

# **North Kingstown School District**

## **Technology Plan**

**July 2009 – June 2012**

July 1, 2009 - June 30, 2012

Revised: July 1, 2007

Revised July 1, 2009

## **NORTH KINGSTOWN LONG RANGE TECHNOLOGY PLAN INTRODUCTION**

We live in a world where learning is a primary survival skill and change is a pervasive fact of life; familiarity with technology is no longer an optional topic within school curricula, Today's career opportunities increasingly require technological skills as a prerequisite of employment. We have begun to rise to the challenge of equipping students, teachers and the community at large with the technological knowledge and tools they need; it is imperative that we continue to do so.

The North Kingstown School Department Technology Plan describes priorities and initiatives that we must implement if we are to achieve our educational goals. It addresses the reality of students' diverse backgrounds and readiness to succeed in school; the need to instill a desire for lifelong learning; and the commitment that our students, as graduates, will be well prepared to become successful, contributing members of a global technological society.

### **Goals:**

Enhancement of the learning environment

Improvement of teaching.

Facilitation of management at all levels.

Improvement of community access to school department information and community networking,

### **Vision Statement**

In today's world, lifelong learning and continual skills acquisition are as important as decision-making and inventive thinking. Through the use of technology in education, school and community members will be able to participate in international conversation and benefit from local and long distance learning. Schools must respond to the changes in society brought about by the technological revolution.

## **Mission Statement**

The North Kingstown School Department seeks to provide quality educational programs and services that will prepare students to contribute successfully in an ever changing, information-based global society. To this end, students will learn to use technology to access, analyze, create, manage, and communicate information effectively. Technology will be integrated seamlessly in the classroom as both a tool for teaching and learning.

The following statements serve as the basis for implementation of the technology plan in the North Kingstown schools. They reflect the beliefs that underlie the incorporation of technology in education and will guide the selection and integration of technology in the learning environment.

Students, teachers, and administrators must become as comfortable using technology as they are using paper and pencil.

Technology must support curriculum goals and objectives and contribute to the primary mission of student learning.

Technology will enable equal access to information and equal opportunity for all members of the learning community to enhance knowledge.

Technology will enhance the ability of the North Kingstown School Department to provide for the individual needs and learning styles of each student. All students will have opportunities to achieve their full learning potential.

Technology will facilitate cooperative learning experiences, and the development and use of critical thinking skills in real and relevant situations.

Technology will empower the instructional leaders and teachers in the North Kingstown schools to rethink and restructure how they plan for and implement instruction.

Technology will facilitate communication among teachers, administrators, parents and students while ensuring security and confidentiality.

## CURRENT STATUS

### Inventory

#### Hardware

- Each school has been wired throughout the building and connected to the Internet.
- Electronic communication is possible inside and outside the building.
- All schools have network servers on which student and staff documents are stored.
- All staff and students have access to a computer, printer, and electronic files.
- LCD projectors are available for teachers and students to make large group computer presentations.
- Middle School and the High School have Interactive Smart Boards to facilitate integration of Multi Media presentations into the educational process
- Every school has at least one Smart Board located in its media center.
- Digital still cameras, digital video cameras, and scanners and CD burners allow students and teachers to create digital media for multimedia productions.
- All schools have a video camera system to monitor building access.

#### Each Elementary School

- Each elementary school has computers in every classroom and access to printers.
- Each elementary school has a lab of approximately 26 computers for group instruction
- More than 85% of the computers in use in the elementary buildings are in excess of 8 years old.
- Each school library has computers for student research and productivity.
- Art, Music, Resource, and other special areas have computers for staff and student use

#### Middle Schools

- Each Middle School has newly installed (summer 2009) Windows based computers with one teacher station and up to five student stations per classroom.
- Each middle school has two computer labs of approximately 26 computers. One lab is scheduled with technology classes most of the day; the second lab is open for classroom teachers to use for classroom projects.

- Over 80% of the middle school computers are now less than 1 year old
- The media centers each have computers dedicated to research as well as an electronic card catalog and appropriate databases.
- Each classroom has at least one networked computer.
- Davisville Middle School has 22 Smart Boards installed as of September 2009.
- Wickford Middle School has 3 Smart Boards installed as of September 2009.

### **High School**

- The high school has approximately five hundred computers.
- 95% of the computer of the high school are four years or older
- All computers are connected to network printers.
- The High School has seven computer labs with 26 -30 computers each.
- All Science classrooms have five computers.
- The Media Center has twelve computer stations for research and several computers dedicated to card catalog access and one Smart Board
- There is a dedicated E-Portfolio room with twelve computers, printers and high-speed scanners.
- All classrooms have computers and access to printers. All classrooms also have a computer capable of connecting to a television for presentations
- There are a total of 12 Smart Boards at the high school as of September 2009

### **Software**

The North Kingstown School Department purchases software to improve student achievement and district efficiencies. Our current software inventory includes;

- Microsoft Office (Microsoft School Agreement)
- Symantec AntiVirus
- Microsoft Exchange
- School Dude
- SchoolCenter Web Portal
- Munis (Tyler Technologies)
- SchoolMax
- TieNet
- AESOP
- Connect-Ed
- Destiny
- Jamestown Navigator

- VersaTrans
- Reading A-Z,
- RazKids
- Special needs software including WriteOutload, Co-writer, BoardMaker
- WorldBook Online
- Library Databases including SIRS
- IZtM Math
- Type to Learn, Type to Learn Jr
- Final Cut Pro
- Adobe Creative Suite 2
- Aimsweb
- Nova Net
- Virtual High School
- Kaleidos
- Dragon Naturally Speaking
- Rosetta Stone
- Kurzweil
- Lexia
- Symphony Math
- My Reading Coach
- Clarity
- Open Book
- Zoom Text
- Sibelius
- Study Island
- Inspiration
- Kidspiration

### **Network/Telecommunication**

The North Kingstown School Department currently maintains a wide area network that connects all schools and the administrative offices. This wide area network is connected to the Internet, A fire wall protects the network from outside attack. The district maintains a 8e6 content filtering appliance, (ability to integrate with active directory – per user rule sets) to comply with the Child Internet Protection Act (CIPA)

- (2) Network file servers manage the workstations and files on each elementary school network.
- (5) Network file servers manage the workstations and files on each middle school network.

- (6) Network file servers manage the workstations and files on the high school network.
- The server for the administration domain and two servers for district student information data are located in the Technology Data Center.
- The district runs a Barracuda 800 anti-spam appliance for e-mail spam filtering.
- The district utilizes a fully redundant Storage Area Network(Exagrid SAN) with data de-duplication and remote site synchronization for backup of critical district data

### **Technology Design**

The adoption of new curriculum support software will follow the existing curriculum adoption process.

Information Technology personnel will assure compatibility and functionality of all new curriculum support software.

Arrangements will be made for students with special needs, including the acquisition of software specific to their educational requirements.

### **Minimum requirements**

- Networkable application (if applicable)
- Compatible with present Operating System
- Age appropriate
- Delivers intended functionality
- Doesn't duplicate functionality or conflict with functionality of existing software
- Fits into existing management/security structure
- Meets minimum established curriculum requirements (measures progress, etc.)

### *Policy Notes (Karen)*

No software will be installed on any school department computer that is not an approved piece of software for curriculum or an approved piece of productivity software.

No personally owned software will be installed on any district machines.

Administrative Software and Online Content Subscriptions

### **Approval Process**

- Identify requested functionality.

- IT Department previews and tests for minimum requirements.
- IT Department recommends solutions to Assistant Superintendent.

### **Hardware Priorities**

It is imperative that hardware purchased for the school department network be interoperable and constructed to withstand a school environment. A key to ensuring the interoperability, stability and usefulness of new technology is to purchase nationally developed and distributed devices with extended on-site warranties.

### **Workstations**

- A minimum of one workstation for each three students, Leased/purchased with three year extended on-site warranties.
- A yearly review of state of the art technology and curriculum needs determines the standard for the next year.

### **Servers**

- Leased/purchased with three-year extended on-site warranties with four-hour response time.
- Adequate document storage for all students and staff.
- Mission-critical servers should have built-in redundancy to help ensure network stability (e.g., additional power supplies that take over in the event of equipment failure).

### **Management**

- Policies will be established for student and faculty laptops and other personal devices on the network.
- IT personnel will be redundantly trained, more than one employee should know how to accomplish any task.

### **Infrastructure**

- Cabling and infrastructure will be installed to support fast Ethernet to the desktop and have the flexibility to upgrade to faster technologies.
- Connectivity devices will be manageable and will have a minimum five-year warranty.
- Should support data, video, and voice.
- Cabling infrastructure will be installed with certified components and will have a fifteen-year warranty backed by the manufacturer.

- The Wide Area Network will be upgraded as necessary to support new initiatives.

### **Replacement/Maintenance**

- Workstations have a five year life cycle.
- Infrastructure equipment purchased/upgraded through Information Technology (IT) operating budget.
- Maintenance contracts, where applicable, budgeted in IT operating budget.
- Purchased equipment to have a minimum of a three-year life expectancy
- Peripherals (e.g., scanners, digital cameras, projection devices, CD Recorders, printers) must conform to current standards and work within operating systems and management software.
  
- Connectivity must conform to current standards

### **Current Technology Staff**

The technology support personnel have been key in integrating technology into education in North Kingstown.

The current support staff includes the following positions:

Assistant Superintendent of Schools

1 Network Manager

1 Assistant Network Manager

1 Technician

2 Help Desk Support Assistants/Data Analyst

## BUDGET

The North Kingstown School Department budget supports technology in our district.

Budget 2009-2010 is available online at: <http://www.nksd.net/Budget%202008/>

### Technology Goals Technology Strategies

Activity	Status	Person(s) Responsible	Timeline	Results expected	Evaluation	Supported/financing
Software Management	Software list updated as of 9/2009	Assistant Superintendent, Network Manager	Ongoing	Respond to curricula requests to software, Implement based on need and appropriateness for district	Yearly review of software implementations and compatibility of these to needs of district	Operating budget, IDEA, Title II
Hardware	nComputing installation at middle schools summer 2009, fall 2009 DE and Quid via Title I ARRA funds, HS winter 2010 – 4 yr machines to FP and FC, summer 2010 St I and Ham from HS	Assistant Superintendent, Network Manager	Ongoing	School needs equitably addressed	Yearly review of purchasing across all schools	Operating budget, Grant funds

Smart Board Implementation	22 SB at DMS, 3 at WMS, 11 at HS as of 9/2009	Assistant Superintendent, Network Manager	Ongoing	Procurement and installation of Smart Board Technology K-12	Tally number of boards per year	Operating budget, Grant funds
Point of Sale	Pilot at Quid and Ham – retool for fall of 2009 using proper form and options, by spring 2010, K-12 on POS system	Network Manager, Food Service Manager	Fall 2009 – winter 2010	Installation of POS system	Reduction and/or elimination of counting funds for lunch	Operating budget
Network	Exagrid and barracuda purchased in summer 2009	Network Manager	Ongoing	Secure robust network maintained	Yearly review of network security and effectiveness	Operating budget
School Committee Video	Granicus implementation with town – fall 2009	Network Manager	Fall 2009	Permanent solution to broadcast and archive SC meetings	Completion of installation	Operating budget
I Parent	Full implementation 6-12 fall 2009	Assistant Superintendent, Teachers, Principals,	Fall 2009	Enhance communication all parents 6-12	Parent satisfaction with communication capabilities - survey	Cost neutral
X2 Aspen	Projected Rollout in fall 2010	Assistant Superintendent, Network Manager, data	Fall 2010	New student information system	Implementation of new system	60K – RIDE funded or operating budget

		personnel				
NWEA	Pilot year 2008-2009, fall 2009 – 4 <sup>th</sup> iteration – grades 2-9	Assistant Superintendent, Network Manager, data personnel, Principals	Fall 2010	Benchmark Assessment system	Predictive data for NECAP	Title II, operating budget – 35K
TINET	Pilot year – 2008-2009, fall 2009 grades___	Network Manager, Director of Pupil Personnel Services	Fall 2009	Special education census data base	Accurate data for special education census	IDEA
AIMSWEB	Pilot year 2009-2010 – Hamilton School	Network manager, Principal, teachers	Fall 2009	RTI assessment tool used to chart educational progress	Tier I,II, and II support system for RTI	IDEA, Title II
NOVA Net	Pilot Year – 2009-2010 -	Network manager, Director of Pupil Personnel Services	Fall 2009	Web based credit recovery educational tool	Students recover credits via system	IDEA - EIS
Wireless – Public vlan	New Initiative	Network manager,	2009-2010 school year	Allows for users to utilize web in district and maintains security of district network	Establishment of public vlan and maintenance vlan.	Operating budget

## TECHNOLOGY IMPLEMENTATION ACTION PLAN

## **Software Management**

Software is purchased and installed on school department computers to enhance the curriculum and to promote the efficient management of school department information. Every effort is made to make informed decisions on the appropriateness and functionality of all purchased software titles. Priority is given to district-wide adoptions.

Leadership: Assistant Superintendent, Network Manager

Activities: Monitor curriculum cycle, adoptions, and staff requests.. Test and run trials of software as appropriate. Make purchasing decisions based on need and budget.

Timeline: System-wide adoptions are made on a yearly basis in the spring; other adoptions can be ongoing.

Budget: The IT Office staff budgets for network and general productivity software. Software maintenance (e.g., support contracts and upgrade agreements) is included in the IT budget.

## **Hardware, Network, and Facilities**

The hardware and network infrastructure form the foundation upon which the information system is built It is imperative that they be interoperable and reliable.

### **Hardware**

Leadership: Network Manager, Assistant Superintendent

Activities: Schools are surveyed for technical needs by the Information Technology staff on an annual basis. Information Technology staff test prospective systems and set standards to ensure compatibility.

Timeline: Standards are set and system-wide implementations are made on a yearly basis. Other decisions can be made on an ongoing basis.

Budget Computers, peripherals and network hardware are purchased through the Information Technology budget.

### **Network**

Leadership: Network Manager

Activities: The district is surveyed for technical needs by the Information Technology staff on an annual basis. The Information Technology staff maintains and supports the network

Timeline: Standards are set and system-wide implementations are made on a yearly basis, Other decisions, based on yearly standards, can be made on an ongoing basis. Support and maintenance is ongoing

Budget: Network hardware is purchased through the Information Technology budget.

### **Workstation Deployment**

Leadership: Network manager, Assistant Superintendent

Activities: A yearly needs assessment is completed for each building by the Information Technology staff. Plans are discussed with building principals and recommendations are made based on available budget space and infrastructure.

Timeline: Implementations are ongoing depending on budget.

Budget: Infrastructure hardware, computer and peripherals is purchased through the Information Technology budget.

### **Web**

The school district's web site is an integral part of the district's communication initiatives.

Leadership: Network Manager

Activities: The North Kingstown School Department uses a web portal system. This allows all staff, district organizations and groups to maintain their own web pages with minimal training.

Timeline: The district's web site is updated on an ongoing basis.

Budget: The hardware and software necessary to maintain the web site are included in the Information Technology budget.

### **Operations, Maintenance and Upgrades**

As technology changes, it is important that systems remain stable and users be supported. Vital functions of the Information Technology staff include maintaining the systems and supporting users as these systems advance.

Leadership: Assistant Superintendent, Network Manager

Activities: Provide support for systems and users. Plan for and implement upgrades necessary to support the educational program.

Timeline: Maintenance and support is ongoing.

Budget: The maintenance and support budget is included in the Information Technology budget.

### **Student Information Services**

The student data system is a record of students' personal information and progress through school. To be useful, records must be up to date, easily accessible to appropriate members of the school department, and secure. The North Kingstown School Department is part of a consortium student information system using SchoolMax. SchoolMax allows teachers and parents web-based access to student information. It also provides necessary school, district and state reports. As RINET transitions to X2 Aspen, the district will .....

Leadership: Assistant Superintendent, Network Manager

Activities: Maintain and support the student information system. Work with local school personnel to ensure that records are accurate and readily available. Make important data available to all certified staff. Support integration of services (e.g. electronic grade-keeping, attendance-reporting, and student health and transportation records) into a unified system.

Timeline: The student information system is updated on an ongoing basis.

Budget: The student information system and its support are funded through the Information Technology budget

### **Professional Development in Technology**

Staff Development - Building Level

Staff Development in technology must be a continuous process. Training can take place before, during, and after school. Established and new technologies are part of this process.

Leadership: Assistant Superintendent, Building Principals

Timeline: Staff development is ongoing.

Budget: Professional development is funded by the district budget and the Information Technology budget. District funding is also used for professional development. In addition, the district seeks grant funds for professional development

## **MONITORING, EVALUATING, AND REVISING THE TECHNOLOGY PLAN**

### Monitoring and Evaluation Process

The use of technology is intended to be an integral component of the K- 12 curriculum. To ensure the continuous growth and improvement of North Kingstown's use of technology, a number of monitoring and evaluation processes will be maintained while other tools will be developed. Data will be gathered using a variety of tools and from a number of sources including students, parents, faculty, and administration. This information will be analyzed for possible modifications of our current technology utilization strategies. With these processes in place, our system will be better able to assist students in meeting the needs of the 21st century.

A District Technology Team will be established to be responsible for monitoring, evaluating, and revising the Technology Plan, The team will be a standing committee consisting of , the Assistant Superintendent, the Network Manager, teachers, and members of the community.

The District Technology Team will be responsible for reviewing the technology-related suggestions of the District's various representative committees (e.g., School Improvement Committees) to obtain input toward the improvement of the overall technology program.