

Durham Public Schools
Technology Plan

2014-2016



February, 2014

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**Durham Public Schools
Technology Planning Committee**

Technology Plan Oversight			
Role	Description	Person Responsible	Title
Plan Leader	Ultimate authority. Responsible for ensuring that the elements within the plan are implemented with fidelity.	Hugh Osteen	Interim Superintendent
Plan Sponsor	Responsible for the plan, its desired results and specific outcomes. Advises Champions on escalations and other issues regarding the plan.	Scott Denton	Executive Director for Auxiliary Services
Co-Champions (Plan Managers)	Maintains the plan, assigns and facilitates the completion of deliverables and goals, performs reviews, address issues and change requests, and responsible for the technical quality of the solution.	Elaine Batten	Director of Information Technology
		Mary Gray Leonard	Director of Media and Educational Technology
Priority Team (PT) - Responsible for Completing Priority Areas			
<u>Priority One: Statewide Shared Services Model</u>			
Name		Title	
Primary Team Lead – Stephen Brown		Infrastructure and Networking Manager	
Secondary Team Lead – Dana Hodges		Educational Technology Resource Specialist, Elementary Schools	
<u>Priority Two: Universal Access to Personal Teaching and Learning Devices</u>			
Name		Title	
Primary Team Lead – Jerry Williamson		Educational Technology Resource Specialist, Middle Schools	
Secondary Team Lead – Daniel Moore		End User Device Manager, Sr. Apple Engineer	
<u>Priority Three: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks</u>			
Name		Title	
Primary Team Lead – Ron Wahlen		Instructional Technology Business Manager	
Secondary Team Lead – Amy Todd		Educational Technology Resource Specialist, High Schools	

Priority Four: A Statewide Model of Technology-Enabled Professional Development

Name	Title
Primary Team Lead – Sherry Ballentine	Educational Technology Resource Specialist, Elementary

Priority Five: 21st century Leadership for All Schools and Districts

Name	Title
Primary Team Lead – Mary Gray Leonard	Director of Media and Educational Technology
Member of Priority Team – Dr. Elizabeth Shearer	Executive Director for Leadership Development

Durham Public Schools Technology Plan 2014-2016

Vision Statement

The year is 2021. The economic recession that hit our nation a decade ago is now a distant, but not forgotten, memory. History has shown that the period immediately following a recession is filled with growth and prosperity. And so it is in Durham 2021!

Durham, North Carolina is enjoying this boom as much as anywhere in the country. New businesses are relocating to the area and parents are seeking out Durham as their preferred place for raising a family. Talented individuals from all parts of the United States and the world now proudly call Durham home.

In short, Durham is a thriving boomtown offering a quality of life second to none. Despite its fine reputation as the City of Medicine and a technological hotspot with a welcoming population, Durham has quickly become known as the educational nerve-center of North Carolina – and a national flagship. While it has always enjoyed access to world-renowned universities, the difference is the transformation of its K-12 school district.

The historical shift in educational quality can be traced back to January of 2011. That was when Durham Public Schools launched its new strategic plan. The plan was the culmination of a Listening and Learning Tour that gathered input from over 4,400 community members. The plan contained six strategic areas: Academic Acceleration; Communications and Partnerships; Equitable Standards; Effective Operations; Talent Development; and Wellness and Safety.

Because the goals were both specific and measurable, the community rallied to support the strategic plan in two very important ways. First, a commitment was made by businesses, universities, organizations and individuals to provide the resources needed to make innovation accountable for the success of the plan – and more importantly, for the success of the students.

This was also the timeframe that Durham Public Schools began a renewed effort with rigor and intention to harness and overcome the technology issues that existed in the classrooms, putting in place a realistic approach to ensure 21st century technology access for its students and staff, and focusing its staff and resources on higher integration of technology in every classroom. This strategic prioritization of technology infusion in the classrooms comprised:

- a. A higher concentration of infrastructure within its schools to support the connectivity needed by curriculum-driven collaboration with other classrooms, both nationally and globally.*
- b. Establishing a long-term plan to ensure a continued ability to provide adequate, agile, and state of the art devices in the classrooms to engage its students to learn more and achieve more.*

- c. *Ensuring high quality, relevant professional development that gave its teaching professionals the confidence to model, then master technology with their students who were hungry for learning and energized to excel beyond their dreams.*

In July of 2012, technology priorities were aligned and embedded throughout the Durham Public Schools Strategic Plan in all six strategic areas, which has transformed and infused classrooms ever since. In 2013 Durham Public Schools achieved an equitable baseline for technology and upgrades all of its schools to that baseline. In the 2014 school year, Durham Public Schools began realizing the value of the technology through increased use in the classroom by its faculty resulting in increased student engagement.

Due to the recognition and accolades bestowed upon Durham Public Schools by national media, researchers and professional journals, the district recruiting of teachers and principals has resulted in strong integration of technology for our classrooms. It now has the luxury of selecting from among the best in the nation. As a result, every classroom now has a highly-qualified teacher and every school is high performing – including the new schools constructed since 2011.

Teaching and learning are still the foundation of the schools, but they look and feel much different from 10 years ago.

We have overcome enormous challenges in the past 10 years – because we worked together and believed in our children and their worth and achieved. One Vision. One Durham.

Durham Public Technology Plan
Strategic Priorities
2014 - 2016

At Durham Public School (DPS), technology usage has been embraced by the transformation of technology over the last two and a half years with the assistance of its leadership team, community, partners, employees, students and parents to ensure equitable access and a quality delivery of technology from end to end – from the backend data center and infrastructure services to the effective use of technology by the students and well-trained teachers in the classroom.

DPS developed an NC Education Cloud roadmap that outlines how DPS has and will continue to engage with shared service offerings so that current funding sources can be re-directed to the classrooms. While it is already involved in some statewide shared services, plans for additional opportunities are being developed.

DPS has opened two additional schools in the past two years using 1:1 computing and equitable access as described in these pages. The data from these initiatives, along with similar evaluation data from other sources, will derive the roadmap for expansion even further.

We are continuing to expand our digital resources over this two-year time frame to ensure that adequate resources are, and continue to be placed in the hands of our students.

DPS has expanded the overall Professional Development (PD) framework that is used today.

21st century leadership at DPS is focused on transforming our technology and infusing our classrooms with highly qualified, technology-savvy educators and providing challenging curriculum to propel our students towards achieving knowledge and growth.

Key themes across the five priorities are:

1. Ensure sustainability in classroom technology equipment and devices with finance options.
2. Continue to leverage the North Carolina Education Cloud Services.
3. Engage in all feasible Home Base components and reduce the software portfolio for redundancies.
4. Ensure that each school develops their individual plan to align to the district plan.
5. Ensure access to Web resources at all levels possible.
6. Investigate the creation of a standing district Media and Technology Advisory Committee.
7. Expand the overall framework for the PD program even more.
8. Expand STEAM and 1:1 programs and align Career Technical Education to STEM.
9. Create a technology teacher/leader academy.

Strategic Priority 1: A Statewide Shared Services Model

Essential Questions for Durham Public Schools

How will we leverage collaborative purchasing to pay substantially less for technology services and platforms?

How can a Statewide Shared Services Model assist in shifting primary support from infrastructure to instructional needs?

How can a Statewide Shared Services Model enable increased infrastructure and technology efficiency and sustainability?

How can a Statewide Shared Services Model provide higher service reliability?

How can a Statewide Shared Services Model facilitate more strategic budgeting models for our LEA/Charter Schools?

Current Status and Moving Forward

A Shared Service Model (SSM) is designed to focus on certain services and provide those services in an efficient and effective way, with higher quality and lower costs. Durham Public Schools (DPS) is benefiting from those services that eliminate redundant activities, improves efficiency, and delivers a higher quality of service. By taking advantage of greater use of SSMs, DPS Information Technology (IT) staff is able to focus on core technologies and activities that directly support and enhance the classroom.

DPS IT staff provides services to schools and the district in the areas of end user device support, email, messaging, shared storage, application hosting, filtering, IP (Internet Protocol) phones, network security, backup and recovery, and directory services. DPS has increased its SSM strategy in the areas of firewall and CIPA content filter in the past two years in order to reduce the DPS budget and infrastructure requirements.

The DPS Strategic Plan (DPS SP) had several strategies aligned to specific project charters under the Effective and Efficient Operations Goal IV. Charter 22 provided the scope of analyzing and realigning IT resources to ensure higher service to its schools, as well as aligning the IT budget and expenses specifically to develop a sustainable budget/financing option to support technology upgrades as a part of the annual and long-range budgets. Charter 23, which is still active, provides a training program to develop skills standards which also ties into reduced costs. Leveraging the SSM to a greater extent was and is a part of those project scopes.

The DPS current model for shared services has existed to some extent for several years. DPS has and is leveraging eRate funds, grants, State technology offerings and corporate and public partnerships to meet selective needs. The following are examples of those areas:

eRate

DPS currently leverages eRate in the following areas:

- High speed circuits between district schools
- Local and long distance telephone services

- Cellular services
- Smartphone service
- District Web hosting
- Basic maintenance of network components for schools in need
- Basic maintenance of video equipment
- High speed Internet access for the district
- Voice Over Internet Protocol (VOIP) services
- Cabling and Infrastructure (including wireless) refreshment for schools in need
- State provided Internet Access

Grants

- KidSmart – Young Explorers and Lenovo computers
- Donors Choose
- Other IBM grants such as Translate Now!

State Technology Offerings

- DPS participates in the NCREN for all Internet traffic
- Firewall
- CIPA Content Filtering (Zscaler)

Corporate and Public Partnership

Duke University donates at least 50 computers a month to DPS for use in its classrooms. The Durham Chamber of Commerce also partners with us on our volunteer program and has been instrumental in providing innovative ideas and support. Other partnerships have also been leveraged for bringing in donated computers for the district.

DPS also partners with Triangle E-Cycling. This agreement allows DPS' IT team to decommission its aging or broken and out of warranty computers to a partner that incorporates DPS student interns. Triangle E-Cycling interns learn how to repurpose, rebuild, and dispose of technology appropriately.

In planning for the 2014-16 school years, DPS will increase its collaborative purchasing to pay substantially less for technology platforms. This will be accomplished by:

1. Increasing our focus on grants and securing additional value to the district's technology program through awarded grants.

DPS grants are coordinated through the Research and Accountability area. Leadership in this area hired a Coordinator of Grants, Program Evaluation and Data Analysis, who has given technology leadership her commitment to include technology as a part of all relevant grants. The additional commitment will ensure more technology planning is incorporated into the grants process. This should increase grant possibilities and potential awards.

2. Increasing our focus on community partnerships and ensuring higher value to our classrooms beyond any business transaction the district has with that partner.

A renewed focus at the district level is being pursued to build a partnership framework. This includes technology partnerships. The district is strengthening its partnerships such as with Cisco, Dell, Lenovo, and Apple, in order to improve services to the classrooms.

3. DPS will investigate and, where feasible, increase our donations program to include additional devices that meet the minimum equipment standards and additional donors.
4. DPS developed minimum technology standards. These minimum standards are used to identify the greatest instructional technology needs in our classrooms. The donations program management will reach out to additional businesses and partners to expand the possible inputs to the donation program so that more computers can reach our students as well as ensure that the incoming devices align to our minimum standards.
5. DPS will continue its eRate program in:
 - High speed circuits between district schools
 - Local and long distance telephone services
 - Cellular services
 - Smartphone service
 - District Web hosting
 - Basic maintenance of network components for schools in need
 - Basic maintenance of cabling components
 - Basic maintenance of video equipment
 - Video equipment for schools in need
 - Expanded wireless for schools in need
 - Domain services for schools in need
 - Network switching refresh for schools in need
 - Cabling additions and upgrades for schools in need
 - Upgrade voice services for schools in need
 - State based Internet Access
6. DPS will continue to increase its use in the Statewide SSM where possible. DPS has focused its current activities in these areas to clearly understand and document DPS specific requirements so that the State offerings can be aggressively pursued:
 - a. DPS utilizes Zscaler, a cloud-based web security and web content filter provided free of charge through the NC Education Cloud offering. Zscaler allows students and staff the ability to safely and ethically use the Internet to access appropriate educational materials. DPS will continue to provide a web content filter solution which is compliant with the Children's Internet Protection Act (CIPA) which is required in order for DPS to receive discounts offered through E-Rate programs. DPS continues providing teachers and students with the knowledge of Internet safety and ethical usage and performs yearly verifications from each school stating Internet Safety has been taught to all students.

- b. Voice over Internet Protocol (VoIP) – DPS currently maintains a district-wide VoIP solution for all central service and school locations. The goal is to reduce cost while increasing operational efficiency and improving customer service. DPS will begin evaluating online offerings like the Cisco Hosted Collaboration Solution which would provide DPS the benefit of a robust Cisco VoIP platform without owning, managing or maintaining the Cisco Unified Communications System. The system would be outsourced and managed by a service provider allowing DPS to take full advantage of voice, video, web and instant messaging applications.
- c. DPS researched the firewall shared service model offering provided by the NC Education Cloud. DPS determined its core technical competency should not be managing firewalls especially when a free service model existed that could do all the hardware, software upgrades and administrative management at no cost. DPS moved to a hybrid support solution with MCNC. MCNC provided DPS a primary firewall with technical support which resides in our data center and DPS purchased a secondary firewall for hardware redundancy in the event of an outage.
- d. DPS has had a software portfolio management process since 2006. Best practices are used to reduce or eliminate redundancy in software usage within the district. DPS IT staff is specifically working with vendors to renegotiate lower costs and standardize on integration protocols to accelerate any State offering in consolidating software program purchases. DPS IT staff has also worked in this area to enforce the need for software to be Commercial-Off-The-Shelf or Web-based delivery to reduce our teaching and learning device requirements and costs. When specific State shared services are identified through its statewide software portfolio analysis and State programs are adjusted to provide for standard interfaces, DPS is ready to leverage a consolidated software portfolio. The partial implementation of Home Base this year will also be evaluated to determine what products will be able to be replaced reducing current software costs with specific products.
- e. During the 2012-13 school year, DPS provided over \$9 million dollars in technology refresh for teaching and learning and over \$3 million dollars in wireless upgrades to schools in order to provide equity in our schools related to technology. A sustainability plan for our 1:1 program as well as our traditional schools is being developed with leadership and will be the financial and technology roadmap for ensuring the equipment for the classroom and the infrastructure that supports our mobile device plan is sustained.
- f. Schedule technology purchasing to gain economies of scale. (Explore using the E-Rate bidding process to obtain bids and evaluate possible vendors.) Currently schools procure as needed and wanted. The Minimum Technology baseline Standards provides the focus on what to buy. By scheduling group purchases, volume discounts will be leveraged. However, schools still have the option to purchase additional equipment tailored to their specific needs.

DPS can use a Statewide SSM to assist in shifting primary support from infrastructure to instructional needs by:

1. DPS Technology Department commissioned two vendors to assess the data center and identify what areas of the data center are not up to industry standards and do not meet best practices. The assessments determined that the DPS data center was a high risk environment from both a power and cooling standpoint with regard to availability and was not on generator backup for IT equipment or cooling systems. Given the limited space, power, and cooling challenges, approval was given for the IT Department to move the DPS data center to a state-of-the-art facility in Research Triangle Park at MCNC (Microelectronics Center of North Carolina). This move occurred just prior to the end of the 2013 calendar year.
2. Maintaining a smaller infrastructure to address only those DPS-specific platforms that support emerging instructional systems and data systems. By providing a reduced budget requirement for infrastructure, those resources can be given back to the district's strategic planning process.
3. Focusing our resources to delivering anywhere, anytime access to educational resources through its school infrastructure improvements in wireless and end user device management plan.

A Statewide SSM will enable increased infrastructure and technology efficiency and sustainability by:

1. Satisfying bandwidth demands.
2. Providing shared server deployments to support common services across LEAs.
3. Leveraging server virtualization to deploy logical servers.
4. Automatically scaling server and storage resources to meet demands.
5. Realizing the efficiency of contemporary IT technologies. By having a standards-based infrastructure, DPS IT has been able to respond more quickly to new technology requirements driven by curriculum. This includes digital textbooks, delivering supplemental curriculum material with textbooks, providing access to remote sites such as the Durham Regional Detention Center and community centers focused on DPS student services. In the future, the same standards based infrastructure can serve the students who take their devices home.

A Statewide Services Model can provide higher service reliability by:

1. Categorizing platforms into systems such as learning and instructional or IT enterprise and business operations to enable the development of an architecture that provides standard learning management, identity, content and data management interfaces and

services in order to simplify connecting provider solutions - shared learning infrastructure transition server hosting and management to Cloud providers.

2. Providing Service Level Agreements (SLAs) for LEAs rather than best effort Memorandum of Understandings. With limited budget and limited staff, having clear SLAs in place allows all stakeholders to understand the expectations of its partners and be able to make informed decisions when educational changes arise.
3. Managing network latency.
4. Providing hardware and software patches and upgrades.

A Statewide Services Model can facilitate more strategic budgeting models for DPS by:

1. Continuing to provide the NC Education Cloud services to all NC LEAs and Charter Schools on an opt-in basis.
2. Analyzing the software portfolios of all LEAs and setting direction, maximizing procurement and support for common vendor applications. In addition, providing platforms for development of shared requirements with LEA customizing options.
3. Avoiding a custom-based proprietary solution on current framework and integrate a non-standard interface.
4. Meeting recurring costs associated with the NC Education Cloud services via a combination of existing State (school connectivity-eRate), Title I and local funds.

Alignment to Other Plans and Initiatives:**Strategic Priority 1: A Statewide Shared Services Model**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

DPS will utilize and align with the Accountability and Curriculum Reform Efforts to reach our vision and complete the strategic priorities of our plan by participating in the shared services model offerings creating an alignment with the core curriculum standards. The fore-mentioned will allow our LEA to better prepare our infrastructure to support a 21st century curriculum and the transition to online assessments, universal and equitable access to digital and personal teaching devices/resources, including the delivery of anywhere, anytime, access to education resources. An integral part of creating a sound technology infrastructure is to provide high-availability, performance and reliable platforms and services.

Career and College Ready, Set, Go!

A few major initiatives in Career and College Ready, Set, Go! are (1) to improve the infrastructure of data systems and (2) to improve instruction, data access and shared services. DPS will align with the NC Education Cloud initiative in establishing and increasing data systems that measure student success and inform teachers, principals and policymakers about how they can improve the delivery of educational services to students. One activity to accomplish this effort comprises in the infrastructure having the capability to capitalize on newer technologies through the expansion of virtual and blending teaching, putting more technology into the hands of students and teachers, increasing individualized learning options, and giving students alternatives in achieving the ultimate goal of graduation. Through these initiatives we can accomplish the next generation technology infrastructure and reduce costs utilizing State shared systems.

Home Base Implementation

As DPS adopts the various Home Base modules, data transfers to our consuming systems will continue to be updated, the software portfolio will be reduced to ensure cost savings and removal of redundancy, and our infrastructure that supports the redundant software will be reduced.

DPS Strategic Plan

Goal IV of the Effective Operations Strategic Area will be used in developing efficient and effective technology framework at the operations level to better service our community at the school-based level. Creating a sound technology infrastructure will satisfy this need in reducing costs by utilizing state-based information management, instructional, and data systems and creating new systems to minimize costs and centralize access.

Goal II of the Equitable Standards Strategic Area will address a fair infrastructure of hardware and software resources that will allow the district to identify accessibility and resource gaps within the district. When these are followed and met, students' instructional needs are adequately met. For example, a minimum technology standard scorecard has been developed. The implemented NC Education Cloud model will allow shared and equitable allocation of technology resources throughout the district.

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Provide equitable and additional access to mobile devices	<p>Goal: Continue to enhance the wireless infrastructure as additional mobile devices are utilized in the classroom, which will support the demand for access to additional mobile devices by building out higher capacity and coverage where needed while maintaining security integrity.</p> <p>Responsible Party: IT, ET, DPS leadership, Community Partnerships</p>	<p>Goal: Use the data from 1:1 programs in our schools to expand to additional classrooms/mobile units, including tablets, iPads, and mobile touch devices where funding becomes available.</p> <p>Responsible Party: IT, ET, DPS, Grants, Community Partnerships</p>	Wireless School Designs	
	<p>Goal: Execute Year 3 of the Technology Refresh plan to replace devices that do not meet the district’s minimum baseline standards with approved funding through the district’s technology</p>	<p>Goal: Ensure a new training model to support the expansion.</p> <p>Responsible Party: IT, ET, DPS, Community Partnerships</p>	1:1 School Programs Evaluation Data	Annual Minimum Baseline Standards Scorecard results

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	for teaching initiative. (DPS SP Goals III.6 and IV.1). Responsible Party: IT, ET, DPS leadership, Community Partnerships		refresh	
	Goal: Continue to provide educational training and technical support for ALL schools by performing sessions for equipment conducted by skilled staff members. Responsible Party: IT, ET, Community Partnerships	Goal: Provide Year 4 of the Technology Refresh plan. (DPS SP Goals III.6 and IV.1) The Train the Trainer model continues to be implemented with the foci being the Five Pillars of Technology, Informational Technology Essential Standards and the three academic foci, literacy, writing and eight mathematical discourses. Responsible Party: IT, ET, DPS leadership, Community Partnerships	Charter 23 project status reports Training Session Evaluation Process Results Survey Results	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>Goal: Increase the number of applications using single sign-on.</p> <p>Atomic Learning and Discovery Education have been implemented as single sign-on applications.</p> <p>Responsible Party: IT</p>	<p>Goal: Continue evaluation of the number of applications in which single sign-on can be utilized.</p> <p>Responsible Party: IT</p>	Automated Account Management Process documentation & account management job logs	
Provide equitable and additional access to digital resources	<p>Goal: Evaluate donations program for schools in need so that donations are required to meet the minimum equipment standards as they pertain to our technology refresh plan. (DPS SP Goal III.6).</p> <p>Goal: Ensure that the main repository for documents is accessible from any wired remote location by anyone</p>	<p>Goal: Continue to evaluate the validity of the donation program. Continue to evaluate VPN access, cloud resources, and software portfolio for document repository solutions.</p> <p>Responsible Party: DPI and DPS</p>	<p>Donations Program Kramden for Kids</p> <p>Usage Reports for DEPOT, Google, VPN and portfolio items</p> <p>IT Process Audit</p>	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	within the school systems applicable bandwidth. Responsible Party: DPI and DPS IT			
	Goal: Provide an infrastructure that can provide equity of access to server and storage resources including applications (usage reports). (DPS SP Goal IV.3) Responsible Party: DPI and DPS IT	Goal: Properly distribute access and reallocation of space by continuously monitoring needs and assess reallocation as deemed fit as core technologies evolve. Responsible Party: IT	SSM Cost Savings	
	Goal: Deliver anywhere, anytime, access to education resources. (DPS SP Goal IV.3) Responsible Party: DPI and DPS IT	Goal: Provide at-home access through VPN. Responsible Party: IT	SSM Cost Savings	
	Goal: Consolidate to an appropriate platform that supports emerging instructional and technology systems. (DPS SP Goal IV.3)		SSM Cost Savings	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
	Responsible Party: DPI and DPS IT		Evaluation Method(s)	DPI Use
Reduce operating costs by facilitating a more strategic budgeting model	<p>Goal: Move to shareable resources to enable better use of spending for applications and devices that must be localized. (DPS SP Goal III.6)</p> <p>Goal: Beginning stages of North Carolina initiative, Home Base</p> <p>Responsible Party: IT leadership, Financial leadership</p>	<p>Goal: Continued Home Base implementation.</p> <p>Responsible Party: Home Base Project Team</p>	IT Multi-year Roadmap	Annual operating budget report.
	<p>Goal: Funding model for refresh plan in place.</p> <p>Responsible Party: IT leadership, Financial leadership</p>	<p>Goal: Ensure funding model for refresh plan continues.</p> <p>Responsible Party: IT leadership, Financial leadership</p>	Annual operating budget report	
Facilitate a more strategic budgeting model utilizing blended funding and reducing isolated programmatic spending	<p>Goal: Expand blended funding model, leveraging eRate resources, community resources, State and</p>	<p>Goal: Create DPS knowledge-base of videos, lessons, presentations, and templates.</p>	Charter 22 status reports and deliverables	DPS

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>local funding by completing Charter 22. (DPS SP Goals IV.1)</p> <p>Responsible Party: IT leadership, Financial leadership</p>	<p>Responsible Party: Teachers, IT, ET, Executive Director of Curriculum, Instruction and Assessment</p>	Instructional portal utilization	
	<p>Goal: Share resources on an online repository to eliminate application and document server load.</p> <p>Patrons are trained on “cloud-based” applications to alleviate server space, including Home Base and vBrick.</p> <p>Responsible Party: Financial staff, IT, ET, DPS leadership</p>	<p>Goal: Full implementation of vBrick and continuous training on “cloud-based” applications.</p> <p>Responsible Party: IT, ET</p>	vBrick Utilization Reports and Content Inventory comparisons	
Promote/maintain innovative funding model by utilizing NC Education Cloud offerings and alternatives	<p>Goal: Set strategy for email service. (DPS SP Goals IV.1).</p> <p>Responsible Party:</p>	<p>Goal: Execute email strategy.</p> <p>Responsible Party: IT services</p>	Email Migration Feasibility Study Results	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	IT			
	<p>Goal: Increase use of Statewide Longitudinal Data System and Student Information System.</p> <p>Responsible Party: IT</p>		Data Plan	
	<p>Goal: <u>NC Education Cloud</u> Next generation technology infrastructure Service delivery platform for content, services and applications,</p> <p>Continued use of Zscaler as CIPA content filter.</p> <p>Utilize NCREN</p> <p>Firewall: Continued use of firewall at MCNC</p> <p>Continue the increased use of</p>	<p>Goal: Ongoing evaluation of all areas.</p> <p>Responsible Party: IT</p>	<p>Service Level Agreements (SLAs) for the services leveraged</p> <p>Network monitoring reports</p>	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>Google Docs and other Cloud or internet-based services.</p> <p>Security operating services - monitoring IDS</p> <p>Responsible Party: IT</p>			
Maximize eRate in support of instructional programs	<p>Goal: Maintain basic maintenance contracts, Time Warner Internet connectivity, wireless, network equipment, vBrick technology website hosting.</p> <p>Responsible Party: IT</p>	<p>Goal: Continuous refresh and upgrade of eRate school infrastructure to improve efficiency and increase reliability.</p> <p>Responsible Party: IT Services</p>	eRate forms 470 and 4701	
	<p>Goal: Move toward centralized services on the Cloud to enable less localized hardware to maintain. Focus can shift to procuring better bandwidth utilizing video, hosted VOIP and</p>	<p>Goal: Implement centralized services on the Cloud to enable less localized hardware to maintain. Focus can shift to procuring better bandwidth.</p> <p>Responsible Party: IT</p>		

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2014 – June 30, 2015	July 1, 2015 – June 30, 2016	Evaluation Method(s)	DPI Use
	<p>email. All items are currently being evaluated.</p> <p>Responsible Party: IT</p> <p>Goal: Review voice services for refresh and upgrade of District Infrastructure for additional available services (VoIP).</p> <p>Responsible Party: IT</p>			
Provide content filtering in accordance with the Children's Internet Protection Act (CIPA).	<p>Goal: Continue to evaluate State offering to OPT-IN as services become available.</p> <p>Responsible Party: Teachers, IT leadership, ET</p>	<p>Goal: DPS-controlled indexed databases</p> <p>Responsible Party: Teachers, IT</p>	<p>Service Level Agreements (SLAs) for the services leveraged</p> <p>NC Ed Cloud Opt-in Agreements</p>	
	<p>Goal: Continued use of Zscaler</p> <p>Responsible Party: IT</p>	<p>Goal: Ongoing monitor of Zscaler along with piloting/evaluating Zscaler add-ons.</p>	<p>CIPA Content Filtering Reports</p>	

1. Statewide Shared Services Model

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
		Responsible Party: IT		
	<p>Goal: Children will rely on, and access, school-controlled servers for research instead of searching on Google, Yahoo, or Wikipedia.</p> <p>Webpath Express has been provided to all schools along with professional development on available DPS online resources.</p> <p>Responsible Party: Teachers, IT leadership, ET</p>	<p>Goal: Ongoing evaluation and professional development on Webpath Express and available DPS online resources.</p> <p>Responsible Party: ET</p>	Usage Reports	

Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices

Essential Questions

What is universal access to personal teaching and learning devices?

Why do our teachers and students need access to personal teaching and learning devices?

How will we provide ample access to individual teaching and learning devices?

What models can be used for implementing universal access to personal teaching and learning devices in our LEA/Charter?

Current Status and Moving Forward

At DPS, universal access to personal teaching and learning devices is the availability of a technology device to all students and teachers. We also refer to these initiatives as “1:1 initiatives.”

Durham Public Schools (DPS) has engaged in several 1:1 initiatives:

1. In 2008, DPS provided three schools, Merrick-Moore Elementary, Rogers-Herr Middle, and City of Medicine Academy, each a cart of 30 iPod Touch devices to use with small groups of teachers. This was a pilot initiative to test the abilities of the iPod Touch devices in the DPS classroom. In 2011, using Enhancing Education Through Technology (EETT) funds, DPS awarded three middle schools class sets of iPad devices via a science grant. Those three middle schools were Githens, Shepard and Rogers-Herr.
2. Performance Learning Center is a 1:1 high school that is using Learning Management Systems (LMS) paired with a teacher facilitator that focuses on supporting students who are at risk of failing to graduate.
3. In 2010 the DPS Assistive Technology Center utilized IDEA, Part B ARRA funds to provide 120 separate setting exceptional children classrooms with hardware, specialized software and peripherals to encourage universal access for all students across the district. The funding constituted a unique opportunity to improve our delivery of services and increase access for children with disabilities to their educational environment. The goal was to make improvements in teacher effectiveness and in the equitable distribution of resources from pre-school to high school.
4. In 2011, DPS used Race to the Top (RttT) funds to create 1:1 environments at two schools, W.G. Pearson Elementary (Grades 3-5) and Lowe’s Grove Middle, using iPads augmented with a curriculum portal and professional staff development specifically for the iPad.
5. Hillside New Technology High School is a 1:1 high school focused on STEM (Science, Technology, Engineering and Math) as a part of the New Schools Project.

6. In 2012-13 Hillside High School moved to a 1:1 technology school.
7. City of Medicine Academy, Durham's health-industries-focused high school, implemented a 1:1 MacBook environment in the 2012-13 school year.
8. School of Creative Studies, a new 6th-12th school focused on the creative arts, implemented a 1:1 MacBook environment in the 2013-2014 school year.

At DPS, our teachers and students need access to personal teaching and learning devices for the following reasons:

1. The new NC Information and Technology Essential Standards (NC ITES) mandate students use technology to access, organize, design, and share information in order to develop 21st century skills.
2. More and more resources are being digitized and put exclusively online.
3. Each teacher needs a personal device in order to access and analyze the data of his or her students and create 21st century lessons.
4. In accordance with North Carolina's Accountability and Curriculum Reform Effort's (ACRE) Instructional Improvement System (IIS), universal access to personal devices will allow administrators, teachers, students, and parents to access assessments, resources, data, and PD.
5. Assessments are increasingly conducted online:
 - a. Schoolnet Assessments
 - b. Achievement Series local assessments
 - c. Online assessments from the State
 - d. Thinkgate Essentials for CTE
 - e. Classroom assessments via Google Forms, Destination Success, student response systems, Exam Gen
 - f. Wireless Generation
 - g. ClassScape
 - h. Scholastic Reading Inventory/Scholastic Math Inventory (SRI/SMI)

DPS plans to provide ample access to individual teaching and learning devices in the following ways:

1. Overcoming current funding limitations by innovation and collaboration.

A major obstacle to making access to personal devices more universal is still funding. The district has developed a sustainability plan for 1:1 technology programs as well as the refresh of equipment for traditional schools. Grant funding may be used as a part of the blended budgeting approach to the district's refresh.

2. Ensuring a personal teaching and learning device refresh plan for instruction.

DPS has implemented a teaching and learning device refresh plan based on the DPS minimum baseline standards, which outlines how schools score in meeting the minimum technology standards for the district. The plan adheres to Goal III.6 of the DPS SP, in order to give each student in DPS, regardless of which school he or she attends, equitable access to technology equipment. The Minimum Baseline Standards also seeks to eliminate ineffective spending by focusing technology dollars by school priority. The plan will result in a funding request.

3. Access alone is not enough.

Through our refresh program, out of date technology is slowly getting replaced. This technology must be adequately supported and have ongoing professional development available to maximize the usage of the technology. Infrastructure, personnel, and training considerations need to be coupled with all significant purchases, including 1:1 initiatives.

4. Developing a plan for future 1:1 initiatives, based on evaluation of past performance of 1:1 schools, data collected within DPS, and studies from throughout the State and nation.

DPS will closely evaluate the active 1:1 programs by curriculum area to determine expansion opportunities for additional schools.

DPS will evaluate and use, as appropriate and relevant, the following models for implementing universal access to personal teaching and learning devices.

1. North Carolina Learning Technology Initiative Framework (NCLTIF) lists 1:1 initiatives conducted or currently being conducted in the State.
2. The Mooresville Graded School District near Charlotte, North Carolina has implemented a highly successful district-wide 1:1 laptop initiative.
3. Lowes Grove Middle School and W. G. Pearson Elementary, which have integrated the 1:1 use of iPads into the core curriculum classroom instruction.
4. Hillside New Tech High School, which has tightly integrated technology into the curriculum using a 1:1 computer model.
5. DPS 1:1 laptop initiatives: City of Medicine Academy, Hillside High School, and School for Creative Studies

Alignment to Other Plans and Initiatives:

Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices
Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

- Online Writing Instruction
 - A web-based formative tool to monitor the progress of students in writing and adjust instruction accordingly.
- NC Falcon
 - Online PD modules focusing on formative assessment.
- Online Assessments

Home Base

- OpenClass
 - A web-based learning management system that is part of the state's student information and instructional improvement systems.
 - This component of Home Base is most useful in 1:1 environments.

Career and College Ready, Set, Go!

- Objective (C)(3) 1.2: Utilize LEA/Charter and school technology funds to enhance LEA/Charter and school infrastructure to facilitate online real-time assessments at each school.
- Objective (E)(2) 1.1: Implement one of the U.S. Department of Education's four models in each of their lowest-achieving schools: turnaround, restart, closure, or transformation.
 - WG Pearson Elementary School, Lowe's Grove Middle School 1:1 iPad initiatives - Transformation Model.
 - Neal Middle School STEM school initiative - Transformation Model.
- Objective (E)(2) 1.2: Engage in NC Comprehensive Needs Assessment, Leadership and Instructional Coaching, PD, change plan and implementation map.
- WG Pearson Elementary School, Lowe's Grove Middle School 1:1 iPad initiatives.

DPS Strategic Plan

- Strategic Plan Academic Acceleration Area - Goal 1.7.4 of the DPS Strategic Plan states "expand student 1:1 technology integration" in order to improve student scores on assessments.
 - WG Pearson Elementary School, Lowe's Grove Middle School 1:1 iPad initiatives.
 - Strategic Plan Equitable Standards Area - Goal 3 of the DPS Strategic Plan mandates an Equity Model be created and implemented.
 - DPS Information Technology and ET Departments are currently creating Technology Baseline Standards.
-

DPS AdvanceEd Accreditation Report

3.11 Coordinates and ensures ready access to instructional technology, information and media services and materials needed for effective instruction.

Priority 2: Universal Access to Personal Teaching and Learning Devices

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Develop a comprehensive sustainable LEA plan for universal access	<p>Goal: All schools will complete a technology plan based on School Technology Needs Assessment (STNA) for school year 2014-2015, through their MTACs / departmental committees, with guidance and data from ET and IT that will guide its technology instructional model, technology purchases, and needed support. The schools’ plans will state how they will meet the district goals within the district plan.</p> <p>Responsible Party: School MTACs, ET, IT</p>	<p>Goal: All schools and departments will make all technology purchases and staffing decisions in accordance to their technology plans. (DPS SP Goals IV.1)</p> <p>Responsible Party: Principals, MTACs</p>	School Technology Plans	
	<p>Goal: Continue with the refresh plan to provide technology to ensure that all schools meet baseline technology standards. See Priority 1 Goals</p> <p>Responsible Party: DPS leadership ET, IT</p>	<p>Goal: Continue with the refresh plan to provide technology to ensure that all schools meet baseline technology standards. See Priority 1 Goals</p> <p>Responsible Party: DPS leadership, ET, IT</p>	STNA Refresh plan deployment results Information Technology Asset Management	

Priority 2: Universal Access to Personal Teaching and Learning Devices				
Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
			(ITAM)	
Communicate plan to all stakeholders.	<p>Goal: Media and Technology divisions will cultivate and communicate a unified message via regular inter- & intra-departmental and district-wide meetings, and newsletters.</p> <p>Responsible Party: ET, IT Media Services</p>	<p>Goal: Media and Technology divisions will cultivate and communicate a unified message via regular inter- & intra-departmental and district-wide meetings, and newsletters.</p> <p>Responsible Party: ET, IT Media Services</p>	Feedback from school technology representatives.	
Increase overall access to personal learning devices.	<p>Goal: Reevaluate baseline technology standards annually. Implement technology baseline standards (including minimum standards for new purchases as well as removal of outdated equipment) to approach the TLI-IMPACT Model’s recommendations across the district to increase equity.</p> <p>Responsible Party: ET, IT Principals, Finance Department</p>	<p>Goal: Continue to monitor and evaluate the technology baseline standards for new purchases to approach the TLI-IMPACT Model’s recommendations across the district to increase equity.</p> <p>Responsible Party: ET, IT</p>	<p>Annual Minimum Technology Baseline Standards Scorecard</p> <p>Refresh plan deployment results</p> <p>Information Technology Asset Management (ITAM)</p>	

Priority 2: Universal Access to Personal Teaching and Learning Devices

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>Goal: Provide professional development on strategies for successfully incorporating personal teaching and learning devices into the classroom per the district’s Bring Your Device to School (BYDS) policy.</p> <p>Responsible Party: ET, IT</p>	<p>Goal: Continue providing professional development on strategies for successfully incorporating personal teaching and learning devices into the classroom per the district’s Bring Your Device to School (BYDS) policy.</p> <p>Responsible Party: ET, IT</p>	Follow-up survey(s) to BYDS strategies and implementation	
	<p>Goal: Conduct a district-wide cost benefit analysis for 1:1 environments, including hardware refresh, recurring software costs, electronic textbooks, ancillary materials, infrastructure, etc.</p> <p>Responsible Party: ET, IT</p>	<p>Goal: Develop recommendations based on analysis.</p> <p>Responsible Party: ET, IT</p>	Cost and benefit documentation from purchasing, testing, CIA department.	
Utilize personal learning devices to promote student owned learning.	<p>Goal: Conduct surveys and PD in accordance with Priority 5’s stated goals.</p> <p>Responsible Party: ET, IT, Principals, MTACs</p>	<p>Goal: Conduct surveys and PD in accordance with Priority 5’s stated goals.</p> <p>Responsible Party: ET, IT, Principals, MTACs</p>	Survey results	

Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Essential Questions

What are digital teaching and learning resources? What are digital textbooks?

Why do teachers and students need access to digital teaching and learning devices?

What are the benefits of digital textbooks?

What are open educational resources and how can they be used?

How can access to these resources be increased in our LEA?

Current Status and Moving Forward

At DPS, we consider digital teaching and learning resources electronic tools that can be used by either teachers or students to address learning needs. These can be either purchased or accessed for free, as in the case of open source software.

Digital textbooks are an electronic version of a book. These could be as simple as an Adobe PDF formatted document, an online book accessed through a student's web browser software or a fully digitized e-book requiring a reader of some sort (such as Nook devices).

There are a number of reasons to use digital devices and teaching techniques in education.

DPS students and teachers need access to digital tools and resources because of the following benefits:

1. First, many careers for which students are preparing use a number of such devices or skills. For instance, in some of our Art departments, the dance classes frequently use audio and video equipment in preparing for performances. They record rehearsals/performances and then critique themselves seeing the show as the audience would. This allows them to improve prior to the actual performance. They also use audio devices to create or edit the soundtrack they will use.
2. Online resources are critical in classrooms and media centers as well. Students with access to online journals and blogs can improve their writing skills as well as their reading skills. They can easily collaborate with each other using online discussion forums and wikis. Teachers can use online tools to assess their students' knowledge and share resources such as notes, slideshows and assignments. Through Schoolnet, all teachers will soon be developing and delivering classroom and common assessments. In 2014-15 all EOG's and EOC's will be delivered through TestNav.

Although print resources remain popular, many sellers are now offering both traditional and digital formats for their products. More and more DPS media centers are offering e-books through their library catalog systems and on e-reader devices. This is a trend that will eventually become more prevalent for education as well.

3. Digital device content is more current.
4. The ability to get to content faster is a tremendous advantage.
5. Indexing and bookmarking allow students and teachers to easily gain direct access to where the attention should be.
6. DPS will have rolled out PowerSchool Parent Portal at the time of this plan's implementation. Parent Portal provides real-time student grades to families, thus increasing communication and support for students.

Digital resources have additional benefits:

- Better for the environment - going green
- Allows for differentiation
- Career College and Life readiness skills
- Total Cost of Ownership (TCO) - upfront costs with devices and ongoing purchase of new books
- Cost advantages for college/university courses that some of our students take.

What are open educational resources and how can they be used?

According to Wikipedia:

"Open educational resources (OER) are digital materials that can be re-used for teaching, learning, research and more, made available for free through open licenses, which allow use of the materials that would not be easily permitted under copyright alone."

These include a variety of assets including:

"Learning content includes courses, course materials, content modules, learning objects, collections, and journals. Tools include software that supports the creation, delivery, use and improvement of open learning content, searching and organization of content, content and learning management systems, content development tools, and online learning communities. Implementation resources include intellectual property licenses that govern open publishing of materials, design-principles, and localization of content. They also include materials on best practices such as stories, publication, techniques, methods, processes, incentives, and distribution."

These resources can be used by students and teachers alike, for free. They provide information for lessons and assignments or when completing assignments for their classes. Many OER are provided through Home Base allowing all users in education to access shared lesson plans and assignments.

In addition to OER, DPS offers a wealth of digital subscription-based resources through our software portfolio.

When this plan is implemented, Home Base will be DPS' online repository for curriculum support documents.

Alignment to Other Plans and Initiatives:**Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Update the analysis of the technology infrastructure needed to support a 21st century curriculum and assessment system and to move additional testing to appropriate technology formats. This analysis will allow the transition from a paper-based assessment system to one that takes greater advantage of technology.

Develop a next generation assessment system which includes formative, benchmark and summative assessments based on the new standards.

Career and College Ready, Set, Go!

Promises to benefit students by providing access to technology to support learning. By providing access to digital teaching and learning resources (including digital textbooks), DPS will provide students with high quality resources specifically aligned with core subject areas. These digital resources will maximize instructional time for teachers and differentiate learning so that students can access content on an individualized comprehension level. Anytime access to quality, customized, and current information will better prepare our students for success in college or technical careers.

Home Base

Availability of OER and other digital content, online assessment development and delivery, and electronic student information.

DPS Strategic Plan

Goal I of the Academic Acceleration Strategic Area has several strategies that have identified portals for the teaching and learning experience at DPS. Strategy I.7, the 1:1 initiative, created a portal aligned to the common core standards.

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation Evaluation Methods(s)	DPI Use
<p>Shift from traditional print and paper-based resources to affordable, current online resources</p>	<p>Goal: Identify and communicate curriculum resources available in digital format to curriculum specialists, administrators, and teachers.</p> <p>Responsible Party: Teachers, ET, CIA</p>	<p>Goal: Increase the access and utilization of digital resources through professional development and support by media, technology, and curriculum staff.</p> <p>(DPS SP Goal IV.1)</p> <p>Responsible Party: ET</p>	<p>Comprehensive Training Plan using Evaluation Process, Utilization Reports from digital resources</p>	
	<p>Goal: Continue refinement of policy to support/reallocate funds to support the purchasing of additional online resources in place of traditional paper-based resources and ensuring the thorough review of the DPS software portfolio requests.</p> <p>Educational Technology will promote, educate, and support educators in utilization.</p> <p>Responsible Party: ET, DPS leadership, principals</p>		<p>Policy, Purchase data comparisons of digital vs. paper resources</p> <p>Innovative Budget Comparisons</p>	
	<p>Goal: Implement OpenClass as the district LMS, including training and support.</p>	<p>Goal: Continue the implementation of OpenClass.</p>	<p>Home Base Project Plan, Comprehensive Training Plan using</p>	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation Evaluation Methods(s)	DPI Use
	<p>Responsible Party: ETIT, DPS leadership, principals, and teachers</p>	<p>Responsible Party: ET, IT, DPS leadership, principals, teachers</p>	<p>Evaluation Process, OpenClass utilization reports</p>	
	<p>Goal: Continue to provide an affordable, user-friendly, rigorous web-based credit recovery system for high school students. Reduce the redundancy of credit recovery programs for high schools.</p> <p>Responsible Party: ET, CTE Director, DPS leadership, and HS principals</p>	<p>Goal: Continue to provide an affordable, user-friendly, rigorous web-based credit recovery system for high school students. Reduce the redundancy of credit recovery programs for high schools.</p> <p>Responsible Party: ET, CTE Director, DPS leadership, and HS principals</p>	<p>Apex Learning, EdOptions, and Learn Mate and NCVPS Reports</p> <p>Purchase Orders</p> <p>Decommission (reduction) software plan and outcome</p> <p>Comprehensive Training Plan using Evaluation Process</p>	
<p>Utilize procured resources such as NC Wise Owl, and other open education resources</p>	<p>Goal: DPS will provide a one-stop location that details available online open education resources that are recommended by the district as viable and quality resources. See Priority 4 Goals. (DPS SP Goal IV.1)</p> <p>Responsible Party: Home Base project team, Instructional</p>	<p>Goal: Increase the use of OpenClass</p> <p>Responsible Party: Home Base project team, Instructional Facilitators, ET</p>	<p>OpenClass Usage reports</p> <p>TCO</p>	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2014 – June 30, 2015	July 1, 2015 – June 30, 2016	Evaluation Methods(s)	DPI Use
	Facilitators, ET			
	<p>Goal: Continue to use Google Apps for Education for collaborative tools for staff and utilize Gmail for student email.</p> <p>Responsible Party: Teachers, Administration</p>	<p>Goal: Continue to use Google Apps for Education for collaborative tools for staff and utilize Gmail for student email.</p> <p>Responsible Party: Teachers, Administration</p>	Google Apps for Education utilization reports	
	<p>Goal: Continue to provide affordable subscriptions to digital content such as Destination Success, Destiny, and WorldBook, while investigating redundant software that may be or become free through NC WISEOWL or Home Base.</p> <p>Responsible Party: ET</p>	<p>Goal: Continue to provide affordable subscriptions to digital content such as Destination Success, Destiny, and WorldBook, while investigating redundant software that may be become free through NC WISEOWL or Home Base.</p> <p>Responsible Party: ET</p>	<p>Utilization Reports</p> <p>Purchase Orders</p> <p>Decommission software plan and outcome</p>	
	<p>Goal: Provide access to summative and formative assessment systems through the Home Base.</p>	<p>Goal: Continue to provide access to summative and formative assessment systems through the Home Base.</p>	Utilization Reports	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation Evaluation Methods(s) DPI Use	
		Responsible Party: Research, Development and Accountability (RDA) Department, ET	Responsible Party: Research, Development and Accountability (RDA) Department, ET	
Use digital content aligned specifically to Common Core and NC Essential Standards	Goal: DPS will use SchoolNet and NC WISEOWL to train teachers on the alignment to common core and essential standards. See Priority 4 Goals. (DPS SP Goal IV.1) Responsible Party: CIA and Instructional Facilitators	Goal: DPS will continue to use SchoolNet and NC WISEOWL to train teachers on the alignment to common core and essential standards. See Priority 4 Goals. (DPS SP Goal IV.1) Responsible Party: CIA and Instructional Facilitators	Usage Reports Comprehensive Training Plan with Evaluation Process	
Ensure equity to digital teaching and learning resources from school to school in your LEA.	Goal: Continue to provide DPS schools with technology aligned to the minimum baseline standards Ed Tech Staff will promote, educate, and support educators in utilization of digital teaching and learning resources. Create an equitable foundation for online/distance learning site licenses for each high/secondary	Goal: Continue to provide DPS schools with technology aligned to the minimum baseline standards Responsible Party: IT, ET Team	Usage Reports Refresh plan deployment results Training Plan using Evaluation Process Annual Scorecard for Minimum Technology Baseline Standards Online digital inventory	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation Evaluation Methods(s)	DPI Use
	school. Responsible Party: High School Principals, ET Team, IT		results	

Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development

Essential Questions

What skills are needed to transition to digital teaching and learning resources?

How can these skills be delivered and sustained to our LEA teachers and administrators?

How do teachers, administrators, and staff work with colleagues to guide our LEA toward more effective uses of 21st century tools for teaching, learning, and managing instruction?

How are teachers, administrators, and staff prepared to understand, implement, and assess the span of skills and processes that students need to succeed in the 21st century?

How are teachers, administrators, and staff prepared to apply 21st century assessment systems to inform instruction and measure 21st century knowledge, skills, performance, and dispositions?

Current Status and Moving Forward

DPS provides PD through online resources, district applications, face-to-face learning and webinars. PD that is focused on effective use of technology is necessary for teachers to maintain proficiency and to have a positive impact on student learning.

Durham Public Schools uses:

MyLearningPlan, which is a flexible online system designed for planning, management, evaluations, and reporting of PD offerings to support focused educator growth resulting in effective classroom instruction and improved student achievement. All PD offerings for the district are listed in the online catalog. District staff members register for workshops, approve attendance rosters, and track continuing education units (CEU) in one online location. This system is linked to the North Carolina Department of Public Instruction's Human Resource Management System (HRMS), which houses employees' professional licenses and credentials.

Atomic Learning which offers on-demand solutions for 21st century Skills PD, technology integration and software.

Scholastic U which offers just-in-time learning resources and job-embedded professional development to help teachers build instructional skills in literacy. Scholastic U is accessible anywhere anytime.

The district provides support for teaching and learning through an online repository, Schoolnet, of curriculum support documents, including curriculum overviews, instruction and assessment calendars, corrective instruction lessons, resources, lesson plans, and unit plans. All teachers have access to this portal of information and are required to use selected documents when planning instruction. The district will have transferred DEPOT content to Schoolnet, which is part of the Home Base statewide, instructional improvement (IIS) and student information

system (SIS) Initiative.

In addition, the district has an ET team that provides face-to-face and blended training for the district, training for individual schools, teachers and any employees needing curriculum support for district software applications or online resources. The ET team focuses its training on the Five Pillars of Technology model, which includes tools and resources related to:

- Standards and policies
- Best practices
- Tools for teaching and learning
- Curriculum support resources
- Assessment

The vision for PD provides a well-defined framework that includes the merging of any still-existing silos and the completion of the integration of existing resources into one comprehensive framework where teachers can learn and use proven content and receive high quality PD. Our framework includes a variety of approaches:

- Online Web-based Management of PD
- Blended systems on the Web
- Online support
- Face-to-face training
- Brokered external providers
- Internal ET team resources
- Individualized professional growth plans

The data used to develop the framework was analyzed through a survey of individuals, support plan information, Small Goal Assessments (SGAs), Cumulative Assessments (CAs), and other applicable data.

The vision for the framework was inclusive of all DPS employee staff.

Many skills are needed at DPS to transition to digital teaching and learning resources. Those include, but are not limited to:

- Awareness of technology tools (both hardware and software) and resources (people with expertise within each school, within the district and at vendor sites) available to schools.
- Basic operational knowledge of technology tools (both hardware and software) available to schools.
- Understanding of commonality between tools (transferable skills) so new tools can be adopted more quickly.
- Content creation - empowering teachers to create content.
- Self-learning skills - exploratory only.

Skills can be delivered and sustained in Durham Public Schools' K-12 instructional workforce by providing:

- Ongoing training in basic operation of technology tools (both hardware and software).
- Informal training through professional learning networks - groups that can be joined such as Google Groups.
- Just-in-time (JIT) learning to address specific, targeted skills such as Atomic Learning.
- Informal self-paced training.
- Embedded and integrated technology into instructional initiatives such as Assessment for Learning (AFL) - integrate technology skills into training for AFL as well as Schoolnet formative assessments.
- Shared technology expertise among teachers in collaborative instructional teams.
- Identified experts on a particular tool in a school or department so other staff members can use them as a resource.
- Advanced training on tools for building experts.
- Training the trainer models - training a small group of trainers and then they deploy training at the school level.
- Differentiated training sessions based on attendee's skill level and their anticipated role using the tool.

DPS can accomplish this through keeping PLC days sacred for learning and through the provision of release times for users and experts to attend in depth training and practice.

Teachers, administrators, and staff work with colleagues to guide their school system toward more effective uses of 21st century tools for teaching, learning, assessing, evaluating, and managing instruction by ensuring:

- Instructional leaders within the schools model effective use of 21st century tools such as assessing teachers using online forms.
- Shared best practices within each school in collaborative teams such as PLCs.
- Shared best practices in larger collaborative settings within the district such as the DPS Technology Showcase.
- Shared best practices with educators outside the district such as State technology conferences.
- Effective tools (hardware and software) and implement them over a long enough timeframe to measure the impact on student learning.
- Implement tools that help teachers, administrators and staff perform required tasks, and remove options for less effective tools. An example is using electronic forms versus a paper form.
- Consistency within the district for use of a core tool set.
- Encouraging innovation.

Teachers, administrators, and staff are prepared to understand, implement, and assess the span of skills and processes that students need to succeed in the 21st century by:

- Ensuring NCITES are correlated with the standard course of study for other content areas.
- Focusing on building advance competencies on required software.

- Using tools that can be used in many different areas - Interactive White Boards, projectors.

Teachers, administrators, and staff are prepared to apply 21st century assessment systems to inform instruction and measure 21st century knowledge, skills, performance, and dispositions by:

- Demonstrating the tools in front of students - If we want students to learn tools online then we should be using those online tools - operations and learning.
- Using the Online assessments for both students and staff.

Alignment to Other Plans and Initiatives:**Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

(In addition to the ACRE alignment in the State Plan example) NC Falcon (North Carolina Formative Assessment Learning Community's Online Network) has been developed in an effort to provide North Carolina teachers with a basic understanding of formative assessment and illustrate the role it should play in a comprehensive, balanced assessment system. The online PD modules located in NC FALCON are intended to serve as a primer for teachers to learn more about the impact formative assessment can have on their instruction and help their students achieve targeted learning goals. This paradigm shift from face-to-face training to electronic PD delivery empowers teachers and allows them to access training according to their schedules. The PD modules are self-paced, do not have to be completed in one session, and may be accessed 24/7.

Career and College Ready, Set, Go!

Put more technology into the hands of students and teachers to increase individualized learning options. Increase the use of technology for providing PD opportunities for teachers.

Home Base

- DPS will migrate from DEPOT to Home Base's OpenClass module and Schoolnet module.

State Board of Education Goals

- Furnish educators the means to promote and sustain skills and professional standards needed for 21st century delivery of instruction.
- Support teachers as they apply 21st century teaching and learning research which promotes high student achievement and engagement.
- Compelling environment for shared vision and leadership as the need for change is disseminated.
- Support leaders as they model and promote equitable and effective use of emerging and innovative resources and tools for meaningful teaching and learning.
- Provide systems which support achievement standards while supporting accountability, goals and appropriate sanctions.
- Compel financial planning and budgeting which focus on priorities identified as necessary for student achievement in 21st century classrooms.

DPS Strategic Plan**Strategic Area Talent Development - DPS Strategic Plan Goal V.1**

DPS will employ and retain a highly-qualified workforce that engages in continuous improvement through ongoing, high-quality PD (a baseline will be established).

DPS Strategic Plan Strategies***Strategic Area Effective Operations - Goal IV.1: Strategy IV.1.2***

- Establish and implement technology training and skill development standards for all employees to increase productivity, student outcomes and professional growth opportunities.

Strategic Area Talent Development - Goal V.1: Strategy V.1.5

- Design and implement, in partnership with North Carolina Central University and other local education systems, a leadership and PD framework that is differentiated based upon need, aligned to the NC Executive and Teacher Evaluation Instrument, and anchored in the continuous improvement of leadership practices.

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Implement a plan for embedded technology-enabled professional development for teachers and administrators.	<p>Goal: Continue using the established PD framework through the merging of existing content, and continued utilization of all avenues of the framework. Align and incorporate the framework to the Instructional Improvement System as it is delivered by the State. (DPS SP Goals IV.1 & V.1)</p> <p>Responsible Party: Human Resources Division; Executive Director of Curriculum, Instruction and Assessment</p>	<p>Goal: Continue using the PD framework developed. (DPS SP Goals IV.1 & V.1)</p> <p>Responsible Party: Human Resources Division; Executive Director of Curriculum, Instruction and Assessment</p>	Training evaluations and evidence of PD material mastery with material artifacts required with the professional teaching standards.	
Support models that promote and further the ideals of technology-enabled and integrated professional development	<p>Goal: Schools shall focus their current software portfolio holdings based on the five pillars of technology to increase the probability that most staff will have a realistic opportunity to develop the knowledge and application of</p>	<p>Goal: Incorporating V-Brick and other online resource tools, DPS shall increase the development of infrastructure and staffing capabilities to capture and store online audio and video presentations and technology</p>	<p>Software Portfolio Comparisons</p> <p>Innovative Budget Comparisons</p> <p>TrueNorth Logic reports</p>	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>technology solutions/areas to create the greatest advantage possible. (DPS SP Goals IV.1 & V.1)</p> <p>Responsible Party: ET, IT leadership, Executive Director of Curriculum, Instruction and Assessment, Financial leadership</p> <p>Goal: Incorporating V-Brick and other online resource tools, DPS shall increase the development of infrastructure and staffing capabilities to capture and store online audio and video presentations and technology trainings. This reduces the overall costs of PD by greatly multiplying the amount of high-quality self-paced, asynchronous learning opportunities. (DPS SP Goals IV.1 & V.1)</p>	<p>trainings. This reduces the overall costs of PD by greatly multiplying the amount of high-quality self-paced, asynchronous learning opportunities. (DPS SP Goals IV.1 & V.1)</p> <p>Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment</p> <p>Goal: Continue to promote the vBrick portal and other online tool resources</p> <p>Responsible Party: IT, ET</p>	<p>Conference attendance</p> <p>21st Century Assessment</p>	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment			
Prepare media specialists and instructional technology facilitators to support digital reform.	<p>Goal: Request school administrators to include media specialists/instructional technology facilitators on the School Leadership Team to initiate reform. Implement a district-wide Media and Technology Committee (MTAC) Promote Big6™ as the district research model</p> <p>Responsible Party: ET, IT leadership, Executive Director of Curriculum, Instruction and Assessment</p>	<p>Goal: Continue the implementation of the MTAC.</p> <p>Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment</p>	Online Curriculum Inventory	
Deliver Common Core and Essential Standards training to teachers using integrated technology as a	Goal: Train instructional facilitators, Curriculum and Instruction Dept. and media and technology facilitators	Goal: Train instructional facilitators, Curriculum and Instruction Dept. and media and technology	Training Plan using Evaluations Process	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
model for further classroom integration.	through our train-the-trainer model. (DPS SP V.1) Create and post curriculum guides on Schoolnet to support CCSS/ES Responsible Party: ET, school-level technology leadership	facilitators through our train-the-trainer model. (DPS SP V.1) Responsible Party: ET, school-level technology leadership		
Prepare staff for online assessment delivery.	Goal: Inventory our current PD offerings to be aligned to the IIS when available. Continue incorporating State IIS into the framework, when available. (DPS SP V.1) Responsible Party: ET, Executive Director of Curriculum, Instruction and Assessment	Goal: Continue to incorporate the State IIS into DPS framework (DPS SP V.1) Responsible Party: ET, Executive Director of Curriculum, Instruction and Assessment	PD Inventory Comparisons	
Prepare students for online assessment delivery.	Goal: Continue carrying out the refresh plan to provide adequate and current technology in the classrooms to support	Goal: Continue updates to the refresh plan to provide adequate technology in the classrooms to support online	Refresh plan deployment results	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	online assessment. See Priority 1 Goal (DPS SP Goals III.1 & IV.1) Responsible Party: IT	assessment. See Priority 1 Goal Responsible Party: IT		
	Goal: Provide support as teachers transition from using the Achievement Series solution to Schoolnet (IIS) (DPS SP I.6) Responsible Party: Education Technology, Research and Accountability	Goal: Provide support as teachers transition from using the Achievement Series solution to Schoolnet (IIS) (DPS SP I.6) Responsible Party: Educational Technology, Research and Accountability	Scantron Project Status Reports Assessment Results	
Provide ongoing support and professional development necessary for use of data to inform instruction.	Goal: Train principals on the use of data to improve instructional decision making. Responsible Party: Research and Accountability, Principals	Goal: Train principals on the use of data to improve instructional decision making. Responsible Party: Research and Accountability, Principals	Training Plan and Schedule using Evaluation Process	
Provide support for teacher and administrator progress and evaluation according to North Carolina Educator Evaluator	Goal: Develop new principal True North Logic training. (DPS SP V.1) Responsible Party: Home Base Committee	Goal: Provide True North Logic training for new principals. (DPS SP V.1) Responsible Party: Home Base	Training Materials and Schedule True North Logic reports	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
System standards.	Team, Human Resource Division	Committee/Team, Human Resource Division, Administrators, ET		

Strategic Priority 5: 21st Century Leadership for All Schools and Districts

Essential Questions

Are your LEA/Charter leaders prepared to lead and create a vision for 21st century education?

Are mechanisms in place for school leaders to create 21st century learning cultures?

Are professional growth programs/opportunities available to prepare teachers and administrators to lead 21st century learning environments?

Current Status/Moving Forward

DPS leaders are prepared to lead and create a vision for 21st century education.

In 2007, our Board of Education developed a Theory of Action which included a vision, mission, core beliefs, commitments and district goals to affect transformative change within the district. In 2011, under the leadership of a new administration, the DPS Strategic Plan was launched, addressing six strategic areas and 24 goals. Pertinent goals included the expansion of the implementation of the Design for Accelerated Progress, implementation of the Common Core, the Essential Standards, and the Assessment for Learning Model through the AFL Teacher Leaders and Curriculum, Instruction and Assessment teams. Area Support Teams were established at each level which includes instructional facilitators and an ET resource specialist for each of the four areas.

In the summer of 2013, the Department of Leadership Development was created for the purpose of developing highly effective principal and teacher leaders, and an executive director named. The vision of the department is that in every DPS school and department, there is a leader and/or team that continually exemplifies leadership practices, behaviors and choices that result in:

- 1) Optimal student learning outcomes
- 2) A culture of inclusiveness and community
- 3) A faculty and staff who consistently perform at high levels, and
- 4) High-quality customer service

The new department operates with the beliefs that school leaders will create and sustain a culture of learning, demand continuous learning, be data literate, and benefit from coaching. School leaders engage in research-based practices in order to maximize student learning outcomes, including goal setting, cultural engagement, capacity building, organizational management, accountability and responsibility.

Current initiatives of the Leadership Development Department include the Superintendent's Leadership Academy, a new model for providing support for National Board certification for Teachers, a Tiered Support Principal Coaching Model, Leadership Coaching, and a Teaching and Learning and Leadership Institute in 2014.

Teachers, media coordinators, technology facilitators and parents have assumed leadership opportunities by serving on School Improvement Teams and Media and Technology Advisory

Committees. Our administration serves on numerous community committees that give stakeholders additional opportunities to contribute to the decision making process, such as City-County Leadership Council, East Durham Children's Initiative, Durham's Partnership for Children, and other leadership boards.

Moving forward, DPS will continue to strive towards fulfilling the vision and goals outlined in our DPS Strategic Plan. Research shows that a distributed leadership model has the highest impact on improving student achievement (Leithwood, Day, Sammons, Harris and Hopkins, 2006). As we continue to implement the Common Core State Standards, the North Carolina Essential Standards and the North Carolina Educator Effectiveness Standards, the leadership potential of the area instructional facilitators and ET resource specialists will be leveraged to a greater degree to build capacity and technology proficiency among media specialists, technology facilitators, and classroom teachers.

Many mechanisms related to 21st century learning environments are in place or currently being addressed.

The Baseline Technology Standards developed jointly in 2011 by ET and IT that address equitable access to technology resources and provide purchasing guidelines for schools are updated each year. A district technology software portfolio has been developed and is maintained through a software approval process.

A partnership with Verizon to support STEM has funded iPads for the Performance Learning Center staff members, one of Durham's several new small high schools which offers students the opportunity for online learning with internships and job shadowing in a unique setting. Additionally through EETT funds, three middle schools were awarded 30 iPads and probes for use in the 8th grade science curriculum through an internal grant application process. A STEM/STEAM curriculum has been implemented at Sandy Ridge Elementary School and Neal Middle School. Our new magnet school, The School for Creative Studies, opened in the summer of 2013 with 1:1 MacBooks.

Blended/Virtual Learning environments including NCVPS, APEX Learning and PD teleconferences with the North Carolina School of Science and Math are in place and expanding. Recently, rather than planning traditional media centers at our four newest DPS schools, Lucas Middle School, School for Creative Studies and City of Medicine Academy designed a Cybrary and a Learning Commons was created at Lakewood Montessori Middle School.

New models for information access and delivery include increased access to digital resources, eReaders and more flexible learning spaces. Lucas Middle School, which opened in August of 2012, and The School for Creative Studies, which opened in July 2013, set a new standard in technology-rich learning environments, featuring a Cybrary, with a strong emphasis on digital resources, access to personal learning devices, and a collaborative, "cyber-café" atmosphere. As more schools are built and infrastructure reliability increases, DPS will continue to analyze and align media and technology programs with 21st century learning environments including a shift towards electronic/digital resources, eReaders and other mobile devices, and flexibly designed learning spaces with maximum access to all resources. Efforts are continuously being made to link families with community agencies such as public libraries, community learning centers and

universities to provide access to supplemental resources outside the classroom. Online testing and electronic data reporting systems, including Achievement Series, Education Value Added Assessment System (EVAAS), Program and Project Accountability (PAPA), NCWrite, Home Base and mClass are currently utilized throughout the district to provide immediate and intentional use of student achievement data. In addition to the content management system (CMS) that we have used since 2009 called DEPOT, the district is in the process of migrating to Schoolnet and Openclass features of Home Base to provide seamless access to resources and data for students, teachers, and parents. Additionally, as a means of “going green” and fostering collaboration, efforts are in progress to increase the use of GoogleDocs and other web 2.0 tools for instruction and productivity, as well as to streamline internal business communication practices via electronic medium (e-meetings, podcasts, master calendars, etc.).

As DPS moves forward in accordance with our strategic plan, we will expand STEAM and 1:1 instructional programs to enhance student learning. DPS will continue to monitor and evaluate the technology needs of all schools and continue to establish and refresh baseline standards and equitable distribution of technology systems and services, based upon available resources.

DPS will develop sustainable budget/financing options to support technology upgrades as part of the annual and long-range budgets and improve technology infrastructure system reliability to enhance productivity and support technology innovation. Additionally, through the leadership of the Area ET Resource Specialists and in accordance with the IMPACT model, DPS will continue to work to ensure that each school has a fully functioning MTAC to provide direction for media and technology programs and create a technology plan driven by the instructional program and intentional technology purchasing.

Numerous professional growth programs/opportunities will continue to be available to prepare teachers and administrators to lead 21st century learning environments.

Area Facilitators and Instructional Facilitators provide job-embedded PD in each school. Training on the NC ITES is well underway, utilizing a train-the-trainer model. Individual schools create a Technology Plan which includes training on district resources. District level media and technology administrators have provided training for principals, curriculum leaders, school-based media and technology staff and instructional facilitators, who in turn provide training for teachers. Training on the NCEES for media coordinators and technology facilitators, which emphasizes their critical leadership roles, is underway, and will continue to be a focus into 2014 and beyond.

Training on 21st century tools and resources occurs regularly and systematically. As DPS continues to identify and focus on desired learning outcomes, a train-the-trainer model will be utilized to help administrators and instructional staffs more effectively utilize the instructional tools, resources and data available through Home Base. Additionally, Educational Technology Resource Specialists as well as media coordinators and technology facilitators train teachers on Web 2.0 tools, interactive whiteboards, website development, digital resources and numerous applications both within their assignment areas and in after-school workshops that are open to all district staff. In the summers of 2012 and 2013, Durham Public Schools provided a Teaching and Learning Institute for all DPS certified staff, offering hundreds of sessions in all curriculum areas, and integrating the use of technology across the board. A Teaching, Learning and

Leadership Institute is already planned for the summer of 2014. Ongoing training that equips building and district leaders to learn and then make strategic decisions about use and implementation of 21st century technology will be offered over the next two years. Identification of highly qualified candidates to participate in regional education leadership academies (RESA) has also occurred. DPS currently partners with numerous civic and faith-based organizations and academic institutions, including Congregations and Neighborhoods, NC Central University, Duke University, and the North Carolina School of Science and Math. Through the Superintendent's Business Advisory Council the district maintains strong connections with over 40 area businesses which provide invaluable support for our schools. The development of the DPS Partnership Framework, introduced in the fall of 2011, will assist in identifying, managing and measuring school and district partnerships.

Moving forward, through the leadership of the Area ET Resource Specialists, DPS will develop and pilot a Technology Teacher-Leaders Academy that is linked to the North Carolina Educator Effectiveness Standards and the NC ITES, to help produce technology proficient teachers who will in turn prepare other teachers and administrators to lead 21st century learning environments. The district is also utilizing a train-the-trainer model to implement Home Base components. Additionally, in accordance with the Strategic Plan, DPS will continue to cultivate leadership and expand professional growth opportunities through partnerships with businesses, academic and community organizations.

Alignment to Other Plans and Initiatives:

Strategic Priority 5: 21st century Leadership for All Schools and Districts

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Create a comprehensive, intentional PD system delivered by Area teams (Area Facilitators, Instructional Facilitators, and Area ET Resource Specialists) to provide teachers and administrators with the skills and understanding needed to implement the Common Core, the Essential Skills, and the Assessment for Learning Model.

Career and College Ready, Set, Go!

Implement a Leadership Academy – schools need good leaders who know how to motivate teachers and students and have data to make good decisions.

Provide incentives to ensure there are great teachers in every classroom especially in hard to staff schools and/or hard to staff content areas (Science and Math).

Increase the use of technology for providing PD opportunities for teachers.

Home Base

Role-based access to student, teacher, school and district specific data to form decisions based on real-time data.

Distributed leadership training model.

DPS Strategic Plan

DPS Strategic Area Academic Acceleration: Goal I.1: DPS will expand the Implementation of the Design for Accelerated Progress (DAP) model to improve student achievement outcomes as measured by school, district and State assessments; Goal I.4: DPS will expand and monitor the implementation of a comprehensive PreK-12 literacy framework to improve student achievement outcomes as measured by school, district and State assessments; Goal I.6: DPS will implement an assessment for a learning model to improve student achievement outcomes as measured by school, district and State assessments; Goal I.7: DPS will target Science, Technology, Engineering, Arts and Math (STEAM) integration to improve student achievement outcomes as measured by school, district and State assessments;

Strategic Area Communications and Partnerships: Goal II.3: DPS will strategically collaborate with local, regional and global organizations to increase the number of partnerships that support student learning; Goal II.4: DPS will strengthen family connections and community outreach efforts as measured by increased participation in district-wide events and initiatives;

Strategic Area Equitable Standards: Goal III: DPS will develop and implement an Equity Model to provide baseline and differentiated resources to schools and the district as measured by an annual Equity Report; DPS Baseline Technology Standards: Goal III (DPS Strategic Plan): DPS will develop and implement an Equity Model to provide baseline and differentiated resources.

Strategic Area Effective Operations: Goal IV.1: DPS will review, restructure and reorganize technology services to better support the ongoing operation of schools and the district (a baseline will be established); Goal IV.2: DPS will enhance processes and practices in all

business environments (a baseline will be established).

Strategic Area Talent Development: Goal V.1: DPS will employ and retain a highly-qualified workforce that engages in continuous improvement through ongoing, high-quality PD (a baseline will be established); DPS will implement a competitive recruitment and retention initiative to attract the industry's best and brightest (a baseline will be established using NC Professional Teaching Standards).

NCEES Professional Teacher Standards: Standard 1: Teachers demonstrate leadership.

5: 21st century Leadership for All Schools and Districts

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Alignment with ACRE, DPS Strategic Plan, etc.	Evaluation Methods
<p>Create and lead a vision for 21st century education</p>	<p>Goal: Create a distributed leadership model to ensure that in every DPS school and department, there is a leader and/or team that continually exemplifies leadership practices, behaviors and choices that result in:</p> <ul style="list-style-type: none"> • Optimal student learning outcomes • A culture of inclusiveness and community; • A faculty and staff who consistently perform at high levels, and • High-quality customer service <p>Responsible Party: Executive Director of Leadership</p>	<p>Goal: Continue to implement a distributed leadership model to ensure that in every DPS school and department, there is a leader and/or team that continually exemplifies leadership practices, behaviors and choices that result in:</p> <ul style="list-style-type: none"> • Optimal student learning outcomes • A culture of inclusiveness and community; • A faculty and staff who consistently perform at high levels, and • High-quality customer service <p>Responsible Party: Executive Director of</p>	<p>Strategic Plan Office of Leadership Development Plan</p>	

5: 21st century Leadership for All Schools and Districts

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Alignment with ACRE, DPS Strategic Plan, etc.	Evaluation Methods
	Development, Executive Director of Curriculum, Instruction and Assessment; Director of Media and ET	Leadership Development, Executive Director of Curriculum, Instruction and Assessment; Director of Media and ET		
Create 21st century learning cultures	Goal: Develop a plan for managed expansion of STEAM and 1:1 instructional programs to reach students with diverse student populations (including AIG, EC, special needs, and at risk students). (DPS SP Goal I.7) Responsible Party: Executive Leadership Team; Curriculum, Instruction and Assessment Team, Technology Leadership	Goal: Implement the plan to expand STEAM. Responsible Party: Executive Leadership Team; Curriculum, Instruction and Assessment Team, CTE, Magnet Director, IT leadership, ET, Principals; MTAC site-based team	DPS Strategic Plan	Strategic Plan Program Management Portal showing percent complete of strategic goals
	Goal: Continue the implementation of the Teaching and Learning Refresh Initiative, ensuring	Goal: Continue the implementation of the Teaching and Learning Refresh Initiative, ensuring	DPS Strategic Plan	Strategic Plan Program Management Portal showing percent complete

5: 21st century Leadership for All Schools and Districts

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Alignment with ACRE, DPS Strategic Plan, etc.	Evaluation Methods
	the equitable distribution of technology resources across the district (DPS SP Goal IV.1.1). Responsible Party: Director of Information Technology	the equitable distribution of technology resources across the district (DPS SP Goal IV.1.1). Responsible Party: Executive Leadership Team, Chief Finance Officer, IT leadership		of strategic goals
Prepare teachers and administrators to lead 21st century learning environments	Goal: Plan and develop a Technology Teacher-Leaders Academy aligned to the NC Professional Teaching Standards and NCITES (DPS SP Goal V.1). Responsible Party: Director of Media and ET; ET Resource Specialists, Office of Leadership Development	Goal: Pilot a Technology Teacher-Leaders Academy aligned to the NCEES. Responsible Party: Director of Media and ET; ET Resource Specialists, PD Specialist	NCEES, DPS Strategic Plan; ISTE NETS	Completion of TTL Academy by a minimum of 20 participants Exemplars of Student Work
	Goal: Through the Department of Leadership Development,	Goal: Through the Department of Leadership Development,		

5: 21st century Leadership for All Schools and Districts

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Alignment with ACRE, DPS Strategic Plan, etc.	Evaluation Methods
	implement the following initiatives: <ul style="list-style-type: none"> • Superintendent’s Leadership Academy • a new National Board Certification Support Model, • a Tiered Principal Coaching Model, • Leadership Coaching, • and a Teaching, Learning and Leadership Institute <p>Responsible Party: Executive Director of Leadership</p>	continue to implement the following initiatives: <ul style="list-style-type: none"> • Superintendent’s Leadership Academy • a new National Board Certification Support Model, • a Tiered Principal Coaching Model, • Leadership Coaching, • and a Teaching, Learning and Leadership Institute <p>Responsible Party: Executive Director of Leadership</p>		
Develop strategic partnerships with community and business to promote	Goal: In partnership with institutes of higher education and other local education systems and/or community	Goal: Expand partnerships including intern programs and evaluate current partnerships.	DPS Strategic Plan; NC Educator Evaluation System	DPS Strategic Plan Program Monitoring Portal showing percent complete of strategic goals

5: 21st century Leadership for All Schools and Districts

Suggested Goals/Targets	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016	Yearly Evaluation	
			Alignment with ACRE, DPS Strategic Plan, etc.	Evaluation Methods
21st century learning.	<p>agencies, DPS will design and implement a leadership and Professional Development framework that is differentiated based upon need, aligned to the NC Executive and Teacher Evaluation Instruments, and anchored in the continuous improvement of leadership practices. (DPS SP Goal II.3).</p> <p>Responsible Party: Executive Leadership Team, Office of Leadership Development, Office of Public Information and Community Engagement</p>	<p>Responsible Party: Executive Leadership Team, Office of Leadership Development, Office of Public Information and Community Engagement</p>		NCEES reports

Overview of the Durham Public Schools' Home Base District Implementation Plan

During the exploration phase of implementation, the site owner, project manager and other key department owners of each Home Base component were identified as the Home Base Project Team (HBPT) and the scope of the project was determined by this team. The departments represented were as follows: Student Information and Data, Finance, Human Resources, Professional Development, Curriculum, Instruction and Assessment, Information Technology, Media and Educational Technology, Research, Development and Assessment, Public Information and Communication, and others as needed to vet data throughout the project.

A budget was identified to cover costs for training, resources, etc. The principal of each of the 56 schools appointed a four-member team consisting of the school data manager, a school administrator and two teachers to act as the core training team for all Home Base modules under the training model, “train the trainer.” This four-member team and others from the HBPT received training during pre-arranged sessions in June from Pearson representatives. This team was crucial in the training of their respective school staff, as each member must become proficient in various components of Home Base.

Our timeline is to launch each Home Base component to mirror that of the DPI timeline (July 2013-July 2014). However, this will be flexible as the HBPT navigates through each component, gaining feedback from our schools and training teams, HBPT and scope creep. The HBPT meets weekly to collaborate and solidify the project.

The district IT Department worked with identified departments to design effective “work-arounds” for the year-round schools and early start high schools to ensure that student information, human resources, child nutrition, transportation, achievement series, Connect-Ed, etc. are in place for a smooth transition to begin the 2013-14 school year. (DPI/Pearson did not prove to consider school timelines outside of the traditional school calendar.)

Home Base information and updates were communicated to school principals through the weekly department newsletters, the DPS website and from the leadership within various departments of the HBPT. In addition, performance issues and notices that needed immediate attention were identified by the department providing leadership of a particular module or by the project manager. The project manager communicated updates, etc. to the district Executive Leadership Team.

The HBPT launched a district Home Base intranet site in early November. The site will host the five Home Base modules, contact information, the toolkit for online training, FAQ's, a parking lot for questions, and links to the DPI Home Base site.

PowerSchool (SIS)

June 2013 - The district's Student Information and Data Department began training for all school data managers in all areas of Student Information Systems (SIS). Special attention was provided to data managers of the year-round schools and early starts small high schools respectively, with the traditional high, middle and elementary schools to follow.

Power Teacher Grade Book

July/August/September - The C and I Education Technology Team and SIS Department provided training for Teacher Grade Book to the four member school teams. These teams rolled out training to their schools on specified training days in August and September.

Parent Portal

The Educational Technology Team provided a written implementation plan with benchmarks for principal approval, to ensure teachers are proficient in attendance and grade posting in Grade Book, prior to launching the parent portal. Once approved by the principal, the SIS Manager set up the parameters for the school and the data manager printed the letters containing a user identification number and password for each student and parent. Parents must show a picture ID to receive their assigned UserID and password. A document was provided to parents who reside in another city, etc. that could be notarized and sent to the school to obtain their user identification and password. The plan is for all secondary schools to launch parent portal by the beginning of second semester, with the option of early adoption. Elementary schools will not launch parent portal until the state transitions to grade posting in Grade Book.

Truenorthlogic – Educator Evaluation

July/August - the district Human Resources Department leadership and two lead principals provided training for all principals within the district. Training dates and times were identified and scheduled. All principals had to meet a timeline set by the state.

PowerSchool Mobile App

October – January - The district IT department leadership will partner with our SIS manager to test the mobile app features. Once the apps are ready for launch, the district HBPT will identify the launch time. Instructions will be communicated to the schools and public through the district Public Information and Community Involvement Division.

SchoolNet/OpenClass

During the spring, summer and fall of 2013 the DPS Media and Educational Technology team and the Home Base project manager attended trainings on SchoolNet provided by the Department of Public Instruction. The Media and Ed Tech team created an online Home Base Support Center, which features training resources, an implementation plan and a rubric-based cross-walk of current DPS funded district-wide online resources with resources and functions available through SchoolNet. In early December the Home Base project manager arranged for three consultants from DPI to provide a SchoolNet training session for the district training team which includes the Curriculum, Assessment and Instruction Specialists and Educational Technology Resource Specialists. Training consisted of an introduction to instructional tools, classroom and benchmark assessments, reporting and collaboration. After this training, the Media and Ed Tech team and offered a three-hour training for school media coordinators and technology facilitators, and solicited their feedback on the product. In January, the Media and Educational Technology team provided a SchoolNet overview for principals, assistant principals, and instructional facilitators, and requested that they explore SchoolNet individually and provide feedback. Principals were invited to become “Early Adopters” and send a team of teachers to a day-long exploration of SchoolNet. Approximately 45 teachers, instructional facilitators, and Curriculum and Instruction personnel attended the training. The teachers in attendance are expected to 1) share what they learned with their colleagues, and 2) provide evaluative feedback

to the Home Base project team through a survey. The Home Base project team will collect and analyze all feedback, and make a recommendation to ELT regarding the decision to opt-in to SchoolNet. Pending the outcome of this decision, the district Educational Technology Resource team will provide both district-wide and school-based training and support in various formats during the remainder of the 2013-2014 school year and throughout the 2014-15 school year.

Truenorthlogic – Professional Development

March/April – the district Professional Development Dept. leadership will provide training for teachers for this online evaluation. Training dates and times will be identified and scheduled.

Test Nav – Summative Assessment

April – the district Research, Development and Assessment Dept. will provide leadership and training for all schools for summative assessments. Training dates and times will be identified and scheduled.

**Appendix A: Policies and Procedures
Durham Public Schools Technology Plan
Policy, Procedure, & Guidelines Implementation Chart**

Policies, Procedures, & Guidelines	LEA Policy Code or Procedure	LEA Adoption, Implementation or Revision Date
All Policies, procedures and guidelines should be updated to include the fundamentals of 21st century Education and Information & Technology Skills. Policies should be translated into predominant languages of students and parents. Policies, procedures and guidelines should be displayed along with the STP and other referenced LEA/Charter plans. Make sure links have navigations that are user friendly.		
Policies Required		
A. Materials Selection Policy including internet resources (GS §115c-98(b))	3015	March/2011
B. Disposal of Equipment / Replacement of Obsolete Equipment (GS §115c-518)	6100	July/1999
C. Hardware and Software Procurement (GS § 115c-522, 115c-522.1)	6030	July/1999
D. Copyright and Plagiarism Policy (PL §94-553, 90 Stat. 2541),	3060	March/2011
E. Acceptable Use Policy (PL §106-554) (including existing 1:1, bring your own device)	3040, 5150	Dec/2012
F. Equipment/Materials Donation Policy (GS §115C-518)	6100	July/2011
G. Data Privacy Policy (20 U.S.C. § 1232g; 34 CFR Part 99 (FERPA))	4204, 4206 4207, 4200	July/2011
H. Inventory Control Policy (GS §115c-539, 115c-102.6A-C(5))	7310	July/2011
I. Access to Services Policy (GS §115c-106.2)	6100	July/1999
J. Online Assessment and Instruction Policy	3000, 3220	July/1999
K. Advertising and Commercialism Policy (GS §115c-98) (Procurement and gifts ethics)	3035	July/1999
L. Internet Safety and Ethical Use including Cyberbullying and Harassment (Protecting Children in the 21st century Act, CIPA, FERPA, GS 115C-407)	3040, 4411, 4301	July/2011 Dec/2009 Dec/2012
Procedures		
A. Hardware and Software Deployment	Procedure	
B. Equipment maintenance and repairs	Procedure	
C. Outdated Resources and Equipment Replacement	Procedure	
D. Disaster Recovery of Data and Hardware	Procedure	
E. Administration of Online Courses	Procedure	
F. Administration of Online Assessment	Procedure	
G. Online Assessment and Instruction	Procedure	
Guidelines		
A. Policy Translation	Guideline	
B. Use of Digital Media and Resources	Guideline	
C. Instructional Use of Videos	3045, 3060, 3015	June/2013
D. Development of Online Resources	Guideline	