**Approval Checklist**

This checklist will be used by your consultant while reviewing and approving for movement to the State Board for approval:

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| **Complete** | **NCSSTP Elements** | **Components** |
|  | Signature Page | Preliminary Components |
|  | Title Page |  |
|  | Table of Contents |  |
|  | Committee List |  |
|  | Vision Statement/Narrative |  |
|  | Strategic Priorities Narrative |  |
|  | Priority 1 Elements Complete\* | 1. The plan establishes clear goals and a realistic strategy for using telecommunications and information technology to improve education.  3. The plan includes an assessment of the telecommunication services, hardware, software, and other services that will be needed to improve education. |
|  | Priority 2 Elements Complete\* |  |
|  | Priority 3 Elements Complete\* |  |
|  | **AMTR** (Annual Media and Technology Report) Complete and Periodically updated | Count/Inventory requirement |
|  | Priority 4 Elements Complete\* | 2. The plan has a professional development strategy to ensure that staff knows how to use these new technologies to improve education. |
|  | Priority 5 Elements Complete\* |  |
|  | Utilization of Cloud Resources | 4. The plan includes an evaluation process that enables the school to monitor progress toward the specified goals and make mid-course corrections in response to new developments and opportunities as they arise |
|  | Alignment to 3 key initiatives |  |
|  | Use of required evaluation tools |  |
|  | All objectives measureable |  |
|  | All addressed | Appendix A: Required Policies |
|  | Current |  |
|  | Board approval dates included |  |
|  | LEA Policy Noted and Posted |  |

**\*Questions answered in narrative, alignments complete, targets addressed.**

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| Notes: |
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REQUIRED SUBSTANTIVE COMPONENTS

OF THE

LOCAL SCHOOL DISTRICT TECHNOLOGY PLAN

Schools, school districts, and libraries that want to apply for Schools and Libraries support, commonly referred to as "E-rate," must first prepare a technology plan. Beginning with FY2011, technology plans are required only for Priority 2 services (Internal Connections and Basic Maintenance of Internal Connections). An approved technology plan sets out how information technology and telecommunications infrastructure will be used to achieve educational goals, specific curriculum reforms, or library service improvements.

A technology plan designed to improve education should cover the entire funding year (July 1 to June 30) but not more than three years. The plan must contain the following elements:

**Goals and realistic strategy for using telecommunications and information technology  
A professional development strategy  
An assessment of telecommunication services, hardware, software, and other services needed  
Ongoing evaluation process  
Policies**

The technology plan must be approved by a USAC-certified technology plan approver before discounted services can begin. The state is the certified technology plan approver for libraries and public schools. [www.usac.org](http://www.usac.org), August, 2011.

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| --- | --- |
| LEA/Charter Name: | Winston-Salem/Forsyth County Schools |
| LEA/Charter Number: | 340 |
| Superintendent Name: | Dr. Beverly Emory |
| Superintendent Signature |  |
| Local Board Chair Name: | Jane Goins |
| Local Board Chair Signature: |  |
| Person of Contact: | Steven W. Anderson |
| Telephone: | 336-727-8024 |
| Contact Email: | swanderson@wsfcs.k12.nc.us |

Winston-Salem/Forsyth County Schools  
Technology Plan

2014-2016

Draft November 2013

Final July 2014

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**Winston-Salem/Forsyth County Schools  
Technology Planning Committee/MTAC**

|  |  |
| --- | --- |
| **Member** | **Job Title/Position** |
| Kevin Sherrill | Executive Director of Technology |
| Steven W. Anderson | Director of Instructional Technology |
| Debbie Harman | Director of Integrated Data Systems |
| Carla Miller | Technical Services Supervisor |
| Jackie Pierson | Program Manager for Media Services |
| Dr. Jay Jones | Principal, Walkertown Elementary |
| Karen Roseboro | Principal, North Hills Elementary |
| Sandra Hunter | Principal, Clemmons Middle |
| Stephanie Gentry | Principal, Southeast Middle |
| Brad Craddock | Principal, Glenn High |
| Joe Childers | Principal, Atkins High |
| Sharon Creasy | Assistant Principal, Career Center |
| Erin Mulhern | Elementary School Technology Facilitator |
| Sam Walker | Elementary School Technology Facilitator |
| Tracy Kukwa | Secondary School Technology Facilitator |
| Sally Mercer | Secondary School Technology Facilitator |
| Dianne Phillips | Secondary School Technology Facilitator |
| Bill Rudert | Secondary School Technology Facilitator |
| Janelle Waddell | Secondary School Technology Facilitator |

**Winston-Salem/Forsyth County Schools Technology Plan**

**2014-2016**

Vision Statement

**Vision Statement**

Winston-Salem/Forsyth County Schools believe in a comprehensive approach to the use and vision for technology***: to utilize the power of technology to transform education, changing the way we teach, learn, and communicate every day.*** In preparing our schools to be future ready, we have to redefine what we mean by learner. In the traditional school model, learners are defined as students. Traditional schools were built to prepare students for manual labor work. While those jobs are still prevalent and a necessary part of our society, more jobs are being created in more technology-centric businesses. With a globally competitive job market upon us, we must stop preparing students for repetitive manual labor and begin a fundamental paradigm shift for global education. Doing so means that learners are no longer defined as students alone but as all members of a Community of Learners- students, teachers, parents, and administrators. The multiplicity of the informational landscape requires everyone in a community to constantly learn.

Winston-Salem/Forsyth County Schools (WS/FCS) has developed a technology plan that is comprehensive but also a work in progress. It is our vision to not only prepare our students to be future ready but also to prepare parents, teachers, staff, and administrators. In keeping with the North Carolina vision that leadership will guide innovation in North Carolina public schools, Winston-Salem/Forsyth County Schools is committed to partnerships with community and business leaders to provide an optimal learning environment for the children in our school system. This partnership reinforces and supports the need for a strong educational technology program. Winston-Salem/Forsyth County Schools is committed to the re-inventing of the teaching and learning process by utilizing existing applications along with data-driven reform initiatives.

The magnitude of the continued implementation of technology and communication will not only enhance the student learning environment, it will present new challenges to teachers and administrators; challenges that will employ us to seek data-driven decisions for the purpose of promoting high student achievement. We believe that parents, teachers, and administrators deserve access to data that affects the assessment of student work. It is our responsibility to bridge the gaps between data warehouses of student information and the teaching and learning environment with rich, online resources for both teachers and students. Students are challenged to be globally competitive, to have an appreciation for diversity, and to utilize digital communication. As leaders, we must be able to provide learning environments that enhance collaboration and communication and model use of 21st Century systems such as web portals and other collaboration tools.

**Winston-Salem/Forsyth County Schools Technology Plan**

**Strategic Priorities**

**2014 - 2016**

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| **Statewide Shared Services Model** | Continued upgrade and expansion of wireless connectivity at all campuses. |
| Pilot “Bring Your Own Technology” environment in each school level. |
| Continue to provide high speed WAN connectivity via fiber to all schools. |
| Continue to provide access to community and state resources through WinstonNet. |
| Provide centralized storage for digital resources such as user files, district applications, and collaborative environments. |
| Leverage the NC Education Cloud environment to provide access to digital resources. |
| Develop, design and implement a technical training model for school level faculty/staff to reduce reliance of district level technical support. |
| Continue to provide district-wide web hosting for school and teacher web pages as required by school board policy. |
| Review policies and district purchasing guidelines for all schools. |
| Audit current eligibility for E-Rate services district wide to maximize funding support for instructional programs. |
| Continue to provide telecommunication services to all school sites. |
| **Universal Access to Personal Teaching and Learning Devices** | Continue to provide mobile devices with voice and data plans for all school and district administrators. |
| Continue to supplement schools with Mobile Device Classroom Sets as funds are available. |
| Develop policies/guidelines to prepare for “Bring Your Own Technology” environments in schools. |
| Develop technical support model for “Bring Your Own Technology” environments in schools. |
| A communication device will be provided for all students in need. |
| Communicate through district marketing and communications methods including but not limited to district print publications, websites, social media, etc. |
| Utilize funding sources in order to purchase personal teaching and learning devices. |
| Design, develop and implement a district and school support model for teachers to prepare for 1:1 implementation. |
| **Statewide Access to Digital Teaching and Learning Resources** | Utilize portal environments, such as Sharepoint, to deliver digital resources in lieu of print. |
| Research and include high quality open education resources in Learning Village. |
| Provide training on state resources such as NCWiseOwl, Thinkfinity, Intel, etc. |
| Organize and access Common Core/Essential Standards training materials, curriculum guides, lessons and resources through Learning Village. |
| Implement NCEdCloud Instructional Improvement System (IIS) to meet district needs. |
| **A Statewide Model of Technology-Enabled Professional Development** | Develop, implement and evaluate more online-learning and distance learning opportunities for staff and students. |
| Continue training for all teachers on the Technological, Pedagogical, and Content Knowledge (TPACK) model for Professional Development and TPACK Lesson Activity Types. |
| Implement pedagogical and classroom culture professional development. |
| Continue and enhance the professional development for administrators in the use of Classroom Walkthrough data. |
| Continue professional development for teachers, administrators and central office staff on Mobile Learning Communities and Bring Your Own Technology. |
| Continue school-specific/teacher-specific technology professional development for each school. |
| Continue the Technology+Leadership=Change (TLC) Program. |
| **21st Century Leadership for All Schools and Districts** | Continue the Technology+Leadership=Change (TLC) Program for Principals and implement an Assistant Principals Cohort. |
| Design and provide professional development (outside of TLC) for district and school leadership to create a sense of urgency for leading a digital reform effort. |
| Pilot blended learning environments in high schools using district resources. |
| Provide access for schools to digital collaboration and communication resources. |
| Collaborate with WinstonNet and other local partners to provide more access to technology services in the community. |
| Partner with local universities/ colleges to provide instructional and technical help with implementation of 21st century learning environments. |

**Strategic Priority 1: A Statewide Shared Services Model**

***Essential Questions for* Winston-Salem/Forsyth County 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 School?**

***Current Status and Moving Forward***

Winston-Salem/Forsyth County Schools continues to work towards streamlined process for lowering the costs of technology across the district. The Department of Technology works to find new, lower-cost hardware to replace aging systems and looks to update the current Classroom Solution with updated hardware that comes at a lower cost, giving the district and schools the opportunity to do more with less.

A collaborative effort between Finance, Purchasing and Technology has streamlined the process for acquisition of hardware and software. School purchases must be approved by Technology before purchase so that support can be provided for resources. This process ensures that resources can be used instructionally without dealing with a multitude of technical issues. An additional cost savings for the schools was the implementation of a school-wide print management solution. Individually, schools were spending a large amount of funds on toner, parts, and non-networked printers. Collectively, this district-wide solution has shown savings on components and service/support.

As part of the Race to the Top initiative, all schools have wireless connectivity by the end of the 2012 school year. Now that the project is complete, the Department of Technology can move to provide a managed secure wireless network for student and staff use. This will also provide the needed infrastructure for the implementation of mobile devices and Bring Your Own Technology (BYOT) which will allow for learning environments that are more student-centered and future ready.

Moving forward the WS/FCS Department of Technology will continue to examine the latest technology trends to ensure students and staff have access to the best hardware, software and services our dollars can buy. We will constantly evaluate our current systems, infrastructure and purchases in an effort to make the best decisions for teaching, learning and working in the district.

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| **Alignment to Other Plans and Initiatives:  Strategic Priority 1: A Statewide Shared Services Model**  **Winston-Salem/Forsyth County 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. |
| **Career and College Ready, Set, Go!** | |
|  | Technology to enhance all reform areas  Building upon technology-enabled education initiatives  NC Education Cloud  Next generation technology infrastructure  Service delivery platform for content, services and applications |
| **Race to the Top Local and State Scopes of Work** | |
|  | **Objective (A)(2) 1.1**: Incorporate the state infrastructure blueprint into technology plans.  **Objective (A)(2) 2.1:** Implement the infrastructure blueprint.  **Objective (A)(2) 3.1:** Provide and support student, teacher, administrator access to a Learner ManagementSystem, Learning Object Repository, and web collaboration tools at each school.  **Objective D(5) 1.1**: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives. |
| **WSFCS District Strategic Plan** | |
|  | 3.1 21st Century Systems-Increase the support of technology in schools. |
| **NC State Technology Plan** | |
|  | * 1. Design, implement and administer the NC Education Cloud Architectural Blueprint.   2. Maximize the use of E-Rate at local and state levels to ensure equity of access. |

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **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** | | **Plan for and provide equitable and additional access to mobile devices** | Continue pilot of classroom sets of Mobile Devices in each school level. *Department of Technology and Pilot Schools*  Pilot “Bring Your Own Technology” environment in each school level.  *Department of Technology* | Continue to supplement schools with Mobile Device Classroom Sets as funds are available. *Department of Technology*  Expand BYOT to more schools in the district.  *Department of Technology and Pilot Schools* | Network monitoring reports/Evaluations reports and data.  Evaluation reports and data.  Classroom Walkthrough Data  Teacher/Student/Parent survey. |  | | **Provide equitable and additional access to digital resources** | Continue to provide high speed WAN connectivity via fiber to all schools.  *Department of Technology*  Continue to provide access to community and state resources through WinstonNet.  *Department of Technology*  Provide centralized cloud storage for digital resources such as user files, district applications, and collaborative environments.  *Department of Technology*  Continue to enhance wireless connectivity and infrastructure at all campuses.  *Department of Technology*  Leverage the NC Education Cloud environment to provide access to digital resources.  *Department of Technology* | Continue to provide high speed WAN connectivity via fiber to all schools.  *Department of Technology*  Continue to provide access to community and state resources through WinstonNet.  *Department of Technology*  Implement a WSFCS Portal to deliver all digital content.  *Department of Technology*  Continue to enhance wireless connectivity and infrastructure at all campuses.  *Department of Technology*  Increase participation in the NCEd Cloud.  *Department of Technology* | Network monitoring tools  Usage reports  Usage reports  SAN capacity reports  Installation schedule  Bandwidth reports  NCEd Cloud Opt-in Agreements |  | | **Reduce operating costs by facilitating a more strategic budgeting model** | Provide centralized storage for digital resources such as user files, district applications, and collaborative environments.  *Department of Technology*  Develop, design and implement a technical training model for school level faculty/staff to reduce reliance of district level technical support.  *Department of Technology* | Utilize more NCEd Cloud offerings to reduce local spending.  *Department of Technology*  Provide additional technical training for school users as needed.  *Department of Technology* | Teacher survey  Bandwidth reports  Deployment schedule  Usage reports  NCEd Cloud Opt-in Agreements  Professional Development plan/agendas |  | | **Facilitate a more strategic budgeting model utilizing blended funding and reducing isolated programmatic spending** | Continue to provide district-wide web hosting for school and teacher web pages as required by school board policy.  *Department of Technology*  Review policies and district purchasing guidelines for all schools as necessary. *Departments of Technology/ Finance/Attorney’s Office and the School Board Staff Policies Committee*  Continue to review hardware/software clearinghouse to promote collaborative purchasing to reduce costs currently exacerbated by duplication in 80 schools.  *Departments of Technology/Instructional Services/Administration* | Continue to provide district-wide web hosting for school and teacher web pages as required by school board policy.  *Department of Technology*  Review policies and district purchasing guidelines for all schools as necessary. *Departments of Technology/ Finance/Attorney’s Office and the School Board Staff Policies Committee*  Continue to review standardized hardware/software clearinghouse for school purchasing. Negotiate pricing with vendors.  *Departments of Technology/Instructional Services/Administration* | Usage reports  Policy review schedule  New policies  Clearinghouse data |  | | **Promote/maintain innovative funding model by utilizing NCEdCloud offerings and alternatives** | Review and implement NCEdCloud offerings that meet district needs. *Department of Technology* | Review and implement NCEdCloud offerings that meet district needs.. *Department of Technology* | NCEd Cloud Opt-in Agreements |  | | **Maximize E-rate in support of instructional programs** | Audit current eligibility for E-Rate services district wide to maximize funding support for instructional programs.  *Department of Technology*  Continue to provide mobile devices with voice and data plans for all school and district administrators.  *Department of Technology*  Continue to provide high speed WAN connectivity via Metro-E fiber to all schools.  *Department of Technology*  Continue to provide district-wide web hosting for school and teacher web pages as required by school board policy.  *Department of Technology*  Continue to provide telecommunication services to all school sites.  *Department of Technology* | Leverage E-Rate funding based on audit findings.  *Department of Technology*  Continue to provide mobile devices with voice and data plans for all school and district administrators.  *Department of Technology*  Continue to provide high speed WAN connectivity via Metro-E fiber to all schools.  *Department of Technology*  Continue to provide district-wide web hosting for school and teacher web pages as required by school board policy.  *Department of Technology*  Continue to provide telecommunication services to all school sites.  *Department of Technology* | Audit results  Vendor provided usage reports  Bandwidth reports  Usage reports  Configuration 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***

“The National Center for Education Statistics reports that the average ratio in U.S. schools is approximately 3.4 students to each device. By taking advantage of student-owned and staff-owned devices, a school can use its scarce funds to purchase or lease devices for students who can’t afford them.” (Center for Digital Education-Mobile Learning p. 3) Over the past five years, money allotted for refreshing classroom computers has not been available. The district ratio for students to devices is currently 1.55 is a drop from previous years but, we anticipate a rise due to the aging out of equipment and the need for a computer refresh policy to be developed and put into place.

In response to the need for 1:1 environments, the Technology Department plans to implement a two-tiered solution for mobile learning. Bring Your Own Technology (BYOT) as part of our Mobile Learning Communities (MLCs) initiative will supplant the need for student and staff devices. Purchasing low cost mobile devices will supplement technology available in the classrooms for students who cannot afford their own device.

Developing the plan and infrastructure to support a BYOT environment is critical to the success. Guidelines for acceptable use, policies, support procedures, instructional resources, and thorough training/support for teachers must be in place. The district Race to the Top initiative allowed for the pilot of mobile devices in the classroom. This pilot has helped the entire Department of Technology evaluate the use of the mobile devices and their impact on teaching and learning in the classroom. Teachers involved in the pilot have been required to attend on-going professional development and participate in a system-wide collaboration on resources and best practices for technology integration.

Building on what was learned in the pilot and accompanying evaluation, the Instructional Technology staff worked to develop professional development that targeted pedagogy rather than hardware and software. During the summer of 2013, more the 350 teachers were identified and trained, in preparation for the district implementing MLCs and BYOT.

Allowing personal devices is not just about the technology but is also a shift in teaching and learning. With the state-wide adoption of the Common Core and Essential Standards, teachers and students will be focused on instruction that meets the needs of each student independent of others.

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| **Alignment to Other Plans and Initiatives:  Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices**  **Winston-Salem/Forsyth County 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. |
| **Career and College Ready, Set, Go!** | |
| Technology to enhance all reform areas  Building upon technology-enabled education initiatives  NC Education Cloud  Next generation technology infrastructure  Service delivery platform for content, services and applications |
| **Race to the Top Local and State Scopes of Work** | |
| **Objective (A)(2) 1.1**: Incorporate the state infrastructure blueprint into technology plans.  **Objective (A)(2) 2.1:** Implement the infrastructure blueprint.  **Objective (A)(2) 3.1:** Provide and support student, teacher, administrator access to a Learner Management System, Learning Object Repository, and web collaboration tools at each school.  O**bjective (C)(3) 1.2**: Utilize LEA/Charter and school technology funds to enhance school and LEA/Charter technology infrastructure to facilitate online real-time assessments at each school.  **Objective D(5) 1.1**: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives. |
| **WSFCS District Strategic Plan** | |
| 3.1 21st Century Systems-Increase the support of technology in schools. |
| **NC State Technology Plan** | |
| 2.1 Provide a regional support model for LEAs and schools as they begin one-to-one personal teaching and learning device implementations  2.3 Develop a sustainable funding formula and implementation plan for personal teacher and learner devices to assure equity of access for all North Carolina schools. |

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| **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** | Continue pilot of 1:1 Mobile Devices at each school division. *Department of Technology and Pilot Schools*  Implement policies/guidelines to prepare for “Bring Your Own Technology” environments in schools.  *Departments of Technology/ Attorney’s Office and the School Board Staff Policies Committee*  Develop and pilot a technical support model for “Bring Your Own Technology” environments in schools.  *Department of Technology*  A communication device will be provided for all students in need.  *Exceptional Children Division* | Expand number of available 1:1 Mobile Devices in each school. *Department of Technology*  Continued implementation and revision of policies/guidelines to support BYOT environments in schools.  *Departments of Technology/ Attorney’s Office and the School Board Staff Policies Committee*  Fully implement a technical support model for “Bring Your Own Technology” environments in schools.  *Department of Technology*  A communication device will be provided for all students in need.  *Exceptional Children Division* | Network monitoring reports  Purchasing Reports  Evaluation Reports  New Policies/Guidelines  Work order reports  Inventory of devices in Exceptional Children Division |  |
| **Communicate your plan to all stakeholders** | Communicate through district marketing and communications methods including but not limited to district print publications, websites, social media, etc.  *Departments of Technology/ Marketing and Communication* | Communicate through district marketing and communications methods including but not limited to district print publications, websites, social media, etc.  *Departments of Technology/ Marketing and Communication* | Publications/ Links |  |
| **Increase overall access to personal learning devices** | Utilize funding sources in order to purchase personal teaching and learning devices. *Department of Technology, Office of the Superintendent, Board of Education* | Utilize funding sources in order to supplement and supplant personal teaching and learning devices. *Department of Technology, Office of the Superintendent, Board of Education* | Purchasing records  Hardware inventory |  |
| **Utilize Personal Learning Devices to promote student owned learning** | Continue to refine, implement and evaluate a district and school support model for teachers to prepare for 1:1 implementation and continued support for BYOT/MLC Model.  *Departments of Technology/ Instructional Services* | Continue to provide district and school support model for teachers to prepare for 1:1 implementation and for BYOT/MLC Model.  *Departments of Technology/ Instructional Services* | Professional Development agenda/plan |  |
|  | | | | |

**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 is used?**

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

***Current Status and Moving Forward***

“Digital content is malleable, enabling teachers and students to more easily consume, manipulate and leverage information to address specific learning objectives and to better match individual learning modalities.” (Digital Content- p. 3) The Technology and Instructional Services Departments work in collaboration to provide teachers with access to digital curriculum resources through Learning Village. Learning Village is the district curriculum warehouse and infrastructure for pacing guides, materials, resources (both digital and print), and also serves as a portal to district supported online tools.

With the development of a state-wide Instructional Improvement System (IIS), the focus in this district has been on the creation of Common Core/Essential Standards resources that can be used by teachers to meet student needs. The teachers use the resources available and the demand for more access to curriculum content is increasing. The Instructional Services Department is starting to include access to approved open educational resources offered by universities, vendors, and other educators.

Moving forward we realize that we must continue to evaluate ever-changing resources in order to make the best available to our students. The Director of Instructional Technology and Instructional Technology staff both work very closely with the Leadership and Members of the Instructional Services Department to cohesively find resources for the classroom that can meet both the instructional and technological needs of our students and staff. Both groups will continue that relationship and strengthen the district-held repository of resources.

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| **Alignment to Other Plans and Initiatives:  Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks**  **Winston-Salem/Forsyth County 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. |
| **Career and College Ready, Set, Go!** | |
| Technology to enhance all reform areas  Building upon technology-enabled education initiatives  NC Education Cloud  Next generation technology infrastructure  Service delivery platform for content, services and applications |
| **Race to the Top Local and State Scopes of Work** | |
| **Objective (A)(2) 3.1:** Provide and support student, teacher, and administrator access to Learner Management System, Learning Object Repository, and web collaboration tools.  **Objective (B)(3) 1.1**: Ensure teachers and staff understand the new Standard Course of Study, including the Common Core and Essential Standards, and related assessments. |
| **WSFCS District Strategic Plan** | |
| 3.1 21st Century Systems-Increase the support of technology in schools. |
| **NC State Technology Plan** | |
| 3.1 As part of ACRE and NC Career and College Ready, Set, GO! Race to the Top initiatives, support and lead a digital reform effort in the schools and classrooms of North Carolina.  3.2 Use expertise in North Carolina to design and curate digital teaching and learning resources. |

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| **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** |
| **Shift from traditional print and paper-based resources to affordable, current online resources** | Utilize and build out portal environments, such as Sharepoint, to deliver digital resources in lieu of print.  *Departments of Technology/ Instructional Services* | Continue to utilize and build out portal environments to deliver digital resources in lieu of print.  *Departments of Technology/ Instructional Services* | Usage reports |  |
| **Utilize procured resources such as NC WiseOwl, and other open education resources** | Research and include high quality open education resources in district provided IIS. *Departments of Technology/ Instructional Services*  Continue and deepen training on state resources such as NCWiseOwl, Thinkfinity, Intel, etc.  *Departments of Technology*  Review and implement NCEdCloud offerings that meet district needs. *Department of Technology* | Research and include high quality open education resources in district provided IIS. *Departments of Technology/ Instructional Services*  Continue and deepen training on state resources such as NCWiseOwl, Thinkfinity, Intel, etc.  *Departments of Technology*  Review and implement NCEdCloud offerings that meet district needs. *Department of Technology* | Resource lists  Professional Development agenda/plan  NCEd Cloud Opt-in Agreements |  |
| **Use digital content aligned specifically to Common Core and NC Essential Standards** | Continue to organize and access Common Core/Essential Standards training materials, curriculum guides, lessons and resources through district provided IIS.  *Departments of Technology/ Instructional Services*  Implement NCEdCloud Instructional Improvement System (IIS)to meet district needs. *Department of Technology* | Continue to organize and access Common Core/Essential Standards training materials, curriculum guides, lessons and resources through district provided IIS.  *Departments of Technology/ Instructional Services*  Implement NCEdCloud Instructional Improvement System (IIS)to meet district needs. *Department of Technology* | Usage Reports  Resource Lists  NCEd Cloud Opt-in Agreements  Professional Development agenda/plan |  |
| **Ensure equity to digital teaching and learning resources from school to school in your LEA.** | Promote and educate all school staff on district and state resources available for teaching and learning.  *Departments of Technology*  Implement NCEdCloud Instructional Improvement System (IIS) to meet district needs. *Department of Technology* | Promote and educate all school staff on district and state resources available for teaching and learning.  *Departments of Technology*  Implement NCEdCloud Instructional Improvement System (IIS) to meet district needs. *Department of Technology* | Professional Development agenda/plan  NCEd Cloud Opt-in Agreements  Professional Development agenda/plan |  |

**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***

“The key to rapid adoption is to put resources and effort into easing implementation for teachers and staff and clearly explaining the benefits of digital content development to them and their students. If they don’t understand the benefits of the technology, or they think those benefits are outweighed by the costs of the transformation, the adoption will fail.” (Digital Content p. 8) Technology without training and support is a wasted investment. Winston-Salem/Forsyth County Schools needs to prepare for change and accept that in order to improve students; they must look to both teachers and administrators to model learning and professional growth.

During the 2011-2012 school year, the Instructional Technology department implemented a new professional development model to help teachers better integrate technology. In collaboration with the School of Education at the College of William and Mary, the instructional technologists developed materials based upon the TPACK (Technology, Pedagogy and Content Knowledge) Framework. This paired with the district Professional Learning Communities (PLC) initiative allows technology professional development to be delivered when teachers need it rather than a mandated afterschool course.

As part of the district Race to the Top initiative, online professional development through Moodle has been offered by both Technology and Instructional Services. This has allowed for teachers to explore technology resources and get support as they implement. It has also provided scaffolding for teachers as they begin to teach using the new Common Core and Essential Standards. We are currently expanding the use of online courses and are developing more both in-house and building on other resources such as courses from NCVPS.

Glenn High School and Paisley IB Magnet School were both awarded IMPACT V Leadership Grants. This grant has provided education for school leaders and teacher leaders to build collaboration and technology learning environments within the schools. As the teachers become proficient in their use of technology, the expectation is that they will share their expertise and work with teachers within the district. By participating in the IMPACT V grant, Winston-Salem/Forsyth County Schools hopes to build a 21st century model for school leadership that empowers teacher leaders and school administrators to reflect and grow in their educational practice.

We believe that parents, teachers, and administrators deserve access to data that affects the assessment of student work. It is our responsibility to bridge the gaps between data warehouses of student information and the teaching and learning environment with rich, online resources for both teachers and students. With the expectation of online NC summative assessments in 2014, the district plans to pilot the use of mobile devices and eventually implement a Bring Your Own Technology (BYOT) initiative. Granting access to personal learning devices supports educators as they focus on the whole child to engage student learning.

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| **Alignment to Other Plans and Initiatives:  Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development**  **Winston-Salem/Forsyth County 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. |
| **Career and College Ready, Set, Go!** |
| Technology to enhance all reform areas  Building upon technology-enabled education initiatives  NC Education Cloud  Next generation technology infrastructure  Service delivery platform for content, services and applications |
| **Race to the Top Local and State Scopes of Work** |
| **Objective (A)(2) 3.1:** Provide and support student, teacher, and administrator access to Learner Management System, Learning Object Repository, and web collaboration tools.  O**bjective (A)(2) EVAL 1.1**: Participate in the evaluation of the RttT initiatives and use the resulting evaluation data and conclusions to improve effectiveness.  **Objective (B)(3) 1.1**: Ensure teachers and staff understand the new Standard Course of Study, including the Common Core and Essential Standards, and related assessments.  **Objective (C)(2) 1.1**: Complete a unified strategic plan for the LEA/Charter that utilizes data to determine priority goals and activities, and set targets for performance.  **Objective (C)(3) 1.1**: Create a transition plan for schools and LEAs to begin using the online IIS for the 2012-2013 school year.  **Objective D(5) 1.1**: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives.  **Objective D(5) 1.2**: Measure, evaluate and improve professional development and support. |
| **WSFCS District Strategic Plan** |
| 2.1 Increase the number of teachers and staff who are effective instructional leaders in the classroom and school.  2.2 Increase the number of principals and assistance principals who are effective instructional leaders in the school.  3.1 21st Century Systems-Increase the support of technology in schools. |
| **NC State School Technology Plan** |
| 4.1 As part of ACRE and NC Career and College Ready, Set, Go! Race to the Top initiatives; provide embedded technology-enabled professional development to the teachers and administrators in the LEAs and schools of North Carolina.  4.2 Fund innovative models that promote and further the ideals of technology-enabled and integrated professional development for the instructional K12 workforce in North Carolina's LEAs and Charter Schools. |

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| **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** | Develop, implement and evaluate more online-learning and distance learning opportunities for staff and students.  *Departments of Technology/ Instructional Services* | Develop, implement and evaluate more online-learning and distance learning opportunities for staff and students.  *Departments of Technology/ Instructional Services* | Usage Reports  Professional Development agenda/plan  Evaluation reports from Research/Evaluation Staff |  |
| **Support models that promote and further the ideals of technology-enabled and integrated professional development** | Continue training for all teachers on the Technological, Pedagogical, and Content Knowledge (TPACK) model for Professional Development and TPACK Lesson Activity Types.  *Department of Technology*  Implement pedagogical and classroom culture professional development.  *Department of Technology* | Continue with professional development on TPACK.  *Department of Technology*  Implement pedagogical and classroom culture professional development.  *Department of Technology* | Professional Development agenda/plan  Professional Development agenda/plan  Evaluation reports from Research/Evaluation Staff |  |
| **Provide ongoing support and professional development necessary for use of data to inform instruction** | Continue and enhance the professional development for administrators in the use of Classroom Walkthrough data.  *Department of Technology* | Continue and enhance the professional development for administrators in the use of Classroom Walkthrough data.  *Department of Technology* | Professional Development agenda/plan  Classroom Walkthrough Data |  |
| **Provide on-going support and professional development for the district-wide transition to Bring Your Own Technology and Mobile Learning Communities** | Continue professional development for teachers, administrators and central office staff on Mobile Learning Communities and Bring Your Own Technology.  *Department of Technology* | Continue professional development for teachers, administrators and central office staff on Mobile Learning Communities and Bring Your Own Technology.  *Department of Technology* | Professional Development plan  MLC Materials  Evaluation reports from Research/Evaluation Staff |  |
| **Provide on-going, building-level support through partnerships with the District Instructional Technology staff and schools** | Continue school-specific/teacher-specific technology professional development for each school.  *Department of Technology* | Continue school-specific/teacher-specific technology professional development for each school.  *Department of Technology* | School Specific Goal Sheets  Professional Development plans |  |
| **Provide job-embedded and aligned professional development for Administrators in the areas of instructional technology, technology purchasing, coaching and support** | Continue the Technology+Leadership=Change (TLC) Program.  *Department of Technology* | Continue the Technology+Leadership=Change (TLC) Program.  *Department of Technology* | Professional Development agenda/plan  Classroom Walkthrough Data  Evaluation reports from Research/Evaluation Staff |  |

**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***

“The success or failure of technology is more dependent on human and contextual factors than on hardware or software. The extent to which teachers are trained to use computers to support learning plays a role in determining whether or not technology has a positive impact on achievement.” (IMPACT, 2006, p.22) Our district is currently saturated with school leaders who focus on acquiring technology but do not put the same emphasis on the professional development.

Glenn High School and Paisley IB Magnet School were both awarded IMPACT V Leadership Grants in 2012. This grant has education for school leaders and teacher leaders to build collaboration and technology learning environments within the schools. As the teachers become proficient in their use of technology, the expectation is that they will share their expertise and work with teachers within the district. By participating in the IMPACT V grant, Winston-Salem/Forsyth County Schools hopes to build a 21st century model for school leadership that empowers teacher leaders and school administrators to reflect and grow in their educational practice.

The work of professional development does not stop at the classroom. Within Standard Four of the NC Teacher Evaluation, teachers have to demonstrate a deep understanding of technology integration. If Administrators cannot recognize what that technology integration should look like there is a disconnect.

WS/FCS has taken the first step in helping our Administrators understand technology integration both in their role as the Instructional Leader in their building but also as a coach to their teachers. The TLC program is allowing administrators explore what it means to be a 21st Century Leader while providing them the tools and resources to evaluate and coach their teachers effectively.

In the 2013-2014 school year we are continuing the TLC Model with Year 2 of Cohort 1 and bringing in a new cohort of administrators. We also have plans to increase the availability of the program to Assistant Principals going forward, as building future leadership is a top priority in the district.

With the development of a district-wide Moodle environment for professional development, there is an expectation that this will expand to include teacher use for student learning. Teachers will be able to provide digital access for students to course content, materials and activities. As access to personal teaching and learning devices increases, teachers will need to develop methods for facilitating learning in the classroom integrating these devices.

Moving forward we see the demand for high-quality, job-embedded Professional Development only increasing. That could put a strain on district resources. Utilizing online resources such as free webinars and conference, Massively Open Online Courses (MOOCs) from the Friday Institute and other institutions and further opportunities, teachers and staff will have access to any-time, any-where learning that can greatly improve the knowledge base and leadership without adding additional costs to the system.

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| **Alignment to Other Plans and Initiatives:  Strategic Priority 5: 21st Century Leadership for All Schools and Districts**  **Winston-Salem/Forsyth County 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. |
| **Career and College Ready, Set, Go!** | |
| Technology to enhance all reform areas  Building upon technology-enabled education initiatives  NC Education Cloud  Next generation technology infrastructure  Service delivery platform for content, services and applications |
| **Race to the Top Local and State Scopes of Work** | |
| **Objective (A)(2) 3.1:** Provide and support student, teacher, and administrator access to Learner Management System, Learning Object Repository, and web collaboration tools.  **Objective (A)(2) EVAL 1.1**: Participate in the evaluation of the RttT initiatives and use the resulting evaluation data and conclusions to improve effectiveness.  **Objective (D)(2) 1.1**: Utilize the evaluation tool and process as a primary factor in teacher and principal development plans and decisions related to promotion, retention and removal.  **Objective D(4).2.3**: Establish or extend existing partnerships with North Carolina colleges and universities.  **Objective D(5) 1.1**: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives.  **Objective D(5) 1.2**: Measure, evaluate and improve professional development and support. |
| **WSFCS District Strategic Plan** | |
| 2.1 Increase the number of teachers and staff who are effective instructional leaders in the classroom and school.  2.2 Increase the number of principals and assistance principals who are effective instructional leaders in the school.  3.1 21st Century Systems-Increase the support of technology in schools. |
| **NC State School Technology Plan** | |
| 5.1 Continue successful partnerships with state and local leaders that foster 21st century teaching and learning, while expanding opportunities for new partnerships.  5.2 Fund innovative models that promote and further the ideals of technology-enabled, 21st century leadership for the administrative and instructional workforce in North Carolina's LEAs and Charter Schools.  5.3 Revise policies, procedures, and legislation to support 21st century leadership. |

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| **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** | |
| **Evaluation Method(s)** | **DPI Use** |
| **Create and lead a vision for 21st century education** | Continue the Technology+Leadership=Change (TLC) Program for Principals and implement an Assistant Principals Cohort.  *Department of Technology*  Design and provide professional development (outside of TLC) for district and school leadership to create a sense of urgency for leading a digital reform effort.  *Department of Technology and district leadership* | Continue the Technology+Leadership=Change (TLC) Program.  *Department of Technology*  Design and provide professional development for district and school leadership (outside of TLC) to continue the sense of urgency for leading a digital reform effort.  *Department of Technology and district leadership* | Professional Development agenda/plan  Evaluation reports from Research/Evaluation Staff  Professional Development agenda/plan |  |
| **Create 21st century learning cultures** | Pilot blended learning environments in high schools using district resources.  *Department of Technology and interested schools*  Provide access for schools to digital collaboration and communication resources.  *Department of Technology* | Provide pilot blended learning environments in middle/elementary schools using district resources. Offer resources to high school teachers.  *Department of Technology and interested schools*  Provide access for schools to digital collaboration and communication resources.  *Department of Technology* | Usage reports  Evaluation reports from Research/Evaluation Staff  Usage reports |  |
| **Prepare teachers and administrators to lead 21st century learning environments** | Continue and deepen professional development and support to schools involved in the pilot programs for Mobile Learning Communities and BYOT  *Department of Technology and pilot schools* | Continue and deepen professional development and support to all schools for Mobile Learning Communities and BYOT  *Department of Technology and pilot schools* | Professional Development agenda/plan  Evaluation reports from Research/Evaluation Staff |  |
| **Develop strategic partnerships with community and business to promote 21st Century learning.** | Collaborate with WinstonNet and other local partners to provide more access to technology services in the community  *Department of Technology/WinstonNet/Other Partners*  Partner with local universities/ colleges to provide instructional and technical help with implementation of 21st century learning environments.  *Department of Technology and local universities/ colleges* | Collaborate with WinstonNet and other local partners to provide more access to technology services in the community  *Department of Technology/WinstonNet/Other Partners*  Partner with local universities/ colleges to provide instructional and technical help with implementation of 21st century learning environments.  *Department of Technology and local universities/ colleges* | Deployment reports  Professional Development agenda/plan |  |

**Appendix A: Policies and Procedures**

**Winston-Salem/Forsyth County Schools Technology Plan**

**Policy, Procedure, & Guidelines Implementation Chart**

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| **Policies, Procedures, & Guidelines** 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. | **LEA Policy Code or Procedure** | **LEA Adoption, Implementation or Revision Date** |
| **Policies Required** |  | |
| A. Materials Selection Policy including internet resources ([GS §115c-98(b](http://www.ncga.state.nc.us/enactedlegislation/statutes/pdf/bysection/chapter_115c/gs_115c-98.pdf))) | 6161.3 | 08/2004 |
| B. Disposal of Equipment / Replacement of Obsolete Equipment ([GS §115c-518](http://www.ncga.state.nc.us/enactedlegislation/statutes/pdf/bysection/chapter_115c/gs_115c-518.pdf)) | 3260 | 02/2004 |
| C. Hardware and Software Procurement ([GS § 115c-522](http://www.ncga.state.nc.us/enactedlegislation/statutes/pdf/bysection/chapter_115c/gs_115c-522.pdf), [115c-522.1](http://www.ncga.state.nc.us/enactedlegislation/statutes/pdf/bysection/chapter_115c/gs_115c-522.1.pdf)) | AR 3325 | 08/2006 |
| D. Copyright and Plagiarism Policy [(PL §94-553, 90 Stat. 2541](http://www.copyright.gov/title17/circ92.pdf)), | AR 6161.4 | 09/2002 |
| E. Acceptable Use Policy ([PL §106-554](http://www.gpo.gov/fdsys/pkg/PLAW-106publ554/pdf/PLAW-106publ554.pdf)) (including existing 1:1, bring your own device) | AR 6161.1 | 09/2008 |
| F. Equipment/Materials Donation Policy ([GS §115C-518](http://www.ncga.state.nc.us/enactedlegislation/statutes/pdf/bysection/chapter_115c/gs_115c-518.pdf)) | 3240 | 10/2011 |
| G. Data Privacy Policy ([20 U.S.C. § 1232g; 34 CFR Part 99 (FERPA](http://ed.gov/legislation/FedRegister/finrule/2004-2/042104a.pdf))) | 5125 | 08/2013 |
| H. Inventory Control Policy ([GS §115c-539](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/PDF/BySection/Chapter_115C/GS_115C-539.pdf), [115c-102.6A-C(5))](http://www.ncleg.net/enactedlegislation/statutes/html/bysection/chapter_115c/gs_115c-102.6a.html) | 3440 | 08/2013 |
| I. Access to Services Policy ([GS §115c-106.2](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_115C/GS_115C-106.2.html)) | 6164 | 01/2004 |
| J. Online Assessment and Instruction Policy |  |  |
| K. Advertising and Commercialism Policy ([GS §115c-98](http://www.ncga.state.nc.us/enactedlegislation/statutes/pdf/bysection/chapter_115c/gs_115c-98.pdf)) (Procurement and gifts ethics) | 1325 | 11/2011 |
| L. Internet Safety and Ethical Use including Cyberbullying and Harassment  ([Protecting Children in the 21st Century Act](http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0819/FCC-11-125A1.pdf), [CIPA](http://www.usac.org/sl/applicants/step10/cipa.aspx), [FERPA](http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html),[GS 115C-407](http://www.ncga.state.nc.us/Sessions/2009/Bills/Senate/PDF/S526v5.pdf)) | AR 6161.1  AR 5131.1 | 09/2008  08/2011 |
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| **Procedures** |  | |
| A. Hardware and Software Deployment | AR 6161.6 | 11/2006 |
| B. Equipment maintenance and repairs | AR 6161.6 | 11/2006 |
| C. Outdated Resources and Equipment Replacement | 6161.5 | 03/2002 |
| D. Disaster Recovery of Data and Hardware |  |  |
| E. Administration of Online Courses |  |  |
| F. Administration of Online Assessment |  |  |
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| **Guidelines** |  | |
| A. Policy Translation |  |  |
| B. Use of Digital Media and Resources |  |  |
| C. Instructional Use of Videos | AR 6161.3 | 11/2004 |
| D. Development of Online Resources | AR 6161.3 | 11/2004 |
|  |  |  |