

**Greenburgh-North Castle, UFSD  
Technology Plan  
2011 – 2014**

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## Introduction

The Greenburgh-North Castle School District is comprised of three schools.

The Clark Academy located in Dobbs Ferry, New York is a Junior High/High School program educating boys and girls from 7<sup>th</sup> to 12<sup>th</sup> grade ages 12 to 21 with a student to staff ratio of 6:1:1.

Greenburgh Academy located in Yonkers, New York serves approximately 200 day students from the greater New York metropolitan area. All classes have an 8:1:1 student to staff ratio.

Reach Academy located in Valhalla, New York educates students with disabilities including those on the autism spectrum. Both day and residential programs are available to students ages 12-21. The student to staff ratio is 6:1:2.

In total the District serves approximately 390 students.

Through formal and informal (in-house) training, our staff has received professional development in our student management system eSchoolPLUS and IEP Direct, Aimsweb assessment, DORA and DOMA diagnostic online reading and math assessments. We have also provided training on our interactive whiteboards.

The next 3 years will see growth in integration, availability, support and the infrastructure.

While much needs to be accomplished over the next three years, common challenges continue to face the school. Most evident are consistent and continued funding sources and time; time for both staff development and for the development of a true technology infused learning environment. This technology plan will look to address these areas and provide a roadmap for the infusion of technology into learning, instruction and productivity. It makes many recommendations about the future direction of technology in the district. This document provides a blueprint for where we are and where we want to go.

## **Mission Statement**

To instill a work ethic and provide a demanding academic and vocational program that is based on the needs of the individual student. As a result, the Greenburgh-North Castle Union Free School District is committed to developing each student to his/her full potential and to guide them toward their future as a contributing member of society.

GNC envisions a technology rich environment, which empowers students, parents, teachers, community and business to work together. Our students come to us from other school districts in the State and from the Department of Social Services in various counties. Many of our students have had sporadic schooling as a result of family, personal and/or emotional problems. As a result, when they arrive here, most students are functioning below grade level. Our school programs strive to provide students with the skills necessary to meet their personal and educational goals so they can successfully reenter their communities.

By incorporating technology into our programs, we will be better able serve the diverse learning needs and styles of our students. Today's world demands its citizens be confident in using the tools of technology to access and process information, communicate, collaborate and problem solve.

We believe it is essential that our educators be able to process and manage information through the skillful use of technology so they can prepare our students to successfully meet the challenges of a productive life now and in the future.

## **Vision and Technology Initiatives**

The vision of the Greenburgh-North Castle UFSD is to provide all students with access to information technology that will assist them in becoming proficient in reading, writing, mathematics, and critical thinking, being prepared for the next level of education; and successfully attaining the skills and proficiencies required of today's work force.

The focus of the District Technology Plan is enhancing teaching and learning. Success for our students is measured by their ability to continue to learn; to successfully reenter their local educational programs, to achieve the NY State standards and to enter the world of work with the needed skills.

Understanding and using technology is an integral part of virtually every aspect of daily life in the work place. It is the school system's responsibility to prepare students for this future. The classroom is the primary venue for this preparation. Therefore, every classroom must be equipped with diverse technologies to support teaching and learning. Every teacher must be knowledgeable and skilled in the use of these technologies for daily instruction. When integrated into instruction, technology will support new strategies for teaching and learning including:

- addressing diverse learning styles
- accommodating individual learning rates
- helping students become independent learners
- providing the means to communicate globally and
- improving academic achievement in all areas.

All administrators, teachers and district/school staff will use technology daily to effectively help students attain high standards. Teachers will use technology to support all learning across the curriculum. Through on-going, comprehensive professional development, all teachers will acquire the knowledge and skills necessary to integrate technology into a challenging, interdisciplinary curriculum that addresses students' specific needs, developmental levels and learning styles.

In support of this vision, the GNC offers the following technology plan.

## **Greenburgh North Castle School District Technology Goals**

Following are the District Technology goals and some strategies to help achieve them. The goals are organized into 5 areas 1 – the student, 2 – the educator, 3 – the infrastructure, 4 – Administrative and 5 – Evaluative. The depth in which these goals are explored with change from year to year as the district implements this plan.

### **Goal # 1: To integrate technology into the delivery of instruction for the purpose of the following:**

- Enhance the teaching and learning experience
- Insure that students, upon leaving, are prepared to use and apply technological tools to improve their communications skills, to be ore competitive in post secondary education or the work force and contribute to the community
- Provide an education environment and technology-enhanced learning experience for students to develop competencies and skills in technology literacy.
- Enable students to access and interact with information, to evaluate, interpret, and analyze it in its many formats and forms and to use it responsibly and purposefully in support of the Learning Standards established by NYSED and the Technology Standards established and adopted by NYSED from ISTE ([www.iste.org](http://www.iste.org))
- Establish increased opportunities for student-centered learning in utilizing technology
- Create a global classroom that promotes cross-cultural and multi-discipline learning experiences
- Implement smart board interactive technology into the classroom environment

### **Strategies:**

- Technology Curriculum will be integrated into core content areas
  - While acquisition of technical competencies is an important component of the general curriculum, the biggest challenges and greatest reward come when technology is integrated into other areas of the curriculum. The District must strive to integrate technology into all areas of the curriculum – math, language arts, science, social studies, art, and music.
- Develop a continuum of technology skills to be taught at various grade levels
  - Learning to use computers and related technologies is an important component of the school curriculum at all grade levels. To ensure that all students acquire the necessary skills, the District must:
    - Implement an ongoing process to identify key technology skills that are developmentally appropriate for different grade levels, and abilities
    - Develop and implement K-12 learning standards and performance competencies for technology
    - Support the development of curriculum and instruction to ensure that that all students acquire these identified technological competencies
- Continue to research and purchase resources to support student learning and assessment i.e. DORA, DOMA, ESchoolPLUS, IEP direct, on-line professional development, internet resources and appropriate network software programs.

**Goal # 2: Provide on-going technology staff development for all teachers, develop curriculum applications, and network teachers throughout the district to encourage consistency, collaboration, and innovation.**

Technology Professional Development Goals:

- Provide all staff with the necessary skills to incorporate technology effectively into their daily instruction.
- Focus on curriculum integration, classroom management, assessments, and problem solving to improve the classroom environment.
- Provide staff developers from both in-district staff and outside consultants who are knowledgeable about curriculum and learning goals.
- Encourage and support multiple opportunities for training and practice and offer workshops and formal course work to support staff development at different technology levels.
- Seek to hire new staff members who have competency in technology.
- Support teacher collaborative groups in the development of lessons and projects such as web pages, Web Quests, Blogs and Interactive White Board lessons.
- Provide staff development opportunities to model those strategies and techniques that may be applied in the classroom. Have teachers experience the same activities that engage their students.

***Strategies***

- To identify and present statements of standards for teacher proficiency with instructional technology, integration, hardware and basic technical competencies.
- There will be a process to measure and evaluate teacher competencies. – utilizing technology classroom observations
- Allocate sufficient resources to ensure opportunities for all staff
- Provide teachers with opportunities to develop classroom projects that bring together interdisciplinary concepts supported by technology
- Incorporate technology and program integration training into the District Professional Development Plan
- Contact the Lower Hudson Regional Information Center for information regarding regional in-house professional development offerings.

**Goal # 3: Continue to provide equitable access, technical support, infrastructure, upgrades and network maintenance for the users of network.**

- Ensure that all students and staff have ready access to current technology and appropriate tech support services.
- There will be a 24-hour response to most technical problems. There is dedicated technology staff available.
- Help desk logs will be kept to record routine maintenance and repairs. Maintenance and equipment upgrades will be scheduled and budgeted on an on-going basis.
- Replacement of obsolete equipment will be scheduled and budgeted on an ongoing basis and serviced annually.
- To obtain continued and appropriate funding through:
  - E-Rate
  - Budget
  - Grants
  - Donations
- Utilize the resources of the Internet while protecting students (CIPA).
  - Cymphonix Appliance –for web filtering and reporting
  - AUP
  - Usage monitoring

***Strategies:***

- Establish an ongoing budget of support that reflects the goals of the plan
- Establish standards to ensure appropriate computer equipment will be available in classrooms, labs, media centers and offices
- Establish standard to ensure that appropriate software will be available in classrooms, labs, media centers and offices
- Ensure that all students and staff have access to computers where and when they need them

**Goal # 4: The District will systematically convert from being paper-driven to technology driven in order to provide management and communication of information between the schools, department, district and community.**

- The District will further develop its email and telecommunication systems to maximize communication within the district and community.
- The District will utilize technology systems to improve internal communication between departments and within departments.
- The District will continue to utilize an integrated student information system that includes: demographics, grading, health, attendance, IEPs, State Reports, discipline etc.
- The District and School web sites will be the prime location for dispensing information to schools, parents and the community
- The District will explore user friendly and easily accessible methods of record keeping.
- Continue to use current software and seek additional opportunities to streamline paperwork for administration and student data

**Goal # 5: The District will put a structure in place to administer, evaluate and implement this plan.**

Within the Technology Plan there must be some way to evaluate its effectiveness and make changes. Technology is always changing, and so are ideas on how use technology to enhance the learning process. To remain effective, this plan must be evaluated and updated continuously.

Implementation of the plan must adapt to the District's changing circumstances and educational needs. The evaluation process will force planners to rethink and adapt objectives, priorities, strategies, and implementation processes based on actual results. To ensure that the Technology Program is meeting the District's educational and administrative needs in a cost effective way, the District must:

- Develop a plan to assess the level of technological proficiency gained by students, teachers, and staff i.e. one of the teacher observation is on technology use.
- Develop assessment instruments and schedules to measure the impact that technology has had on student performance
- Identify key indicators of success for each component of the plan
- Administer surveys to measure the extent to which the plan has met its original objectives and expected outcomes
- Conduct interviews with students and teachers to determine what was learned from the experience of using technology in the classroom
- Implement a mechanism to allow for changes in the content and implementation of this plan

- **E-Rate**

The E-Rate or, more precisely, the Schools and Libraries Universal Service Administrative Company - provides discounts to assist schools and libraries in the United States to obtain affordable telecommunications and Internet access. Discounts are calculated through a formula using the free and reduced lunch data. With this formula, the Greenburgh-North Castle UFSD is considered a “90%” school, meaning that E-Rate will pay for 90% of “eligible” equipment and services related to network infrastructure, telecommunications and Internet access. The District will file for E-Rate in the fall of 2010 for the 2011-2012 E-Rate funding year and each subsequent year for as long as the program is offered.

### **E-Rate Services Requested**

#### **Year 14 (2011 – 2012) funding year:**

**E-Mail – Acquire a District wide email system**

**Cellular (wireless) Phone Service: 15-20 lines district wide**

#### **Clark Academy:**

**Telecommunication Services:** Acquire a telephone system for the school.

**Internet Access:** Install dedicated T1 line or better with web filtering, domain hosting

#### **Internal Connections:**

Network infrastructure for the school to include but not limited to:

Purchase, configure and install Netgear fiber switches

Purchase, configure and install 10 GB SPF modules in each switch to optimize network performance.

Purchase, configure and install Multi-mode fiber cabling via switch to switch

Purchase, configure and install DHCP server and Backup Server with Symantec

Backup Exec software and Backup device for backup of DHCP server

Purchase, configure and Install additional network wiring where needed

Purchase, configure and Install Wireless Access Points throughout the building to provide wireless network access to school’s network.

### **E-Rate Services Requested Continued**

## **Greenburgh Academy:**

**Telecommunication Services:** Acquire a telephone system for the school.

**Internet Access:** Install dedicated T1 line or better with web filtering, domain hosting

### **Internal Connections:**

Network infrastructure for the school to include but not limited to

Purchase, configure and install Netgear fiber switches

Purchase, configure and install 10 GB SPF modules in each switch to optimize network performance.

Purchase, configure and install Multi-mode fiber cabling via switch to switch

Purchase, configure and install DHCP server and Backup Server with Symantec

Backup Exec software and Backup device for backup of DHCP server

Purchase, configure and Install additional network wiring where needed

Purchase, configure and Install Wireless Access Points throughout the building to provide wireless network access to school's network.

## **Reach Academy:**

**Telecommunication Services:** Acquire a telephone system for the school.

**Internet Access:** Install Internet Access to school buildings with web filtering, domain hosting

### **Internal Connections:**

Network infrastructure for the school to include but not limited to

Purchase, configure and install Netgear fiber switches

Purchase, configure and install 10gb SPF modules in each switch to optimize network performance.

Purchase, configure and install Multi-mode fiber cabling via switch to switch

Purchase, configure and install DHCP server and Backup Server with Symantec

Backup Exec software and Backup device for backup of DHCP server

Purchase, configure and Install additional network wiring where needed

Purchase, configure and Install Wireless Access Points throughout the building to provide wireless network access to school's network.

Our District web site is <http://greenburghnorthcastleschools.com>

## **E-Rate Services Requested Continued**

### **The Kaplan School:**

**Telecommunication Services:** Acquire a telephone system for the school.

**Internet Access:** Install dedicated T1 line or better with web filtering, domain hosting

#### **Internal Connections:**

Network infrastructure for the school to include but not limited to:

Purchase, configure and install Netgear fiber switches

Purchase, configure and install 10 GB SPF modules in each switch to optimize network performance.

Purchase, configure and install Multi-mode fiber cabling via switch to switch

Purchase, configure and install DHCP server and Backup Server with Symantec

Backup Exec software and Backup device for backup of DHCP server

Purchase, configure and Install additional network wiring where needed

Purchase, configure and Install Wireless Access Points throughout the building to provide wireless network access to school's network.

## **Description of Existing Computing & Telecommunications Environment:**

### **Clark Academy:**

#### **Network**

Internet connectivity is provided by the Agency and filtered via Cymphonix Web Filter Appliance.

The school is on a subnet of the Agency network via a Cisco router located inside the school's data closet.

DHCP is provided by a Dell server dedicated to the school.

#### **Telecommunications:**

3 Outside lines

55 Extensions

### **Greenburgh Academy:**

#### **Network**

Internet connectivity is provided through a T-1 line and filtered via Cymphonix Web Filter Appliance.

Five Netgear FS728TP 24-port 10/100 Smart Switches with PoE

One HP Server running Windows 2008, file server

#### **Telecommunications:**

11 Outside lines

24 Extensions

### **Reach Academy:**

#### **Network**

Internet connectivity is provided by the Agency and filtered via Cymphonix Web Filter Appliance.

DHCP is provided by an Agency server.

#### **Telecommunications:**

6 Outside lines

3 Extensions

### **The Kaplan School:**

An addendum to this plan will follow once the existing infrastructure has been evaluated. Proposed opening for July 2011.

## Budget

The District will continue to maintain a budget that supports the Technology Plan. In addition, the District will continue to apply for E-Rate funding and seek out competitive grants.

<b>Service</b>	<b>2010-2011</b>	<b>2011-2012</b>	<b>2012-2013</b>	<b>2013-2014</b>
Equipment	84,125.00	TBD	TBD	TBD
Contracted Services	35,458.00			
Materials/Supplies	10,000.00			
Retrofitting	2,000.00			
School Software	11,500.00			

**Equipment** – Miscellaneous computer and peripheral equipment for the District

**Contracted Services** – This reflects computers, network and telecom hardware maintenance agreements. The District portion of e-rate and non-Erate expenses is also included.

**School Software** – Maintenance for eSchoolPLUS, Dora, Doma and IEP Direct.

## Topics for Future Consideration

Records Retention

Disaster Recovery Plan

Electronic Books

Plato- Self-paced intervention solutions for K–adult students

## Current Inventory

### **Clark Academy:**

- 52 Dell Optiplex GX520 computers
- 7 Compaq 515 laptops
- 1 Toshiba Satellite Pro L3000-EZ laptop
- 1 Dell Power edge 2800 Server
- 3 Allied Telesyn AT-55506-B Switches
- 1 Cisco 3620 Router
- 1 Netgear FST26T Fiber Switch
- 1 APC Smart UPS 1500
- 3 Toshiba printers

### **Greenburgh Academy:**

- 54 Dell Optiplex GX520 computers
- 1 Toshiba Satellite Pro L300EX/523 Laptop
- 1 HP Server, Win. 2008, file server
- 5 Netgear FS728TP 24-port 10/100 Smart Switches
- 5 Toshiba printers

### **Reach Academy:**

- 10 Dell Optiplex GX-520 computers
- 8 Printers, HP DeskJet, LaserJet, Oki and Toshiba

### **The Kaplan School:**

An addendum to this plan will follow once the existing infrastructure has been inventoried.  
Proposed opening for July 2011