



The Union City Public Schools Technology Plan 2004-2007

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Stakeholders:

As a logical outgrowth of our school based planning process, the district formulated a district Technology Task Force to help shape and guide the district's rapid technology growth both academically and administratively. This task force is re-constituted yearly.

The overall planning process is a multidirectional model with input originating from all involved district groups which ultimately comes to fruition at the district Technology Task Force level where all of the groups listed below are represented:

School Leadership Councils
Office of Technology
Facilities
Educational Programs
Support Services
Human Resources
Grant Leaders/ Project Leaders

The Executive Director of Technology has the responsibility for coordinating the technology planning process for the district.

Executive Summary

“This school system is undergoing a remarkable transformation. I want the rest of the country to know about it, and I want everybody in the country to be able to emulate it, “ President Bill Clinton 1996.

That is an extraordinary complement. But it is also represented an extraordinary challenge for the Union City Board of Education.

As educators, community leaders and administrators, it is incumbent upon the Union City Board of Education to continue to support and encourage the thoughtful integration of effective technologies. This infusion of technology must continue in both the everyday curriculum we provide in our classrooms, and the everyday method by which we conduct business in our administrative offices.

Working together, we have seen our school district make great strides over the past decade. In order to continue our success, the Union City Board of Education cannot rest on its laurels. We still face the challenge of a school population representing families among the lowest social and economic levels in our nation and we still operate in one of America's most densely populated communities.

The following District Plan is intended to serve as the blueprint that will allow our district to continue making great strides in the integration of technology within the entire school environment.. The Union City Board of Education is extremely encouraged that this Plan establishes standards, procedures and policies with respect to the use and implementation of ever-changing new technologies in our school district. The integration of new technologies into Union City's everyday classroom curriculum has been one factor in the success story of Union City School's. In order to continue such gains, the Union City Board of Education is committed to supporting programs and efforts that will keep our schools on the cutting edge of American public education.

These include:

1. Partnerships with the business community, as well as places of higher learning must continue to expand throughout the district.
2. Technology infrastructure grants must be aggressively pursued in order to intelligently interconnect our schools to each other and the outside world.

3. An emphasis must be placed on staff training in order to keep our educators fresh and ahead of the curve when it comes to understanding and taking advantage of relevant new technologies.

The challenge is clear. Union City's Public Schools have been acknowledged as pioneers. It is now incumbent upon the entire Union City education community to continue setting standards and to begin serving as a facilitator so that other American school districts may share in our successes and learn from our experiences.

Demographics

Union City, located in northern New Jersey's Hudson County, is situated directly across the Hudson River from Manhattan. Union City is a community of ethnic and cultural diversity with a predominantly immigrant Latino population. One mile long and a quarter mile wide, it is the most densely populated city in the United States (approximately 80,000 residents), with a student population that is 92% Spanish speaking.

The Brookings Institute studies rank Union City among the top 92 most economically depressed localities in the United States with almost one fifth (18.1%) of the population and 27.5% of the children falling below the poverty line. According to the 1997 New Jersey Municipal Distress Index, which is based on social, economic, fiscal and physical indicators, of the 566 municipalities in New Jersey, Union City is considered to be the 3rd most distressed community in the state.

Union City has a rich and varied immigrant history. It was originally settled by Germans in 1851 who left Manhattan and moved across the Hudson River in search of affordable land and open space. At the turn of the century, the city became home to many Irish and Italian Immigrants, and Italians were the dominant population until the late 1960's. In the 1940's Union City attracted the first Cuban immigrants. These early Cubans learned of Union City's famed embroidery factories and came in search of work.

In recent years, the city's Latino population has diversified. The city has become home to immigrants from the Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Peru, and Ecuador. Families who make the long journey to Union City come with the intent of giving their children a better way of life. Many adults arrive with limited formal education. Schooling is important for this community precisely because it represents an opportunity for a better way of life.

The Board of Education serves over 11,700 students in twelve schools (four K-4 or K5, five K-8, one 6-8, various pre-school, pre-kindergarten and kindergarten providers, and two high schools). Approximately 92% of the students are Latino, 75% of whom do not speak English at home. Approximately 40% of the students are enrolled in the District's bilingual program and over half of the District's teachers are certified ESL or bilingual. The majority of residents are of low or moderate income, and 14% of the District's students have been in the country less than three years. Over 80% percent of the District's students are eligible for free or reduced price lunches—a figure that is more than twice that of the national average.

The Mission...

Society has seen a rapid dependency upon technology develop over the past years. Technology touches the lives of all of us in our daily activities. We do not need to be computer programmers or technological wizards to realize the advantages of technology and to use technology effectively.

We must provide our students with the opportunity to understand and explore technology. Our staff members need to become as comfortable with technology as they are with chalk and books.

To make learning interesting and fun through the use of technology is the foundation of our approach to the infusion of technology into all curricula. Through the extensive use of simulations and life-centered activities, the students will learn by doing.

Administratively we must utilize technology to streamline the information process and to provide an efficient, accurate system for data retrieval and electronic correspondence.

A district network should be developed that will provide the capability to access and deliver voice, video and data in an efficient and cost effective manner to the desktop of students and the community at-large. Our research-based curriculum will benefit from this electronic environment of distance learning, on-line services, cable TV, E-mail and Internet Access.

The Union City school district believes that, in order to accomplish its mission, a collaborative effort for school improvement is necessary. Through the processes of school-based planning /shared decision-making, the school community will be empowered to: make decisions to improve learning; impact on the learning environment, and provide better services and programs for all its students.

Our commitment to the use of technology for education excellence requires that we budget and plan for on an annual basis the purchase, upgrade and maintenance of hardware and software. Our efforts must be closely coordinated to the state core curriculum standards, state technology benchmarks and national goals for technology. We must also provide the human resources needed to train our staff and maintain and support the technical infrastructure.

District Benchmarks for Technology Implementation

Develop a voice/video/data infrastructure in all buildings and all classrooms with internet/intranet access and provide remote access to staff/students and community from home.

Maintain at least a 5:1 student/multi-media computer ratio

Utilize distance learning technology to deliver the “real world” to any classroom or curricula area

Provide varied means of staff training on technology

Expand collaborative efforts by staff to meet students needs.

Provide more meaningful and stimulating instruction.

The Core Curriculum standards will be addressed in all curricula areas, utilizing technology as a tool for instruction and attainment of the standards

Individualize planning to meet each student’s needs through customized programs.

Enhance communication among teachers.

Facilitate communication between home and student.

Provide instantaneous access to records.

Promote a continuing learning cycle on technology advancements and educational trends

Shorten response time for the test interpretation.

Expand learning options for students through access to innovative computer courseware.

Increase time available for instruction.

Decrease paper flow through use of electronic mail.

Increase student access to the computer as a tool for learning.

Deliver instruction to homebound students.

Provide parents, teachers, and administrators better and more timely information about their student’s progress, attendance, homework assignments, and related topics.

Improvement of Technology literacy for all children:

Having computer centers as early as school year 1992-93 has afforded us the opportunity to experiment with its classroom applications as we developed reform curricula based on whole language principles. Twelve years later, our technological literacy has evolved into an integrated and interdisciplinary practice throughout the K-12 program. We have created a technology curriculum that has recognized and embraced the importance of computer and information literacy as well as the integration and application of the NJ Core Curriculum Content Standards in all content areas.

All students regardless of gender ,race ,national origin , special need and religious affiliation have equitable access to educational technology whether it be in the public schools or through non-public supported technology initiatives provided by the State or Federal governments. In budgeting or planning all segments of the school population are considered when technology implementation decisions are made. All special projects within the district have representation of the diverse population we serve. The Comprehensive Equity Plan developed by the district is our vehicle to monitor compliance on this issue.

The district had instituted school based planning long before it became a State initiative. All resources (State, Federal, Special grants) are blended where practical to provide a unified approach not only to technology integration but all academic endeavors. District planning whether it be at the Strategic Planning level or district technology task force has as their main focus a seamless integration of all educational activities throughout the district. The district has adopted the approach that nothing happens with regards to technology unless:

The activity/purchase is in the school tech plan(also means it is in district tech plan)

Approved at the district by the Office of technology

Students in grades 1-4 receive 40 minutes of technology education weekly and students in grades 5-8 receive up to 80 minutes where the schedule permits. High school students vary by course selection.

Through the integration of the core literacy program *Wiggleworks*, primary students become proficient in reading and writing as they create their own works of literature while becoming familiar with simple computer skills. Elementary students learn various research and writing techniques as they become 18th century reporters creating newspapers and advertisements for the Revolutionary War time period or archeologists reporting on their ancient Greek and Egyptian findings using programs like *Print Shop Deluxe* and *KidPix*. Middle school students do in depth research via the World Wide Web while becoming proficient in Math by analyzing data, reporting their findings in spreadsheets and charts, and presenting their studies using *PowerPoint*. Secondary students integrate content areas by learning to design their own web pages through HTML or the latest web authoring tools. Exemplary programs like Project Hiller and Project Bulldog continue to provide hundreds of students with desktop and laptop computers at home through district funding.

Current curricular goals, strategies, and techniques support workplace readiness skills through integration of computer skills in the seven core curriculum content areas. At the secondary level, the provisions for two distinct paths are supported in addition to basic computer literacy for all. Students may choose a more career oriented path beginning with Teen Tech and leading to Cisco Certification. Or, they may choose the computer applications sequence 1-4 and eventually end up a web designer through the Honors Computer Applications Mentoring program.

As new initiatives and innovative strategies evolve they are reviewed and if of educational merit incorporated into the curriculum. An example would be the use of PDA (personal digital assistants) such as Palm pilots. Students in collaboration with the University of Michigan have incorporated the use of Palm Pilots into the math ,science and humanities 8th grade curriculums.

Union City has been at the forefront of distance learning education within the schools since 2000. Hundreds of electronic field trips are held to allow students to experience “the world” from the safe and comfortable confines of their classroom. Exchanges with the Liberty Science Center , classrooms in Ireland , local hospitals , the Rock and Roll Museum and many others bring opportunities to the schools that ordinarily would be unattainable.

In setting high standards for all our students, we have recognized the role that technology plays in student assessment and target areas of reinforcement. Programs such as *Compass Learning* and *Compass Learning Odyssey* fulfill this need. Students take diagnostic pre and post-tests aligned with the NJCCCS in four content

areas. Specific learning paths are created to support areas of need for each individual student. The Reading First Initiative, enacted as part of No Child Left Behind Act of 2001, promotes use of a scientifically based research to provide high-quality reading instruction for grades k-3 and builds upon key components of early reading. In accordance guidelines set forth by Reading First, Orchard Software provides systematic and explicit instruction in phonemic awareness, phonics guided comprehension, phonics sequences, reading for Main Idea, Reading for Comprehension, vocabulary builder, writing assessment.

The district technology task force in conjunction with the Abbott Consortium for Technology (ACT) will continue to review ways to more formally evaluate student technology literacy at various grade levels as the New Jersey Core Content Curriculum Standards evolve.

Parental Communication:

The district web site along with each individual school web site provides information for parents and the general public. This information is updated as needed. Each school has in place a parent liaison position as part of their whole school reform initiative. The parent liaison coordinates each school's parent email list which allows for electronic communication to parents/guardians. The district publishes on it's web site electronic versions of the curriculum guides.

Union City maintains a thin client technology project in three schools which allow (at present 4000 students potentially) students and parent/guardians to access the child's electronic portfolio as well as work in progress on a real time basis from anywhere they may have internet access.

Video report cards are broadcast during the year on the local cable channel giving the community the opportunity to see their schools in action. These videos are updated yearly.

School Board Notes, a newsletter generated by the Board of Education regularly during the school year, highlight technology initiatives as well as all other academic programs.

Union City utilizes distance learning aggressively in the classrooms and is continually trying to involve parents in this endeavor with offerings such as video conferencing events at PTA meetings.

As part of our student information system upgrade in 2004-2005 parents will have access to student information via the district's web interface to the Chancery SMS information system.

K12Planet gives concerned and interested parents the means to really get involved with their child's experience and enjoyment of school. Now mums and dads can more actively help their student children to help themselves, anytime from anywhere, with the convenience of secure web access to K12Planet. K12Planet allows parents to review everything from their child's daily grade and attendance information to curriculum details, homework assignments and school activities. Now parents can stay easily up to date throughout the semester, exchanging emails with teachers and principals, over and above periodic reports and parent-teacher conferences. They have the tools and the information they need to make a positive difference with their children's education, to spot potential problems, to take action, and to plan for their children's success.

Adult Literacy:

The Adult Learning Center (ALC) now occupies a prominent location in the city. Our population is predominantly of Hispanic extraction. The Adult Education Program services 875 students. The Board of Education conducts “Parent University” classes at various schools for adults on a wide range of topics including technology.

The technology plan for the Adult Learning Center (<http://www.union-city.k12.nj.us/tplan/adult.html>) will guide our students and teachers in an effort to provide an educational environment and experience that will prepare them for the new challenges of the 21st century. It is not simply knowledge that will bring power. Students in the ALC will utilize the full array of curriculum, instruction, and information throughout New Jersey and the world.

The district has been awarded a “Integrated English Literacy and Civics Education” grant from the NJDOE . This grant addresses technology skills among it’s goals and includes partners such as:

- North Hudson Community Action Corp
- Hudson County One-Stop Career Center
- Hudson County Office of Health and Human Services

Technology Inventory

The Union City School system has developed a separate Technology Infrastructure Plan which provides specific detail on infrastructure related technologies and design. It is viewable at <http://www.union-city.k12.nj.us/tplan/infra.pdf>

Attached is a copy of the 2003 NJDOE Technology Survey.

Overview Union City Online

The school system has established, as it's primary focus online connectivity for all students, staff and community.

Union City Online (www.union-city.k12.nj.us), the district's Internet web site, has become the focus for school and community interaction and serve as the launching pad for world wide information exploration. The district's twelve schools, central office and Adult Education facilities are linked via a wide area network. This network is composed of ATM , ISDN and frame relay technology. The schools are outfitted with fiber/coax/copper backbone systems for classroom connectivity. As of December,2003 the district has 4000 computers within the district ,90% are Macintosh.

The Board's main link to its Internet Provider is via a Cisco router over a 10 mg ATM line. The Board, in turn, connects to every school from the main router in the Boards office to a routers in each school via a 35 MBPS ATM link to the ATM Cloud. The remote locations comprise of a local area network (student / staff separate physical VLAN's) in the schools (100/1000mg on the collapsed backbone). The backbone in each school consists of: 12 strand fiber, rg11 coax, Category 5 wire for voice/data all run between the Main Distribution Frame (MDF) and Intermediate Distribution frames (IDF). The MDF room (cabinet) is connected to IDF's (cabinets) on the floors (determined by distances) of the school buildings. Room connectivity is accomplished by running multiple (6student/2 teacher) Category 5 cable (for data/voice connectivity) and coax to the nearest IDF. Classrooms transmit to 10/100 Mb switches at each IDF. This is then switched via 100/1000 mb fiber ports to a 100/1000 mbps main stack/switch at the IDF for connectivity to local server's etc.

All the hosts on Union City's Network support TCP/IP and AppleTalk. This allows any node on the internal network (Intranet) to access any other node. For example, administrators at the central Board offices can access the student files in any school just as if they were working on the computers at that school. Union City's Network uses a fire wall (a server that protects hosts on the internal network from access by outsiders on the Internet) to create a secure internal system. TCP/IP communication is now the standard for software integration on the WAN. This allows us to maximize delivery of services to the desktop

Administrative functions such as student attendance, grading, scheduling, district finance, purchasing and staff collaboration can be electronically delivered to the teacher/administrators desktop. Centralized student registration helps to streamline student record keeping functions.

All schools have switched ISDN video conferencing capabilities for distance learning inter/intra district.

A district training center exists at the central office to expedite staff development.

Home/community access is enhanced for special project students who do not have high speed home connectivity through remote dial-in capability via a Cisco 5300 RAS that has 1 PRI lines allowing 24 simultaneous 56K connections. The most recent survey of students show that 48% have internet connectivity at home along with a printer.

The district continually strives to research and provide the latest applications and tools available to both students and staff to encourage learning and enhance administrative functions. From an infrastructure, telecommunications transport perspective, the years 2004-2007 will see more review of voice-over-ip technology and the possible deployment of a private fiber network amongst sites. It also may be necessary to increase current ATM bandwidth links as more bandwidth intensive applications evolve.

Currently the district utilizes Centrex phone service deployed over a pbx backbone in all sites. While cost effective compared to a non-Centrex system, emerging technologies are moving to a convergence of systems over shared bandwidth which would allow the district to enhance bandwidth yet merge voice, video, data more efficiently.

The school district has worked very closely with the Union City Public Library to develop an infrastructure that will allow for the schools and public libraries to utilize a common on-line card catalog system. 2004 will see the opening of the new Jose Marti Middle School which will feature as part of its infrastructure the new home of the Union City Public Library. This state of the art combined structure will truly link the community and school together.

To comply with the Children's Internet Protection Act (CIPA) the district currently utilizes Websense filtering software. In conjunction with Websense we employ a point of entry defense against virus/spam at the firewall utilizing McAfee's Webshield product. These systems are monitored to ensure that sites (and content) deemed inappropriate are blocked from student/staff access and that the latest anti-virus/spam protection measures are in place. Contracts are renewed yearly and will be done so through 2007.

The district has yearly bid maintenance contracts to cover all of the district equipment and will continue to do so through 2007. Any new computers ordered are ordered with 3 year warranties to minimize maintenance costs.

Technical support is provided by the district by the employment of 8 technical support specialists under the direction of the district's network administrator. Employment of this staff is projected through 2007.

Data driven decision making has prompted the district to enhance the student information systems that we have in place. Additionally Union City is a pilot district in the State of New Jersey's NJ SMART (New Jersey Standards Measurement and Resource for Teaching initiative). 2004 will see all elementary schools move to Chancery Software's SMS web-based student information system. In 2005 the district's high schools will migrate from Chancery's Macschool product to the new SMS.

District non-instructional use of technology to provide a more efficient record keeping system continues to grow. Filemaker Pro has rapidly become the center point for data record keeping. With Filemaker we have produced online forms which now include: field trip requests, internal position postings, applications for such positions and for new teacher applications, evaluations, and course approval forms. Payroll enhancements for more

accurate school level entry has also been developed. Piloting the use of PDA's lies ahead to help make the use of administrative applications truly portable and easier to accomplish. Finances will be handled via a new thin client accessed application, Information Systems Inc. We also replaced the antiquated system of a digital answering machine and a secretary assigning substitutes for absent teachers with eSchool Solution's SEMS system. This automated system allows for employees to dial in or access via the internet an absence and will immediately locate a substitute for that person. This system also interfaces with Personnel Records so that no manual data entry of attendance is required.

In 2000-2001 many of the district's schools have held public auctions for non-multimedia outdated technology. This has helped the district clear storage spaces and allowed a complete, more accurate inventory to take place. We have established that 5 years is the benchmark that we use for identifying technology as obsolete. Of the district's current 4000 computers, 319 have been designated as obsolete. However as we continue to expand any Thin Client programs, legacy equipment can and is recycled to that platform. This was begun in 2000. Currently we have one fully thin client school (Edison Elementary) with our two high schools (Emerson and Union Hill) completing their deployment by 2005-2006.

Our new middle school opening in September, 2004 (Jose Marti) will be a total thin client deployment. This school will see a mixture of 200 existing computers relocated to that school with an additional 100 televideo thin client terminals installed.

2004-2005 as noted is a year of assessment with regards to existing technology deployment meaning no new computers are being purchased (except emergency situations). This will allow the district time to review our direction on thin client installations as well as review the impact of the new construction taking place over the next five years. An updated purchasing schedule will evolve by the time of 2005-2006 budget preparation.

Professional Development

As such, SDI (Staff Development and Improvement) must support the goals of:

1. Support and integration of the whole language philosophy across the curriculum.
2. Support of Authentic Literature as the core of any academic investigation and resource for informational material.
3. Acknowledgement of an investigative, how-to-learn, researched-based philosophy as the core of a true student-centered educational program.
4. Staff development as a personal process beyond informational level introductions of new material and information, and
5. Recognition that technology is a tool to accomplish educational goals therefore integrated into daily use within the content areas.

As technology is deployed, staff members are required to attend training on the use of the technology within their discipline. The most effective SDI has been that which has been designed and implemented by the School Leadership Counsel's via their school operational plans. The biggest challenge to providing professional development activities is finding the time to schedule events. The district uses the first two days of the school year before students attend to provide district and school based trainings. Saturday courses have become a viable alternative as staff is compensated for attending these trainings. The Summer Institute along with the New Teachers workshops (held in the summer) provide a great opportunity to provide staff development. New in 2003-2004 and to be continued in the future is the Administrators Retreat. This is a two day session held in late August for all district administrators. Held in Connecticut last and this year, this presents a great opportunity

for administrators to share successful initiatives and be updated on the current trends/direction the district is taking in various curricula areas.

Starting in 2004-2005 school and district administrators will be encouraged to participate in NJ ELITE. Additionally there will be at least 3 administrator specific technology related professional development activities per year through 2007.

Administrators partake of the ongoing staff development activities provided to all staff and in addition attend specific training/informational sessions as the needs arise. Professional day opportunities are also always available to any administrator.

All staff have access to computers either in their assigned homerooms or at least in the school media centers, teacher facilities and offices. The section on technology infrastructure illustrates the scope of technology available district wide. The NJ technology survey also illustrates staff access.

In our most recent survey of instructional staff as to technology proficiency, 42% of the staff rated themselves at an intermediate level of technology proficiency, 58% intermediate or higher. 87% of the staff have internet connectivity at home.

The Research

New technologies raise great expectations. The exponential rate of technological advances demands that schools set the requisite direction to prepare students for the future with the skills and abilities to access and use information in and from multi-media formats. Reflective of the Union City (District) School System's mission to facilitate the development of the potential of every student, we endeavor to create environments which empower the learner to explore, analyze and synthesize information for full participation in the global trend of data manipulation.

Through an integrated approach, curricular applications of new technologies engage the individual in his/her own learning experience (Butzin 1992). Vehicles such as project-based learning (eg. Blumenfeld, et.al. 1991) and other forms of pedagogy rooted in constructivism (eg. Duffy & Jonassen 1992) suggest that embedding technology in the core tasks of schooling and its integration into everyday practice may be a manageable negotiation.

Furthermore, when technology is treated as part of the intellectual fiber rather than something new and essentially apart, its demands on the school system become more rational (Blumfeld, Fishman, Krajcik, Marx, & Soloway 2000). Unlike previous computer technology, such as integrated learning systems (ILSs) (Newman 1992) or drill-and-practice software, which are self-contained and controlled entirely from within the school or within the classroom, the Internet is a classroom technology that requires coordination between the classroom and the outside world to work (Cuban 1986).

Responsive to the needs of the community, the appropriate application of technology uniquely allows for the immediate participation of all in the learning process, regardless of language proficiency (Bruder, Buchsbaum, Hill and Orlando 1992).

The district encourages the development by students of multimedia projects that explain, enhance, and elaborate classroom knowledge by posting them on the district websites so that anyone, and certainly fellow students, may view them (peer learning). We encourage whole year projects between departments. We are encouraged by

the multitude of content based multimedia projects that are the joint endeavor of the Computer Education Department and all the core curriculum areas. Thus we recognize that instruction is a very dynamic undertaking, an interactive system comprising teacher, students, and materials, i.e., curriculum and technology (Cohen and Ball 1999). Technology is a tool to be utilized by all participants as a vehicle to achieve the academic goals of the various curricula while at the same time encouraging our core philosophy of student inquiry and student-based projects.

Union City has had several research studies done on the impact of technology within the curriculum.

- Models of Success: Case Studies of Technology in Schools (National School Boards Association,1999) documented that “ the results in Union City strongly suggest that substantial and ongoing access to technology, coupled with a comprehensive program of educational reform, can lead to positive outcomes in students’ learning and teachers’ professional development.”
- The Union City Story, Educational Reform and Technology Students’ Performance on Standardized Tests(Educational Development Center, New York City, 1998.
<http://www.aypf.org/RAA/18union.pdf>
- Performance of cohort 1 students in Project Bulldog on their 10th grade Terranova(Center for Children and Technology, New York City,2002)
-

Union City Schools have adopted national models of school reform as part of the State of New Jersey initiative to assure universal literacy by third grade and attainment of the Core Curriculum Content Standards (CCCS) at every grade level.

- Coalition of Essential Schools <http://www.essentialschools.org/>
- Comer <http://www.schooldevelopmentprogram.org/>
- Success for All <http://www.successforall.net/>
- High Schools that Work <http://www.sreb.org/>

The Funding Plan:

The district has moved fully toward school based planning. School Operational plans are developed yearly by each school. Based upon their determined needs and with guidance given by central office on district initiatives the schools develop and manage their spending plans. Fiscal resources are blended where applicable to provide a seamless integration of funding. Copies of the current school / district technology budgets are available upon request.

The new construction being provided by the State of New Jersey through the School Construction Corporation (SCC) provides substantial funding for the technology infrastructure in all new sites as well as equipment specific funding in certain instances for telephone and data transmission facilities.

The district Office of Technology reviews the school technology planning components of the operational plan and develops a central office budget as needed to meet the goals and objectives of this district technology plan. Erate applications are filed as needed to complement the district's technology funding available resources.

“ 2004-2005 will be a year of reassessment with regards to technology deployment throughout the district. The new district technology plan and vision will establish the framework for academic and administrative technology advancement for the future. There will be no major expenditures for new equipment in 04/05 yet we will maintain all existing programs as well as expand our Thin Client initiative as we open Jose Marti Middle School.

The technology journey never ends but sometimes you need to slow down to make sure you reach your goals effectively.”

Gary Ramella, Executive Director Technology Information for Board of School Estimate meeting 4/04

Sufficient equipment exists within the district to fully implement all aspects of this technology plan.

The Union City Board of Education continues to support technology within the district with an approximate \$ 1.4 million dollar central office budget and approximately \$ 1 million in school level technology appropriations for 2004/2005 . Budgets for 2005-2007 are expected to remain constant at the school levels with increases anticipated at the district level for thin client technology deployment until the district is fully thin client.

Major targeted expenditures (district technology budget) for the next three years:

2004-2005

Jose Marti Middle School startup, \$750,000

2004-2007

Websense filtering product, est. \$25,000

Cisco switch/router maintenance est. \$60,000

New Construction technology startups, to be determined by construction dates

Telecommunication lines, est. \$105,000

Internet. Est. \$30,000

Server maintenance, est. \$15,000

Chancery SMS , est. \$20,000

Listed below is a summary chart showing revenue resources. As an Abbott district in New Jersey most revenue sources are collapsed into budgets as a blended resource unless revenue source requires specific itemization.

Examples of revenue blended resources are:

Carl Perkins Vocational Funding

No Child Left Behind (NCLB)

Technology Plan Checklist for NJ School Districts/Charter Schools (2004-2007)				
Three Year Technology Plan Funding Table				
ITEM	FEDERAL FUNDING	STATE FUNDING	LOCAL FUNDING	Erate
Total Budget Revenue Source percentage 2004-2005 Expected constant 2005-2007	5%	78%	17% (9% tax levy)	
Technology Equipment	x	x	x	X As permitted by 2 in 5 rule
Network Capacity	x	x	x	X As permitted, telecommunications
Filtering Software	x	x	x	
Maintenance Policy and Plans	x	x	x	X As permitted
Staff Training	X	X	x	

Technology Policies

The district has the following adopted technology related policies.: (<http://209.158.164.13/InterPolicy>)

1. 6142.10 Acceptable Use (attached as Appendix A)
2. 6142.10A Home Computers
3. 6142.10B Software Copyright
4. 6142.10C Software Adoption

Goals and Objectives 2004-2007

The district goals have reflected the state's goals for educational technology - as well as the national educational technology goals (which are under review in the new National Educational Technology Plan initiative, of which Union City is participating).

Educational Technology Goals State of New Jersey

Goal 1: Students will attain the educational technology and information literacy skills that will assist them in achieving the Core Curriculum Content Standards and to succeed in the workplace of the 21st century.

Goal 2: Educators will attain the skills and knowledge necessary to effectively use educational technology to assist students to achieve the Core Curriculum Content Standards.

Goal 3: Students, teachers and administrators will have access to educational technology in all learning environments, including classrooms, media centers, schools, and other educational settings, such as community centers.

Goal 4: New Jersey school districts will establish and maintain the technology infrastructure necessary for students and educators to access electronic information and to communicate freely via technology.

National Educational Technology Goals

Goal 1: All students and teachers will have access to information technology in their classrooms, schools, communities and homes.

Goal 2: All teachers will use technology effectively to help students achieve high academic standards.

Goal 3: All students will have technology and information literacy skills.

Goal 4: Research and evaluation will improve the next generation of technology applications for teaching and learning.

Goal 5: Digital content and networked applications will transform teaching and learning.

Union City School District Technology Goals

Goal 1: The Union City Board of Education will continue their commitment to technology education by providing sufficient funds to implement all district technology initiatives as per district/school level plans yearly through 2007.

Goal 2: We will continue to maintain and upgrade a district wide technology infrastructure of voice/video/data network to every classroom, educational support areas and administrative offices.

Goal 3: Students will attain the educational technology and information literacy skills that will assist them in achieving the Core Curriculum Content Standards and to succeed in the workplace of the 21st century.

Goal 4: Staff Development opportunities in technology integration will continually be made to all staff and specific needs of staff will be identified for targeted staff development training.

Goal 1: The Union City Board of Education will continue their commitment to technology education by providing sufficient funds to implement all district technology initiatives as per district/school level plans yearly through 2007.

Objective 1A: Schools, departments will submit yearly technology budgets/goals/objectives to the Office of Technology as part of the operational plan planning process.

Objective 1B: The Office of technology will develop a district wide budget yearly to maintain district/school initiatives not funded at the school / department level.

	ACTIVITY	TIMELINE	RESPONSIBILITY	EVALUATION
1.1	School / department level tech task force meetings	Sept-June Yearly	School Technology Coordinator Department Supervisors	Agendas
1.2	School technology budget development	Oct-Feb Yearly	School Technology Coordinator Department Supervisors	Work papers
1.3	District tech budget development	Oct-Feb Yearly	Exec.Dir.Technology	Work papers
1.4	Erate Applications	Nov-Feb Yearly	Exec. Dir.Technology Network Administrator Technology Coordinators	470/471 forms
1.5	District Budget adoption	April Yearly	School Business Administrator	Adopted Budget
1.6	District Tech Task Force Meetings	Quarterly	Executive Dir.Technology Technology Task Force	Agendas
1.7	District Tech Plan Update/Review	May-June Yearly	Exec.Dir.Technology Technology Task Force	Report to Board of Education

Goal 2: We will continue to maintain and upgrade a district wide technology infrastructure of voice/video/data network to every classroom, educational support areas and administrative offices.

Union City Public Schools Distance Learning & Technology Plan

Objective 2A: The Office of technology will budget for any infrastructure upgrades needed on a yearly basis to maintain 100% connectivity to all rooms in the district.

Objective 2B: A technical support staff will be maintained to provide tech support to all buildings.

	ACTIVITY	TIMELINE	RESPONSIBILITY	EVALUATION
2.1	Maintain existing intranet/internet facilities. Recommend upgrade purchases. Maintain maintenance plans on equipment	Ongoing	Senior Network Administrator Tech support specialists	Schematics Inventories contracts
2.2	Set standards for future equipment purchases and infrastructure upgrades	July04-November04	Exec. Dir. Technology Senior Network Administrator Technology Coordinators Technology Task Force	Infrastructure Standards http://www.union-city.k12.nj.us/tplan/infra2.pdf
2.3	Provide technical support staff for district WAN and school level support	Ongoing	Executive Director Technology Senior Network Administrator	BOE Postings/ Appointments Evaluations
2.4	Maintain Troubletrakker work order system	Ongoing	Assistant Network Administrator K12usa.com	Online system data
2.5	Assist in implementing school operational plans	Ongoing	Exec. Dir. Technology Senior Network Administrator Technology Coordinators	Operational Plans
2.6	Monitor Centrex phone deployment	Ongoing	Dir. of Facilities/Planning Exec. Dir. Technology Senior Network Administrator	Billing records Contracts
2.7	Telephone network deployment new facilities	Ongoing	Dir. of Facilities/Planning Senior Network Administrator	New facility plans
2.8	Continue study of voice-over-ip, private fiber	Ongoing-June05	Dir. Facilities/Planning Senior Network Administrator Exec. Dir. Technology Technology Task Force Subcommittee	Meeting agendas Feasibility Studies
2.9	Apply for Erate funding for infrastructure support	Nov.-Jan. Annually	Exec. Dir. Technology Senior Network Administrator	470's/471's
2.10	Private Fiber Feasibility Study	July04-August04	Vendor: ProMedia Technologies	Study results

Goal 3: Students will attain the educational technology and information literacy skills that will assist them in achieving the Core Curriculum Content Standards and to succeed in the workplace of the 21st century.

Obj. 3 A: Computer Curriculum guides for all grade levels will be updated as needed to match current NJ Core Content Curriculum Standards.

Obj.3 B: All students will meet the AYP (Annual Yearly Progress) in targeted grades / curricula yearly through 2007.

Obj.3.C Students will utilize programs such as Wiggeworks, Compass Learning and Orchard software to reinforce skill acquisition through 2007.

Obj. 3.D Electronic portfolios will be utilized to maintain a snapshot of student progress for teacher, student and parents through 2007.

Obj. 3.E Grant Leaders/ Project Leaders will infuse technology as applicable within scope of grant/projects.

	ACTIVITY	TIMELINE	RESPONSIBILITY	EVALUATION
3.1	Prepare school operational plans, infusing technology within	Oct.-Feb Yearly	School Tech Task Force School Leadership Councils	Completed plan State Approval
3.2	Review / Update curriculum guides	March- August Yearly	Office of Academic Programs Curriculum committee	Curriculum guides
3.3	Implement technology related school level Operational Plans	July-June Yearly	School Leadership Council	Operational Plan Evaluations
3.4	Meet with grant / project leaders to ensure technology integration meets district planning guidelines	As needed July-June Yearly	Exec. Dir. Technology Grant / Project Leaders	Meeting agendas Grant / Project Plans
3.5	Utilize Distance Learning Electronic Field Trips	Sept-June Yearly	Technology Coordinators Distance Learning Support Staff	Schedules Trip Evaluations
3.6	Maintain networked academic software	July-June Yearly	Technology Coordinators Technology Support Staff	Troubletraker Reports
3.7	Maintain efficient electronic portfolio system	July-June Yearly	Technology Coordinators Exec. Dir. Technology	Student Portfolios
3.8	All students have access to all technology related activities and equipment	July-June Yearly	Technology Coordinators Executive Dir. Technology Affirmative Action Officer	Comprehensive Equity Plan Compliance and review
3.9	Parental communication	July-June Yearly	Technology Coordinators Executive Director Technology Supervisor of Media/Technology	Board Notes School / District Websites
3.10	Grant Solicitation	Yearly As needed	Asst. Super.Instruction Central Office Supervisors Exec. Dir. Technology	Grant Applications
3.11	Support Non-Public Schools Technology Initiatives	July-June Yearly	Executive Director Technology Office of Technology	Non-Public Funding: Reports/Purchase Orders

Goal 4: Staff Development opportunities in technology integration will continually be made to all staff and specific needs of staff will be identified for targeted staff development training.

Objective 4A: Staff technology proficiency levels will increase to intermediate level in 2004-2005 and continue to rise towards the advanced level through 2007.

	ACTIVITY	TIMELINE	RESPONSIBILITY	EVALUATION
4.1	Survey development	July-October Yearly	Exec.Dir.Technology Technology Coordinators Tech Support Staff Human Resources Supervisor	Surveys
4.2	Survey deployment	October- February	Exec.Dir.Technology Human Resources Supervisors Tech Coordinators	Online survey
4.3	School / District training courses	July-June Yearly	Technology Coordinators Human Resources Supervisors Central Office supervisors	Course postings Attendance sheets Professional Improvement Plans Evaluations
4.4	Administrators trainings	Oct/Jan/April Yearly	Exec. Dir.Technology	Agendas Workshop evaluations
4.5	Summer Institute- 3 days District Workshops	June 2001- 2004	Asst Super. Instruction	Evaluations
4.6	New Teacher Orientation	August Yearly	Human Resources Supervisor Exec. Dir. Technology	Workshop evaluations
4.7	Administrators Retreat	August Yearly	School Business Administrator Superintendent of Schools	Workshop evaluations

Facilities

As an Abbott district Union City has applied for and been approved for construction aid to build new schools and renovate existing schools to bring the district much needed instructional space.

An example is the new Demonstration Project unveiled by Governor James McGreevey.

“Demonstration projects begin with the construction of schools that incorporate community design features (e.g., a gym, playground or library accessible to students and residents alike). State investment in new school construction is then leveraged by the city to bring in private investment and facilitate municipal redevelopment efforts, such as housing. Unlike other school construction projects in urban areas, the New Jersey Schools Construction Corporation (SCC) does not manage the project but instead provides funding to a city-named development authority. Demonstration projects will also serve as a jobs engine for each of the six municipalities. As proposed, the \$366 million demonstration project in Union City calls for construction of a 250,000-square-foot high school for 1,700 students next to Roosevelt Stadium, which is to be demolished. A new one-story structure to be built on the Roosevelt Stadium site will include a gym, auditorium and cafeteria; a new stadium will be built on the roof of this building to accommodate a regulation size football field. The project also includes a new 5,000-square-foot health center/day care for the students.”

PRESS RELEASE: October 29, 2003

“Compiled by New Jersey School Construction Corporation Project Officer Sameer Shah, the master plan covers a six-year time period that will see the construction of a multitude of schools, covering just about every part of Union City. According to the documents, 2004 will see the completion of the Monastery Middle School, which will hold 755 seats. 2005 will see an Early Childhood Center at the site of the old Schlemm Funeral Home on Kennedy Boulevard. This will accommodate 243 seats. 2006 has been proposed as the year that will see the construction of three new elementary schools and a second middle school located between 35th and 37th Streets. This project will, according to the master plan documents, house 1,225 seats. 2007 will see the completion of a magnet school for the arts located at Fifth Street between Summit Avenue and Paterson Plank Road, on the southern end of town bordering Jersey City Heights. This school will hold approximately 950 kids. 2008 and 2009 will see the construction of two new high schools, which will eventually replace Emerson and Union Hill High Schools. Each of those projects is projected to hold 1,459 seats. “

UNION CITY REPORTER: 11/9/2003

Evaluation Plan

Evaluation of the technology plan centers on the achievement of the stated activities in the plan as well as an ongoing review of the school level technology plans by the stakeholders.

This will be accomplished by:

Review by at school level twice yearly, December and May, of the school level technology plans.

Reports will be filled with the Office of Technology for sharing with district technology task force.

Review by district tech task force yearly (April) of the district technology plan.

Review by Strategic Planning Committee yearly (April) of district technology plan.

Yearly update of district technology plan(May/June).

Report yearly (June/July) to Board of Education at a public meeting on status of technology within district with reference to technology plan benchmarks, goals and objectives.

We will additionally complete the table below yearly when reviewing the district technology plan to reflect data to support continued achievement of the benchmarks for technology infusion throughout the district.

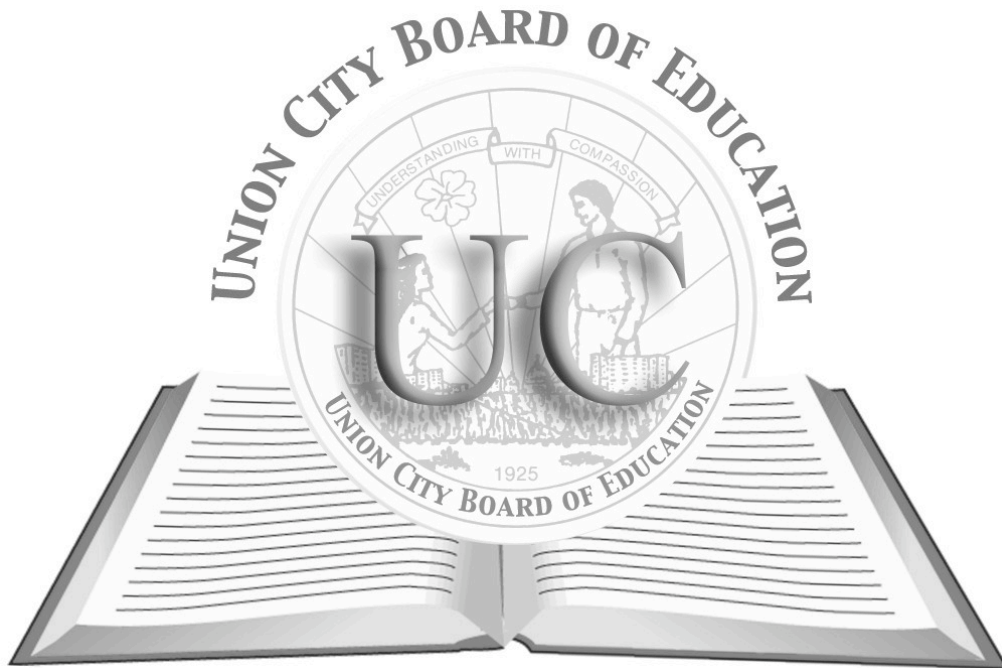
Benchmark Table

	Benchmark	2004-2005	2005-2006	2006-2007
1.	Develop a voice/video/data infrastructure in all buildings and all classrooms with internet/intranet access and provide remote access to staff/students and community from home.			
2.	Maintain at least a 5:1 student/multi-media computer ratio			
3.	Utilize distance learning technology to deliver the “real world” to any classroom or curricula area			
4.	Provide varied means of staff training on technology			
5.	Expand collaborative efforts by staff to meet students needs.			
6.	Provide more meaningful and stimulating instruction.			
7.	The Core Curriculum standards will be addressed in all curricula areas, utilizing technology as a tool for instruction and attainment of the standards			
8.	Individualize planning to meet each student’s needs through customized programs.			
9.	Enhance communication among teachers.			
10.	Facilitate communication between home and student.			
11.	Provide instantaneous access to records.			
12.	Promote a continuing learning cycle on technology advancements and educational trends			
13.	Shorten response time for the test interpretation.			
14.	Expand learning options for students through access to innovative computer courseware.			
15.	Increase time available for instruction.			
16.	Decrease paper flow through use of electronic mail.			
17.	Increase student access to the computer as a tool for learning.			
18.	Deliver instruction to homebound students.			
19.	Provide parents, teachers, and administrators better and more timely information about their student’s progress, attendance, homework assignments, and related topics.			

The Journey Never Ends...

As stated in the research noted earlier in this document, “Thus we recognize that instruction is a very dynamic undertaking, an interactive system comprising teacher, students, and materials, i.e., curriculum and technology (Cohen and Ball 1999). Technology is a tool to be utilized by all participants as a vehicle to achieve the academic goals of the various curricula while at the same time encouraging our core philosophy of student inquiry and student-based projects.”

This technology plan is intended to be just that, a plan to guide our direction as we integrate the use of technology as a tool to achieve our goals both in and out of the classroom environment.



Appendix A: State Inventory 2003

<http://www.union-city.k12.nj.us/tplan/5240.pdf>