Duval County Public Schools
Technology Plan
2018-2019

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Dear Stakeholders,

As a School Board, we recognize the important role that technology plays in education. We are committed to providing students with a 21st century learning environment that engages students in the learning process and prepares them for the future.

It is the mission of Technology Services to deploy and maintain technology that provides students, teachers, and administrators with the tools they need to be successful. We are committed to providing our schools with the environment and equipment necessary for the transition to digital learning.

In order to create 21st century learning environments in all district classrooms, a connection needs to be established between the technology that has been deployed and learning within our classrooms. Technology Services is committed to working with Curriculum and Instruction to provide the support necessary for teachers to facilitate the integration of technology in education. With the adoption of the ISTE Technology Standards, emphasis will be placed on ensuring that students acquire the technological skills necessary to be successful in the postsecondary setting and workforce.

The financial investment that has been made in technology is substantial, but essential. It is our belief that technology enhances the educational experience and plays a key role in preparing all students for college, a career, and life.

Sincerely,

Paula Wright
Board Chairman

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Duval County Public Schools Technology Plan
2018-2019

Alignment to Strategic Plan/District Targets

I. Intentional Focus on Student Achievement and Well-being

Strategies

- Promote student engagement through safe, nurturing, and enriching learning environments.

II. Develop and Retain High Performing Team Members

Strategies

- Recruit and retain a diverse team of highly qualified personnel.
- Provide all team members with the opportunity and support to develop professionally.
- Build capacity within the organization to support succession management.

III. Sustain Engagement of Parents, Caregivers, & Community

Strategies

- Provide resources to increase districtwide volunteerism, stakeholder awareness, and family engagement.

IV. Ensure Effective, Equitable, & Efficient Use of Resources Aligned to Improved Student Outcomes.

Strategies

- Provide all schools and departments with the technology needed to meet the needs of students.
- Ensure the use of district funds is transparent, strategic, and aligned to priorities.

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Executive Summary

The district is responsible for determining hardware solutions and supporting software applications for schools and district offices. In addition, the division is responsible for supporting the Enterprise Resource Planning System for Business (SAP) and the Student Information System (SIS). Continued alignment of user needs, technology standards, assessments, software support and implementation processes, and the evolution of technology delivery systems must be achieved to maximize technology effectiveness in both instructional and business environments.

This strategic planning tool is a dynamic document that evolves as the needs of our user base continues to be re-defined, as educational requirements change, and as technological solutions emerge. The plan's goal is to provide superior technical services that will enable stakeholders to produce unprecedented academic results. Execution of the plan will require a consistent and committed cycle of funding across subsequent years to ensure continued growth in accordance with stated district goals for assessment, instruction, standards, and ultimately, student achievement.

DCPS District Technology Plan: Essential Components

The following components have been identified as essential for an effective strategic technology plan:

I. Mission and Vision
II. Background
III. Needs Assessment
IV. Goals
V. Strategies
VI. Funding Plan
VII. E-Rate Technology Plan Addendum
VIII. Technology Acquisition Plan
IX. Access
X. User Support Plan
XI. Professional Development Plan
XII. Program Evaluation

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I. Mission and Vision

Duval County Public Schools Technology Mission

Deploy and maintain technology to provide educational excellence in every school, in every classroom, for every student, every day.

Duval County Public Schools Technology Vision

Every student is inspired and prepared for success in college or a career, and life.

Strategically, this vision will enable DCPS to more effectively:

- Align standards, curriculum, instruction, assessment, and professional development;
- Diagnose, prescribe, and assess students' learning experiences;
- Differentiate instruction to meet individual needs;
- Integrate effective technology tools;
- Improve data management;
- Increase communication internally and externally;
- Create more efficient ways of collaboration; and
- Provide a services-oriented architecture and infrastructure.

Operationally, this technology vision will be:

- Implemented in district classrooms;
- Monitored by Region Superintendents, Principals, Technology Innovation Staff; and School-based Technology Innovation Support;
- Measured for success by student performance on local, state, and national assessments, as well as user surveys.

Tactically, the following elements will be critical to actualizing our technology vision:

- District-wide standards for infrastructure including voice, data, video and electrical systems, network bandwidth, internet access, and hardware and software platforms;
- District-wide student to computer adequate to support instructional initiatives;
- Computer Lifecycle Management Plan;

- Professional development for staff to transparently integrate technology into learning environments for students;
- Student collaboration in planning and executing future technology initiatives;
- Student Information System that is a stable, reliable instructional management system;
- Business ERP to meet user needs and maximize business efficiency; and
- Appropriate technology security and disaster recovery measures to ensure the protection of assets and information.

Instructionally, this technology vision will enable users to leverage technology to:

- Address state instructional standards;
- Increase student achievement;
- Support the needs, goals, and learning styles of each student;
- Provide equal educational opportunities for all learners;
- Participate in worldwide learning communities for collaboration and resources;
- Prepare students for success in college or a career; and
- Develop lifelong learners who can utilize technology tools and resources to make responsible decisions about their learning and well-being.

Technology integration is the ultimate goal and all stakeholders have a vested interest in preparing students for success in college or a career. To ensure that the district accomplishes this goal, Technology Services must work with Curriculum and Instruction to deploy adequate technologies to establish 21st century learning environments in all classrooms, for all students.

Partnerships

Externally, Technology Services has developed strong partnerships with business and community groups to integrate technology through the following:

- Collaboration on technical possibilities for Virtual Education and Alternative Education initiatives;
- Sharing resources including human and financial;
- Developing mentoring and/or job shadowing opportunities for students;
- Promoting "real-life" applications of skills learned in the classroom; and
- Demonstrating and reinforcing the importance of lifelong learning.

Partnerships include the City of Jacksonville, Florida State College at Jacksonville, Microsoft, Lenovo, Hewlett-Packard, NEC, and Emtec, Inc. Benefits from these partnerships include cost savings, shorter implementation timeframes, enhanced technology capabilities, improved purchasing strategy, and a more transparent integration of technology solutions.

OneView Community Partners

- OneView Community Partner was designed to provide student data to improve instruction, assess programs and advance student achievement throughout Duval County.

- OneView provides a platform for secure communication and vetted data exchange between the district and its partners.

- The portal facilitates the engagement of community partners to support the district's vision in uniting a variety of community-based organizations to enhance the academic, physical, mental, social, fiscal, and environmental well-being of DCPS students and their families.

The following Community Partners have approved MOUs and partner with DCPS through OneView:

- I'm A Star (GEAR UP pulls data on their behalf)
- Boys' and Girls' Club
- JPEF
- College RED Culture
- United Way
- M. Washington Kids Foundation
- CIS
- Cornerstone Christian School

II. Background information

The DCPS Technology Services Division supports the needs of 163 schools (excluding Charters) in training, integration, and use of technology.

District Profile

Duval County is the 6th largest school district in Florida and the 20th largest district in the nation with a student population of 128,702 students. The district covers a geographical area of 841 square miles and has 196 schools.

Duval County District Facts for School Year 2017-2018

School Facts

99 Elementary Schools

(3) K-6 School

(2) K-8 Schools

24 Middle Schools

(2) 6-12 Schools

19 High Schools

33 Charter Schools

6 Exceptional Centers

7 Alternative Schools

1 Virtual School

Student Demographics

128,702 students

44% African American, 35% Caucasian, 12% Hispanic, 5% Multi-racial, 4% Asian, <1% American Indian/Alaskan Native

Graduation Rate 80.8% Federal Formula

22,910 exceptional education students (mentally, physically, emotionally handicapped, learning disabled, or gifted)

Average expenditure per pupil-- $8,073

Staff Facts

13,113 employees--(includes full-time and part-time) making the district the second largest employer in the county

8,284 teachers

Planning Process

The technology planning process has been a collaborative effort involving community and business leaders, school leaders, teachers, district staff, consultants, and technology vendors. Stakeholders have contributed intellectual capital, conducted audits and assessments, and participated in action research. By piloting new hardware solutions and offering resources including human capital, these groups have led DCPS to be reflective and strategic regarding our technology future.

Planning Process Timeline

The planning process is detailed below to illustrate the depth of ongoing collaboration and planning:

12/17—Technology Services leadership team began the Technology Plan revision process

01/18—Participated in Microsoft K-12 Advisory Council Meeting sharing ideas and best practices with industry leaders

01/18—Attended Florida Educational Technology Conference (FETC) to collaborate with and learn from other technology leaders

04/18—Submit the revised plan for review by District Leadership

06/18—Present updated Technology Plan to DCPS School Board

III. Needs Assessment

Determination of Need:

The following Strengths, Weaknesses, Threats, and Opportunities (SWOT) Analysis was conducted in order to:

- Plan for the evolving role of Technology Services
- Support the drive to increase student achievement
- Prioritize which initiatives will ultimately support the district's goal of accomplishing our strategic plan targets

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SWOT Analysis:

Strengths:	1. Communication • OneView enhancement releases • Implementing Microsoft Teams 2. Infrastructure Development • Upgraded bandwidth for student and employee networks • Deployed laptop locker pilot 3. Assessment and Data Enhancement • SAS dashboards development 4. Enterprise Systems • Integration of FOCUS with Microsoft • Implementing Magnet online application • Establishing online P-card process 5. Student Programs • Summer internship opportunities for DCPS students • CTE programs—Cybersecurity at Jackson High School 6. Technology Innovation • Facilitated trainings for Principals at the November and March meetings • Partnered with the Secondary Math Team to form the Curriculum Innovation Team to support the transition of all curriculum guides to OneNote Notebooks
Weaknesses:	1. Funding source to expand devices and interactive monitors to non-Title I elementary schools needs to be identified
Opportunities:	1. Work collaboratively with Curriculum and Instruction to ensure that the integration of technology is a meaningful component within all curriculum training and monthly coaches' meetings 2. Establish a technology user group consisting of principals and district staff 3. Establish an IT Steering Committee
Threats:	1. Life cycle management plan is dependent upon funding 2. Develop a succession plan that allows for cross training opportunities for key personnel that will be retiring over the next three years 3. Attract and maintain highly skilled IT staff in a very competitive Jacksonville job market

Project Management Oversight Process:

In addition to the internal SWOT analysis, district technology needs are assessed through the Major projects are largely initiated at the district level as a result of district data analysis. The Superintendent's Leadership Team monitors alignment and prioritization of technology initiatives with national and state standards as well as alignment with the District Strategic Plan.

Completed Projects 2017-2018:

- P-card Automation

- Teacher Pay-for-Performance
- QZAB II
- GAL Transition
- School Server Replacement
- CSX VSP Router Change Out

Current Projects:

- Employee Self Service Phase II
- Web-based School Accounting System
- School Choice Online Magnet Application
- Health and Wellness Application/Care Dox
- OneView Briefing/Newsletter
- Field Trip Request & Voucher Management
- Audit Management
- Focus-Student Identifier
- Share Drive Migration
- Certificate Automation Process
- Technology Lockers
- Safe Tip Hotline Application and Call Center
- Network Access Control
- DCPS Volunteer Tracking
- PeopleAdmin Implementation
- Positive Behavior Tracking

IV. Goals

Short-term goals:

- Enhance the functionality of OneView for all District Stakeholders by implementing Microsoft Teams;

- Provide adequate resources to support the district's Blended Learning Initiative;

- Collaborate with Curriculum & Instruction to create a Curriculum Innovation Team and transition the curriculum guides to Microsoft OneNote Notebooks within OneView;

- Establish a Duval County Public Schools Innovative Educator program that provides professional development opportunities for administrators, teachers and academic coaches to become proficient in the utilization of the available digital tools to increase student engagement;

- Provide ongoing and effective technical support for all deployed equipment;

- Maintain compliance with an established multi-year life cycle management plan for systems and hardware deployed throughout the district to include operating systems, application software, hardware, peripherals, customized district images, etc;
- Implement Microsoft Intune for deployment and management of district computer assets;
- Implement an IP Telephone System for the district;
- Implement modern SAP mobile apps for all district employees; and
- Build pipeline of future IT district employees through IT Career Academies and internships.
- Implement a professional development plan that encourages and rewards employees for completing course work and obtaining certifications related to their job;
- Build a state of the art Data Center and Disaster Recovery Center;
- Implement a district wide ID Management/Visitor Tracking System;
- Move OneView development and maintenance from Microsoft GD team to the on-premises SharePoint team;
- Complete migration of remaining IM applications off outdated servers reducing server footprint and reducing risk of data loss;
- Retire or create retirement plan for legacy applications (NEQT, CAST, Genesis, etc.);
- Implement new workflow for printing of transcripts for archive students;
- Implement new ITSM solution replacing existing, non-scalable solution that combines technology services and maintenance operations into a single platform;
- Improve device tracking through reporting and workflow changes;
- Implement an online Equipment Transfer Form (ETF);
- Move School Choice and Special Assignments applications online;
- Implement an online training manual and consistent training schedule for Focus;
- Implement IM produced applications that reduce workload and increase productively, transparency, and communication of District departments;
- Upgrade key applications, such as Promotion/Retention, to current technology easing required maintenance and protecting against data loss;

- Increase customer exposure to SAS dashboards integrated with key applications using targeted data to give visibility into school and department success indicators;

Long-term goals:

- Increase OneView utilization across the district by enhancing features and adding functionality so that it becomes the single entry point for all district digital tools, resources, data, and services for all district stakeholders;
- Expand interactive monitors to all elementary classrooms;
- Expand laptop lockers to all middle schools;
- Implement a district wide document storage solution;
- Implement a centralized copy/print management solution;
- Implement a Learning Management System (LMS) that will provide a platform for user interaction with vendor provided content. The LMS will be integrated with OneView for a seamless user experience;
- Implement IM produced software infrastructure solution that will give real time transparency into the operation of Technology Services applications, increasing awareness of status, and speeding resolution of issues;
- Reduce cost and reliance on vendors, replace fee-based vendor applications with IM developed applications that work in concert with key enterprise applications such as OneView, ITSM, MIM, Focus, and SAP;

V. Strategies

Strategies	Timeline		Outcomes
	Start Date	End Date	

The District will continue the implementation of OneView; the Teacher, Student, Parent, and Partner portal to increase access to "on time" data through a simplified single portal system in collaboration with Microsoft	5/2016	ongoing	• The District will deploy continual enhancements to the functionality and information sources • Training will be provided to all district stakeholders
Provide training to support the continued implementation of the FOCUS Student Information System (SIS)	11/2014	ongoing	Provide training to specific user groups including: • Teachers • Administrators • Support Staff • Parents • Students Training will consist of face to face and online modules
Provide training and support for the Data Dashboards	08/2014	ongoing	Provide training to specific user groups including: • Principals • Assistant Principals • Counselors Training will consist of face to face and online modules
Funding Plan	07/2018	06/2019	Planned funding for district-wide technology includes the following sources: • District Capital Funds • Technology Operating Funds • E-Rate Funds

Collaborate with Curriculum & Instruction to create a Curriculum Innovation Team	12/2018	Ongoing	The following activities will support Curriculum & Instruction: • Provide OneNote training for Curriculum & Instruction • Support content area Directors and specialist with the transition Curriculum Guides to Microsoft OneNote • Promote the effective use of educational technology to implement the Florida Standards and the ISTE Technology Standards
Improve Data Management for Teaching and Learning	06/2015	Ongoing	The following activities will support the learning initiatives: • Provide online grade book and planning tool for teachers • Provide parents access to view student information including: grades, attendance, homework assignments, and discipline, via the Internet • Investigate content and knowledge management to better support information flow to learning communities • Provide Virtual Education opportunities for students
Increase Professional Development	06/2017	Ongoing	Plans to increase technology skills and integrate

			technology in the classroom and media center include: • Partner with Microsoft and NCCE (Northwest Council for Computer Education) to increase the number of Microsoft Innovative Educator Trainers in the district • Facilitate sessions at principal meetings to introduce/promote the use of technology in schools • Develop and acquire new programs and software that promote the integration of technology into everyday curricular needs • Research innovative software and hardware which demonstrate the potential for measurable academic growth • Integrate technology as a meaningful component of all curriculum training • Ensure adequate facilities, instructors, materials, equipment, and funding are available for staff development • Put in place a system for follow-up and evaluation of all training offered to serve as a basis for

			determining effectiveness and future needs
Teacher Training	06/2018	Ongoing	• Transition the role of the STC (School Technology Contact) from a technical support role to Technology Innovation Support with an emphasis on using technology in support of instruction • Establish a Duval Innovative Educator Program that encourages teachers to become proficient utilizing the technology tools available • Specialized Technology Training – Training is provided to supplement the need for grant implementation and to support district initiatives
Training for All District Personnel	06/2015	Ongoing	Continued operation of support systems is crucial to the success of the professional training programs. The Technology Services Division provides training to all district personnel for the following systems: • SAP—District ERP • Focus—Student Information System/Teacher Gradebook

Implement customer support surveys to promote increased accountability and provide feedback regarding services provided and culture	09/2014	Ongoing	Collect regional feedback and analyze data to determine strengths and areas for further development. Surveys will focus on: • Quality of service • Timeliness of service • Communication regarding problems encountered and timeline for resolution (next steps) • Completion of "exit slip" prior to leaving with administrator to inform them of the status/progress made regarding an open repair issue

VI. Funding Plan

Funding Sources

Planned funding for district-wide technology includes the following sources:

- District Capital Funds
- Technology Operating Funds
- E-Rate Funds

The district determines final funding allocations on a yearly basis in accordance with the district budget cycle; however, plans for long-range technology funding are presented prior to the budget cycle.

The Technology Services funding plan establishes tentative budget allocations. These allocations are used for long-range technology planning but are subject to adjustment each year. The allocations provided in FY 2017, FY 2018 and anticipated for FY 2019 include:

Funding Source	**16/17**	**17/18**	**18/19**

Capital Funds	$13.8 M	$17.3 M	$18 M
Operating Funds	$20.6 M	$20.6 M	$20.5 M
E-Rate Funds	$2.7 M	$2.5 M	$2.3 M

The funds allocated are sufficient to provide services and equipment purchases in support of the FY 2018 E-Rate submissions.

In addition, funding for recurring district-wide telecommunications services, such as Centrex Data (Frame Relay, High-Speed Ethernet, and Sonnet/Fiber), are budgeted annually in the district operations budget for telecommunications through the duration of the related contracts.

VII. E-Rate Technology Plan Addendum

The district E-Rate Plan is developed based on the approved Technology Plan. The E-Rate Plan Addendum is submitted separately identifying eligible services and/or equipment for which the district is requesting E-Rate discount funding.

Internet Access and Internal Connections

Internet access and internal connections include:

- Internet access to resources for day to day student and staff utilization, as well as linkage to remote resources utilized by teachers and students in school
- Internal voice and data circuit connectivity from the district office to all sites to accommodate the needs of the District and State of Florida Technology Guidelines

Goals and Strategies

Overall goals are described in Section 4. Providing equitable technology access, support, and training district-wide supports the use of the internal connections that provide data services and Internet access.

Budget

Telecommunications Services for IP voice, data, and network electronics are fully budgeted at the district level. This covers all discounted and non-discounted E-Rate costs. This ensures that all existing telecommunications services will continue even if E-Rate funding is not approved.

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VIII. Technology Acquisition Plan

Appropriate Technologies for Educational Goals and Materials

The acquisition of technology to support the district's strategic and operational goals is a priority. In an effort to best leverage equipment acquired for classrooms, personnel in Technology Innovation work collaboratively with Curriculum and Instruction on professional development activities to model the usage of equipment. This training centers around the usage of technology to deliver district curriculum.

Infrastructure for Teaching and Learning

Technology Services will provide a reliable, easy to use computing infrastructure allowing teachers and students to have access to the Internet, local digital educational content, and research-based diagnostic and instructional technology resources in the classrooms.

The technical environment will continue to be upgraded to support school-based technology equipment and infrastructure:

- All schools will have a minimum of 1 GB internal LAN;
- Elementary schools will have a minimum of 150 MB external WAN; Middle schools will have a minimum of 500MB external WAN; High schools will have a minimum of 1GB external WAN;
- The goal is for a ratio of students to CPUs that meets instructional needs (while maintaining the minimum of 2:1 computer-to-student ratio required for state testing);
- Students will have access to differentiated instructional learning systems;
- Students and teachers will have a process to request new education technology aligned with district goals; and
- All district administrators, teachers, students, staff, parents, and community stakeholders will have access to applicable district resources through OneView, the district's Enterprise SharePoint Portal.
- Alternate Access Failover (AAF) will be deployed to all schools. This will provide more stability in the AT &T network and will mean virtually no downtime in network access.

Instructional Technology Software

Technology Services will support Curriculum and Instruction and schools in leveraging technology to:

- Provide a digital multimedia educational environment for students;

- Promote the effective use of technology to implement the Florida Standards and the ISTE Technology Standards; and

- Enable differentiated instruction for students through the provision of aligned diagnostic and curriculum solution packages.

Data Management for Teaching and Learning

Technology Services will coordinate with appropriate divisions, schools, support organizations, and parents to leverage technology toward improved collaboration and increased web-based learning. Operationally, Technology Services will improve web and phone capability between the schools, district, and parents; enable increased communication between the schools and learning communities; and improve district distance learning capability.

The following activities will support the learning initiatives:

- Provide online grade book and planning tool for teachers (Focus);

- Provide parents access to view student information; grades, GPA, attendance, homework assignments, unofficial transcripts, and discipline via OneView;

- Investigate content and knowledge management to better support information flow to learning communities; and

- Provide virtual education opportunities for students.

Academic Performance

Plans for instructional software and technology based education materials will be based on a new architecture. This learning architecture will focus on end users and the skills they will need to be successful in college and a career. To this end, the plan provides a digital multimedia environment for stakeholders including:

- Infrastructure and hardware to support teaching and learning needs and goals;

- Instructional software that diagnoses, prescribes, and evaluates student performance with an emphasis on differentiated instruction; and

- Integrated data management system for teaching, learning, and leading (Performance Matters).

Hardware and Software Deployment Timetables

Deployment of hardware and software is managed by a Life Cycle Management Process. This plan is reviewed and adjusted as needed.

Acquisition Process

The technology acquisition policy and process is driven by national and state standards aligned with district curriculum, instruction, and assessment initiatives. As the district acquires new technology solutions, Technology Services is committed to engaging, empowering, and educating end users in every step of the process.

Acquisition Workflow

The Technology Capital budget is reviewed and approved each year to ensure priorities are aligned with school curriculum and the objectives of the Florida Standards. Technology Services purchases equipment in accordance with the budget priorities. Once technology is purchased, it is assigned to individual schools for custody, management, and use. While Technology Services operationally supports the equipment, use of technology shifts to the purview of the local schools upon receipt of the equipment. The district maintains a school inventory of major technology available in each school.

Curriculum and Instruction maintain a number of education programs. All major curriculum programs have basic required technology. Curriculum and Instruction periodically evaluates each program for effectiveness. The results of this review are cycled back into the next year's budget process. A technology program manager serves as an active resource to the division of Curriculum and Instruction to ensure alignment and prioritization of technology needs.

Acquisition Strategy Adjustments

New developments and opportunities are addressed as major mid-course corrections. These new developments or opportunities are usually found as a result of a user-identified need, but could also be identified by senior leadership as a result of policy change, program review, or outside analysis. Regardless of the cause for the mid-course correction, the process remains the same. The request is passed to the Leadership Team for review. Since capital funds are fully budgeted prior to the start of each fiscal year, mid-course opportunities must identify either new funds or compensating offsets.

Technical Guidance to School and District Personnel

Technology Services assigns a Regional Information Officer (RIO) for each school. These service coordinators are responsible for the planning, implementation, and operational support of all technology systems at the school and region level, as well as district business offices. Technology Services provides additional support via the Service Desk and Regional support staff. This face-to-face customer service helps build trusting relationships, provides desk-side teaching and learning, and maximizes the use of technology tools.

IX. Access

Equitable and Effective Access

Similar to the majority of other large school districts in Florida, this district is faced with a highly diverse student population, school buildings that vary in age and ability to accommodate technology, and tight budgets. In order to ensure technology access at all schools, wired data ports and wireless access points enable all classrooms to have internet access. The Technology Services division continues to deploy laptops to teachers. The district has a long-term deployment plan to guide work which will continue to modernize the infrastructure systems in schools and maintain a student to computer ratio that supports all instructional initiatives.

Technology resources are centrally managed by Technology Services. This division works to leverage the purchasing power of the district to gain the best price for technology equipment. The equipment is assigned to schools on a managed lifecycle plan and funded based on district priorities. Individual schools also have some limited capability to use other sources of funds to purchase supplemental technology.

The district is rich in access to external instructional service and programming providers, such as public libraries, charter schools, remote teaching sites, home-school connections, online products, and other services. The district directly supports Florida Virtual School, direct digital connection to charter schools, after-hours school programs, and Internet access from district computers. An upgraded Bring Your Own Device (BYOD) network was implemented in the 2015-2016 school year district wide. This network allows students and staff with a district account to utilize their own device on the wireless network.

Data-driven decision-making is supported by a variety of databases and reports. The primary performance analysis tool is Performance Matters.

Technology Communication Tools & Resources

To assist in achieving the ISTE standards, there must be effective communication tools and resources readily available to end users districtwide. Our district has partnered with Microsoft to help bring cohesiveness and collaboration through a districtwide implementation of Office 365 including SharePoint. Embedded in Office 365 are various apps and services that enable employees to communicate with others, share and edit documents, work collaboratively on projects, and save documents and resources. Through the utilization of these apps and services, our district has the ability to bridge the informational gap between district personnel.

The concept of centralized access to all information in one location has been addressed by the development of OneView a district education portal, which gives all stakeholders access to applicable role-based data. Because OneView is built in SharePoint, it easily integrates to all the features of Microsoft Office 365.

OneView

OneView is a communication, collaboration, and content management tool designed to empower members of the community by providing personalized access to important data, resources, and services. By bringing together critical information from multiple sources and providing access through one centralized online tool, OneView ensures that each person in the district will see the information

that is important to him or her, without having to navigate a maze of resources and websites. Everything needed as a student, teacher, parent, administrator, or community partner can be seen through this "single pane of glass," providing one point of access to district resources, including:

- Porting in many sources of information, data and services that are important to students, teachers, parents, administrators and community partners;
- Providing the DCPS community with a single point of access to resources based on their roles and individual needs; and
- Providing resources that support student success.

In a major step to simplify and streamline the growing technology systems used to support the district, OneView displays data and resources that are connected to each person's role, and the academic and administrative responsibilities they have. This customized experience will help the district continue to improve its efficiencies by enabling easier integrated communication across classrooms, schools and district administration. In addition, OneView will help students and their families more easily understand and engage in their academic and administrative requirements in an effort to focus on student achievement. OneView provides the following:

- Provides parents greater access to participate in the education process;
- Encourages student use of technology in pursuit of educational success;
- Gives teachers tools, data and resources to plan and deliver instruction; and
- Integrates business, administrative and instructional resources improving communication and efficiency.

In addition, OneView provides access to a repository of technology best practices and resources. The repository is hosted on a SharePoint site where documentation, FAQs, tips and tricks, and videos are stored so they can be easily accessed by users.

Acceptable Use

Both students and employees are required to acknowledge an Acceptable Use Policy (AUP) prior to gaining access to District computer systems. The student AUP is contained within a student handbook which is available online and is provided to each student the first week of school each year. All users are required to read and agree to the AUP as part of the initial account creation process.

Both AUP policies address protection for the confidentiality of students, protection of intellectual property rights, licensing agreements, and legal/ethical standards for the sharing of resources with other educational entities. In addition, the policies maintain the integrity of systems, programs, and information resources. The AUP also provides guidance to students, prohibiting them from accessing

inappropriate matter on the Internet and World Wide Web; including so-called "hacking," and other unlawful activities by minors online.

Building principals are tasked with ensuring that teachers are knowledgeable about this policy and district guidelines, procedures, and controls. In particular, teachers must monitor computer use for the safety and security of all students. The district authorizes the use of electronic mail and chat rooms with students through Office 365, the district's student communication and collaboration tool. Information Security monitors and reports on access to inappropriate material and attempts by users to bypass network security systems. Parents and guardians assume risk by consenting to allow their child to participate in the use of the Internet.

Technology Protection Measure

The district first installed Internet Filter Software in 1996. The software is regularly upgraded to industry standards. These upgrades enhance our ability to monitor and protect children from harmful Internet activity. Any user attempting to access a prohibited website will be rejected, and a block page will be sent back to the user. The filter also logs all website access attempts. This creates a comprehensive list of all internet sites requested/accessed by anyone within the network. The logs are periodically reviewed and then reported by category of Internet violation and sorted by username and IP address. The reports, containing a brief explanation of the user's Internet activities, are distributed only to the Executive Director of Information Technology, the Chief of Police, and either the Office of Professional Standards or the principal of the school where the violation took place. When possible, the individual student names are provided.

X. User Support Plan

Strategy

Extreme customer service continues to be a primary goal of the IT division. To this end, personnel in this division aspire to provide personal, one-on-one support where possible. The successful integration of technology is highly dependent on the ability of the district to provide the human resources necessary to support the technology purchased for usage by students and staff. Currently, the district has 102 technology support specialists to install, troubleshoot, repair, and maintain over 100,000 computers, printers, and network devices.

Technology Support services include:

- Centralized hardware and software standards;
- Leveraging of district buying power to lower acquisition costs;
- Service Desk;
- Regional Information Officers (RIOs);

- School-based technicians in all middle and high schools;
- Software and hardware support;
- Field server support.

One of the primary advantages to the centralization of district oversight of technology is the ability to develop and adopt standards for the purchase of both hardware and software. This division directly purchases most technology hardware for new schools or retrofitted schools. Individual schools may also purchase equipment in accordance with district standards. Hardware and software standards include requirements for support and maintenance. This policy provides the district with consistent platforms, improves interoperability, and allows for consistent results during planned migrations to new software and hardware platforms.

Standards for both software and hardware are reviewed annually and updated to provide the latest technology capabilities for students and staff. Additionally, school and district staff is counseled by the Division of Technology staff in all technology related purchasing decisions. These staff members are provided on-going training opportunities allowing them to stay current regarding emerging technologies. It is important to note that the total cost of computer ownership over the life of the equipment is much more important than the initial cost of acquisition.

Technology Support Services

Technology support services include the Service Desk, Regional Information Officers (RIO), Software Support, Hardware Repair, and Field Server Support.

Service Desk— *(15) Technology Services Technician II, (3)* Technology Services Technician III*, (4) Data Entry Clerks*

The service desk acts as the gateway into Technology Services by providing remote support for all technology applications and equipment. In addition to remote support, this team provides on-site assistance via "Depot" services located at the front entrance of the Technology Services Division at the Team Center location.

A centralized service desk housed within the Technology Services Division provides telephone assistance and on-site support from 7:00am to 10:00pm Monday through Friday and 7:30am to 4:30pm on both Saturday and Sunday. The service desk is able to provide support for hardware and software problems, remote assistance, and first contact resolution through the use of remote tools or written work orders for problems that need on-site repair. Work orders are tracked and evaluated to determine the timeliness and efficiency of staff. Repair and maintenance of out of warranty equipment is handled by the Computer Repair Department. This employee group works in coordination with the Regional Information Officers to provide schools with daily technology support. User support is also available for software application questions. The volume of contacts to the Service desk averages approximately 50,000 incidents per year. The service desk currently provides an 88% customer satisfaction rating with a 50% first call resolution rate.

Regional Information Officers (RIO)— *(6) Coordinators*

Technology Services assigns a RIO to each academic region and district administrative office. The RIO is responsible for the planning, implementation, and operational support of all instructional learning systems and technology systems at the school and district level.

Software and Hardware Support— *(65) Technology Services Technician II and (7) S852 Hardware Repair Technicians*

The support team provides field response and support for all technology systems including computers, printers, network electronics, infrastructure, and servers. The District supports approximately 110,000 pieces of technology hardware including 13 operating systems, three (3) major business systems, and 250 approved applications; making DCPS one of the largest Technology Enterprises in northeast Florida.

Field Server Support— *(6)* Technology Services Technician III

The Field Server Support team is the primary troubleshooter for server hardware, software, and configurations in the field. They are responsible for supporting all instructional learning systems deployed throughout the district.

Enterprise Management

Data Center Operations— (1) Computer Supervisor, (13) Technology Services Technician III and IV, *(1) Technology Services Technician II*

The Enterprise Operations group provide support in 4 functional areas:

1. Enterprise Data Center and Disaster Recovery
2. Device Management
3. Identity Management
4. Messaging and Email

The Enterprise Data Center and Disaster recovery team provide Data Center support for 2 active data centers which manage servers, virtualization, and storage for mission critical systems. This group also provides disaster recovery support for those systems located in district facilities. The device management group is responsible for the management of over 100,000 computers. This group is responsible for software delivery and patch management of all computers. The identity management group maintains an enterprise system based on Microsoft Forefront Identity Management for the provisioning and decommissioning of accounts for staff, students, and parents. Active Directory and Federated Services group makes sure that every user can log in and gain access to the resources needed given their role as staff, student, or parent. This group is also responsible for setup and coordination of single sign on with hosted solutions. The messaging and email group is responsible for

the management of the Office 365 Email system providing email and messaging support for district personnel.

Network and Server Management— *(2)* Technology Services Technician III

The district has established a Network and server Management team that provides daily support for centralized mission critical systems, administrative applications, and equipment. The team is equipped with network management tools such as Extreme Network Management Control Center for monitoring specific applications from the client to the server to trace captures which identify specific performance issues.

The Network and Server Management team performs many varied daily duties including the oversight of network system installations and upgrades, and management of local area/wide area network communications hardware and software. They also monitor and support a total of 1,320 servers and 4,500 network devices in the Enterprise.

The Network Management Team is in the process of deploying Alternate Access Failover (AAF) to all schools. AAF is being demonstrated in two schools, Ribault HS and Paxon School for Advanced Studies, then will move to full deployment to the remaining schools after evaluation and testing across the network. This will allow for more stability in AT&T's network support of the schools, and virtually no downtime in the network for schools.

XI. Professional Development Plan

Professional Development is an ongoing challenge given the number of tools, applications, and users served. The priority is to increase technology integration into curriculum, instruction, and learning environments. The focus is on increased student engagement, increased student and teacher technology proficiency, and academic improvement.

Increasing Technology Integration in the Classroom

The district has made a substantial financial investment in school-based technology. That being said, the district has a vested interest in providing teachers with the necessary professional development, resources, and support to make connections between the technology available and its use in the classroom. Technology should not be taught in isolation but within the content area so that teachers can make the necessary connections. The adoption of the ISTE Technology Standards provides the framework that is needed to foster the transition from the teacher-centered classroom to the student-centered classroom. This transition is essential to creating a 21st Century Learning Environment for students in which they can develop the skills necessary to be successful in school and in life.

Plans to increase technology skills and integrate technology within instructional design and delivery include:

- Continued implementation of the ISTE Technology Standards;

- Partnering with Curriculum and Instruction to ensure that the integration of technology is a meaningful component within all curriculum training and monthly coaches meetings;
- Researching innovative software and hardware solutions which demonstrate the potential for measurable academic growth;
- Ensuring adequate facilities, instructors, materials, equipment, and funding are available for staff development;
- Implementing a system for follow-up and evaluation of all training offered to serve as a basis for determining effectiveness and future needs.

Training Resources

- District Technology Innovation Team
- District Curriculum Staff
- Microsoft Educator Community
- School-level Technology Innovation Support

The Technology Services Division is committed to working with Curriculum and Instruction to provide the support necessary for teachers to facilitate the integration of technology in education. Each academic core area's training needs are different and coordinators work with district staff to customize the course offerings to meet those needs. Special care is been taken to ensure that the material being developed, presented, and shared during these course offerings is in alignment with the New Florida Standards and ISTE Technology Standards.

Information on additional sources of ongoing training and technical assistance from external entities such as state technology offices, intermediate educational support units, service providers, regional education training facilities, and institutions of higher learning are also made available to teachers and administrators in the district.

Tiered Training for Instructional Personnel

To ensure all members contribute to the enhancement of student performance outcomes through the utilization of available technology, a tiered approach to training is required. To cultivate the integration of technology with ease and efficiency, training developers have created a framework of instruction in which individual training tracks are available to participants, each addressing a level of proficiency as outlined in the Technology Integration Matrix (TIM). Participants are provided a non-mandated, self-evaluation survey to assist with the selection of a self-elected track.

Each tier addresses three primary objectives:

- **Objective 1: Basic technical knowledge** (i.e., technology skills) to introduce new technology: terminology, software and hardware applications. Technical knowledge involves teaching personnel how to use available technology according to the purposes for which it was intended. Specifics of instruction are determined by participant proficiency.

- **Objective 2: Technology-supported pedagogy** calls for the creation of professional development that supports collaboration of the participants and the instructors so that participants' content expertise and instructors' superior knowledge of the use of technology can be woven together in order to stretch, rather than to add to, participants' instructional repertoires.

- **Objective 3: Hands-on application** to support the creation of an end product. Each participant will produce an end product appropriate to his/her current level of proficiency.

Teacher Technology Skills

Teachers' level of technology proficiency will be measured by placing them within the levels of technology proficiency on the Technology Integration Matrix. The Technology Integration Matrix (TIM) can be found at: http://fcit.usf.edu/matrix/matrix.php. Average integration should be recorded as the percent of teachers at each of the five categories of the TIM for the levels of technology integration into the classroom curriculum—entry, adoption, adaption, infusion, and transformation.

Technology Innovation Support Network

The Technology Innovation Support Network is designed to increase the number of instructional staff available to provide support and guidance to classroom teachers in the area of technology integration. The network will be built by establishing a professional learning plan concentrating on the following two areas: (1) transitioning the School Technology Contact (STC) to the role of Technology Innovation Support (TIS) and (2) establishing the DCPS Innovative Educator Program.

Part 1: Technology Innovation Support (Formerly School Technology Contact)

Objective: To transition the role of the School Technology Contact (STC) to Technology Innovation Support (TIS) to support teachers with integrating technology into instruction.

Background: The role of the STC has traditionally been one of technical support. With the increased number of technicians in the field, it is no longer necessary for a teacher to assist with technical support. In addition, the amount of technology available to teachers and students has increased exponentially but the adoption of all the available technologies and their utilization in the classroom has grown at a much slower pace. Transitioning the role from one of technical support to one of instructional support would benefit the district.

Implementation Plan: Work with HR to update the roles of responsibilities of the STC to reflect the change to the TIS. Inform principals of the change so that they can make an informed decision when choosing the person who will receive the supplement.

Part 2: DCPS Innovative Educator Program

Objective: To build capacity in the area of technology integration among instructional staff and provide a needed boost towards achieving the district's digital transformation goals.

Background: The district received an offer of free professional development through our partnership with Microsoft to scale capacity toward digital transformation efforts. The professional development opportunities offered will be a combination of face-to-face sessions and online courses through the Microsoft Educator Community.

Implementation Plan: The following audiences will be targeted for participation: district curriculum staff, principals/school-based administrators, Technology Innovation Supports (formerly STCs), and classroom teachers. Principals will have the opportunity to select 10% of their faculty (up to 10 teachers) to participate in the program. Participants who successfully complete the blended professional learning program will earn 36 points. Teachers who successfully complete the program will also be eligible for a new laptop.

Training for All DCPS Personnel

Continued operation of support systems is crucial to the success of the professional training programs. The Technology Services Division provides training to all personnel in the use of the following systems:

- SAP—District ERP
- Focus—Student Information System
- Simple K-12– courses include intermediate and advanced usage of the Microsoft Office Suite, productivity programs, operating systems, etc.
- Specialized Technology Training is provided to supplement the needs for grant implementation and to support district initiatives.

Training is offered in multiple formats including face-to-face, online networking, and web-based instruction. Courses are offered at times and locations that are convenient and accessible. The particular type of technology chosen for professional development is based on:

- The curriculum;
- Number of people to be served;
- Location of attendees; and

- Time of day and school schedules.

Training for Technology Service Technicians

Training is available to all Technology Service Technicians through the Stormwind and Skillsoft online platforms. Technicians that obtain certifications specific to their job duties may be eligible to receive a stipend while the certifications are current and valid, as long as the technician has received prior approval from their supervisor. Guidelines and a list of certification options will be made available each year in the Certification Guide. In addition, training in ethics and customer service will be available online and/or through face-to-face sessions as appropriate.

XII. Monitoring and Evaluation

Evaluation Process Description

This process will focus on three variables; the Technology Services Division's ability to carry out the strategies and initiatives in the Technology Plan, the level and quality of support provided to the end users, and the impact of technology on student achievement. Measurable objectives will include:

- Customer support survey results;
- Departmental Climate Survey Results;
- Device to Student Ratio;
- Survey results regarding professional development offerings;
- Survey results related to the end user's access to adequate software resources;
- Technology Services' personnel evaluations;

Mid-course Corrections

Technology Services and the Curriculum and Instruction department will meet quarterly to review measurable outcomes and make any necessary mid-course corrections to the plan as new information and technologies emerge. In addition, monthly monitoring of district-wide needs will be conducted by the District Leadership Team to ensure alignment with the District Strategic Plan.