

Greenwood School District 50

Technology Plan

2013-2016



The mission of Greenwood School District 50 is to educate all students to achieve their full potential as responsible and productive citizens.

A handwritten signature in black ink that reads "Darrell Johnson".

Dr. Darrell Johnson
Superintendent

A handwritten signature in black ink that reads "Zach Lloyd".

Prepared by:
Zach Lloyd
Director of Computing Services

6/4/2013

Greenwood School District 50
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Section II: District Profile

Greenwood School District 50 is the largest of three public school districts in Greenwood County, South Carolina. The district operates 15 school sites, one alternative school site, one administrative facility, and several other sites where support and operations staff are housed or based.

The following table provides a brief overview of the demographic information for Greenwood School District 50 as of April 2013 (dropout and graduation rates are current as of most recently issued district report card on 6/1/12)

Number of schools in the district	16
Number of students enrolled in district	8,863
Percentage of students eligible for free/reduced lunch	62%
Percentage of ESOL students (English as Second Language)	11%
Dropout Rate	3.8%
Graduation Rate	77%

Greenwood School District 50 completes a compliance form for the state CIO in order to qualify for E-Rate services (namely, Internet access) provided by the state.

Section III: Greenwood School District 50 Executive Summary

This technology plan represents the third such endeavor for the Office of Computing Services (OCS) at Greenwood School District 50. A tremendous amount of change has taken place at Greenwood 50 since the time of the writing of the first two technology plans, both in the physical realm and in the personnel realm. Greenwood 50 has recently wrapped up a 5 year construction project which the construction of six new schools in addition to renovation/upgrades at the remainder of our school locations. OCS has seen two new technology directors since the time of the first technology plan, with Zach Lloyd serving as the current director.

Greenwood 50's third technology plan for 2013-2016 follows. This plan is meant to stand beside the South Carolina state technology plan and is structurally similar. As with the state technology plan, five dimensions are acknowledged with goals/plans for each.

The first dimension, Technology Dimension 1 addresses Learners and Their Environment. It's clear that students need access to quality, functional technology equipment in the classroom and at home in order to succeed in today's digital realm. As mentioned in the state technology plan, wireless internet access is considered a top priority, and Greenwood 50 concurs.

Technology Dimension 2 addresses Professional Capacity and training. Greenwood 50 provides and will continue to provide quality staff development with the intention of increasing the technology proficiency of all staff members.

Technology Dimension 3 addresses Instructional Capacity. With the recent construction at Greenwood 50, interactive whiteboards and projectors were placed in each classroom. While this is certainly a step forward, the boards will not serve their intended purpose unless instructors are utilizing them to their fullest extent.

Technology Dimension 4 addresses Community Connections. Greenwood 50 will strive to involve the community and establish community partnerships to increase student achievement. We will also strive to communicate with the public on more easily visible fronts.

Lastly, Technology Dimension 5 addresses Support Capacity. OCS does not merely provide hardware support – training is a large portion of our duties. OCS will collaborate with the Business and HR departments to explore alternative options for maintaining the same level of support for our student population and staff members.

OCS understands the importance of evaluating the progress of this technology plan. We will strive to abide by ISTE standards in the use of classroom technology.

Section IV: District Needs Assessment

Greenwood School District 50 has identified five major areas of need with regard to technology and technology-based resources. Those areas have specific detailed needs as well as broad general needs.

INFRASTRUCTURE

The technology infrastructure includes the hardware and operating systems required for the district's networks and the devices attached to those networks. The infrastructure includes workstations, IP telephones, cellular telephones, peripheral devices for data collection, network interface cards, cabling, servers, switches, routers, firewalls, and other devices required physically to create local area networks and wide area networks. The infrastructure also includes the operating systems required to run the hardware. The district currently maintains the following technology-based networks (some of which use wireless technologies):

1. **Data network**, over which end users access student information, testing results, diagnostic results, teaching resources, learning resources, research and reference information, staff and personnel information, accounting and payroll information, state reporting data, and other data needs. Currently, our district has full wireless coverage in each of our locations, but we have identified a need for increased density of our access points to handle the increased number of wireless devices connecting to our network.
2. **Communications network**, which includes the district's IP telephone system, cellular telephones, public address systems, email systems, video and audio distribution systems (including the digital media resources), Internet access to student records by parents, the district's website, school television networks, presentation devices (including electronic white boards, projectors and printers), fax resources, and other communication needs.
3. **Instructional networks**, which include the Internet, instructional and assessment labs, licensed online content (such as BrainPop, Renaissance Place, Safari Montage, Compass Learning, and others), media centers, and other instructional needs.
4. **Security networks**, which include alarm systems, door management, digital and analog camera/video systems, hand-held computers, web filtering, anti-virus/anti-worm resources, anti-spam resources, firewalls and flow controllers, and other security needs.

5. **Operations networks**, which include payroll and accounting, lunchroom services, health and Medicaid services, and other management and operations needs.

Specific needs related to the technology infrastructure include the following:

1. Schedule and funding for **equipment replacement and upgrades**, including workstations, network infrastructure, and student devices.
2. **Integration of network support**, combining maintenance and support for the five networks listed above into one department, in addition to “cross training” on the various networks between OCS members.

TECHNICAL SUPPORT

Greenwood School District 50 has approximately 1250 employees and 8863 students, almost all of which are users of the district’s technology resources.

End users – students, teachers, and staff – also require technical support in the use of the available and emerging technology resources. Without that support, the technology resources will be unused or underused.

Specific needs related to technical support include the following:

1. **Integration of network support**, combining maintenance and support for the five networks listed above into one department with **cross training between department members**.
2. **Continue to provide high-quality, timely response** to technology inquires and issues fielded from staff members and students.

STAFF DEVELOPMENT

Staff development and training are needed in all areas of technical support and in the application of the technology in teaching, learning, and operations. Funding for staff development is built into grants, awards, and allocations from state and federal sources; those funds are adequate for providing the needed staff development activities. It is difficult, however, to arrange much of the needed staff development because of scheduling and the problem of finding suitable trainers in the content areas needed. Teachers, administrators, and technical staff find it difficult to be away from their jobs for the lengths of time required for adequate staff development related to technology. That’s also true for trainers who are also practitioners.

The District has one (1) instructional technology specialist who is responsible for providing staff development and resources to teachers and other instructional staff to assist in integrating technology into teaching and learning at the classroom level. Training is also provided to administrators and administrative support staff in technology and applications essential to operations and data acquisition and analysis.

The District has also setup a 30-station computer lab devoted solely to staff development so that training can be done without interfering with regular student instruction in other labs.

Specific needs related to staff development include the following:

1. Technical training for **operating systems, applications, and patches** for both types of software.
2. Technical training for **switch, router, and wireless configurations**.
3. Technical training for **tablet/handheld devices and the repairing of said devices**.
4. Technical training for **server-based applications** such as anti-virus programs, backup utilities, network utilities (DNS, DHCP, etc.), cache servers, email programs, SQL databases, ZENworks, and others.
5. Technical training for **workstation trouble-shooting** and peripheral devices.
6. **Application training** for teachers and instructional leaders.
7. Strategies training in the use of **web-based and other technology-based resources** for teaching and learning.
8. Strategies training in **office applications** to enhance teaching and learning.
9. Applications training for teachers, instructional leaders, and administrators in the use of **emerging technologies** (electronic whiteboards, tablets, e-books, etc.).

INTEGRATION INTO INSTRUCTION

The biggest need, with regard to educational technology, is the integration of the technology into and across all curriculum, teaching, and learning. While staff development is an essential part of meeting this need, there is also the need for opportunities to plan for that integration in creative and motivating ways.

The District has an instructional technology specialist whose responsibility is to deliver training, prepare materials, and assist teachers, instructional leaders, and administrators in the integration of technology resources into teaching and learning.

The District has provided a data warehouse (a product called Enrich) of student academic information to assist teachers, instructional leaders, and administrators in making day-to-day instructional decisions for each student based on academic performance standards.

Specific needs related to the integration of technology into instruction include the following:

1. **Additional classroom computers and other devices** for student use in research, reference, writing, and other guided activities related to the learning processes and improvement of academic performance. With the prevalence of handheld devices/tablets, it would be prudent to include those in this needs assessment. The district is currently investigating the viability of a “Bring Your Own Device” (BYOD) initiative, which would allow the use of student-owned devices for instructional purposes. Obviously, this brings many challenges with regards to management and training.
2. **Rigorous technology competencies for teachers, instructional leaders, and administrators** (as opposed to *minimum* competencies) that include knowledge of computers, electronic white boards, application skills in content-related areas, application skills in research and reference areas, the creation of technology-enhanced learning activities for students, the use of technology for communication with parents and students, and other competencies that lead the integration of technology into instruction. Competencies for teachers, instructional leaders, and administrators should include accessing and using the proposed data warehouse in diagnosing and planning for student needs.
3. **Assistive technologies** should be integrated into the teaching and learning activities for students with special needs.

4. **Parent access technologies** that can be used by teachers, instructional leaders, and administrators to share information, in a secure web and/or telephone environment, to help parents become more actively involved in their child’s learning. The successful implementation of the PowerSchool Parent Portal was a large step in the right direction.

SAFE SCHOOLS

A safe environment is as essential to learning as is a sound curriculum and effective teaching strategies. Technology is a natural tool to help the district provide the safest possible environment for its students, teachers, and staff. Technology can assist with safety issues that have, in the past, required that teachers and administrators use valuable time away from instruction.

Specific needs related to school safety include the following:

1. **Door security systems** that restrict unauthorized entry while permitting students and staff easy entry and exit in emergencies.
2. Digital video cameras and recording **devices in all “common” areas** – cafeterias, media centers, gyms, etc.
3. Digital video cameras and recording **devices in all areas where athletic events and competitions are held.**
4. **Portable digital video equipment** for use in areas where persistent problems arise.
5. **Network, data, and workstation security** to protect confidential data.
6. **Wireless IP Phones** for school and district administrators for communication in emergency situations where cellular reception isn’t adequate.

Technology Inventory

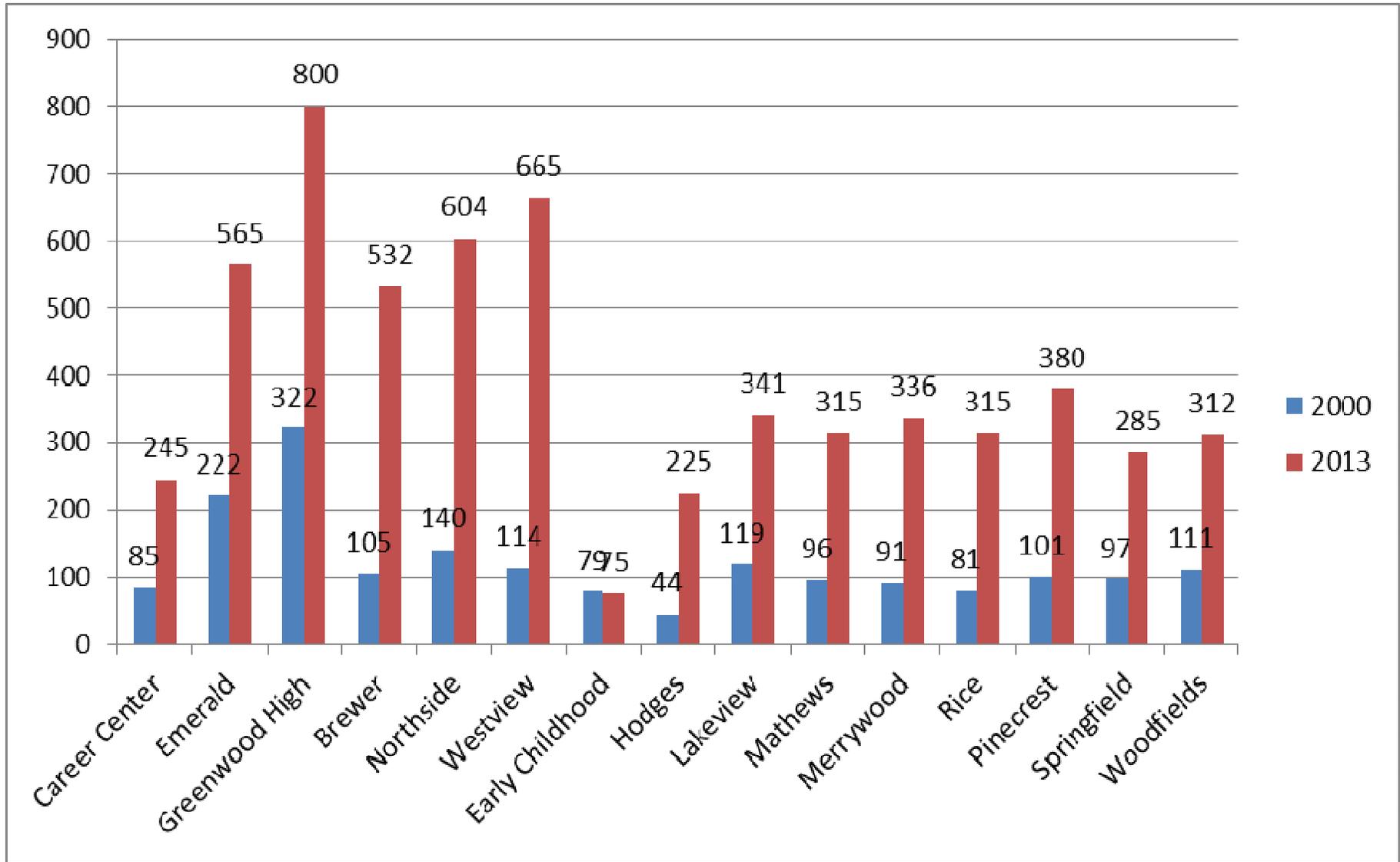
The Greenwood 50 technology inventory is maintained in an MS Access database file at the District Office. Greenwood 50 utilizes a 100Mbps Metro-E internet connection shared throughout the entire district. OCS will examine the need for increasing bandwidth in the future, with the intention of upgrading our internet bandwidth to at least 200Mbps over the next 3 years in order to accommodate increased need for bandwidth

and an increased number of devices. The district incorporates into its Internet resources several security and safety features, including content filtering, firewall, packet shaping and others. Each of our locations are connected via a redundant 1Gbps fiber ring. This fiber ring is leased from the Greenwood Commissioners of Public Works (CPW) and has been a great asset to the growth of our technology strategies. The exception to this fiber rule is a lab OCS maintains at Connie Maxwell Children's Home which is connected via a 3Mbps consumer-grade CenturyLink DSL connection. The district maintains cell phones for support and administrative personnel, providing Apple iPhones to administration. The district has licensed video resources (Safari Montage) for instructional use in all schools. These resources are server-based and available from any computer on the district's network. Other video resources include Discovery Education.

The district has 45 SUSE Linux servers, 10 VMware ESXi servers, and approximately 30 Windows servers. Our fiber ring is lit with Cisco Catalyst 4506s at each location, and we utilize similar Cisco Catalyst networking equipment at each location's MDF/IDF closets. Currently, the district maintains approximately 6500 workstations, laptops, and mobile devices.

The next page shows a breakdown of our workstation allocation by location as well as a comparison between the year 2000 and 2013.

District 50 Computer Count by School 2000, 2013



The district has also provided a laptop to each teacher, instructional specialist, and administrator for several years to aid in instruction and/or administrative duty. The original batch of laptops were Gateway 460s and were deployed during the 2005-2006 school year. The Gateways were then replaced before the 2009-2010 school year with Dell Latitude 5500s. Along with the new laptops, a license for Microsoft Office 2007 was also purchased. This enabled users who wished to upgrade from Microsoft Office 2003 to do so at no additional cost.

The elementary schools utilize SMART Boards, while the middle and high level utilize Promethean Boards.

Technology Support Strategies

The district utilizes an online “helpdesk” system, which allows end users to log in to an intranet webpage and place technology support requests. Currently, OCS has 4 district-based computer technicians and 2 school-based technicians. The district-based technicians are assigned a handful of schools and field support requests for those locations. The school-based technicians field support requests from their respective school. In addition, we have designated a staff member at each location to serve as “on-site technical support” (OSTS). Generally, the OSTS person is a teacher or media/instructional specialist who serves as first level technical support with minor technology issues. If the OSTS person cannot resolve an issue, they will forward the request to a member of OCS. We also have a “school technology leader” (STL) at each location. Again, this person is usually a teacher or media specialist and fields support requests regarding technology related to classroom instruction (SMART/Promethean Board issues, educational software, etc).

It must also be mentioned that due to the current poor economy, the budgetary outlook for the district is quite gloomy. It is entirely likely that the OCS budget will be cut in the next year or two, thus forcing us into a “maintain and repair” mentality.

Departmental Functions

The Director of OCS evaluates the technology needs of the district, writes and submits reports to the state department, manages the budget, serves as liaison to other departments, has a working knowledge of curriculum, information literacy, and technology standards, and knows the district’s instructional goals. Additionally, this person also attends state, consortium, and district meetings/conferences to share vital information back with other members of OCS and the district.

The Secretary of OCS manages all bookkeeping, ordering/logistics, and budget items for OCS. This person also manages the majority of the district phone/voicemail systems.

The Network Systems Specialist maintains the district network. This person ensures the functioning of the district’s email system, all server/backup health issues, and

essentially serves as systems administrator. Oftentimes, the Director of OCS and Network Systems Specialist will work in conjunction with one another on most systems administration-related projects.

The Data Systems Specialist manages all aspects of the district student information system (SIS); in our case, PowerSchool. This person is responsible for ensuring data integrity/entry and training school-based users of the district’s SIS, as well as generating reports as needed by the other staff members or the State.

The Data Support Specialist serves as the “lead” computer technician in addition to providing primary support to Mealsplus (our cafeteria software) and TES (accounting software used by schools). This person also serves as primary backup to the Data Systems Specialist and the Network Systems Specialist and manages the district’s technology inventory.

The Instructional Technology Specialist is responsible for providing staff development and resources to teachers and other instructional staff to assist in integrating technology into teaching and learning at the classroom level, along with assisting with technology proficiency certification. Training is also provided to administrators and administrative support staff in technology and applications essential to operations and data acquisition and analysis.

Computer Technicians maintain all physical components related to end-user workstations; including, but not limited to: hard drives, CD drives, motherboards, power supplies, monitors, printers, memory, LCD projectors, etc. They also assist in troubleshooting software-related issues as well.

Current Personnel

2013-2014		Update 2014-2015		Update 2015-2016	
Director of OCS	1				
Secretary of OCS	1				
Network Sys. Specialist	1				
Data Sys. Specialist	1				
Inst. Tech. Specialist	1				
Data Sup. Specialist	1				
Computer Technician	6				

Section V: District Vision and Mission Statements

District Mission Statement

The mission of Greenwood School District 50 is to educate all students to become responsible and productive citizens. In a society where information has become the foundation for success, the wise use of **technology is essential in access to, analysis of, and application of that information.**

District Vision Statement

To empower today's students for tomorrow's opportunities.

Statements of Belief:

- Children are our greatest resource.
- Children learn best when basic human needs are satisfied.
- Education is the shared responsibility of students, families, schools, and the entire community working together.
- Parents and caring adults are essential in ensuring that our children achieve educational success.
- Everyone is entitled to respect, encouragement, a safe and nurturing environment, and appropriate education facilities.
- All students deserve a quality educational experience where differences are recognized, respected, and addressed.
- All students learn best with quality instruction, appropriate support services, and high expectations.
- Dedicated, highly qualified, and highly effective teachers are essential for educational success.
- All employees of our district are valuable assets in educating all children.
- Learning is a lifelong process that improves quality of life.

Technology Vision Statement

The following items describe the vision for technology in classrooms, offices, media centers, and other work areas within our schools:

1. Students and teachers **have access to the best technology and are proficient in using technology** to increase knowledge, create strong and healthy communities, and promote lifelong learning.

2. All learners – students, teachers, parents, administrators, and others – will **share, explore, assess, and apply information** through many forms of interactive technology.
3. Technology will provide **teaching and learning resources that go beyond the traditional resources** that are limited in access and application.
4. Teachers will use the best skills and strategies for instructional delivery, **integrating technology seamlessly and transparently in the teaching process while providing significant opportunities for students** to integrate technology into the learning process.
5. The district will work with its community and through business partnerships to **provide all learners with equal and equitable access to technology**.
6. **Parents will have real-time access to information** about their students' performance, attendance, participation, and other factors that allow the parent to be an active partner in each student's learning.
7. **All learners will develop skills and strategies for success** in a rapidly changing information-based society.

Overall Goals

- **Learners and their Environment**
 - Technology will be a significant tool for educators and students to enhance and advance student performance on academic standards in all content areas
- **Professional Capacity**
 - All educators will use technology in significant ways to promote the improvement of student performance on academic standards in all content areas. Technology competencies will be assessed regularly for all administrators, teachers, and support staff.
- **Instructional Capacity**
 - Appropriate technologies will be available in all teaching and learning settings to enhance learning opportunities related to academic standards in all content areas.
- **Community Connections**
 - Technology will be a tool for parents to become involved in their child's learning. Technology will be a tool for communication with parents and the broader community. Both uses of technology will enhance and advance student performance on academic standards in all content areas.
- **Support Capacity**
 - As technology becomes an integral tool in teaching and learning, sufficient support resources will be available to maintain access to and use of that technology. Sufficient support will mean that resources will be available to enhance and advance student performance on academic standards in all content areas.

Section VI
Technology Dimension I: Learner and Their Environment

Access for Learners (Infrastructure)	
Need 1	Integration of network support, combining maintenance and support for the five networks (data, communications, instructional, security, and operations)
Objective	Organize all planning, design, implementation, operation, and maintenance of all IP-based networks under the Office of Computing Services
Strategies	<ul style="list-style-type: none"> • Integrate communications networks (phones, public address, paging, video, etc) into network maintenance and support in OCS • Integrate security networks (cameras, bells, locks, etc) into network maintenance and support in OCS/Maintenance Department duties • Obtain and train staff to manage all components of the networks at all sites
Evaluation	Positions and job descriptions reflect responsibility for all IP-based network functions and features
Other Info	None

Access for Learners (Infrastructure)	
Need 2	Schedule and funding for equipment replacement, including workstations
Objective	Develop and fund equipment replacement cycles of five to seven years for network equipment and workstations
Strategies	<ul style="list-style-type: none"> • Request budget resources to replace 14% to 20% of technology each budget year, budget allowing • Determine the oldest technology at the end of each school year and plan for its replacement by the start of the next school year
Evaluation	14% to 20% of equipment is replaced each school year, budget allowing
Other Info	None

Access for Learners (Infrastructure)	
Need 3	Bolster Wireless LAN access to each location in the district
Objective	Install and configure wireless LAN access to each location in the district
Strategies	<ul style="list-style-type: none"> • Install complete coverage at the Genesis Education Center, upgrade existing wireless infrastructure in order to handle increased number of devices
Evaluation	Wireless LAN coverage that is sufficient to maintain instruction
Other Info	Currently, Genesis Education Center is the only location without 100% wireless coverage. We would like to bring Genesis on par with other locations while simultaneously increasing wireless density across existing wireless locations.

<i>Access for Learners (Infrastructure)</i>	
Need 4	Creation of a “guest” wireless network
Objective	Install and configure “guest” wireless network across the district to foster student device usage
Strategies	<ul style="list-style-type: none"> • Install a public access “guest” wireless network with complete coverage across the district.
Evaluation	Guest network fully operational and widespread
Other Info	While this network would likely be unsecured, OCS would still provide standard web content filtering as required by CIPA. In addition, network traffic on this network would be segmented from other district traffic, thus minimizing potential problems.

<i>Safety for Learners (Safe Schools)</i>	
Need 1	Door security systems that restrict unauthorized entry while permitting students and staff easy entry and exit during emergencies
Objective	Secure entry areas at all schools so that access is restricted without proper clearance
Strategies	<ul style="list-style-type: none"> • Complete installation of IP-based security devices that can be controlled through the network and through admissions technology (magnetic strip cards, RFID, or other technologies)
Evaluation	Doors are secured against unauthorized access but allow access for staff and students with proper identification
Other Info	The District 50 Maintenance department handles the majority of the door security devices (with occasional OCS assistance).

<i>Safety for Learners (Safe Schools)</i>	
Need 2	Update and audit IP-based digital video surveillance (cameras and recording devices) in strategic areas of school operations
Objective	Ensure safety on school buses, in restrooms, at open entrances, on playgrounds and other outdoor areas, in cafeterias and other commons areas, at athletic events, and in other areas where students and staff work
Strategies	<ul style="list-style-type: none"> • Upgrade bus cameras to GPS-enabled DVR system • Add additional cameras in front of restrooms and other places where students may partake in unauthorized behavior • Provide portable video surveillance equipment for use in areas where persistent problems arise
Evaluation	Cameras, servers, switches, and other equipment are installed and operational
Other Info	The District 50 Maintenance department handles the majority of the camera security systems (with occasional OCS assistance).

<i>Safety for Learners (Safe Schools)</i>	
Need 3	Wireless phone usage in schools where cellular reception is poor
Objective	Utilizing the wireless LAN access provided at most locations to issue wireless "IP Phones" to support staff, particularly in locations where cellular reception is poor
Strategies	<ul style="list-style-type: none"> • Install and configure wireless IP phones for locations that have insufficient cellular coverage inside.
Evaluation	Phones with the required functionality are installed and in use at said locations
Other Info	This goal is tied directly to the incorporating wireless LAN access goal above. Many of our locations have poor cellular reception inside, thus rendering our district-provided cellular phones useless while inside. With wireless IP phones, this need would be negated.

Technology Dimension II: Professional Capacity

Staff Development for Educators (Staff Development)	
Need 1	Application training for teachers and instructional leaders
Objective	Provide staff development for teachers and instructional leaders in the use of specific software and hardware applications
Strategies	<ul style="list-style-type: none"> • Continue to train teachers and instructional leaders in the use of Schoolwires web pages for communication with parents and for providing resources to both parents and students • Train teachers and instructional leaders in the use of educational portals for finding resources for teaching and learning • Train teachers and instructional leaders in specific applications like Enrich, PowerSchool, and other applications that provide access to data
Evaluation	Schedules of training sessions and participation lists will support an increase in the number of teachers and instructional leaders trained for using technology in learning environments
Other Info	In addition to standard “classroom-based” instruction, we have the ability to host “training videos” which allow staff development to commence at his/her own pace

Staff Development for Educators (Staff Development)	
Need 2	Rigorous technology competencies for teachers, instructional leaders, and administrators
Objective	Educators will have knowledge of computers, electronic white boards, application skills in content-related areas, application skills in research and reference areas, the creation of technology-enhanced learning activities for students, the use of technology for communication with parents and students, and other competencies that lead to integration of technology into instruction and learning
Strategies	<ul style="list-style-type: none"> • Establish rigorous technology competencies and standards (as opposed to minimal technology competencies and standards) • Set the expectation that competencies will be mastered • Provide meaningful staff development for educators
Evaluation	Teachers and other educators demonstrate mastery of rigorous technology competencies and standards
Other Info	The use of the ISTE technology standards will ensure rigor

Staff Development for Educators (Staff Development)	
Need 3	Fully stocked, up-to-date staff development computer lab
Objective	Due to the number of staff development training sessions we hold, it is imperative that we have a central location that is stocked with the latest technology equipment in order to hold training
Strategies	<ul style="list-style-type: none"> • Currently, the lab resides at the Instructional Services Center (ISC). ISC will be closing over the summer. It will be the responsibility of OCS to identify another suitable location for the lab and move equipment. • Update lab to latest technology; expand lab equipment to include handheld devices such as iPads, Chromebooks, etc.
Evaluation	New location for Lab has been identified and equipment moved.
Other Info	None

<i>Resources for Educators (Integration into Instruction)</i>	
Need 1	Teachers and other educators need real-time access to student, teacher, school, and operation data so that instructional decisions can be well-informed
Objective	Provide timely access to student data that staff members can access with minimal effort
Strategies	<ul style="list-style-type: none"> • Provide appropriate and secure access for all stakeholders in the educational process • Train administrators and teachers in the use of PowerSchool, especially data extracting • Establish strategies for analyzing the data in terms of academic performance
Evaluation	PowerSchool will exist and educators will have the knowledge to use it for improving academic performance of students
Other Info	With the migration to PowerSchool, data extraction has become less tedious than in years past with SASI and OSIRIS. With proper training, this will enable the end users to extract meaningful data in a more timely fashion, eventually without the assistance of OCS.

<i>Resources for Educators (Integration into Instruction)</i>	
Need 2	Teachers and administrators need to demonstrate mastery of technology competencies and have access to model lessons in which technology is an integral part of teaching and learning
Objective	Assist teachers and administrators in mastering technology competencies and demonstrate model lessons for the integration of technology into classroom activities
Strategies	<ul style="list-style-type: none"> • Teachers will use observations, lesson plans, and training hours to demonstrate technology proficiency
Evaluation	Teacher and administrator technology proficiency increases and lessons demonstrate the integration of technology into learning activities
Other Info	None

Technology Dimension III: Instructional Capacity

Access for Learning (Infrastructure)	
Need	Additional classroom computers and other devices for student use
Objective	Add computers and other technology tools to classrooms for student use
Strategies	<ul style="list-style-type: none"> • Train teachers in using technology in classroom learning activities • Purchase computers and other devices for student use in learning activities • Provide software and application resources for student use in learning activities
Evaluation	Increased number of classroom computers for student use, as well as increased student use of technology in learning activities
Other Info	This goal is heavily dependent on the OCS budget

Staff Development for Learning (Staff Development)	
Need 1	Training for strategies for using Microsoft Office (and/or other productivity software) to enhance teaching and learning
Objective	Provide staff development for teachers and instructional leaders in the use of Microsoft Office applications for specific instructional purposes
Strategies	<ul style="list-style-type: none"> • Train teachers and instructional leaders in the use of Microsoft Office applications to support instruction, learning, and communication
Evaluation	Teachers create lessons, newsletters, and other communication instruments, with Word; create and use PowerPoint presentations in classroom activities; analyze student performance data in Excel; and promote student use of the applications in learning activities
Other Info	We would like to see more teachers utilize “Google Docs” which is a free web-based source of productivity software. It would enable faculty members to collaborate in real time with other faculty members and/or students on projects.

Staff Development for Learning (Staff Development)	
Need 2	Applications training for teachers, instructional leaders, and administrators in the use of emerging technologies, primarily interactive whiteboard usage.
Objective	Provide staff development in the use of interactive whiteboards and other emerging technologies to improve student performance
Strategies	<ul style="list-style-type: none"> • Identify needs and the technologies that can help meet those needs • Purchase technologies to meet those needs • Train staff in the use of the technologies and the applications that run on those technologies
Evaluation	Teachers, instructional leaders, and administrators will be proficient in the use of technologies for instruction, observations, data analysis, and other purposes
Other Info	None

<i>Staff Development for Learning (Staff Development)</i>	
Need 3	Training for instructors on how to incorporate mobile devices into lesson plans
Objective	Provide training for teachers with regards to integrating personal devices (district and student-owned) into instruction
Strategies	<ul style="list-style-type: none"> • Investigate best practices for instruction • Train staff members on the use of said technology
Evaluation	Successful implementation of instruction integrating mobile devices
Other Info	None

<i>Resources for Learning (Integration into Instruction)</i>	
Need 1	Assistive technologies should be integrated into the teaching and learning activities for students with special needs
Objective	Students with special learning needs will have the appropriate technologies to enhance their learning opportunities
Strategies	<ul style="list-style-type: none"> • Identify needed assistive technologies based on student needs • Purchase the appropriate assistive technologies • Train teachers in the use of the assistive technologies • Train students in the use of the assistive technologies • Integrate the assistive technologies into teaching and learning activities
Evaluation	Students will have assistive technologies as needed for their learning activities
Other Info	IEPs should identify assistive technologies and their applications

Technology Dimension IV: Community Connections

<i>Resources for Parents and the Community (Integration into Instruction)</i>	
Need 1	More parent involvement in their child's learning
Objective	Provide parent access technologies that can be used by teachers, instructional leaders, and administrators to share information and resources, in a secure web and/or telephone environment, to help parents become more actively involved in their child's learning
Strategies	<ul style="list-style-type: none"> • Provide web-based applications through which parents can access student performance information, including grades and attendance • Provide web-based applications through which parents (and students) can access assignments and resources related to learning activities • Provide web-based applications through which parents and educators can communicate effectively about student performance and learning needs
Evaluation	The district's website will provide parent access to student information, the PowerSchool "Parent Portal", assignments, and communication tools
Other Info	With the migration to PowerSchool, many of the aforementioned strategies are included features of PowerSchool.

<i>Safety for Parents and the Community (Safe Schools)</i>	
Need 2	IP-based digital video surveillance (cameras and recording devices) in strategic areas that serve the community
Objective	Ensure safety at athletic events, and in other areas where community events are staged
Strategies	<ul style="list-style-type: none"> • Install video surveillance equipment in areas where athletic events and competitions are held • Install video surveillance equipment in areas where parents and the community attend special events
Evaluation	Cameras, servers, switches, and other equipment are installed and operational
Other Info	None

Technology Dimension V: Support Capacity

<i>Ability Development for Learners (Staff Development)</i>	
Need 1	Technical training for operating systems, applications, and patches
Objective	Provide training for technicians and OSTS staff to support network operating systems, server applications, and patch management
Strategies	<ul style="list-style-type: none"> • Identify specific staff for specific responsibilities • Identify available training courses and activities • Send technicians to appropriate training sessions
Evaluation	Technicians and OSTS staff will be trained to support various parts of the district and school networks
Other Info	More than one technician will be trained in each critical support area so that the district has backup support for each part of the network(s)

<i>Ability Development for Learners (Staff Development)</i>	
Need 2	Technical training for switch, router, and wireless configurations
Objective	Provide training for technicians to support switch, wireless and router configurations
Strategies	<ul style="list-style-type: none"> • Identify specific staff for specific responsibilities • Identify available training courses and activities • Send technicians to appropriate training sessions
Evaluation	Technicians will be trained to support specific switches and routers on the district's networks
Other Info	More than one technician will be trained in each critical support device so that the district has backup support for each device

<i>Ability Development for Learners (Staff Development)</i>	
Need 3	Technical training for server-based applications such as PowerSchool, Lightspeed, backup utilities, network utilities (DNS, DHCP, etc.), CallManager, cache servers, email, SQL databases, ZENworks, and others
Objective	Provide training for technicians in server-based applications
Strategies	<ul style="list-style-type: none"> • Identify specific staff for specific responsibilities • Identify available training courses and activities • Send technicians to appropriate training sessions
Evaluation	Technicians will be trained to support specific server-based applications
Other Info	More than one technician will be trained in each critical support device so that the district has backup support for each device

<i>Ability Development for Learners (Staff Development)</i>	
Need 4	Technical training for workstation trouble-shooting and peripheral/handheld devices
Objective	Provide training for technicians and OSTS staff for trouble-shooting workstations, peripheral devices, IP phones, and other devices on the network(s)
Strategies	<ul style="list-style-type: none"> • Identify specific staff for specific responsibilities • Identify available training courses and activities • Send technicians to appropriate training sessions
Evaluation	Technicians will be trained to support all end-user devices
Other Info	More than one technician will be trained to support each type of end-user device so that the district has backup support for each device

<i>Safety for Technical Support (Safe Schools)</i>	
Need 1	Protect confidential data and information
Objective	Network and workstation security systems to protect confidential data and information
Strategies	<ul style="list-style-type: none"> • Identify specific sources and storage locations for sensitive data and information • Ensure student data access points such as PowerSchool are secure and using the latest version of HTTPS • Provide network and workstation security systems to protect the data • Train all staff in the use of technology in ways to ensure protection of data • Monitor the flow of data and access to those data
Evaluation	Security systems are in place and monitoring is implemented
Other Info	None

Section VII: Cumulative Benchmarks

Learners and their Environment

- August 2013: Begin emphasis on student technology proficiencies
- August 2013: Complete installation of “guest” wireless network across the district
- January 2014: All IP-based technologies will be integrated into one planning and support system
- August 2014: Complete rollout of wireless LAN access to Genesis Education Center and bolstering of existing wireless networks
- October 2014: Complete rollout of wireless IP phones in areas where cellular coverage is sparse

B. Professional Capacity

- August 2013: Staff development lab will have been successfully moved from the Instructional Services Center to a suitable location and updated accordingly
- October 2013: Continue staff development for specific software and hardware applications
- October 2013: Continue to provide access to integrated data for instructional decision-making

C. Instructional Capacity

- December 2013: Staff development for the use of office productivity applications in planning and delivering instruction
- December 2013: Staff development for the use of emerging technologies in instruction, including mobile devices
- December 2013: Planning and staff development for assistive technologies

D. Community Connections

- January 2014: Video surveillance equipment installed in strategic areas that serve the community (such as athletic events)

E. Support Capacity

- November 2013: Begin technical training for technicians in operating systems, applications, along with cross training
- November 2013: Begin technical training for technicians in the management of switches, routers, and wireless configuration, along with cross training
- November 2013: Begin technical training for technicians in the management of server-based applications, along with cross training
- November 2013: Continue network security implementations

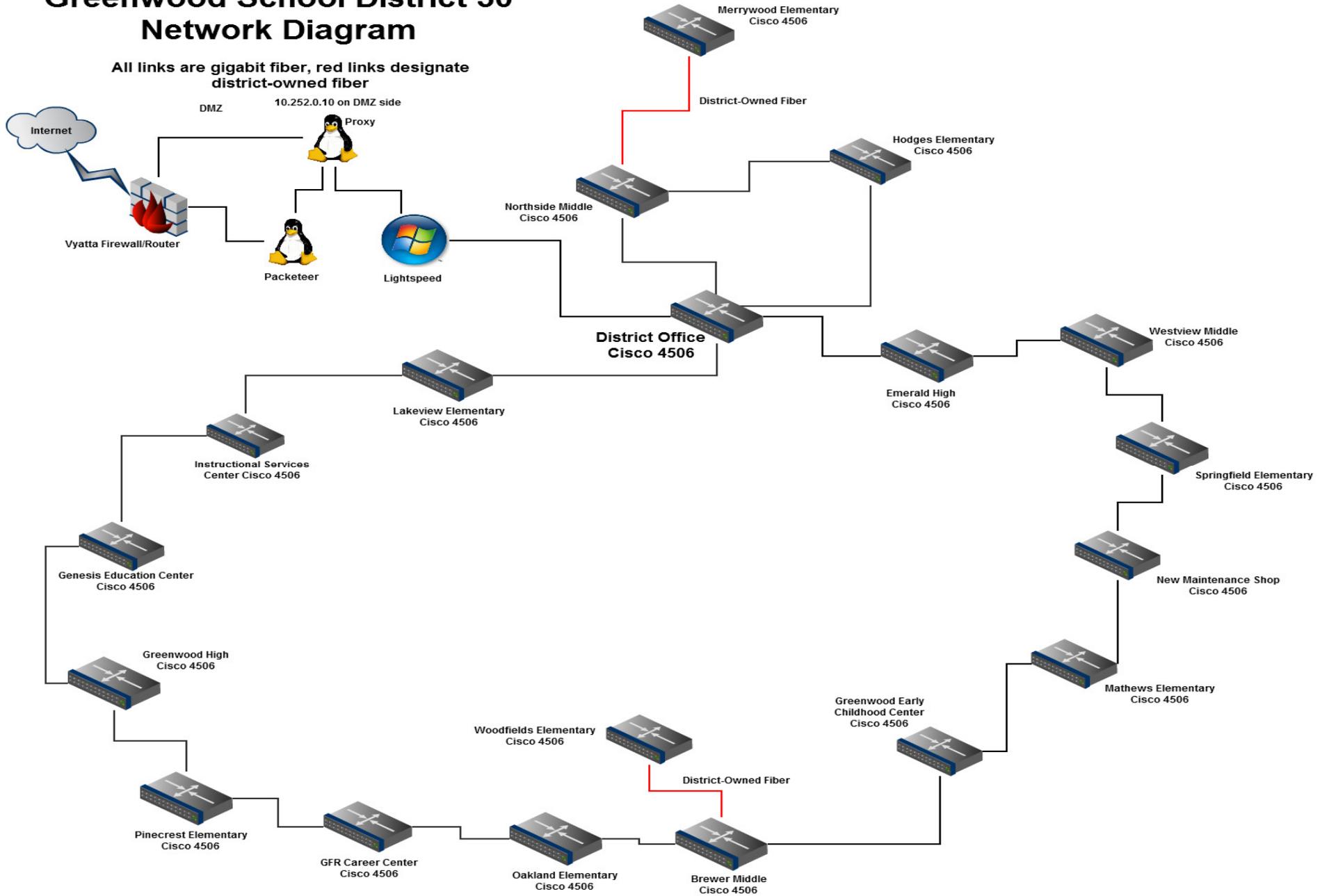
Section VIII: Acknowledgments

- School administrators
- Teachers and instructional staff
- Media specialists
- District administrators
- District technicians
- District staff
- Parents and other community members

Section IX: Network Map

Greenwood School District 50 Network Diagram

All links are gigabit fiber, red links designate district-owned fiber



Section X: Budget

Admin Software/Supplies	\$23,000.00	General Supplies Fund
Purchased Services	\$5,500.00	Purchased Services
Infrastructure	\$160,000.00	Servers/Computers
Infrastructure Computers	\$208,707.00	Computer /Equipment replacement
Travel	\$12,500.00	OCS Travel Budget

As mentioned previously, the OCS budget may be subject to cuts and/or restrictions in the coming year(s) due to the economic conditions at the district. As such, it is possible that some goals may not be met due to a lack of funds and/or personnel.

Appendix I: Acceptable Use Policy

Policy ►GBEAA◄* Employee Internet Access and Electronic Messaging

Issued 6/11

Purpose: To establish the basic structure for Internet access and electronic messaging by employees.

Technology is a vital part of education and the curriculum of Greenwood School District 50. In an effort to promote learning and expand educational resources for students, the district has made arrangements to provide Internet access to students and staff. The district's goal in providing this service is to promote educational excellence by facilitating resource sharing, communication and innovation. Access to the Internet will allow students and staff the opportunity to communicate with others on a global level and access educational materials worldwide.

Employees will have access to the Internet for the purposes of instruction, resources and staff development. Access to the Internet is a privilege, not a right. With this privilege, there also is a responsibility to use the Internet solely for educational purposes. Access to inappropriate areas of the Internet on district equipment is strictly forbidden. Access to inappropriate areas will be judged on the basis of what a reasonable and prudent person would access if students were present.

Electronic mail (email) usage

The district's email system is made available to authorized users for educational and district operational purposes. All authorized users will receive instruction on proper use of the district email system.

The district prohibits the use of its email system for unprofessional and/or inappropriate purposes to include, but not be limited to, the following.

- creating, transmitting, forwarding or receiving emails of a political nature or containing any language or depictions that could reasonably be perceived by others as being offensive, threatening, obscene, sexual, racist or discriminatory
- any use that violates local, state and/or federal laws or regulations

- setting up or operating a commercial business

All electronic messages created, transmitted or received via the district's email system, including those created, transmitted or received for personal use, are the property of the district. Email messages may be subject to discovery proceedings in legal actions. As such, the district reserves the right to archive, monitor and/or review all use of its email system and users should not have any expectation of privacy in any electronic message created, transmitted or received on the district's email system. Although the district's email system has security mechanisms in place, there is no way to ensure total security of the district's system.

As part of the implementation of the administration's guidelines, students and staff must be instructed on the appropriate use of the Internet and electronic messaging.

Inappropriate access by employees using school or district technology will not be tolerated. Employees who are found not in compliance with this policy will be subject to disciplinary action that could result in reprimand, suspension or termination.

District employees should also note that, while their personal lives are generally not a concern of the district, Internet conduct, including conduct outside the school or district worksite, can serve as a basis for discipline (up to and including termination) if that conduct results in a school disruption or otherwise negatively affects the school district, the employee's credibility or the employee's standing within the school environment.

Adopted 7/18/96; Revised 12/16/02, 3/19/07, 6/13/11

Appendix II: How E-Rate Areas Have Been Addressed

Greenwood School District 50 participates in the state's E-Rate program for Internet access, which is lead by the South Carolina CIO's office within the State Budget and Control Board. Additionally, Greenwood School District 50 seeks E-Rate funding for its communications (telephone) services.

Appendix III: Copy of the Technology Portion of the District Strategic Plan

ACTION PLAN for District Priority-Technology	EVALUATION
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DISTRICT STRATEGIC PLAN FOR <u>2011-2016</u>		DATE: <u>May 2010</u>					
Performance Goal Area:							
<input type="checkbox"/> Student Achievement <input type="checkbox"/> Teacher/Administrator Quality <input type="checkbox"/> School Climate (Parent Involvement, Safe and Healthy Schools, etc.) <input checked="" type="checkbox"/> District Priority: Technology							
PERFORMANCE GOAL: (desired result of student learning)	The district will upgrade and maintain the infrastructure to support current and future technology needs as measured by the district's technology plan.						
INTERIM PERFORMANCE GOAL:	The Director of Computing Services will ensure that technology equipment and infrastructure are upgraded and maintained on an annual basis as funding allows.						
DATA SOURCE(S):	Office of Computing Services technology inventory records, survey results						
OVERALL MEASURES: The continued operation of the district-wide network	Average Baseline	2011*	2012*	2013*	2014*	2015*	2016*
	The continued operation of the district-wide network	The continued operation of the district-wide network	The continued operation of the district-wide network	The continued operation of the district-wide network	The continued operation of the district-wide network	The continued operation of the district-wide network	The continued operation of the district-wide network
* Represents projections of improvement							

STRATEGY: #1 Annually assess technology equipment to determine need for replacement.	<u>Timeline</u> Start/End Date	<u>Person</u> <u>Responsible</u>	<u>Estimated</u> <u>Cost</u>	<u>Funding</u> <u>Source</u>	<u>Monitor</u> Completed YES/NO
1.1 Budget for software license renewals that maintain importance in the district, and replace technology equipment and supplies that have malfunctioned, are in need of upgrades, or have reached end-of-life.	Ongoing	Director of Computing Services	\$80,000/year	local and state funds	
1.2 Establish and implement a replacement cycle for computers that are 4+ years of age and are no longer useful with a goal of 5-10% replacement annually.	Ongoing	Director of Computing Services	As funding allows	local and state funds	

ACTION PLAN for District Priority-Technology					EVALUATION
<u>STRATEGY:</u> #2 Coordinate with Teacher/Administrator interim goal on integration of technology in classroom instruction.	<u>Timeline</u> Start/End Date	<u>Person</u> Responsible	<u>Estimated</u> Cost	<u>Funding</u> Source	<u>Monitor</u> Completed YES/NO
2.1 Audit the amount of time a given technology item is being utilized for classroom instruction.	Ongoing	Director of Computing Services	\$0	N/A	
2.2 Continue to use employee survey results as a measure of training needs.	Ongoing	Director of Computing Services, Instructional Technology Specialist	\$0	N/A	
2.3 Work with principals and instructional specialists to provide appropriate training in classroom applications of technology.	Ongoing	Director of Computing Services, Instructional Technology Specialist	\$0	N/A	

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Approved by the SC State School District or Library:

Date: _____

This certification expires: _____