

Newport Public Schools 2017-2022 Technology Plan



NPS 2017-2022 Technology Plan

Moving Forward to Empowering our Teachers and Students

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Newport Public Schools 2017-2022 Technology Plan

Table of Contents

I.	Executive Summary	3
	Introduction	3
	Mission Statement.....	3
	Vision Statement	4
	Beliefs.....	4
	Highlights	4
	Elementary School.....	4
	Middle School.....	5
	High School	5
	Keys to Success	5
II.	Communications Overview.....	6
	Modes of Communication.....	6
	Goal 1a - To Enhance The Overall Access & Reliability of District E-mail	7
	Goal 1b - Use Aspen - All Teachers Will Use Gradebook For Communications With Parents And Guardians Via Parent Portal.....	7
	Goal 1c - Install VOIP System In All Schools Still Using Analog	8
III.	Hardware Overview.....	9
	Goal 1a - Student Learning Will Improve Through Greater Access To Educational Technologies.....	9
IV.	Technology Overview	10
	Systems of Support	10
	Network Infrastructure Summary	10
	Physical Server Locations and Roles	11
	Back-End Virtual Server Locations and Roles	11
	Typical Hardware in Classrooms	11
	Goals	11
	Technology Support and Maintenance	12
	Community Outreach and Support.....	12
	Evaluation	12
V.	Management Goals	12

Newport Public Schools 2017-2022 Technology Plan

Executive Summary

Introduction

In the 2016-17 school year, a district-wide strategic planning team was established. The purpose of this committee was to create a plan to effectively support technology integration across the curriculum. Technology is ever-increasing in our everyday lives. This plan presents a vision, and serves as a blueprint, for use of technology to support all students in achieving their very highest educational and personal potential, to inspire in them an enduring love for learning, and to prepare them to contribute as citizens of a diverse, multicultural, and international community. A 21st century classroom includes the tools for integration as well as a shared vision among all stakeholders: students, teachers, parents, administrators, civic organizations, higher education, and the business community. By articulating a clear vision for technology integration that is shared across the district, the plan will promote greater understanding and stronger partnerships among all of the groups with a stake in PK-12 educational excellence. The results will include expanded use of technology resources to support data driven decision-making, communication and collaboration, and more equitable access.

Newport Public Schools' Technology Plan outlines its goals and strategies to support effective technology integration. Understanding our diverse and ever-increasing student population, it acknowledges the need to move from the traditional classroom structure to a more blended-learning model. Simultaneously, classroom teachers will become collaborators, continuously learning together with their students. Effective technology integration will be essential to improving the learning culture and communication within our school community. We also understand that technology is a critical tool in raising student achievement and in improving all aspects of curriculum development and instructional delivery.

Mission Statement

The Mission of Newport Public Schools, in partnership with students, families, and the community, is to provide an education with academic rigor and appropriate supports so that each student will possess the knowledge, skills, and character essential to productive citizenship, healthy choices, lifelong learning, and the ability to make a meaningful contribution to our global society.

Newport Public Schools 2017-2022 Technology Plan

Vision Statement

Newport Public Schools is a student-centered learning community with a diverse and well-trained staff that recognizes the individual abilities of each student.

Beliefs

The following statements reflect the beliefs that Newport Public Schools has fostered over the years to incorporate technology into our public schools. We believe that:

- Education is learner centered.
- Quality public education is essential to a free democratic society.
- High expectations drive positive outcomes.
- Everyone deserves to be treated with dignity and respect.
- Learning is a continuous, life-long process.
- Each student has a right to an education and the responsibility to learn.
- Educational excellence requires effective and committed leaders.
- All students, at the time of graduation, shall be prepared to pursue their life goals.
- Effective teaching and learning demand a safe and supportive environment.
- Education shall be responsive to evolving student needs in a rapidly changing world.
- Parent, family, school, and community collaboration are central to, and critical for, student academic success and awareness of the necessity for maintaining a healthy life style.

Highlights

Only a school system that creates technologically literate students will produce graduates prepared to meet the challenges and expectations of today's society. Newport Public Schools must provide an environment that integrates into all curricular areas the application of modern communication and computing technologies leading to the creation, management, and use of knowledge. We will continue to create an educational setting that provides its students with a variety of enriching ideas and experiences that foster intellectual curiosity, achievement, and a pattern of life-long learning.

Elementary School

Pell Elementary School is the first school in our district to have a VOIP phone system. We also have an emergency response system in place so in the event of an emergency, the City of Newport fire and the police departments know where the emergency originated. Pell School is continuing to increase its wireless access and adding 6 new AP locations to support the increase of technology around the building and in the classrooms.

Newport Public Schools 2017-2022 Technology Plan

Middle School:

In August 2017, Frank E. Thompson Middle School had its entire network infrastructure reviewed. Due to this review, we are replacing three older switches and starting a new internal connection project that includes the addition of network drops that will be used to connect new Wireless Access Points. This will support wireless connection as well as the deployment of additional new Chromebook carts and replacement of projection devices in a three-year phase which is in progress. The new infrastructure boasts an optical fiber backbone.

High School:

In August 2014, William Rogers High School had its entire network infrastructure replaced. This new network has an optical fiber backbone. The project was assisted by the Rhode Island Department of Education Wireless Classroom Initiative fund. Rogers High School has over 3800 feet of fiber running throughout the campus; 35 Cisco switches within our data closets; CAT 6 data network routing from our new MDF to our new IDF closets; and a new network. All of our schools are now interconnected with a high speed network. The High School is also part of the deployment of new chromebook carts and replacing projection devices in a three-year phase-in system.

Keys to Success

- Embrace a strategy of innovation
 - We must apply the core principles of process redesign to quickly evaluate our educational processes for design, effectiveness, efficiency, flexibility, and implement new processes where needed.
- Careful implementation
 - All factors must be weighed in a timely manner before implementation process is initiated. Every action has a reaction. It is our job to mitigate risk as much as possible.
- Regular evaluation
 - We must monitor and measure our performance to continually improve learning outcomes while managing costs.
- Continuous improvement
 - There must be periodic evaluation of our methods and tools being used to help educate our youths. Are we providing the necessary training to teachers and staff to empower and work more efficiently?

Newport Public Schools 2017-2022 Technology Plan

Newport Public Schools has four main areas that need improvement over the next three years. We strongly believe this technology plan will serve as a road map to help achieve our over-arching goal of presenting high quality education to the students of the city of Newport. The four areas of needed improvement are:

- Communication
- Hardware
- Software
- Training

Communications Overview

Modes of Communication

Currently in Newport Public Schools, we have many different modes of communication. We communicate through our district email, website, district phone lines, through our mass communication provider (BlackBoard Connect), and a myriad of listservs. In January 2017, we introduced a “One Newport” app. That allows the community access by mobile phone up-to-date information from all schools. Each school site has a FaceBook page and Twitter to expand the level of communication for all stakeholders. With the technology available to us today, Newport Public Schools will aim to reach all these opportunities in order to improve communications with our students, staff, parents, and the Newport community.

Newport Public Schools 2017-2022 Technology Plan

Goals: Use technology to increase and improve communications within Newport Public Schools and with all stakeholders.

Objective: 1a.		To enhance the overall access and reliability of district e-mail.			
Data Source:					
Baseline:					
Strategy	Action Steps	Timeline	Person(s) Responsible	Costs/Resources	Professional Development
<ul style="list-style-type: none"> • Training on google cloud services • Provide email to grades 8-12 	Workshops PD on google (Google environment). For overall reliability, accessibility, and security.	<p>Completed for SY 2017</p> <p>Completed for SY 2017</p>	<p>Technology Office</p> <p>Contracted Services</p>	TBD	Our teachers, students, and staff will receive professional development prior to SY 2017.
Objective: 1b.		Use Aspen. All teachers will use Gradebook for communications with parents and guardians via Parent Portal.			
Data Source:					
Baseline:					
Strategy	Action Steps	Timeline	Person(s) Responsible	Costs/Resources	Professional Development
<ul style="list-style-type: none"> • Assignments and grades posted weekly 	Teachers will consistently use Gradebook as a communications tool for parents.	On-going	Teachers, Principals, SIS Admin Data Entry Person	<p>ASPEN</p> <p>Personnel</p>	On-going as needed. ASPEN instructional online video.

Newport Public Schools 2017-2022 Technology Plan

Objective: 1c.	Objective 1: Install VOIP system in all schools still using analog.				
Data Source:					
Baseline:					
Strategy	Action Steps	Timeline	Person(s) Responsible	Costs/Resources	Professional Development
<ul style="list-style-type: none"> Local funding and outside grants for phone system overhaul 	NPS has installed Cox Voice Solution throughout district	To be completed for 2018 school year- in process	Technology Office Support Staff Administration	Having VOIP will reduce costs in the long run and enable an emergency response system to be in place.	Provide PD to staff on VOIP system, and Emergency Response System.

Newport Public Schools 2017-2022 Technology Plan

Hardware Overview

Types of Hardware

The district's overall goal will be to have a device ratio of 1:1 students. Increase in classroom devices and eliminate computer labs in middle school and high school. We must provide more opportunities for our students to access online resources while still being fiscally responsible. Newport will begin to add Chromebooks for students and laptops for teachers in order to have a systematic district-wide system.

Goal: Student learning will improve through greater access to educational technologies.

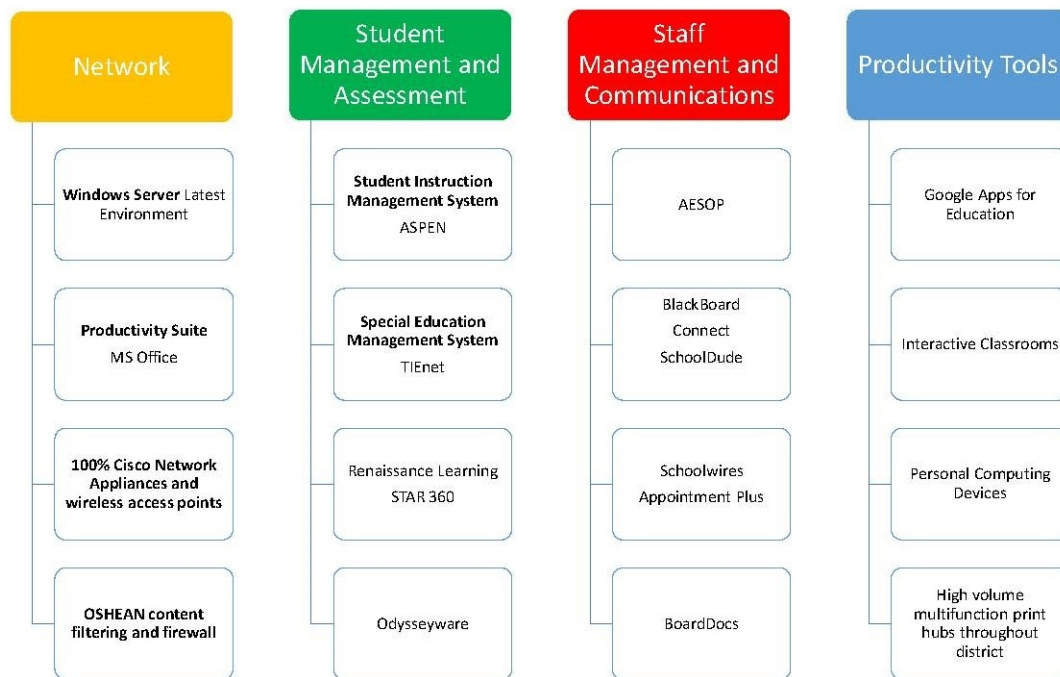
Goal/Objective: 1a	Objective 1. Provide a variety of hardware to expose all students to 21 st Century technology and ensure equitable learning experiences.				
Data Source:					
Baseline:					
Strategy	Action Steps	Timeline	Person Responsible	Costs/Resources	Professional Development
<ul style="list-style-type: none"> Research the appropriate technology for the grade, content, and intended use. Provide all classrooms with interactive technology. 	Work with Newport Strategic Planning subcommittee to develop a 5-year roll-out plan	SY 18 – deploy 300 Chromebooks and carts to both TMS and RHS -Add 150 Chromebooks and carts to Pell Upgrade projection systems with Epson Bright links	Administration Faculty Technology Staff	Local Budget Grant Opportunities	PD to support use of technology at each level on a monthly basis.

Newport Public Schools 2017-2022 Technology Plan

Technology Overview

Systems of Support

What follows is a graphical representation of our current district system configurations and plans for the future:



Network Infrastructure Summary

Newport Public Schools currently maintains a wide area network that connects all schools and the administrative offices. Our entire wiring is comprised of fiber backbone. This wide area network is connected to the Internet. A firewall protects the network. The district currently uses 8e^ content filtering through OSHEAN.

At our Pell Elementary School we have 20 Cisco 3750 (POE+) switches, and two Cisco 5500 wireless controllers. Every academic room and administrative office has a minimum of four network Ethernet ports and two ports for our VOIP phone system.

At our Thompson Middle School we have 17 Cisco 3550 (POE+) switches and one Cisco 5508 wireless controller that connects devices to all 682 ports and 57 Cisco Aironet 3602I access points. Each access point can handle up to 25 continuous connections.

At Rogers High School, we have a brand network infrastructure due largely in part to USAC funding and the RIDE's technology wireless classroom initiative. Rogers' network infrastructure consists of one Cisco Catalyst 4500E Chassis, 15 Cisco 4500 (POE+) switches, 17 Cisco 3750X (POE+) switches, 97 Cisco wireless access points, and one Cisco 5500 Wireless Controller.

Newport Public Schools 2017-2022 Technology Plan

Physical Server Locations and Roles

At Newport Public Schools, we currently have 12 physical servers that have been dispersed throughout the district. Eight of the twelve Dell servers have been virtualized in order to maximize cost savings, system consolidation, and improved administrative capabilities. At Pell Elementary School, we currently have two Dell PowerEdge R720s and three Dell Poweredge T630 rack servers. At Thompson Middle School, we have seven Dell servers (mixed models) that are the hub of most of Newport Public Schools' depository. At Rogers High School, we currently have two Dell PowerEdge R720s that stores the high school data for both faculty and students.

Back-End Virtual Server Locations and Roles

Every school has its own domain controller and file server to provide high availability, fault tolerance, and easy accessibility of files. Our Thompson Middle School has the highest concentration of physical and virtual servers due to it being the placement of our main distribution frame.

Typical Hardware in Classrooms

At Pell Elementary School, all the teachers have a Dell Latitude E5530. The Pre-Kindergarten, Kindergarten, and the 1st grade all have iPads. The 2nd, 3rd, and 4th grades have Dell Latitude E33. The administrative staff and principals have Dell 9010 All-in-One desktop computers. We are currently starting a replacement plan for the student laptops by deploying 150 Chromebooks and carts at Pell. The goal over the next few years is to replace the teacher laptops incrementally.

At Thompson Middle School, every teacher is being issued a Dell Latitude 3580 and a Dell docking station laptop computer. The middle school is replacing their labs with 300 Chromebooks and carts SY 18.

At Rogers High School, every teacher is being issued a Dell Latitude 3580 and a Dell docking station laptop computer. The High School is replacing their labs with 300 Chromebooks and carts during SY 18.

Goals:

- Continue to leverage the existing Federal and State technology resources available to the district in as an efficient manner as possible.
- Purchase new servers to replace the out-of-warranty servers for file services, network access, and backup of critical data/services.
- Continue to work toward a 1:1 ratio.
- Provide transparent access to network resources for students, faculty, and staff by increasing computer labs within Thompson Middle School and Rogers High School.
- Increase the current internal connection bandwidth to accommodate increase usage and incorporate new technologies and network efficiencies.
- Increase network and wireless security.
- Continue to expand usage of secured wireless devices and other mobile network technologies.
- Provide all classrooms and educational spaces in Thompson Middle School and Rogers High School with interactive classroom technology.

Newport Public Schools 2017-2022 Technology Plan

Technology Support and Maintenance

The Newport Public Schools recognizes the importance of providing systematic services that support technology and provide for timely maintenance, repair, and replacement of equipment as well as operating system, application software, and telecommunications support. The district utilizes an electronic work order system to facilitate the timely delivery of support and maintenance.

Community Outreach and Support

The Newport Public Schools Strategic Planning Committee is made up of partners from school and community members. One Newport-Community Engagement and Partnerships is an integral part of our strategic planning. This committee continues to support learning opportunities in business and organizations through an expanded array of internships, experiences, and mentoring.

Evaluation

The Technology Plan will be evaluated using a variety of data including district surveys, anecdotal evidence, teacher and para needs assessment, and student assessment data.

Management Goals

1. Provide every classroom with age-appropriate tools for increased student engagement and to improve student achievement.
2. Use technology to increase communication within school district and between Newport Public Schools and the Newport community.
3. Continue with professional development to support the move to a Google environment.
4. Use Technology to support curriculum, instruction, and assessment.
5. Provide professional development to support staff in their effective and efficient use of the technology.
6. Maintain and update technological devices.
7. Transform our school libraries into school media centers.
8. Transform Newport Public Schools into 21st Century places of learning.