



## District Technology Plan

Brentwood Union Free School District  
2009- 2012

## Table of Contents

<i>Table of Contents</i> .....	2
<b>INTRODUCTION</b> .....	4
<b>MISSION STATEMENT</b> .....	4
<b>CURRENT STATUS</b> .....	5
<b>HARDWARE</b> .....	6
<b>COMPUTER LABS</b> .....	6
<b>LIBRARIES</b> .....	6
<b>WAN/LAN</b> .....	7
<b>EDUCATIONAL VISION</b> .....	8
<b>(Chart A) Hardware/Software/Equipment</b> .....	11
Professional Development.....	12
<b>(Chart B) – Technological tools and training for professional staff</b> .....	12
Community.....	12
Hardware.....	13
Staffing.....	14
<b>(Chart E) Staffing</b> .....	14
<b>Fiscal Resource Budget</b> .....	15
<b>E-Rate</b> .....	16
<b>EVALUATION</b> .....	17
<b>RECOMMENDATIONS</b> .....	17
<b>ADDENDUM #1</b> .....	20
Elementary Software Currently In Use.....	20
<b>ADDENDUM #2</b> .....	21
Secondary Software Currently In Use.....	21
<b>ADDENDUM #3</b> .....	22
Teacher Center.....	22
<b>ADDENDUM #4</b> .....	23
Acceptable Use Policy.....	23
<b>ADDENDUM #5</b> .....	29
Items Required for Recommendation of Technology Plan for State Ed Dept. Approval.....	29

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Our goal in providing technology service is to promote educational excellence in the District by facilitating resource sharing, innovation and communication.

## **Presented by**

### **The District Steering Committee**

Co-Chairs: Wendie Gelardi & Jolynn Sapia

Patricia Brockbank, Ed Coleman, Tania Dalley, Wendie Gelardi , Theresa Giacolone, Melissa Kennedy, Diane Knoblach, John LaSalle, Jerry Martusciello, Guy Nelson, Joseph Roderick, Tim Signorelli, Lori Sopp, Eileen Welch

## **INTRODUCTION**

The purpose of the Instructional Technology Plan is to provide continued direction for the integration of technology into curriculum and instruction in the Brentwood Union Free District. This plan will identify the instructional technology goals that Brentwood has for the future and will outline and recommend the appropriate use of technology to support those goals. Deciding on how computers, communications, and other forms of technology should be integrated into the educational landscape of the District must be an on-going process. Each year the plan must be reviewed in the context of emerging technologies and developing educational goals. Our major priorities have been facilitating the use of instructional technology with a focus on the support of curriculum and instruction, and the training of our staff in the effective use of instructional software and online services. We as educators must equip ourselves with the tools and knowledge, in order to help our students become tomorrow's leaders in the 21<sup>st</sup> century.

## **MISSION STATEMENT**

The Brentwood community and school District recognize the need for all future citizens to be not only literate in the traditional sense but also in the technological sense. Recognizing that technology is ever changing, improving, and advancing, the Brentwood Union Free School District believes that technology are tools to be utilized to enhance learning for all students across all curricular areas. It is expected that Brentwood students will graduate from High School prepared to meet the technological challenges of the 21<sup>st</sup> century. Each student will demonstrate proficiency in his/her ability to retrieve, generate, process, transfer, and communicate information using a wide range of Web 2.0 tools, media and equipment, including hardware and software. Brentwood School District views technology as one of the many instructional solutions to the challenge of meeting the varied needs of all our students. Both the Brentwood community and school District have allocated substantial resources for hardware, networking, software, staff development, and curricular integration. We strive to prepare our students so that they are able to successfully compete in a technological global society. Technology is an agent of change to assist in the restructuring of our schools. We believe that technology when properly implemented in school increases students' learning and teacher effectiveness. With this in mind, we are also aware that our students who are entering our District have a much broader knowledge and expertise with technology than ever before. As time progresses, we will continually re-evaluate our goals and objectives to meets the needs of our students and faculty.

## CURRENT STATUS

### Instructional Computer Equipment

BUILDING	# of Computers in classrooms	LABS	LIBRARIES	MOBILE
High School	184	3 Computer Labs 30 each 5 Business Labs- 24 each 1 Auto Cad Lab 24 1 Mac Multi-media lab 24 2 Programming/Math Labs 24 Science Research lab 10 2 Art labs 20 each 1 Mac Midi lab 15	2 Libraries 24 each	4 carts 30 laptops each
Freshman Center	55	1 Computer Lab 30 4 Read-180 Labs 5 in each 2 Math labs and 1 Reading Lab w/ 15 computers each	1 library 30each	12 laptops
East Middle	5 in each 6 <sup>th</sup> grade class 1 in each 7 <sup>th</sup> & 8 <sup>th</sup> grade class	2 Computer Labs w/ 30 each	1 library 15 each	2 carts 15 laptops each 2 small carts w/ 6 each
North Middle	5 in each 6 <sup>th</sup> grade class 1 in each 7 <sup>th</sup> & 8 <sup>th</sup> grade class	2 Computer Labs w/ 30 each	1 library 15 each	2 carts 15 laptops each 2 small carts w/ 6 each
South Middle	5 in each 6 <sup>th</sup> grade class 1 in each 7 <sup>th</sup> & 8 <sup>th</sup> grade class	2 Computer Labs w/ 30 each	1 library 15 each	2 carts 15 laptops each 2 small carts w/ 6 each
West Middle	5 in each 6 <sup>th</sup> grade class 1 in each 7 <sup>th</sup> & 8 <sup>th</sup> grade class	2 Computer Labs w/ 30 each	1 library 15 each	2 carts 15 laptops each 2 small carts w/ 6 each
Southeast	5	32	5	1 cart of 30
East Kindergarten	4	27	5	21 laptops
Hemlock Park	5	31	5	1 cart of 30
Laurel Park	5	30	5	1 cart of 30
Loretta Park	5	31	5	1 cart of 30
North Elementary	5	31	5	1 cart of 30
Northeast	5	31	5	1 cart of 30
Oak Park	5	31	5	1 cart of 30
Pine Park	4	30	5	5 laptops
Southwest	5	31	5	1 cart of 30
Twin Pines	5	29	5	1 cart of 30

## HARDWARE

- With the exception of the art and music departments, all computers are Intel based of Dell manufacture. The art and music departments use Mac computers.
- The High School has a selection of Computer Based Lab equipment designed to collect scientific data for computer analysis. (Vernier and Pasco)
- The music departments at both the middle schools and the High School have Midi Labs, electronic keyboards, synthesizers and music editing software.
- The High School has a multimedia Mac lab, T.V. Production Studio, and Radio Station. The equipment and software for digital video editing is professional grade applications and hardware for premiere learning and production.
- Each elementary school has a multimedia cart. This cart is comprised of 8 PowerBooks, three digital cameras, three digital camcorders, headphones, microphones, and external hard drives for both teachers and students to use to create multimedia projects.

## COMPUTER LABS

- Each computer lab throughout the District is equipped with 30 Intel based instructional computers using the Windows Operating system. On the Secondary level, classroom teachers can to bring their classes into the lab. Computer consultants can assist the teacher and/or students with any of the myriad of software programs which are used to enhance the curriculum. Consultants can work with the teacher to construct the technology portion of the lesson, provide resources, trouble shoot, or provide guidance with the integration of technology. They also provide staff development, and maintain the computer supply budget for their school. On the elementary level, classes have a set time which is designated as their “computer time”. The Computer teachers on the elementary level teach the classes for that period of the day. They also provide resources, trouble shoot, or provide guidance with the integration of technology. They provide staff development, and maintain the computer supply budget for their school as well.

## LIBRARIES

- The elementary library media centers each have five networked computers and two printers. In addition, they have two Follett circulation machines. They are enhanced with 30 wireless Dell laptop computers. These wireless laptops are used both in the library and in the classrooms to support and enhance the curriculum.
- All schools are using the Follet Destiny computer-based circulation and OPAC.
- Our library media specialist’ each have a multimedia backpack for the creation of multimedia projects with students. This backpack is comprised of one MacBook Pro, one digital camera, one camcorder, a headphone set, a microphone and an external hard drive.

- The Destiny Follett application is used in the District's library system. The District maintains and updates patron files and tracks the loans of books. Librarians are able to check out books electronically and analyze which books are used most frequently. Patrons can search the availability of titles throughout the District. Each building library in the Brentwood School District is a certified Electronic Doorways Library. As such, each building specifies several periodical titles for interlibrary loan to other districts.

## WAN/LAN

Brentwood has a star topology based WAN. Fiber-optic cable that runs throughout the community connects all remote buildings back to a centralized Network Operations Center (NOC). This affords the District the ability to centrally manage all technology within the District. Due to recent network infrastructure upgrades, we are poised to take advantage of future 10GBs speeds as need arises.

In each building we have a state-of-the-art LAN with gigabit speeds between all wiring closets. The computers that reside in the classrooms are connected to network switching equipment at speeds of 100MBs.

In 2008/2009 as part of a network technology upgrade bid, we also added District wide wireless access for all devices in the buildings. At the core of this wireless network are Nortel WLAN-2382 switches which grant licenses to all authorized wireless access points. Additionally, we have a security server running Nortel's wireless security software to monitor all access to the wireless network.

Most applications are run in a Citrix server based environment using Citrix Presentation server 4.5. This version affords us the opportunity to run programs on either the server or if need be, we can stream them down to the client at run time. By doing this, we can adapt most applications to the server based environment. This is different from previous versions of Citrix in that we were forced to have all applications reside on the server. As a result, certain applications would not function correctly.

At the heart of these applications is a 56 blade server farm built with HP Proliant BL20p generation four blades. Each blade has 4GB of memory and dual Xeon processors. When users in the classroom wish to pull content from the Internet, they are serviced by a 50MBs fiber-optic connection to our ISP. This connection is dedicated solely to the District and is used exclusively for Internet data. Our VoIP traffic is handled by 4 PRI circuits set up to handle only voice traffic. The circuits are set up as 2 circuits at each of 2 locations. This was done to handle both inbound and outbound voice traffic as well as redundancy.

## EDUCATIONAL VISION

*Our District is committed to educating our students to be at the forefront of the job market upon graduation. We believe equipping our students to be proficient in the use of technology will not only enhance their learning while they are within our walls, but also create opportunities for them in the 21<sup>st</sup> century workforce and educational area.*

Due to the EXCEL Referendum, each elementary school is now equipped to provide 30 minutes of technology instruction per day to each of our students. We would like to see that increased to 60 due to the technology rich initiatives which have come to fruition this year. Our long term goal is to make each student a 21<sup>st</sup> century learner. It is necessary to equip our students with the necessary tools each classroom needs to have in order to

- access information
- manipulate that information
- be able to reproduce that information for presentation purposes

### **The ISTE National Educational Technology Standards (NETS•T)**

Effective teachers model and apply the National Educational Technology Standards for Students (NETS•S) as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community.

All teachers should meet the following standards and performance indicators. Teachers:

#### **1. Facilitate and Inspire Student Learning and Creativity**

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments. Teachers:

- promote, support, and model creative and innovative thinking and inventiveness
- engage students in exploring real-world issues and solving authentic problems using digital tools and resources
- promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
- model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

*We will strive to attain these goals by using the tools and resources itemized in [Chart A](#).*

## **2. Design and Develop Digital-Age Learning Experiences and Assessments**

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S. Teachers:

- design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
- develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
- customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
- provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

*We will strive to attain these goals by using the tools and resources itemized in [Chart A](#) and [Chart B](#).*

## **3. Model Digital-Age Work and Learning**

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society. Teachers:

- demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
- collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
- communicate relevant information and ideas effectively to students, parents and peers using a variety of digital-age media and formats
- model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

*We will strive to attain these goals by using the tools and resources itemized in [Chart C](#).*

## **4. Promote and Model Digital Citizenship and Responsibility**

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices. Teachers:

- advocate, model and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources
- address the diverse needs of all learners by using learner-centered strategies and providing equitable access to appropriate digital tools and resources

- promote and model digital etiquette and responsible social interactions related to the use of technology and information
- develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools

*We will strive to attain these goals by adhering to the policy and procedures outlined in [Addendum #4](#).*

## **5. Engage in Professional Growth and Leadership**

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers:

- participate in local and global learning communities to explore creative applications of technology to improve student learning
- exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
- evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
- contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community.

*NETS for Students:*

*National Educational Technology Standards for Students, Second Edition, © 2007, ISTE® (International Society for Technology in Education), [www.iste.org](http://www.iste.org). All rights reserved.*

*NETS for Teachers:*

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Educational Technology Standards (NET.S) and Performance Indicators for Teachers, 2008)

*We will strive to attain these goals by using the tools and resources itemized in [Chart B](#).*

**(Chart A) Hardware/Software/Equipment**

	<b>EQUIPMENT</b>	<b>COMMUNICATIONS/ INFORMATIONS ACCESS</b>	<b>SOFTWARE</b>
Currently in Use	<ul style="list-style-type: none"> <li>• Computers (pcs/macs)</li> <li>• Laptops</li> <li>• Printers</li> <li>• Scanners</li> <li>• Digital Cameras</li> <li>• Digital Camcorders</li> <li>• LCD Projectors</li> <li>• Smartboards</li> <li>• Airliners</li> <li>• DVD Recorders/Players</li> <li>• Music editing equipment</li> <li>• Digital video editing equipment</li> <li>• Student Response Systems (limited)</li> <li>• Ipods (limited)</li> <li>• Ti Navigators (limited)</li> <li>• Graphing Calculators</li> <li>• Headphones</li> <li>• Microphones</li> <li>• External hard drives</li> </ul>	<ul style="list-style-type: none"> <li>• Wide area Network</li> <li>• Wireless connectivity</li> <li>• Internet access</li> <li>• E-mail</li> <li>• Staff created web-sites (limited)</li> <li>• Titlewise</li> <li>• E-School</li> <li>• Destiny</li> <li>• My Learningplan</li> </ul>	Microsoft Office Suite Word Excel PowerPoint Photoshop Movie making software Kidspiration Inspiration School Center <b>Curriculum Based Software</b> Read About Read 180 System 44 Rosetta Stone Fast Math <b>On-Line Subscriptions</b> Atomic learning ABC Teach Cyberlearning Reading A-Z.com School Island BrainPop edHelper.com Enchanted Learning SAT Method Virtual Reference Collection
To be Considered District -wide	Computers for media lab Additional Smart Boards Additional printers and projectors Student Response Systems Video-Conferencing Equipment	Home access of programs and documents for staff and students.  Virtual High School opportunities for selected students.  Expand MLP to count professional development hours for state certification Skype capability	Additional System 44 licenses Additional Read About licenses Rosetta Stone online Inspiration 8 Office 2007 Web 2.0 tools Software for multimedia productions Rosetta Stone Spanish
Secondary Schools	Additional Art servers Upgrade workstations in Art lab Increasing the number of laptops and microscopes for the science department		
Elementary Schools	Additional Computers for ESL and Bilingual classes 5 laptops for each math lab		Bookflix Kidspiration 3

## Professional Development

*Our District is committed to educating our teachers on the use of effectively implementing technology into the curricular. We created a number of in-service courses and staff training sessions to prepare our teachers to use technology effectively to improve learning. Our District is focused upon the ISTE NETS Standards for Teachers when creating and preparing our in-service courses.*

**(Chart B) – Technological tools and training for professional staff**

	<b>Professional Development</b>	<b>Tools For Effective Teaching</b>	<b>Tools For Increased Efficiency</b>
Currently in Use	In service offerings Collegial circles Boces Model Schools DIMC Training Center Attendance at Conferences	See Chart A	Student Management system (E-School) E-Mail Forms and shared folders Connect Ed
To be Considered	Additional Computer Consultants- 1 per school Staff Development Day Implementation of Podcasting Implementation of Vodcasting Data collection tools	Restructuring computer labs at elementary level	

## Community

*Our District has made a sound commitment in bridging the gap between our schools and community by sharing through the use of technology what our students are doing while in school, and communicating these successes with our parents.*

- Share technology resources with the community
- Provide learning opportunities to the community through technology
- Enhance and expand interactive communication between home, school, and community

**(Chart C)- Community resources and opportunities**

	<b>SHARE TECHNOLOGY</b>	<b>COMMUNITY LEARNING OPPORTUNITIES</b>	<b>INTERACTIVE COMMUNICATIONS</b>
Currently in Use	Brentwood and School Center Website Adult Education Programs	Parent workshop Pre K College Fair Community Forum College Goal Sunday Freshman Center Parent Workshops	BUFSD and School Center Web Site Connect Ed Naviance
To be considered	Parent Portal of eSchool Expansion of Cyberlearning	On-line courses for parents Isafe Workshops Expansion of Cyberlearning NCAA Clearinghouse Workshops	Parent Portal of eSchool E Choices On-line courses for parents Isafe Workshops Expansion of Cyberlearning NCAA Clearinghouse Workshops College Board Electronic Gradebook

## Hardware

*Our District is committed to supplying the necessary resources to ensure that our staff and students have access to these technologies at all times.*

- Replacement of Obsolete computers
  - Implementation and purchasing of hardware will be a gradual process over the next three years. Technology is changing at a rapid rate, with the software becoming more and more media intensive. Hardware replacement is an ongoing process. Exploration of other viable options such as leasing or purchasing through BOCES must be considered. We currently have several models of computers which will be obsolete in our multi-media rich instructional environment. We will develop a plan for replacement beginning with the oldest GX 270 models. A current inventory shows the amount of 61 of these models which would need to be replaced in 09-10. This process will be continually evaluated based on instructional needs.
- Development through the use of the inventory, a timeline for scheduled replacement of obsolete equipment.
- Virtualized Desktops 2009-2010
  - In Year 1, we would like to pilot a project in which we virtualize desktops in the classroom using Citrix Xen. This will allow us to maintain an image and push it out each time a user logs on to the system. When they log off, the computer will be wiped clean of the image. This process will allow us to have cleaner machines and because files do not accumulate over time, there will be less of an issue with data being compromised.
- Intrusion Detection 2010-2011
  - In Year 2, we want to bring in appliances to effectively deal with any possible intrusion detection at the perimeter. This will also facilitate monitoring the buildings for devices that get plugged in that can cause network issues.
- Increased Email Capacity 2011-2012
  - We currently have email accounts for 2000 teachers and administrators. More and more we are seeing email become the primary means of communication. As a result of that, we will need to address our older McAfee 330SCM appliance. In order to deal with the larger volumes of email as well as the ever increasing threats that are embedded in these emails, we need to increase the size of the appliances we use to process these emails.
- DVR Box capability 2009-2010
  - Many requests come into the DIMC to have us record educational shows for students to view. We would like to explore the ability to purchase this box through cable to provide this service to our students and teachers.

## Staffing

Our District is committed to supplying each school in our District with the staff necessary to integrate technology into the curriculum, as well as implement the District's curricular initiatives.

**(Chart E) Staffing**

<b>COMPUTER TEACHERS/CONSULTANTS</b>		<b>LIBRARY MEDIA SPECIALISTS</b>		<b>MATH/ COMPUTER SPECIALISTS</b>	
<b>Consultant</b>	<b>School Building</b>	<b>School Building</b>		<b>Consultant</b>	<b>School Building</b>
Theresa Giacolone	Elementary	Maureen Ryan	EKC, Pine Park	Nora Kirdahy	EKC
Melissa Kennedy	Elementary	Andrea Ludwig	Oak Park	Maureen Lussos	Pine Park
John LaSalle	Elementary	Bridget Sitler	Loretta Park	Eileen Imhoff	Hemlock
Jerry Martusciello	Elementary	Kendal Griffing	North	Barbara Springer	Laurel
Vicky Powers	East Middle	Susan Peterson	Twin Pines	Diane Knoblach	Loretta
Mike McGinn	North Middle	Elizabeth Kobel	Southeast	Lisa Borelli	North
Holly Nolan	South Middle	Jennifer Brittan	Hemlock	Gina Barbis	North
Rosanne Kavanagh	West Middle	Melanie Schlumpf	Laurel	Elizabeth Lynch	Northeast
Rose Flores	Freshman Ctr	Noreen Howland	Southwest	Denise Braun	Northeast
Wendi Gelardi	High School	Roxane Steinke	Northeast	Kristine Murphy	Oak Park
Patricia BrockBank	High School	Susan Sullivan	South Middle	Lisa Reitan	Southeast
Joseph Roderick	High School	Colleen Curtis	North Middle	Jenn DiMarco	Southwest
		Theresa Golinsky	West Middle	Joan Harney	Southwest
		Kyle Quenneville	East Middle	Angela Clark	Twin Pines
		Janet Gewirtzman	Freshman Center		
		Diane Longo	High School		
		Virginia Guarino	High School		
		Susan Lewis	High School		
		Barbara Mascaro	DIMC		

## Fiscal Resource Budget

	<b>08-09</b>	<b>09-10 Projected</b>	<b>10-11 Projected</b>	<b>11- 12 Projected</b>
Computer Hardware	\$298,000	\$298,000	\$305,000	\$315,000
Computer Software	\$309,300	\$302,000	\$310,000	\$320,000
Computer Supplies	\$120,170	\$117,600	\$120,000	\$120,000
Technicians, Instructional Media Center (BOCES)	\$503,546	\$507,850	\$510,000	\$515,000
Technicians, Data Processing Center (BOCES)	\$241,557	\$245,400	\$250,000	\$255,000
Wide Area Network (WAN)	\$54,000	\$54,000	\$55,000	\$56,000
Instructional Support (Model Schools)	\$120,000	\$125,905	\$130,000	\$135,000
Online Services (BOCES School Libraries)	\$71,000	\$104,000	\$110,000	\$115,000
Microcomputer Services (BOCES)	\$182,000	\$20,000	\$22,000	\$24,000
Computer Hardware Repair	\$35,000	\$35,000	\$36,000	\$37,000

## E-Rate

We anticipate the following funding from E-Rate for the 2009-2010 school year.

Category of Service	Service Provider	Pre-Discount Amount	Discount Rate	Anticipated Reimbursement for District
Basic Maintenance of Internal Connection	Communications Systems Design Inc.	\$41,470	74%	\$30,688
Internal Connections	Ergonomic Group Inc.	\$5,950	74%	\$4,403
Telecommunications Service	Verizon Wireless	\$2,600	74%	\$1,924
Telecommunications Services	Nextel Wireless	\$8,636	74%	\$6,391
Telecommunications Services	AT & T Corp	\$8,342	74%	\$6,173
Telecommunications Services	Verizon NY Inc.	\$60,000	74%	\$44,400
Internet Access	Exobit Networks Inc.	\$36,000	74%	\$26,640
Internet Access	Broadwing Communication Inc.	\$46,784	74%	\$34,620
Internet Access	Eastern Suffolk BOCES	\$18,000	74%	\$13,320

The funding for the technology plan comes from four sources: NYS Software Budget, NYS Hardware Budget, E-Rate reimbursements, and District funds.

The NYS Software Budget current estimated allocation for 2009 – 2010 is \$254,615.

The NYS Hardware Budget current estimated allocation for 2009 - 2010 is \$286,695.

DIMC:

The DIMC training center is equipped with 30 wireless laptops, 2 scanners, laser printers, ink jet printers, 1 poster printer, 1 laminator, SmartBoard, digital cameras, digital camcorders, a teacher professional reference collection, a professional journal library, and an educational video library.

## **EVALUATION**

The committees indicated within, through anecdotal observations, interviews, and informal meetings with teachers, students, and administrators will evaluate the performance and effectiveness of the integration of technology into the Brentwood School District Curriculum. It is also our hope that with the implementation of our benchmark assessments and Scope and Sequence project, we will have a tangible method of evaluation at the end of this plan.

The Elementary Math / Technology Committee is composed of thirteen elementary math consultants, four elementary computer teachers, and District administrators. They have direct responsibility for the implementation of the instructional technology program in each building. The committee meets to evaluate the successes and needs of the computer program.

The Secondary Technology Committee is composed of eight teachers from the secondary schools, as well as a cross-section of secondary administrators. They have direct responsibility for the implementation of the technology program in each building. The committee meets monthly to evaluate the successes and needs of the computer program.

The District Technology Steering Committee is composed of teachers and administrators. They meet periodically to discuss long term planning for our Instructional Technology Program, as well as assisting in the development of the District's technology plan.

## **RECOMMENDATIONS**

Due to the changing nature of technology and the requirement of the State Education Department, it is unrealistic to make specific recommendations that extend much beyond two years. It is the intent of the technology committee to have a plan that can be dynamic, revised and extended on a yearly basis. Each year more specific recommendations will be added to the "out years" as part of the revision process.

## Report on 2008-2009 Recommendations

The recommendations below were made for the 2006 – 2007 school year. The right hand columns box indicates the status of each recommendation.

2008-2009	STATUS
<b>EDUCATIONAL</b> <ul style="list-style-type: none"> <li>• Continue to replace outdated equipment</li> <li>• Continue to evaluate and expand available software</li> <li>• Introduce wireless network access</li> <li>• Evaluate, revise, and extend District Technology Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Done and on-going</li> <li>• On-going</li> <li>• Done &amp; expanding in scope</li> <li>• Done &amp; on-going</li> </ul>
<b>PROFESSIONAL</b> <ul style="list-style-type: none"> <li>• Continue to supply large array of course via In-Service Training</li> </ul>	<ul style="list-style-type: none"> <li>• On-going</li> </ul>
<b>COMMUNITY</b> <ul style="list-style-type: none"> <li>• Expand Brentwood Web site with the goal of providing more useful information in a clear and easy to navigate format</li> </ul>	<ul style="list-style-type: none"> <li>• Done &amp; on-going</li> </ul>
<b>TECHNICAL SUPPORT</b> <ul style="list-style-type: none"> <li>• Continue BOCES support Services</li> <li>• Continue to make additional training available to support staff</li> </ul>	<ul style="list-style-type: none"> <li>• Done</li> <li>• Done &amp; on-going</li> </ul>
2009-2010	STATUS
<b>EDUCATIONAL</b> <ul style="list-style-type: none"> <li>• Continue to replace outdated equipment</li> <li>• Continue to evaluate and expand available software</li> <li>• Continue to integrate use of technology into all written curricula</li> <li>• Expand use of electronic portfolios to all intermediate students</li> <li>• Evaluate, revise, and extend District Technology Plan</li> <li>• Change to a new Student Management System</li> <li>• Create benchmarks to provide evidence of student proficiencies</li> <li>• Collect and analyze data from student monitoring systems</li> </ul>	<ul style="list-style-type: none"> <li>• On-going</li> <li>• On-going</li> <li>• On-going</li> <li>• On-going</li> <li>• On-going</li> <li>• Done &amp; expanding in Scope</li> <li>• On-going</li> </ul>
<b>PROFESSIONAL</b> <ul style="list-style-type: none"> <li>• Evaluate and revise In-Service offering in light of District needs</li> </ul>	<ul style="list-style-type: none"> <li>• On-going</li> </ul>
<b>COMMUNITY</b> <ul style="list-style-type: none"> <li>• Expand Brentwood Web site with the goal of providing more useful information in a clear and easy to navigate format</li> </ul>	<ul style="list-style-type: none"> <li>• On-going</li> </ul>
<b>TECHNICAL SUPPORT</b> <ul style="list-style-type: none"> <li>• Continue to make additional training available to support staff</li> </ul>	<ul style="list-style-type: none"> <li>• On-going</li> </ul>

- EDUCATIONAL
  - Continue to replace outdated equipment
  - Continue to evaluate and expand available software
  - Continue to integrate use of technology into all written curricula
  - Expand use of electronic portfolios to all intermediate students
  - Evaluate, revise, and extend District Technology Plan
  - Change to a new Student Management System
  
  - Create benchmarks to provide evidence of student proficiencies
  - Collect and analyze data from student monitoring systems
  
- PROFESSIONAL
  - Evaluate and revise In-Service offering in light of District needs
  
- COMMUNITY
  - Expand Brentwood Web site
  
- TECHNICAL SUPPORT
  - Continue to make additional training available to support staff

## ADDENDUM #1

### Elementary Software Currently In Use

<b>Software Title</b>	<b>Used By</b>
Smart Notebook	All
Internet Explorer	All
PhotoStory 3	All
Windows Media Player	All
Windows Movie Maker	All
FasttMath	Specific Students
JumpStart	K-5
MathBlaster	K-5
Microsoft Office <ul style="list-style-type: none"><li>• Access</li><li>• Excel</li><li>• Frontpage</li><li>• Outlook</li><li>• PowerPoint</li><li>• Publisher</li><li>• Word</li></ul>	
Read 180	Specific Special Education
ReadAbout	Grades 3&4 (TP-Grade 5)
Rosetta Stone	Bilingual & ESL Classes
Scholastic Keys	All
Photoshop Elements	All
Adobe Reader	All
Eduware Elementary	3-5
Inspiration	All
Kid Pix	All
Kidspiration	All
Real Player	All
Type to Learn	3-5
Type to Learn Jr.	K-3

## ADDENDUM #2

### Secondary Software Currently In Use

<b>Software Title</b>	<b>Used By</b>
Smart Notebook	All
Internet Explorer	All
PhotoStory 3	All
Windows Media Player	All
Windows Movie Maker	All
FasttMath	Specific Students
Java	
True Basic	
Microsoft Office 2003 <ul style="list-style-type: none"><li>• Access</li><li>• Excel</li><li>• Frontpage</li><li>• Outlook</li><li>• PowerPoint</li><li>• Publisher</li><li>• Word</li></ul>	
Read 180	Specific Special Education
ReadAbout	Grades 6
System 44	Selected students
Rosetta Stone	Bilingual & ESL Classes
Pasco Probes	10-12
Photoshop Elements	All
Adobe Reader	All
Eduware Secondary	9-12
Inspiration	All
Examgen	9-12
Vernier Probes & Software	6-12
Real Player	All
Geometer's Sketch Pad	6-12
Green Globes	10-12
Understanding Math	6-12
SAT Method	9-12

## ADDENDUM #3

### Teacher Center

The Brentwood Teacher's Center supports the District's Technology Program by offering a number of instructional technology classes to teachers throughout the school year. This program is called PITA. PITA stands for Participation in Technology Advancement. It is comprised of a number of courses and tools that enable our staff to learn a number of software applications and how to implement them into the curricula.

Giving our teachers the ability to learn new programs will enable them to integrate these applications into their curriculum. The use of technology at all levels will spark and increase student interest as well as achievement. When students are actively engaged in learning, the outcome is positive.

The Teacher Center is equipped with a file server, a scanner, laser printers, an ink jet printer, poster printer, digital cameras, and projection devices. Additionally, this training center is equipped 16 Mac computers and 1 Smart Board. Since all of the PITA courses are held at various computer labs throughout the District, the Teacher Center has the above equipment available for participants to utilize while they complete their courses.

### The PITA Program

#### **4 Required Courses** (these may be taken in any order):

- Introduction to **WORD**
- Introduction to **EXCEL**
- Introduction to **POWERPOINT**
- The **INTERNET** and Online Educational Resources

#### **Additional Courses (Electives)** Each participant will choose 4 additional courses from the following list:

1. **Advanced Word** (prerequisite: completion of Introduction to Word)
2. **Advanced Excel** (prerequisite: completion of Introduction to Excel)
3. **Advanced PowerPoint** (prerequisite: completion of PowerPoint)
4. **Publisher** (Desktop publishing and Webquests)
5. **Photoshop Elements5 .0** (Manipulating digital images)
6. **Kidspiration** Created for K-5 learners, graphic organizing program
7. **Inspiration** (Implementation in Secondary Curriculum)
8. **School Center** (Creation of classroom webpages)
9. **Multimedia Productions** (iMovie HD)
10. **Virtual Reference Collection (VRC)** Explore websites aimed at different curriculum areas and developed specifically for teachers of different academic levels; use class time to develop lessons and share them with colleagues in class.
11. **Smartboard and Smart Notebook Software**
12. **Developing Lessons with SmartBoards** Work with colleagues and instructors to create lessons for your own classroom using the different elements of SmartBoard and its software; learn and utilize more advanced elements of SmartBoard.
13. **Microsoft Outlook** Learn the advanced functions of Outlook: create distribution lists, change Outlook's format on your computer, import, export, attach, organize your folders, etc.
14. **Windows MovieMaker** Learn how to create movies / digital storytelling for your class; go further and show your students how to create movies / digital storytelling as projects.

## **ADDENDUM #4**

### **Acceptable Use Policy**

The following rules and regulations govern the use of the District's computer network system and access to the Internet.

#### ***I. Administration***

- The Superintendent of Schools shall designate computer network coordinators (i.e. Coordinator of Data Processing and the Coordinator of the Instructional Media Center) to oversee the District's computer network.
- The computer network coordinators shall have the right to, but not the duty to monitor and to examine all network activities, as appropriate, to ensure proper use of the system. Unauthorized attempts to retrieve confidential District information shall result in disciplinary measures.
- The computer network coordinators shall be responsible for disseminating and interpreting District policy and regulations governing use of the District's network at the building level with all network users. A summary of the Computer Network Acceptable Use Policy and Regulation shall be provided to all students and staff. A complete copy of the policy and regulation will be available on the Brentwood School District's Web site: [www.bufsd.org](http://www.bufsd.org) .
- The computer network coordinators, or their designee (i.e. building computer consultant), shall provide employee training for proper use of the network and will ensure that staff supervising students using the District's network provide similar training to their students, including providing a summary copy of the Computer Network Acceptable Use Regulation.
- The computer network coordinator shall ensure that the network is protected from viruses through the use of anti-virus software.
- Staff shall sign an attestation form stating that they are aware of and shall abide by the District's policy and regulations concerning the use of the computer network. These forms shall be kept on file in each building.
- When logging on to the District's network, students receive a computer screen image with a summary copy of the Computer Acceptable Use Policy. In order to continue, students must click "OK", acknowledging that they have read and accepted the Computer Acceptable Use Policy. Copies of the Computer Acceptable Use Policy and Regulation shall be available for viewing by parents/guardians in each school building and on the District's Web site.

## ***II. Internet Access***

- Students shall be provided access during class time, before and after school hours in a controlled environment (school library or computer lab).
- Students shall be provided with individual accounts allowing them to store schoolwork electronically on the District's network.
- Students shall be allowed to browse the Internet for research and educational purposes.
- Students shall not browse the World Wide Web in an unsupervised setting.
- Students shall not participate in chat rooms.
- Students may construct their own Web pages, with appropriate approval by and supervision from staff, using District computer resources.
- Students shall not be allowed to belong to mailing lists.

## ***III. Acceptable Use and Conduct***

- Access to the District's computer network is provided solely for educational purposes and research consistent with the District's mission and goals.
- Use of the District's computer network is a privilege, not a right. Inappropriate use may result in the suspension or revocation of that privilege or further disciplinary action.
- Each individual in whose name an access account is issued is responsible at all times for its proper use.
- All network users will be issued a login name and password.
- Only those staff users with permission from computer network coordinators may access the District's system from off-site (e.g., from home).
- All network users are expected to abide by the generally accepted rules of network etiquette. This includes being polite and using only appropriate language. Abusive language, vulgarities and swear words are all inappropriate. Students and staff should be aware that posting inappropriate materials on the Internet that cause material disruptions to the school setting shall result in disciplinary measures.
- E-mail and other use of the District's computer network are not private. The District has the right, but not the duty, to monitor all aspects of its technology, including but not limited to sites visited by users on the Internet and reviewing e-mail.
- Network users identifying a security problem on the District's network shall notify the appropriate teacher, administrator or computer network coordinators. Under no circumstance shall the user demonstrate the problem to anyone other than to the District official or employee being notified.
- Any network user identified as a security risk or having a history of violations of District computer acceptable use guidelines may be denied access to the District's network.

#### ***IV. Unacceptable Uses and Prohibited Activities***

The following is a list of prohibited activities concerning use of the District's computer network. Violation of any of these prohibitions may result in discipline or other appropriate penalty, including suspension or revocation of a user's access to the network.

##### ***A. Personal Safety (Restrictions for students only)***

1. Users shall not post personal contact information about themselves or other people. Personal contact information includes addresses, telephone numbers, school address, work address, etc.
2. Users shall promptly disclose to their teacher or other school employee any message they receive that is inappropriate or makes them feel uncomfortable.

##### ***B. Personal Use (Applies to all users)***

1. Users shall not use the District computer network for commercial purposes, defined as offering or providing goods or services or purchasing goods or services for personal use. District acquisition policies shall be followed for District purchases of goods or services through the District system.
2. Users shall not use the District computer network for political lobbying in support of or opposition to individual candidates or political parties. District employees and students may use the system to communicate with their elected representatives.

##### ***C. Illegal activities (Applies to all users)***

1. Users shall not attempt to gain unauthorized access to the District system or to any other computer system through the District system, or go beyond their authorized access. This includes attempting to log in through another person's account or access another person's files. These actions are illegal, even if only for the purpose of "browsing."
2. Users shall not make deliberate attempts to disrupt or change the computer system performance or destroy or modify data by spreading computer viruses or by any other means. These actions are illegal.
3. Users shall not use the District system to engage in any other illegal act, such as arranging for a drug sale or purchase of alcohol, engaging in criminal gang activity, threatening the safety of a person, etc.

##### ***D. System Security (Applies to all users)***

1. Users are responsible for the use of their individual accounts and shall take all reasonable precautions to prevent others from being able to use their accounts. Under normal conditions a user shall not provide his/her password to another person. The sole exception to this rule applies when a password is needed for a teacher to assist a student or a computer teacher or computer tech to assist a teacher or administrator in correcting a computer problem.
2. Users shall immediately notify the system administrator if they have identified a possible security problem.
3. Users shall avoid the inadvertent spread of computer viruses by following the District virus-protection procedures, if they download software or files.

4. Users shall not attempt to abridge or circumvent the District content-filtering system. This filtering system is in place to help prevent access to minors to inappropriate material on the Internet and to restrict minors access to materials that may be harmful.
  5. Users shall not attempt to read, delete, copy or modify the electronic mail (e-mail) of other system users and deliberately interfere with the ability of other system users to send and/or receive e-mail.
  6. Users shall not engage in vandalism. Vandalism is defined as any malicious attempt to harm or destroy District equipment or materials, data of another user of the District's network or of any of the entities or other networks that are connected to the Internet. This includes, but is not limited to, creating and/or placing a computer virus on the network.
  7. Users shall not intentionally disrupt network traffic or crash the network and connected systems.
- E. Inappropriate Language (Applies to all users)
1. Restrictions against inappropriate language apply to public messages, private messages and material posted on Web pages.
  2. Users shall not use or post obscene, profane, lewd, vulgar, inflammatory or threatening language. Users shall understand that posting inappropriate materials on the Internet that cause material disruptions to the school setting shall result in disciplinary measures. Cyber-bullying and threats that present a concern for school safety are strictly prohibited and violate the District's Code of Conduct.
  3. Users shall not engage in personal attacks, including prejudicial or discriminatory attacks.
  4. Users shall not harass another person. Harassment is persistently acting in a manner that distresses or annoys another person. If the user is told by a person to stop sending those messages, he/she must stop.
  5. Users shall not knowingly or recklessly post false or defamatory information about a person or organization.
- F. Respect for Privacy (Applies to all users)
1. Users shall not post private information about another person.
  2. Users shall not disclose, use or disseminate personal identification regarding minors without written permission from the minor's legal guardian. The District does not offer electronic mail (e-mail) or chat room access to students. The District filtering system software excludes Web-based chat rooms.
  3. E-mail and other use of the District's computer network are not private.
- G. Respecting System Integrity (Applies to all users)
1. Users may use the District system for educational, professional or career development activities.
  2. Users shall not make any changes to computer or network configurations without direct authorization of the technical support staff. Unauthorized access, including "hacking" or circumventing protective software, is strictly forbidden.

3. Users shall not post chain letters or engage in “spamming.” Spamming is sending an annoying or unnecessary message to a large number of people.
  4. Staff will check their e-mail accounts frequently, and delete unwanted messages promptly.
  5. Users shall not access the network to send anonymous messages or files.
  6. Users shall not install personal software on the District’s computers and/or network without the permission of the appropriate District official (i.e. the Coordinator of Instructional Media).
  7. Users shall not access the network while access privileges are suspended or revoked.
  8. Users shall not access the network in a fashion inconsistent with directions from teachers and other staff and generally accepted network etiquette.
- H. Plagiarism and Copyright Infringement (Applies to all users)
1. Users shall not plagiarize works that they find on the Internet. Plagiarism is taking the ideas or writings of others and presenting them as if they were original.
  2. Users shall respect the rights of copyright owners. Copyright infringement occurs when an individual inappropriately reproduces a work that is protected by a copyright. If a work contains copyright language that specifies acceptable use of that work, the user shall follow the expressed requirements. If the user is unsure whether or not he/she can use a work, he/she should contact the Coordinator of the Instructional Media Center who shall research the issue.
  3. Infringing on any copyrights or other intellectual property rights, including copying, installing, receiving, transmitting or making available any unlicensed copyrighted software on the District computer network is prohibited.
- I. Access to Inappropriate Material
1. Users shall not use the District system to access, receive, transmit or make available to others material that is profane or obscene (pornography); material that is harmful to minors; material that advocates illegal acts or that advocates violence or discrimination towards other people (hate literature); or any other material that is inappropriate. For students, a special exception may be made for hate literature if the purpose of such access is to conduct research as part of an approved school course. Both the teacher and the parent/guardian must approve the access. District employees may access the above material only when conducting academic research.

## ***V. No Privacy Guarantee***

Students and staff using the District’s computer network should not expect, nor does the District guarantee, privacy for any use of the District’s computer network. The District reserves the right to access and view any material stored on District equipment or any material used in conjunction with the District’s computer network. Unauthorized attempts to retrieve confidential District information shall result in disciplinary measures.

**VI. Sanctions**

All users of the District’s computer network and equipment are required to comply with the District’s policy and regulations governing the District’s computer network. Failure to comply with the policy or regulation may result in disciplinary action as well as suspension and/or revocation of computer access privileges.

In addition, illegal activities are strictly prohibited. Any information pertaining to or implicating illegal activity will be reported to the proper authorities. Transmission of any material in violation of any federal, state and/or local law or regulation is prohibited. This includes, but is not limited to materials protected by copyright, threatening or obscene material or material protected by trade secret. Users must respect all intellectual and property rights and laws.

**VII. District Responsibilities**

The District makes no warranties of any kind, either expressed or implied, for the access being provided. Further, the District assumes no responsibility for the quality, availability, accuracy, nature or reliability of the service and/or information provided. Users of the District’s computer network and the Internet use information at their own risk. Each user is responsible for verifying the integrity and authenticity of the information that is used and provided.

The District shall not be responsible for any damages suffered by any user, including, but not limited to, loss of data resulting from delays, non-deliveries, wrong deliveries, or service interruptions caused by its own negligence or the errors or omissions of any user. The District also shall not be responsible for unauthorized financial obligations resulting from the use of or access to the District’s computer network or the Internet.

Further, even though the District may use technical or manual means to regulate access and information, these methods do not provide a foolproof means of enforcing the provisions of the District policy and regulation.

Ref: *Public Law No. 106-554*  
*47 USC §254*  
*20 USC §6801*

*Cross-reference: Internet Safety Policy Regulation #4526.1-R*  
*Computer Network Acceptable Use Policy #4526*  
*Computer Network Acceptable Use Regulation #4526-R*  
*Student/Staff Attestation Form #4526-F*

*Approved by the Board of Education: 2/13/07*

## ADDENDUM #5

### Items Required for Recommendation of Technology Plan for State Ed Dept. Approval

- Core Element, Criteria 1

The plan must establish clear goals and a realistic strategy for using telecommunications and information technology to improve education or library services.

#### Required Items:

- Clear goals p. 4
- Realistic strategies p. 8-10
- Goals and strategies for telecommunications and information technology p. 13, 14, 18
- Reference to CIPA p. 12
- Reference to AUP (and include in appendix) P.26 - 31
- Internet Safety curriculum

#### Highly Recommended:

- Include how goals and strategies are linked to student achievement p. 8 - 10
- Reference 21<sup>st</sup> Century standards p. 8
- Include strategic planning tables that includes goal, timeframe, responsible party, and status (for multi-year plans) p. 10 - 13

#### Other items to be included:

p.10

- Curriculum mapping
- Videoconferencing
- Digital portfolios
- Web 2.0
- Interactive whiteboards

District to supply page numbers in plan:

- Core Element, Criteria 2 p. 24 - 25

The plan must have a professional development strategy to ensure that staff knows how to use these new technologies to improve education or library services.

#### Required Items:

- Professional development strategy for educators (retain appropriate documentation) p. 11
- Professional development strategy for staff (retain appropriate documentation) p. 24
- Document professional development opportunities and attendees P. 24

#### Highly Recommended:

Mention opportunities through local teacher centers and BOCES p. 24

- How related to curriculum
- How linked to student achievement
- Include strategic planning tables that includes goal, timeframe, responsible party, and status (for multi-year plans)

**Other items to be included:**

p. 12

- Parent training

District to supply page numbers in plan:

- Core Element, Criteria 3

The plan must include an assessment of the telecommunication services, hardware, software and other services that will be needed to improve education or library services.

**Required Items:**

p. 10,12,13,19

- Assessment of telecommunications services
- Inventory hardware
- Inventory software
- Asset management
- Network schematic
- Staffing
- Email archive system
- Financial system
- Student management system
- Additional programs (Connect Ed, etc.)

**Highly Recommended:**

- Include strategic planning tables that includes goal, timeframe, responsible party, and status (for multi-year plans)

District to supply page numbers in plan:

- Core Element, Criteria 4

The plan must provide for a sufficient budget to acquire and maintain the hardware, software, professional development and other services that will be needed to implement the strategy.

**Required Items:**

p. 7, 17, 18

- Projected budget for each year
- Itemized hardware
- Itemized software
- Itemized professional development
- Itemized staffing
- LAN support
- BOCES services
- Internet access
- Grants
- e-Rate funding and narrative of project(s)

District to supply page numbers in plan:

- Core Element, Criteria 5

The plan must include an evaluation process that enables the school or library to monitor progress toward the specified goals and make mid-course corrections in response to new developments

and opportunities as they arise.

**Required Items:**

- Evaluation process toward specific goals
- Explain how mid course corrections will be made

**Highly Recommended:**

p. 19

- Technology committee meetings (retain documentation of meetings, attendees, agendas)
- Principal observations or recommendations
- Surveys
- Include strategic planning tables that includes goal, timeframe, responsible party, and status (for multi-year plans)
- Include how goals and strategies are linked to student achievement