

Fort Ann Central School



Technology Plan 2006-2008

FORT ANN TECHNOLOGY PLAN - 8/29/2006

I. Executive Summary

A. Mission Statement

As a part of its technology plan, the Fort Ann Central School District will encourage its students to expand their knowledge, develop concepts, embrace attitudes and exercise thinking skills that will allow every student the chance to take his/her place as a contributing citizen in a complex global community.

To do this in the "Information Age" requires that technology be totally integrated into every curricular area. The district's technology plan will allow students to:

- Access information from multiple sources
- Analyze, synthesize and evaluate information for authentic purposes
- Work ethically, independently and collaboratively with a diverse population within the classrooms and beyond/across national and international boundaries
- Present solutions to real world problems to a myriad of audiences

B. Plan Summary

The Fort Ann School District, following a community decision not to consolidate the district into an enlarged district, has undertaken a large-scale building construction project to renovate the school building. As a part of that capital project, the voters approved a technology component of the bond to implement a new technology infrastructure in all the classrooms and throughout the school building. This infrastructure plan will include computer classrooms, library computers, classroom presentation computers, network equipment and servers. This work is now underway, and completion is expected for September, 2004.

In addition, Fort Ann is working with staff to build the knowledge and skills necessary to effectively integrate technology into the classrooms. Staff participation in professional development opportunities has been a major part of the district's staff development initiative to date. These opportunities include evening and weekend training in software including:

- Microsoft Word
- Microsoft Excel
- Microsoft Powerpoint
- Microsoft Publisher
- Inspiration
- Timeliner
- Kidspiration
- Microsoft Internet Explorer

A building-wide, high-speed local area network (LAN) is in place to support all staff and students. In addition to accessing files and resources such as printers via the network, this LAN will allow access to all common software tools, as well as the Internet and other special applications. As a part of the district vision, an authorized user will be able to access the information and applications he or she needs, from anywhere in the network.

FORT ANN TECHNOLOGY PLAN - 8/29/2006

II. Information Technology Assessment

- A. Current inventory of equipment and services
 - 1. Computers
 - 2. Telecommunications
 - 3. Internet access and services
 - 4. Other technologies

Please see attachment labeled “Technology Assessment Inventory”

- B. Current program status
 - 1. Curriculum integration

As mentioned previously, Fort Ann is working with representatives of Open Systems Technology (OST) to link core student competencies for the use of technology (Based on the ISTE Standards) to support learning, by mapping those competencies to the New York State Curriculum standards across content areas. The district will evaluate the gaps between the existing technology and the types of learning and teaching that the standards imply, and then identify both physical technology upgrades needed, and a staff development program required to insure that instructional staff can truly integrate technology into their teaching.

The school staff will be invited to participate in a district-wide Technology Committee, whose task it will be to identify those particular curricular areas most appropriate for technology integration.

- 2. Staffing and Training

We now have a full-time Network Technologist on staff at Fort Ann. In addition, we have developed close professional relationships with technology specialists from Open Systems Technology, Tech II and Adirondack Cabling. Whenever new staff are hired, each interview team is asked to assess their level of technological skills.

One of our strongest and most positive initiatives has been the professional development opportunities for staff in the area of instructional technology. Their options include:

- An in-house program instructed by turnkey trainers, the District Network Technologist, and a local professional trainer
- BOCES Model Schools programs
- Commercial workshops and training sessions

- C. Current budget

The following chart presents the budget established through the building project for technology. In addition, the existing school budget has allocated the following funds for technology.

Financial Plan

FORT ANN TECHNOLOGY PLAN - 8/29/2006

The following table provides a more detailed financial plan itemizing the various components necessary to implement the technology plan and vision. Our overall goal was to plan, design and implement technology that would support and improve teaching and learning in all the classrooms in the Fort Ann Central School, and better prepare students in the district with the necessary information technology skills for the 21st century. To implement the technology plan in total over three years will require the following projected budget.

Technology Budget

	2006-2007
Network Equipment	\$15,000
Computers	\$40,000
Computer Upgrades	
Peripherals	\$5,000
Software Instructional	\$5,000
Software Administrative	\$8,000
Staff Development BOCES	\$5,000
Staff Development other	\$2,000
District Staffing	\$43,500
Technical Support Contractual	\$14,500
Operational Costs/Supplies	\$2,000
BOCES Library	\$7,200
Maintenance	\$5,000
WAN Costs/ Internet	\$12,500
TOTAL	\$164,700

Funding Source to support the plan include local district funding, BOCES, E-Rate and possible capital project funding. The breakdown projected for each year of the plan is as follows:

FORT ANN TECHNOLOGY PLAN - 8/29/2006

Technology Revenues

	2006-2007
Local District Funding	\$
State Funding including Hardware and Software Aid	\$39,580
BOCES Reimbursement	
E-Rate Reimbursement or Discounts	\$10,000
Special Funds	
TOTALS	\$115,120

D. Needs assessment

1. Recent developments and current status

The District completed basic training and installed computers with internet connection in every classroom. We also brought on line two computer labs (one in the elementary and one in the high school wing), a business lab classroom and a technology classroom. Six mobile carts with video and interact capabilities have been set up and are available for use in the classroom for instructional use, or for school wide or parent assemblies and inservice training.

Faculty and staff completed a needs survey at in the spring of 2006. The results showed the use of technology in the classroom and areas where additional inservice is requested. Areas of continue need are the capability of using streaming videos, more reliable infrastructure for network use, more computers in the classroom and more mobile carts. Training is needed in the use of excel, creating online tests, accessing and publishing lesson plans, webpage design, more efficient use of outlook, use of a scanner and availability and use of remedial software.

2. Planning process

Planning for technology in Fort Ann takes place at a variety of levels and involves a variety of individuals, including:

- Board of Education
- District Administrative Cabinet
- Operations Committee
- District Technology Committee
- Elementary and Secondary Staff Meetings

III. Technology Objectives and Plans

A. Overview

1. General objectives

FORT ANN TECHNOLOGY PLAN - 8/29/2006

Our general objectives are based on our vision of technology resources, applications and tools integrated across all curricular areas in order to achieve the following outcomes:

- Actively engage students in learning.
- Address individual learning differences.
- Support more authentic, research-based, interdisciplinary projects for learning.
- Provide access to more current information resources and courses than are available in the district through traditional means.
- Provide students and teachers a means to collaborate on learning projects and lessons with others around the world.
- Encourage higher level thinking skills such as problem solving and decision-making using information resources and technology tools.
- Meet the higher achievement requirements of the New York State Standards and Frameworks.
- Have students and teachers use computers and networking technology to search out, evaluate, select, analyze, graphically organize and present information in multimedia format to various audiences, including other students and teachers in the school, as well as students and adults in the global community.
- Use information to create new knowledge that other students, teachers and adults can build upon.
- Support the application of higher-level thinking and decision-making skills across all subject areas.
- Learning basic computer skills,
- Demonstrate appropriate and ethical uses of technology

These overall technology objectives are linked to the New York State Learning Standards and are intended to help the Fort Ann School District address its highest instructional needs; as reflected in state testing results. The specific curriculum and instructional areas of focus for our technology initiatives are:

- ⇨ Grade 4 Mathematics
- ⇨ Grade 8 Mathematics
- ⇨ Grade 8 English Language Arts
- ⇨ Grade 8 Mathematics
- ⇨ Grade K-12 Science

To increase student performance in these areas, we want to use existing and new technology to allow teachers to experiment with new ways of teaching, and to allow students to experiment with new ways of learning. The International Society for Technology in Education (ISTE) student and teacher standards for the use of technology will frame our work over the next three years.

2. Grade-appropriate curriculum integration

Working in conjunction with representatives of Open Systems Technology (OST), our district-wide Technology Committee plans to identify:

- ⇨ The specific grade-level computer skills necessary for students to be introduced to each year

FORT ANN TECHNOLOGY PLAN - 8/29/2006

- ⇨ The specific grade-levels that particular software programs will be introduced
- ⇨ The specific curricular areas which can be enhanced via the use of instructional technology
- ⇨ Specific tasks that must minimally be covered by teachers at specific grade-levels

3. Basic technology architecture and infrastructure plan

Please see attached two diagrams labeled “First Floor” and “Second Floor”

4. Administrative use

Teams of administrators and guidance personnel reviewed several student management software systems. The team will be recommending a change in the student management system for the 2007-2008 school year. Currently the District uses Winschool to manage student data and submit required student data to NYSED in compliance with NCLB. The Winschool system will not meet all the Datawarehouse requirements.

Administrative use of technology includes student management – attendance, NYS test results, discipline referrals, scheduling and basic demographics. The District also had implemented the use of Transfinder to assist with the efficient and safe development of bus routes. IEP Direct is used to manage the services and reporting requirements for Part 200 of the NYS regulations for special education students.

Other uses of technology for the administration of the district include the use of outlook software, email, budget management and general correspondence.

B. Equipment and service components

1. Hardware/software

a. Computer

⇨ Software

The toolkit Fort Ann plans on using in its computer system infrastructure includes:

Word Processing:

Microsoft Word

Microsoft Publisher

Student Writing Center

Data Processing:

Microsoft Access

Spreadsheet:

Microsoft Excel

Security:

Norton Anti-Virus

I-Gear Internet Filtering

Reference:

Grolier's Online

Encarta Encyclopedia

FORT ANN TECHNOLOGY PLAN - 8/29/2006

World Book Encyclopedia

Communications:

Internet Explorer

Microsoft Outlook Exchange Web-based Mail

Multimedia/Presentation:

PowerPoint

Hyperstudio

Inspiration

Photoshop (limited use)

XNView (universal use)

Software tool applications are to be available on all workstations. The district will standardize on operating systems and basic toolkit software in order to leverage lower costs during purchase, thereby reducing costs in training, and reducing the costs of technical support because only a limited set of software must be learned and updated. It is clear that the greater the number of software options, the greater the costs for implementation and long-term cost of ownership. Standardization is one of the best ways to control these costs and to insure compatibility across the district.

→ Hardware

All computers will include:

1. Intel P5 3.5 MHZ or better
2. 30 Gig hard drives
3. 512 MHZ of RAM
4. 3 expandable PCI slots
5. 6- USB Connections
6. 1 Firewire Card
7. 17" monitors with built in speakers
8. CDRW Drives
9. 3 Year Warranty

b. Telecommunications

Fort Ann School will be replacing their existing outdated phone system with a cutting edge 3COM NBX Voice over IP phone system. Voice over IP (VoIP) will allow our school to have telephones with messaging capability in every classroom, giving teachers increased security and the ability to leave important information such as homework assignments for students. Combining voice and data onto one network allows schools to reduce operating costs.

c. Other (e.g. satellite receivers)

At the current time, we do not have a satellite receiver located within the school district. In addition, this item is not a part of the ongoing Capital Project.

2. Services

a. Computer and Internet access

FORT ANN TECHNOLOGY PLAN - 8/29/2006

All classrooms currently have computers with internet access. We will be updating all computer equipment with Capital Project funding. There is a PC with internet access in all classrooms and administrative offices.

b. Telecommunications

Funding from our Capital Project has enabled us to replace our old phone system with a cutting edge 3COM Voice over IP system. With the new phone systems we will also incorporate Unified Messaging with our Exchange Server.

c. Other (e.g. Distance Learning)

Although we do not currently have an actual Distance Learning lab, we provide students with an opportunity to take on-line credit-bearing courses through a local community college. This work is done via our Computer Lab, with staff supervision.

3. Infrastructure

Network Administrator maintains the diagrams, telecommunications and wiring maps for the district.

4. Related programs

a. Upgrades and maintenance

All software/hardware upgrades and maintenance will be part of the schools general fund. The general fund currently has funding set aside for the upgrades and maintenance of technology equipment and will be increased on an annual basis.

b. Security and privacy

In order to use our school computer and network, each student and staff member must sign and return an Internet/Network Agreement. In the case of students, a parental signature is also mandated.

Please see the attached sheets labeled Student Internet Agreement

c. Inter-school initiatives

We are a Pre-K through Grade Twelve facility, and as such, there are currently no provisions for inter-school connectivity.

5. Deployment schedule

All Technology Deployments are scheduled for completion by June 2005. We are currently implementing a huge building project. All Technology deployments are based on the completion of additions and alterations.

IV. Plan Administration and Budgeting

A. Current plan approval status

1. Internal

This plan will be formally approved by the Board of Education and subsequently shared with members of the district-wide Technology Committee, as well as interested community groups such as the PTSO and Booster Clubs.

2. Independent review and approval

It is anticipated that each year, the Technology Plan will be revised and "tweaked" as circumstances warrant. These changes might occur due to financial

FORT ANN TECHNOLOGY PLAN - 8/29/2006

changes and/or constraints, the advent and availability of new technology, and the introduction of new software. Plans call for the Board of Education to continue to formally approve this Technology Plan on a yearly basis.

B. Budgeting

The next page presents the budget established through the building project for technology. In addition, the existing school budget has allocated the following funds for technology.

Financial Plan

The following table provides a more detailed financial plan itemizing the various components necessary to implement the technology plan and vision. Our overall goal was to plan, design and implement technology that would support and improve teaching and learning in all the classrooms in the Fort Ann Central School, and better prepare students in the district with the necessary information technology skills for the 21st century. To implement the technology plan in total over three years will require the following projected budget.

Technology Budget

	2006-2007	2007-2008	2008-2009
Network Equipment	\$5,000	\$5,000	\$5,000
Computers	\$15,000	\$25,000	\$35,000
Computer Upgrades			
Peripherals	\$10,000	\$10,000	\$10,000
Software Instructional	\$9,000	\$9,000	\$9,000
Software Administrative	\$8,000	\$34,000	\$8,000
Staff Development BOCES	\$5000	\$5000	\$5000
Staff Development other	\$2,000	\$2,000	\$2,000
District Staffing	\$43,500	\$45,000	\$48,000
Technical Support Contractual	\$14,500	\$15,000	\$15,500
Operational Costs/Supplies	\$2,000	\$2,500	\$3,000
BOCES Library	\$7,500	\$8,000	\$8,000
Maintenance	\$5,000	\$5,500	\$6,000
WAN Costs/ Internet	\$12,500	\$12,500	\$12,500
TOTAL	\$139,000	\$178,500	\$167,000

FORT ANN TECHNOLOGY PLAN - 8/29/2006

Funding Source to support the plan include local district funding, BOCES, E-Rate and possible capital project funding. The breakdown projected for each year of the plan is as follows:

Technology Revenues

	2006-2007	2007-2008	2008-2009
Local District Funding	\$96,600	\$146,500	\$135,000
State Funding including Hardware and Software Aid	\$22,400	\$22,000	\$22,000
BOCES Reimbursement			
E-Rate Reimbursement or Discounts	\$10,000	\$10,000	\$10,000
Special Funds	\$10,000		
TOTALS	\$139,000	\$178,500	\$167,000

1. Other funding sources

a. Grants

We will continue to carefully monitor both the governmental and private sectors for possible technology-related grants. In addition, we are continually attempting to secure a Legislative Grant from our local state-level lawmakers.

Our district has been able to make several strong connections with local educational institutions and businesses. We anticipate that this relationship will continue, which will allow us to apply for private grants.

b. E-rate discounts

Please see the above chart for E-rate details which are at approximately 50%.

C. Ongoing planning and review

1. Plan review and revision plans

Each year, members of the district-wide Technology Committee will work together to review and refine the existing plan. Their goal is to complete their recommended revisions during the winter for the coming school year. This will allow time for Board of Education perusal, discussion and formal approval.

2. Technology program monitoring and evaluation process

Despite the tremendous potential of technology, access and use of technology does not guarantee improved learning. Technology does not force teachers to reconsider how they teach, nor does it automatically allow students to experience

new ways of learning. In order to justify the use of technology, Fort Ann will examine what uses of technology are most effective and why they are effective. This is the critical evaluation question related to the use of technology. To answer this question, a variety of baseline information will be collected, including data from the staff survey. This baseline information defines the instructional program in terms of curricular outcomes, instructional resources used and the types of technology used. Also important will be measures of the extent that particular technology is used and the perceptions of those using the technology, relative to its impact especially on students, teachers, parents and the community.

The district will establish an ongoing evaluation design to compare baseline information over multiple years and define the areas where there has been an impact in student learning and on those using the technology for teaching. The evaluation design is intended to answer the question:

Has the implementation of technology in the school changed (and hopefully improved) the level of learning for students? And, if it has changed, in what ways has it changed?

To answer this question, a variety of data about the implementation, use and impact of technology will be collected at key timelines. These timelines include:

- Baseline data
- Yearly data
- 3-year and 5-year longitudinal results

A variety of existing data will be examined, and new data will also be collected over the next five years. The evaluation design includes collection of a variety of formative or process data to answer the implementation questions related to what was accomplished, by which teachers and students, and when it was accomplished. Student and staff surveys will be administered periodically to collect longitudinal information about what is happening with students and teachers with respect to technology. Summative or impact evaluation will use a variety of outcome measures and instrumentation. These may include the following:

- State tests
- Standardized tests
- Portfolio assessments
- Assessment of student skills using technology
- Dropout rates
- Attendance
- Suspension rates
- Graduation data
- Interviews of students subsequent to graduation
- Degree of student use of the technology
- Surveys of teachers and students
- Post graduation data 3 years of data
- Entrant surveys for teachers and students
- Community surveys
- Exit surveys for each training session

FORT ANN TECHNOLOGY PLAN - 8/29/2006

The evaluation will also examine the use of technology within the on-going curriculum, instruction and assessment context of the Fort Ann School District. A key aspect of this context is the focus on the New York State Standards as the teaching and learning framework of the district. The evaluation design established to examine the impact of technology would reflect this larger effort. The Technology Committee will form a sub-committee to define the overall evaluation design and data collection effort.

Timeline and responsibilities:

<u>Activity:</u>	<u>Date:</u>	<u>Person responsible:</u>
Tech. committee mtg.	Monthly	Director Pupil Services
Purchase of software to address goals	Sept.	Network Coordinator
Upgrade to T1 line	August	Building Principals
Addition and upgrade of computers	August	Network Coordinator
Implementation of elementary computer curriculum gr 4-6	Sept. – June	Business teachers
Clerical Inservice For outlook, excel	October and March	Superintendent
Student management system software recommendation	January	Guidance counselor
Faculty Inservice (see attached model schools opportunities)	Ongoing	Network coordinator
Add mobile computer carts annually (up to 20)	Each year as	Building principals
Upgrade and replace hardware as needed	Annually	Network Coordinator