



## Wayland Public Schools

# FY11 End of Year Report ~ Technology

FY11 Information Technology initiatives continued with our focus on building a sound network infrastructure and on growing a greener, cost effective, easier to manage centralized and virtualized data center. We completed the Fiber backbone for the Schools and Town of Wayland, and began collaborative work with the Town on the build out of a MAN (Metropolitan Area Network) for the Schools, Town and WayCAM.

We completed the teacher one to one initiative at the Elementary Schools, and on a small scale, began replacing our out-dated student computers in the District. We expanded computer use by implementing two one to one learning initiatives in the Math and Science curriculum at the High School.

Instructional Technology initiatives focused on the integration of technology into the curriculum to provide a 21<sup>st</sup> century teaching and learning environment to meet the needs of today's digital native learner. After completing the Teacher 1:1 laptop initiative, we implemented an online learning portal (it's Learning) to enhance and grow a blended learning approach to professional development and classroom instruction. All High School and Middle School teachers participated in Wayland RISES (**R**ich **I**nstruction for **S**tudent **E**ngagement and **S**uccess), a year-long blended learning initiative to build Web 2.0 technology skills in their respective areas of curriculum. We also conducted two interactive whiteboard classes at Happy Hollow and Claypit Hill Schools using *its Learning* as a learning management portal for shared curriculum content.

### ***Network Design***

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- Completed Town Fiber Backbone Installation (Central Office, Claypit Hill & Town Buildings)
- Upgraded Central Office Network Switches
- Upgraded Central Office and TCW Wireless Access
- Removed 2 Firewalls and 2 ISP services and tied Central Office and Claypit Hill to the Centralized Network Infrastructure at the High School. The entire School System now obtains Internet Access from our new FiOS service at Wayland High School.
- Installed wireless access to support the Claypit Hill Computer Lab move.
- Upgraded Loker Network Switch cabinet.
- Installed a UAC/NAC (Universal/Network Access Control) so students at the High School can BYOD (Bring their Own Device)

**Note:** We continue to work closely with the Town to design the MAN (*metropolitan area network*) for all entities in Wayland; Schools, Town and WayCAM. We have also been working closely with the Town to define and support their networking needs and to provide them with the information needed to take advantage of the fiber backbone architecture. We are working with WayCAM to provide them with the resources they need from this fiber backbone to run their services across the Town. This is all part of the MAN engineering that we oversee.

### **FY12 Plans**

- Re-wire the Loker School network to remove the core Network Switch from the Speech Room.
- Upgrade Elementary classroom switches.
- Support the New High School network installation and move.
- Expand Wired and Wireless Access where needed using equipment being removed from the old High School.
- Install wired network connections in the Claypit Hill Lab (If funding permits. Some hardware will be recycled from the old High School.)

### ***Data Center Consolidation / Server Support***

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- Updated our Active Directory structure
- Added one new blade server to support VMWare View VDI pilot
- Installed VM Ware View to test out VDI as a possible solution for FY12
- Added a virtual machine and put VCenter on it (*Temporary fix.*)

VDI – Virtual Desktop Infrastructure

### **FY12 Plans**

- Expand View VDI Clients to 200 concurrent users (2 Blades & a new SAN storage)
- Move vCenter to a physical server
- Implement Tier 2 storage for backup and image restore
- Outsource web server to the cloud
- Assess ListServ and/or Student Notification functionality, merge and/or replace
- Upgrade our computer inventory, imaging and asset management program

## ***Hardware Support – Client Computers***

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New hardware initiatives included the support and maintenance of the following for staff and students.

- Completed the One to One Teacher Laptop Initiative, Elementary Schools and SPED
- Loker PC Cart (12)
- Claypit Hill – New MAC Cart (20)
- Claypit Hill - Moved and wired a computer lab
- Happy Hollow - New MAC Lab (26)
- Middle School PC Cart (24)
- High School
  - Math PC Pilot (25)
  - Science PC Pilot (25)
  - Science PC Cart (25)
  - English Writing PCs (10)
  - Academic Center PCs (10)

### **FY12**

- Expand on Thin Clients for Business/Administration Upgrades and Grades 1-2
- Replace out-dated student computers with MacBook computers

## ***Software/Curriculum Support***

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Support for the following applications which involved upgrades of software installations and/or the creation of and maintenance of individual student accounts:

- Destiny Library Management System -Online
  - <http://www.follettsoftware.com/pg6/destiny-library-manager>
- Lexia Reading -Online
  - <http://www.lexialearning.com/>
- Gmail and Google Apps for Education
- iPASS Student Information System and Employee Reporting System
- Transfinder
- NutriKids
- Everyday Math
- Fast Math
- All the Right Type
- QuickReads
- Discovery Streaming
- Its learning
- Fitnessgram

## ***21<sup>st</sup> Century Classrooms***

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Growth in our classrooms included the following:

- Installed Interactive Whiteboards in all 4<sup>th</sup> and 5<sup>th</sup> Grade Classrooms (WPSF)
- Expanded on the use of Interactive Clickers for immediate feedback/assessment

### **FY12**

- Continue use of Interactive Whiteboards, clickers and digital assessments to support student learning
- Assess and expand on the use of the iTouch and iPad in education
- Use it's Learning to increase blended learning for High School courses and staff professional development
- Integrate Web 2.0 technologies and project based learning to support critical thinking through accessing, analyzing, synthesizing and digitizing data into meaningful information
- Begin the design of ePortfolios to foster creativity in the production of content
- Continue use of Google Apps for communication and collaboration

<http://www.itslearning.net/k-12>

<http://www.google.com/a/help/intl/en/edu/index.html>

## ***Professional Development***

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We have continued an online District Professional Development initiative to enrich course offerings through blended learning using online resources. We continued with access to Atomic Learning online resources for all staff and students. Atomic Learning provides web-based software training for staff and students that supports 21<sup>st</sup> century skill integration. Wayland's second annual Digital Boot Camp was held during the first two weeks of August 2010.

We worked closely with Middle School and High School staff to design an intensive 21<sup>st</sup> century professional development initiative around the use of integrated instructional technology to enhance teaching and learning in all curriculum. We contracted with EdTech Teachers to provide ongoing sessions throughout the year onsite and virtually using the it's Learning online environment. The Wayland Public School Foundation supported this initiative.

<http://www.atomiclearning.com/k12/en/home>

<http://sites.google.com/a/wayland.k12.ma.us/tech21/professional-development>

**FY13** Professional Development will be supported through blended learning online resources in *its Learning* and integrated into curriculum work.

## ***DESE Reporting***

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Successfully completed the new DESE combined SIMS, EPIMS and SCS reporting that is now required by the State. Acting as a pilot school in Spring 2010 helped us with this initial reporting. (Student Information Management System, Education Personnel Information Management System, Student Course Schedule: <http://www.doe.mass.edu/infoervices/data/> )

## ***Other Initiatives***

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- ERATE
- IT Help Desk support
- iPASS Support
- Naviance Support for Guidance
- Online payments for Bus Transportation, Elementary Instrumental Music, and WSCP Private Music Lessons

## **FY12**

- iPASS - iParent @ Middle School and Elementary Schools
- iPASS - Online Elementary Report Card
- New Listserv: iContact
- Online Kindergarten Registration
- Online Building Use Form
- Select a new Website Content Management System – New Website Design
- Budget consideration for FY12