tape systems

- Purchase Data de-duplication system in conjunction with City MIS department to provide 2 way offsite data backups

Computers and Peripherals:

Since July 2001, the Information Services Department has been purchasing new computers and peripherals from the State Master Price Agreement that was awarded to Dell. The current standard classroom computer configuration consists of an Optiplex desktop, computer with a dual core processor, ethernet connectivity, minimum 3GB RAM and a 17-inch flat panel monitor, and Windows operating system. Dell updates the configuration regularly as newer technologies become available. All computers are purchased with a 3-year, next day parts only agreement. The Dell purchases have proven both cost effective and reliable. All WPS Computer Technicians are Dell certified annually providing further cost benefits in support and troubleshooting of all computers and laptops.

Printer, peripherals and accessories are bid once every school year to provide a selection of innovative technology options to support teachers and students. It is the recommendation of Information Services to decrease the selection and bid twice a year as of the 2010-2011 school year.

Elementary Schools will implement new NComputing stations piloted with great success in the 2009-2010 school year. NComputing devices will provide a Dell Optiplex mini tower with a dual core processor, ethernet connectivity, 3GB RAM, a 160GB hard drive and a 17-inch flat panel monitor, Server 2003 /08 Operating System with terminal server and client licenses to support 3 to 11 NComputing workstations and one printer. NComputing consists of the X350 (3 User PCI Kit) or X550 (5 User PCI Kit), 3 or 5 HP 1750 17" LCD 2 USB Monitors, and 3 or

5 Logitech Keyboard/Optical Mouse Bundle PS/2.

The implementation of the NComputing solution will provide energy saving, electrical and software licensing cost savings.

Computers at the secondary level will be a combination of NComputing stations and Optiplex desktops. The selection will be determined by the software applications needed for various courses.

Implemented in the 2009-2010 school year utilizing ARRA funding, computers, laptops, printers and USB flash drives have been provided to all Special Services staff. The staff assigned to one school location have an Optiplex 380 desktop and HP LaserJet printer. The staff supporting multiple school locations have Dell Latitude E5400 laptops. All staff has been trained and has signed the Laptop Guidelines document, Appendix

Administration and clerical staff throughout the district have Optiplex desktop computers or Latitude laptops. It is the recommendation of Information Services that new equipment is budgeted to rollover administration and clerical staff computers and network printer every 3 to 5 years.

The individual purchases for software will be made through ASAP Software which has been awarded the State Software MPA.

It is the District's intention to continue to decrease the number of students per computer to meet the National recommendation of 5:1. NComputing will assist in achieving this goal.

Staff members of the Warwick Public Schools who utilize the district network and computers have an e-mail address. The Warwick Public Schools hosts a FirstClass Communication system server and Archive server. It is the continued intention of Information Services and Administrators to improve communication by the utilization of e-mail and collaboration.

Warwick Public Schools hosts a Web Server. The Warwick Public Schools Home Page is located on this server. All of the Schools have individual web pages linked to this page. It is the recommendation of Information Services to outsource the development of an improved website to include design and training to each department and school to support and update their own pages. Information Services will provide training sessions for FirstClass web publishing of department and individual staff pages.

Warwick Public Schools utilizes Symantec Anti-Virus Endpoint Protection throughout the administration and individual site domains to protect all networked computers from viruses.

Warwick Public Schools utilizes RINET for its WAN and Internet connectivity. RINET provides as part of the yearly service fees a 20MB line to each secondary school, 10MB to each elementary school and 100MB to each admin location. They also provide Web filtering as well as monitoring tools to help WPS maintain CIPA compliance.

School Base Delivery of Technology:

Secondary Level Classroom/Lab Computers- minimum requirements:

Purchase computers and/or NComputing (will update specifications to reflect need as technology changes):

Desktop Computers
17 inch flat panel monitor
Optiplex Desktop
3GB RAM minimum
80 – 160GB Hard Drive
Windows XP Professional (Windows 7 TBD)
Microsoft Office Professional 2007
Symantec Antivirus
Ethernet connectivity

NComputing Solution
17-inch flat panel monitor
Optiplex Mini Tower
3GB RAM minimum
160GB hard drive
Server 2003 / 08 terminal server and client licenses to support 3 to 11 NComputing workstations
Microsoft Office Professional 2007
Symantec Antivirus
Ethernet connectivity
Laser printer (currently HP LaserJet)
NComputing X350 (3 User PCI Kit) or X550 (5 User PCI Kit)
3 or 5 HP 1750 17" LCD 2 USB Monitors
3 or 5 Logitech Keyboard/Optical Mouse Bundle PS/2

Labs should be equipped with the necessary number of above listed multimedia computers and the following additional components:

High Speed Network Laser Printer (currently purchasing Lexmark Network Laser Printer)
Scanner with OCR Software
Access to a Digital Camera
Devices to aid students with disabilities using computers, as needed
Presentation devices to project computer image screens or a Smartboard or ENO Interactive whiteboard
Headsets/microphones where necessary
Appropriate furniture to accommodate equipment
Appropriate electrical power and air conditioning to accommodate equipment

Additional Computer Facilities within a School (Elementary and Secondary):

In addition to the classroom computers and labs, computer workstations are located in the main office principal's office, guidance offices and Special Services offices at each of the schools. Also, computers and a network or slaved laser printer are located in the Library Media Centers at each school.

Technology Infrastructure Internal and External Connections:

The Warwick Public Schools WAN infrastructure consists of Cisco Routers located at each location routed back to the RINET core. RINET supplies 50MB of internet bandwidth to WPS. The internet bandwidth requested for the fiscal year beginning July 1, 2010 will remain at 50MB. The Elementary Schools are using COX lines equivalent to 10MB. The Secondary Schools are supplied with 20MB also supplied by COX.

Current External Connections:

All Sixteen Elementary Schools and DrumRock Early Childhood Center (DRECC)
10 MB line
Career Center and Adult Education Building:
10 MB line
High Schools and Jr. High Schools:
20MB
Central Administration
100MB

Projection:

Existing infrastructure is evaluated regularly to ensure full usage of existing bandwidth. Changes made as needed. No increase in Internet bandwidth has been requested as stated above.

Current Internal Connections:

Cat-5 Ethernet data networks have been established in all district buildings. All classrooms have Ethernet drops in addition to the computer labs and library media centers. Cat-5 is supplied to wireless access points where applicable.

The Elementary Schools have Cat-5 Ethernet networks established. Classrooms, labs, offices and library media centers are networked. Wiring closets are attached via multimode fiber-optic cable.

Wireless Access is available in the Lippitt Training Lab, Pilgrim Library Tech Center, mobile laptop carts at the 3 Jr. High Schools and Veterans Memorial High School, one keyboarding lab at each Jr. High school and one Tech Ed lab at Aldrich Jr. High School. The district is committed to expand secured and managed enterprise class wireless technology and access.

Technology Support and Maintenance:

The Warwick Public Schools is home to approximately 3450 computers ranging in age from new to 10 years old. The academic and administrative computers are maintained by the Technology Staff

The Technology Staff is made up of the following:

- Technology Applications, Assessment Coordinator
- Manager of Information Systems
- Assistant Manager of Information Systems
- Systems Analyst
- 5 Computer Technicians
- 3 Data Systems Specialists

Repairs:

Technicians are assigned to 5 schools/buildings

Technicians follow a rotating schedule visiting a school a day with the main priority at the secondary schools and administration support

Work Order Request forms are available via e-mail using a custom form and process developed in FirstClass

Request forms are addressed and prioritized by each technician for their schools/buildings

Completing the automated form, technicians complete the task and forward the completed form to a completed folder which is monitored by the Assistant Manager of IS and the Manager of IS.

Phone calls for immediate priority assistance are handled by helpdesk support from the Data Systems Specialists, Assistant Manager of IS and/or the Manager of IS.

School vacation and summer projects are detailed and scheduled by the Assistant Manager of IS and the Manager of IS.

Laptop maintenance and upgrades are scheduled during the summer by the Manager of IS.

Software:

Software purchases and licensing are the responsibility of Information Services.

Installations of newly purchased software or upgrades are performed by the Information Services staff only.

Network Infrastructure:

The network infrastructure is monitored by the Assistant Manager of Information Systems and/or Manager of Information Systems; repairs are performed by either the Information Services staff or by the outside vendors responsible for the Warwick Public Schools (RINET and/or Atrion Networking)

Future Plans and Projections

Elementary School Classroom:

In keeping with the district goal of providing one computer for every five students, five or six student computer workstations and one teacher workstation per classroom will provide sufficient computer access for most classroom activities and user needs. The computer workstations shall have access to a state-of-the-art, multi-page printer. Once NComputing is implemented in all classrooms, it is unnecessary for each computer to have its own printer. Network printers are being purchased whenever possible to replace local based printers for cost effectiveness.

Each year, technology funding should be used to purchase additional computer workstations with the district goal of one computer for every five students. Computer workstations are to be distributed in accordance with the school's Strategic Plan. When funding permits, additional workstations shall be purchased and assigned to each classroom and the library media center.

Principals develop and maintain an inventory of computer hardware and software. The inventory designates the distribution of hardware and software per classroom, library, and office in accordance with each school's Strategic Plan. The Strategic Plan should include a timeline for replacing antiquated hardware and for the acquisition of new software.

Schools provide projection devices, Smartboard or ENO interactive whiteboards to connect to an Internet-ready workstation in order to enhance the delivery of instruction to large groups in all instructional areas. When a projection device is not available at the building level a unit can be borrowed from Information Services.

The following computer-related hardware is suggested as additional purchases that the School Improvement team may recommend to enhance the use of technology in the delivery of instruction: Digital cameras w/accessories, multipage/flatbed scanners, video conferencing cameras, color printer (ink-jet or laser), Alpha-Smarts (desk-size word processors), USB flash drives, blank CDRW/DVD-RW media, headphones/microphones, digital voice recorders, multi-card readers, webcams, speaker systems, ENO Interactive whiteboard, ENO mini slate, Smart interactive response systems.

Jr. High Schools:

The JHS model includes subject specific computer labs, a generic multi-purpose computer lab, and multiple workstations in the library media center with student access. As newer computers are purchased to replace computer labs the older units will be repositioned in classrooms whenever possible. NComputing to be considered where suitable.

Classroom:

Each JHS classroom should have a minimum of one computer or one NComputing string or 4 or 6 workstations, with sufficient memory and speed to operate current software, have network/Internet access and access to a network printer. Each classroom should also have access to an LCD projection device for whole class instruction, Smartboard or ENO Interactive whiteboard. LCD projectors should be shared throughout the building for cost effectiveness. Networked high-speed laser printers should be strategically placed in common access areas.

Computer Labs:

The JHS model includes a Keyboarding/Digital Tools lab and a Technology Education lab for the delivery of curriculum instruction and one all-purpose generic multidisciplinary lab accessible to all.

The JHS lab model includes a minimum of two fully functional computer labs with network and Internet access. One of the fully functional labs will be dedicated to the use of Keyboarding/Digital Tools. The second fully functional lab will be "generic" computer lab for general use.

It is recommended that these labs accommodate 25 – 30 students, and be situated so all screens are viewable by the teacher and a separate work area is available as well. Each lab should contain an LCD projection device or Smartboard or ENO Interactive whiteboard for whole class instruction and a networked laser printer.

Accommodations for students with disabilities need to be considered. Adaptive technologies may also have to be installed on computer workstations to address the needs of special needs students.

The following computer-related hardware is suggested as additional purchases that the School Improvement team may recommend to enhance the use of technology in the delivery of instruction: Digital cameras w/accessories, multipage/flatbed scanners, video conferencing cameras, color printer (ink-jet or laser), Alpha-Smarts (desk-size word processors), USB flash drives, blank CDRW/DVD-RW media, headphones/microphones, digital voice recorders, multi-card readers, webcams, speaker systems, ENO Interactive whiteboard, ENO mini slate, Smart interactive response systems.

Timetable:

Necessary funds should continue to be made available during the scope of this plan (with preference to spreading funding between or among budget years where applicable) to:

Provide at least one additional multi-media PC for each classroom.

Provide access to LCD projection devices as noted.

Provide networked high-speed laser printers in strategically placed common access areas.

Continue to update existing computer labs.

Provide a LCD projection device Smartboard or ENO Interactive whiteboard for all computer labs. Continue to provide adaptive technologies for special needs students.

High School

The high school model design includes subject specific computer labs, a generic multi-purpose computer lab, multiple workstations in the library media center, and classroom access. A teacher workstation available for every classroom. All High School rooms designated as Home Rooms(Advisories) are equipped with at least one computer and laser printer.

Classroom:

Teacher and student workstations will connect to the network for sharing software, resources, data exchange capabilities, and accessing information stored in the library media center. The workstation is to be used to present whole class instruction, illustrate ideas and concepts, manage and organize information, assist in classroom management, and encourage student participation. The teacher can present instructional software for a whole group before taking the class to the computer lab. Students can also utilize the workstation to present their work to the entire class. Additionally, efforts will be made to place NComputing 4 or 6 workstations in as many classrooms as possible.

Computer Labs:

The high school model incorporates the use of subject-specific computer applications labs in the subject areas of Math, English/writing, Technology Education, Business Education, reference resources, and one multidisciplinary/open lab.

Accommodations for students with disabilities need to be considered. Adaptive technologies may also have to be installed on a computer workstation to address the needs of special needs students. The number of computer workstations in a lab can be used towards the district goal of providing a computer workstation for every 5 students.

The following computer-related hardware is suggested as additional purchases that the School Improvement team may recommend to enhance the use of technology in the delivery of instruction: Digital cameras w/accessories, multipage/flatbed scanners, video conferencing cameras, color printer (ink-jet or laser), Alpha-Smarts (desk-size word processors), USB flash drives, blank CDRW/DVD-RW media, headphones/microphones, digital voice recorders, multi-card readers, webcams, speaker systems, ENO Interactive whiteboard, ENO mini slate, Smart interactive response systems.

Library Media Center:

The library media center will support networked automated circulation and catalog functions as well as provide access to full-text database sources via the web. All schools will be online with Destiny for Library automation through the hosted services provided by RILINK. In addition, multiple computer workstations accessible by students and teachers will provide access to the catalog, to a variety of reference CD-ROM programs, and the Internet. The computer workstations should also provide accessibility the MS Office applications suite. Considering space limitations, it is recommended that at a minimum 4-6 computer workstations be provided in an elementary library, 8-14 workstations at the Jr. high school level, and 15-25 workstations available at the high school level.

Other technical equipment for the delivery of instruction via technology includes:

- Ability to backup files; internal CDRW/DVD-RW, blank CDRW and DVD-RW media, USB flash drive
- Connections to high speed network laser printer(s)
- Connection to a local color printer
- LCD projection device for large screen demonstrations of PowerPoint presentations, webpages
- A projection screen, Smartboard or ENO Interactive whiteboard
- Televisions with DVD connections
- Digital camera, camcorder and accessories
- Multipage/flatbed scanner
- Headphone/microphone
- Digital voice recorder
- Multi-card readers

Webcam
Speaker system
Telephone with outside access
Distance learning connection (cable-TV, satellite dish)

Timetable:

Necessary funds should be made available during the scope of this plan (with preference to spreading funding between or among budget years where applicable) to align student information with Star_Base Student Information System and Destiny.

Administrative Management

SIS Recommendation:

WPS will continue active participation support of the legislative commission for the adoption of a statewide SIS.

The Warwick Public Schools continues to utilize Star_Base as its instrument for Student Information. The Star_Base SIS provides real-time, web-client student information management for administrators, clerical staff, and counselors. The system assists the district in state and federal reporting and in meeting educational standards set by the No Child Left Behind act. The current Star_Base system and version are out-dated and will require either an upgrade to the vendor's enterprise version due out the summer of 2010. This will include new servers/licensing, system upgrade to the new version, data conversion and custom application conversion. Since the RINET SIS Consortium will end as of June 2010 and RI legislation has not been passed for a SSIS, WPS will advertise an RFP for a vendor hosted SIS system in June 2010.

District Administrative and Management Goals:

The school district will...

Continue to and expand the use of technology to improve communication within and among all school buildings, staff and central office administrators.

Expand access of the student information system access to classroom data entry of attendance, gradebook and grades.

Expand the current student information modules to include Special Education IEP and Case Management, Health Record Module, Parental Internet Access.

Expand the record keeping capabilities of special needs data.

Use technology to enhance all record keeping.

Insure that all school buildings and administrative offices will have the capacity to acquire information and perform document processing applications i.e. : desktop publishing, forms management, database, spreadsheet, on-line communication, and graphics using a common software package

Use technology to coordinate the distribution and sharing of all educational resources among all buildings and district personnel i.e. student data, educational research, curriculum resources

Use technology to facilitate systematic assessment of curriculum, instruction and learner achievement

Timetable:

Recommendation for WPS to transition a vendor hosted SIS for the 2011-12 school year

WPS purchase and phase 1 implementation beginning September 2010

Necessary funds should be made available during the scope of this plan (with preference to spreading funding between or among budget years where applicable) to:

All Warwick District attendance, entry, withdrawal, discipline action, discipline infraction, grading, and calendars coordinated in the SIS system.

Provide staff training for an SIS.

Provide Teacher and Parent access to SIS information

Conclusion:

The technology plan is an ongoing commitment within the district and our partners to advance and support the use of technology to enhance instruction, improve student achievement and support assessment.

Technology Budget:

Purchased Services

1000000 - General Fund

53301	Prof Devel/Training Svcs	5,145.00
53406	Other Services	8,000.00
53502	Other Technical Services	48,864.00

54320	Maint/Repair-NonTech Rltd	3,200.00
54407	Internet Connectivity	40,800.00
55501	Printing – Secondary Report Card Forms	1,200.00

Supplies & Materials

56101	Supplies & Materials	4,780.00
56404	Periodicals/Subscriptions	140.00
56501	Technology Rel Supplies	40,400.00

Capital Equip & Property

57309	Technology-Related Hrdwre	29,500.00
57311	Technology Software Costs	448,665.00

Debt Service & Misc

58100	Dues and Fees - RISTE	250.00
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General Fund Total 630,944.00

23061000 - Technology Set Aside

Capital Equip & Property

57309	Technology-Related Hrdwre	264,219.00
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Manager Information Svcs Total 895,163.00

Resources

Rhode Island Department of Education (RIDE)

<http://www.ride.ri.gov>

National Educational Technology Standards for Students (NETS for Students)

http://cnets.iste.org/students/s_stands.html

National Educational Technology Standards for Teachers (NETS for Teachers)

http://cnets.iste.org/teachers/t_stands.html

Technology Standards for School Administrators

<http://osx.latech.edu/tssa>

Guide to Developing the Technology Plan Schools and Libraries Division

<http://www.sl.universalservice.org/apply/step2.asp>

National Educational Technology Plan

<http://www.ed.gov/about/offices/list/os/technology/plan/index.html>