

North Warren Central School District

Smart Schools Investment Plan

BACKGROUND:

Beginning with our first Technology Plan, adopted May 1998, North Warren School has identified Technology as an essential tool in ensuring that each student develops to his or her full potential. We believe that technology integration across all grade levels and content areas can improve learning, increase achievement, and have a profound impact in preparing our students for successful entry to college, the workforce, and productive global citizenship.

The SMART SCHOOLS BOND ACT OF 2014 was approved by the voters of New York in a statewide referendum held during the 2014 General Election on Tuesday, November 4, 2014. This bond act authorized the issuance of \$2 billion of general obligation bonds to finance improved educational technology and infrastructure to improve learning and opportunity for students throughout the State.

North Warren's portion of this funding is \$297,646. This first phase investment plan addresses crucial School Connectivity upgrades.

PRECONDITIONS:

Applying for Smart Bond Funds first requires the preparation and approval of a detailed Technology Plan. Extensive analysis of the current state of Technology at North Warren was undertaken throughout the 2014-15 school year. This process involved surveying and meetings with stakeholders including staff, students, and community members, a comprehensive technology assessment and needs analysis, and a report of the state of Instructional Technology Integration. The resulting Technology Plan was approved by the New York State Education Department August of 2015.

This investment plan is in direct alignment with our NYSED approved Technology Plan Survey which can be viewed here: [North Warren Tech Plan](#)

INVESTMENT PLAN:

1. Wireless Network:

In 2008, North Warren was ahead of the curve in providing district-wide Wi-Fi coverage, meaning that mobile computing devices could be used online anywhere in the district. While that wireless infrastructure has served us well, the demand has grown exponentially and the infrastructure is now two generations behind current standards.

Recommendation:

- Replace outdated wireless access points in order to provide a high speed wireless network that will enhance classroom connectivity, insure security and visibility, and position the district for future initiatives including 1:1 computing and bring your own device (BYOD).

2. Wired Network:

The existing switch wired network, the majority of which dates to 2006, is overdue for refresh and cannot meet the increased demands of the virtual environment and security systems, nor accommodate the expansion of the wireless network.

Recommendation:

- Replace outdated switches in order to provide increased connectivity, speed, security, and visibility for wired and wireless applications.
- Replace two Category 5 cables per classroom with Category 6 in order to support the wireless infrastructure and provide for future expansion.

3. Firewall:

The current firewall has reached end of life having been upgraded to its maximum memory and capacity. The firewall does not support newer firewall services, application management, or content filtering.

Recommendation:

- Replace firewall with one capable of current application and traffic management, content filtering, and intrusion prevention.

4. Internet Bandwidth

To ensure that districts maximize the return on their investment in education technology and devices, Smart Schools Bond Act funds used for technology infrastructure investments must increase the number of school buildings that meet or exceed the Federal Communications Commission minimum speed standard of 100 Mbps per 1,000 students. North Warren currently provides 50Mbps broadband coaxial service for approximately 500 students. While technically meeting the standard, the coaxial service is considered a “best effort” solution and does not guarantee bandwidth or provide for growth.

Recommendation:

- Provide dedicated Internet Access via Fiber Optics.

COSTS:

The expected total cost of the network upgrade project is \$235,982, funded by Smart Schools (\$151,926), Universal Service Schools and Library Aid (\$53,222), and Local Funds (\$30,834).

**Note: Local Funds accounted for as: \$20,504 current year eRate Reimbursements received; \$10,330 current year Budget*

The expected cost to provide 100Mb x 100 Mb Dedicated Internet Access via Fiber Optics is \$1480 per month funded by Universal Service Schools and Library Aid (\$1036/month) and the General Budget (\$444/month).

**Note: North Warren currently contracts for 50Mb x 5Mb Best Effort Broadband Coaxial Service (\$314/month).*

PRELIMINARY TIMELINE:

Actual dates are to be determined as this project requires pre-approval by the New York State Education Department prior to the start of work.

Approved May 17, 2016