

# COLUMBIA COUNTY SCHOOL DISTRICT DIGITAL CLASSROOM PLAN

The intent of the District Digital Classroom Plan (DCP) is to provide a perspective on what the district considers being vital and critically important in relation digital learning implementation, the improvement of student performance outcomes, and how this progress will be measured. The plan shall meet the unique needs of students, schools and personnel in the district as required by s.1011.62 (12) (b), F.S.

## **Part I. DIGITAL CLASSROOMS PLAN - OVERVIEW**

The District's overview component of the plan should document the district's overall focus and direction with respect to how the incorporation and integration of technology into the educational program will improve student performance outcomes.

The **general introduction/background/District technology policies** component of the plan should include, but not be limited to:

### 1.1 District Mission and Vision statements

The mission of the Columbia County School District is to create a safe, orderly learning environment conducive to preparation of highly motivated students; to work to ensure that all student achieve to the maximum potential of their abilities; and to prepare students to be successful in their career/technical training or high education and in the workplace.

The Columbia County School District believes that an ongoing commitment to current technology is an integral component of an educational process designed to:

- prepare students to become competent lifelong learners
- improve student critical thinking, problem solving and decision making skills
- help students work ethically, independently, and collaboratively within a global environment
- enhance the learning environment to meet curricular needs across all subjects and grade levels
- improve equity of access to information, learning tools, and communications for all members of the learning community
- improve instructional strategies to increase student achievement regardless of ethnicity, socioeconomic status, learning styles, or abilities
- accurately and efficiently assess, monitor, and communicate student progress
- improve communications among parents, students, teachers, and community
- provide teachers with consistent and high quality professional development opportunities that will allow them to become highly skilled at integrating technology into their curriculum.

To achieve our vision for technology, we will focus on several projects:

- Student computing – We will ensure that every student has access to a computing device when they need it with devices and policies differentiated by level and learner needs, to ensure access to information, increased collaboration, and multiple forms of student expression of learning.
- Staff computing – We will provide all staff with the appropriate technology needed for high quality planning, instruction, and data use, as well as collaborative learning, for teachers and school administrators.

- Networks and servers – We will upgrade our networks and servers so that students and staff can access resources when and where they need them.
- Professional learning for staff – We will implement ongoing, relevant, and collaborative professional learning for staff around instructional technology.
- Support for all – We will provide students, staff, and families with high-quality technical support and strategies for authentic engagement.

1.2 District Profile - Provide relevant social, economic, geographic and demographic factors influencing the district’s implementation of technology.

The Columbia County School District is central to the area's economy employing over 1,400 employees who serve a student population of approximately 9,622 students. There are 14 school sites within the Columbia County School district in grades Pre-K - 12. There are nine elementary schools, two middle schools, one high school grades 9 - 12, one high school grades 6-12, and an alternative education site for grades K - 12. All schools are accredited by AdvancEd. Sixty-five percent of the student population is economically disadvantaged. The student demographics are as follows: 68% White, 22% Black or African American, 5% Hispanic/Latino, 1% Asian, and less than 1% American Indian, Pacific Islander, and two or more races.

1.3 District Team Profile - Provide the following contact information for each member of the district team participating in the DCP planning process. The individuals that participated should include but not be limited to:

- the digital learning components should be completed with collaboration between district instructional, curriculum and information technology staff as required in s.1011.62(12)(b), F.S.
- development of partnerships with community, business and industry; and
- integration of technology in all areas of the curriculum, ESOL and special needs including students with disabilities.

<b>Title/Role</b>	<b>Name:</b>	<b>Email/Phone:</b>
Information Technology District Contact	Patrick Mitchell	<a href="mailto:mitchellp@columbiak12.com">mitchellp@columbiak12.com</a> (386)755-8167
Curriculum District Contact	Beth Bullard	<a href="mailto:bullardb@columbiak12.com">bullardb@columbiak12.com</a> (386) 755-8043
Instructional District Contact	Beth Bullard	<a href="mailto:bullardb@columbiak12.com">bullardb@columbiak12.com</a> (386) 755-8043
Finance District Contact	Bonnie Penner	<a href="mailto:pennerb@columbiak12.com">pennerb@columbiak12.com</a> (386)755-8012
District Leadership Contact	Lex Carswell	<a href="mailto:carswella@columbiak12.com">carswella@columbiak12.com</a> (386)758-4935

1.4 Planning Process- Summarize the process used to write this plan including but not limited to:

The technology update plan committee developed guidelines for the development, implementation, monitoring and evaluation of the Columbia District 2014-2017 Technology Plan. The committee will also assist in the implementation of the activities described in the objectives. The plan consists of a comprehensive program that effectively uses technology to help students meet or exceed the state academic content standards in all core content areas including Language Arts, Mathematics, Science and Social Studies along with the English Language Development standards.

The District School Board supports the educational technology goals that provide guidance in addressing the district's technology needs. The plan also provides a clear focus to enhance the district's curricular program and improve school community technology skills needed to effectively implement the use of technology in the classroom, computer labs, and/or library media centers. Technology curricular goals are included in each school site's plan for student achievement.

The Digital Classroom Plan was developed by a committee consisting of district level technology staff, instructional staff, professional development staff, finance staff and school based administrators from elementary, middle and high school levels. District staff also provided expertise in the area of ESOL and special needs students. School based administrators had expertise in the area of instruction, curriculum and career technical education. Input from parents, community and business members were provided by the aforementioned committee members.

1.5 Multi-Tiered System of Supports (MTSS) - Summarize the process used to write this plan including but not limited to:

The Columbia County School District is committed to reaching all learners, regardless of their abilities. Core instruction is enhanced through the implementation of differentiated instructional delivery systems, supported by technology. Students with disabilities and those students who are involved with the MTSS process require accommodations and modifications, and our staff is devoted to utilizing flexible ways to present information such as digital books, text-to-speech applications, and specialized software. Students are also provided various ways to express themselves in order to increase active engagement in different settings and situations. In addition, assistive technology devices are available for students with disabilities to participate, communicate, and learn more effectively in the classroom. An assistive technology device is any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The district employs a variety of assistive technology devices to augment, supplement and complement the educational process for students with special needs. Child Study and IEP Teams identify assistive technology needs on a case-by-case basis, and teachers have access to a laptop or desktop computer in the classroom, which in many cases is connected to an interactive board. All computers have the ability to activate the "Accessibility Options" built in to the Microsoft and Mac operating system. At the appropriate grade levels, students have access to a collaborative global community of learners, using tools such as online learning, podcasts, social networking, etc.

## Part II. DIGITAL CLASSROOMS PLAN – STRATEGY

### STEP 1 – Need Analysis:

Districts should identify current district needs based on student performance outcomes and other key measurable data elements for digital learning.

- A) Student Performance Outcomes
- B) Digital Learning and Technology Infrastructure
- C) Professional Development
- D) Digital Tools
- E) Online Assessments

### Highest Student Achievement

Student Performance Outcomes:

Districts shall improve classroom teaching and learning to enable all students to be digital learners with access to digital tools and resources for the full integration of the Florida Standards.

After completing the suggested activities for determining the student performance outcomes described in the DCP guidance document, complete the table below with the targeted goals for each school grade component. Districts may add additional student performance outcomes as appropriate. Examples of additional measures are District Improvement and Assistance Plan (DIAP) goals, district Annual Measurable Objectives (AMOs) and/or other goals established in the district strategic plan.

Data is required for the metrics listed in the table. For the student performance outcomes, these data points can and should be pulled from the school and district school grades published at <http://schoolgrades.fldoe.org>. Districts may choose to add any additional metrics that may be appropriate below in the table for district provided outcomes.

<b>Student Performance Outcomes (Required)</b>		<b>Baseline</b>	<b>Target</b>	<b>Date for Target to be Achieved (year)</b>
1.	ELA Student Achievement	58%	60%	2017
2.	Math Student Achievement	55%	60%	2017
3.	Science Student Achievement	54%	60%	2017
4.	ELA Learning Gains	63%	65%	2017
5.	Math Learning Gains	64%	67%	2017
6.	ELA Learning Gains of the Low 25%	62%	65%	2017
7.	Math Learning Gains of the Low 25%	65%	68%	2017
8.	Overall, 4-year Graduation Rate	66%	72%	2017

## Quality Efficient Services

Technology Infrastructure:

Districts shall create a digital learning infrastructure with the appropriate levels of bandwidth, devices, hardware and software.

For the infrastructure needs analysis, the required data points can and should be pulled from the Technology Readiness Inventory (TRI) if the data is accurate. Districts may choose to add any additional metrics that may be appropriate.

<b>Infrastructure Needs Analysis (Required)</b>		<b>Baseline</b>	<b>Target</b>	<b>Date for Target to be Achieved (year)</b>
1.	Student to Computer Device Ratio	9:1	2:1	2018
2.	Count of student instructional desktop computers meeting specifications	1292	1292	2018
3.	Count of student instructional mobile computers (laptops) meeting specifications	225	5000	2018
4.	Count of student web-thin client computers meeting specifications	0	0	2014
5.	Count of student large screen tablets meeting specifications	259	500	2018
6.	Percent of schools meeting recommended bandwidth standard	0	100%	2015
7.	Percent of wireless classrooms (802.11n or higher)	100%	100%	2014
<b>Infrastructure Needs Analysis (District Provided)</b>		<b>Baseline</b>	<b>Target</b>	<b>Date for Target to be Achieved (year)</b>
8.	Switching Infrastructure Upgrade by School/Location	2	14	2018
9.	District Network Connection Fiber Building by Location	0	16	2025

## Skilled Workforce and Economic Development

Professional Development:

Instructional personnel and staff shall have access to opportunities and training to assist with the integration of technology into classroom teaching.

Professional Development should be evaluated based on the level of current technology integration by teachers into classrooms. This will measure the impact of the professional development for digital learning into the classrooms. 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 5 categories of the TIM for the levels of technology integration into the classroom curriculum:

- Entry
- Adoption
- Adaptation
- Infusion
- Transformation

Professional Development Needs Analysis (Required)		Baseline	Target	Date for Target to be Achieved (year)
1.	Average Teacher technology integration via the TIM	Adoption	Transformation	2018
2.	Average Teacher technology integration via the TIM (Elementary Schools)	Adoption	Transformation	2018
3.	Average Teacher technology integration via the TIM (Middle Schools)	Entry	Transformation	2018
4.	Average Teacher technology integration via the TIM (High Schools)	Adoption	Transformation	2018
5.	Average Teacher technology integration via the TIM (Combination Schools)	Adoption	Transformation	2018

## Seamless Articulation and Maximum Access

### Digital Tools:

Districts shall continue to implement and support a digital tools system that assists district instructional personnel and staff in the management, assessment and monitoring of student learning and performance.

A key component to digital tools is the implementation and integration of a digital tool system that assists district instructional personnel and staff in the management, assessment and monitoring of student learning and performance. Districts may also add metrics for the measurement of CAPE digital tools. For the required metrics of the digital tool system need analysis, please use the following responses:

<b>Baseline Response:</b>	<b>Target Response:</b>
Fully implemented	Will continue to support and employ in classrooms
Partially implemented	Will work to implement and employ
Partially implemented	Maintain system
No system in place	Will work to implement and employ
No system in place	No plans to address at this time

<b>Digital Tools Needs Analysis (Required)</b>		<b>Baseline</b>	<b>Target</b>	<b>Date for Target to be Achieved (year)</b>
1.	Implementation status of a system that enables teachers and administrators to access information about benchmarks and use it to create aligned curriculum guides.	Partially implemented	Will work to implement and employ	2016
2.	Implementation status of a system that provides teachers and administrators the ability to create instructional materials and/or resources and lesson plans.	Partially implemented	Will work to implement and employ	2016
3.	Implementation status of a system that supports the assessment lifecycle from item creation, to assessment authoring and administration, and scoring.	Partially implemented	Will work to implement and employ	2015
4.	Implementation status of a system that	No system in	Will work to	2015

	includes district staff information combined with the ability to create and manage professional development offerings and plans.	place	implement and employ	
5.	Implementation status of a system that includes comprehensive student information that is used to inform instructional decisions in the classroom, for analysis and for communicating to students and parents about classroom activities and progress.	Partially implemented	Will work to implement and employ	2016
6.	Implementation status of a system that leverages the availability of data about students, district staff, benchmarks, courses, assessments and instructional resources to provide new ways of viewing and analyzing data.	Partially implemented	Will work to implement and employ	2015
7.	Implementation status of a system that houses documents, videos, and information for teachers, students, parents, district administrators and technical support to access when they have questions about how to use or support the system.	Partially implemented	Will work to implement and employ	2016
8.	Implementation status of a system that includes or seamlessly shares information about students, district staff, benchmarks, courses, assessments and instructional resources to enable teachers, students, parents, and district administrators to use data to inform instruction and operational practices.	Partially implemented	Will work to implement and employ	2016
9.	Implementation status of a system that provides secure, role-based access to its features and data for teachers, students, parents, district administrators and technical support.	Partially implemented	Will work to implement and employ	2016



## Quality Efficient Services

Online Assessment Readiness:

Districts shall work to reduce the amount time used for the administration of computer-based assessments.

Online assessment (or computer-based testing) will be measured by the computer-based testing certification tool and the number of devices available and used for each assessment window.

Online Assessments Needs Analysis (Required)		Baseline	Target	Date for Target to be Achieved (year)
1.	Computer-Based Assessment Certification Tool completion rate for schools in the district (Spring 2014)	Fully implemented	Will continue to support and employ in classrooms	2014
2.	Computers/devices required for assessments (based on schedule constraints)	Partially implemented	Will work to implement and employ	2018

### STEP 2 – Goal Setting:

Provide goals established by the district that support the district’s mission and vision. These goals may be the same as goals or guiding principles the district has already established or adopted.

These should be long-term that focus on the needs of the district identified in step one. The goals should be focused on improving education for all students including those with disabilities. These goals may be already established goals of the district and strategies in step 3 will be identified for how digital learning can help achieve these goals.

Enter district goals below:

Goals - Student Performance Outcomes
<ul style="list-style-type: none"> <li>● Goal: By May 2018, 90% of students in grades 3-10 will demonstrate a 3-5% growth annually towards proficiency on the Florida Standards claims as measured by the state assessment, special education assessments, and IEP goals in mathematics.</li> <li>● Goal: By May 2018, 90% of students in grades 3-11 will demonstrate a 3-5% growth annually towards proficiency on the Florida Standards claims as measured by the state assessment, special education assessments, and IEP goals in language arts.</li> <li>● Goal: By May 2018, 90% of students in grade 5 and 8 will demonstrate a 3-5% growth annually towards proficiency in the science standards as measured by a Florida standards assessment.</li> </ul>

- Goal: Integrate Next Generation Science content standards into day-to-day teaching, learning and application of the Florida ELA and Mathematics content standards (as applicable) to include an integral use of technology.
- Goal: Integrate History-Social Science content standards into day-to-day teaching and learning of the ELA and Mathematics Florida content standards (as applicable) to include an integral use of technology.

**Goals - Digital Learning and Technology Infrastructure**

- Goal: A technology infrastructure will be established and maintained to support the district's instructional and administrative goals.
- Goal: The district will establish and maintain the technology infrastructure necessary for students and educators to access electronic information and to communicate freely via technology.

**Goal - Professional Development**

- Goal: Educators will attain the skills and knowledge necessary to effectively use educational technology to create more rigorous learning environments to assist students to master the Florida Standards and Next Generation Sunshine State Standards.
- Goal: Continue to integrate non-standard technology into classroom instruction and professional development including the use of environments such as Edmodo, Google Applications for Education, Blending Learning, and Flipped Classroom as well as Prezis, podcasting, and blogs.

**Goal - Digital Tools**

- Goal: Continue to integrate non-standard technology into classroom instruction and professional development including the use of environments such as Edmodo, Google Applications for Education, Blending Learning, and Flipped Classroom as well as Prezis, podcasting, and blogs.
- Goal: The school district will increase parental involvement in the educational process through the use of the district's available technology.

**Goals - Online Assessments**

- Goal: Students will attain the educational technology and information literacy skills that will support an educational learning environment in which they will have rigorous access to the Florida State Standards and Next Generation Sunshine State Standards and will demonstrate mastery through administration of online formative, performance based, and summative assessments leading to successful preparation and measurement of college and career readiness standards required of the workplace of the 21<sup>st</sup> century.

**STEP 3 – Strategy Setting:**

Districts will outline high-level digital learning and technology strategies that will help achieve the goals of the district. Each strategy will outline the districts theory-of-action for how the goals in Step 2 will be addressed. Each strategy should have a measurement and timeline estimation.

**Enter the district strategies below:**

Goal Addressed	Strategy	Measurement	Timeline
Student Performance Outcome Goals	<ul style="list-style-type: none"> <li>• Supply teachers and students technology resources (to include not only those parts of the adopted curriculum) to enhance their learning of subject matter content towards mastery of the Florida standards</li> <li>• Provide Students the opportunity to use the Internet for research and to enhance their understanding of Florida Standards as well as to collaborate with others.</li> <li>• Provide presentation software to brainstorm and organize their work graphically.</li> <li>• Provide students the educational software to supports analytical thinking.</li> </ul>	<ul style="list-style-type: none"> <li>* Bandwidth amount</li> <li>*Update Network capacity at targeted schools</li> <li>*Integrate digital tools into instruction</li> </ul>	2014 and ongoing
Digital Learning and Technology Infrastructure	<ul style="list-style-type: none"> <li>• Identify and develop support mechanisms and resources for teachers as they utilize non-standard technology in the classroom to include special devices for special education students and students in the dual language program.</li> <li>• Support Blended Learning Environments will be supported by IT as appropriate</li> <li>• Purchase and deploy multimedia computers, tablets, laptops, and peripheral devices for staff/student use.</li> <li>• Introduce varied platforms—Windows-based, Mac-based, Android-based—as needs are identified to support an ever-evolving, technology-rich environment.</li> </ul>	<ul style="list-style-type: none"> <li>*Bandwidth amount</li> <li>*Update Network capacity at targeted schools</li> </ul>	2014 and ongoing
Professional Development	<ul style="list-style-type: none"> <li>• Provide professional development and coaching support so that classroom instruction will be designed to support the rigorous expectations of the new learning and</li> </ul>	*Instructional personnel will be trained in	2014 and ongoing

	<p>assessment environment to support student readiness for the types of questions and performance based activities found on the state assessments.</p> <ul style="list-style-type: none"> <li>• Provide professional development on effective educational technology usage, UDL, the use of rubrics, student choice and authentic and relevant student-centered project-based learning</li> <li>• Provide professional development on the adaptation of curriculum for students with IEP's using assistive technologies</li> <li>• Include training on refining the use of current software and hardware to meet student needs and the requirements of Florida Standards in professional development activities.</li> </ul>	<p>instructional delivery through the use of digital tools</p>	
Digital Tools	<ul style="list-style-type: none"> <li>• Identify and develop support mechanisms and resources for teachers as they utilize non-standard technology in the classroom to include special devices for special education students and students in the dual language program</li> <li>• Plan and budget for research based hardware and software</li> <li>• Provide parents access and a training of the district's parent portal.</li> <li>• Implement blended learning environments as appropriate throughout the district</li> <li>• Provide opportunities for student participation in extended learning programs</li> </ul>	<p>* Bandwidth amount</p> <p>*Update Network capacity at targeted schools</p>	2014 and ongoing
Online Assessments	<ul style="list-style-type: none"> <li>• Provide tools to best utilize data to drive instruction and make decisions.</li> <li>• Increase use of technology on a day to day basis that aligns with technological expectation on Florida assessments</li> <li>• Provide opportunities for students to work with various technologies to develop a familiarity with problem solving</li> </ul>	<p>* Bandwidth amount</p> <p>*Update Network capacity at targeted schools</p>	2014 and ongoing

In addition, if the district participates in federal technology initiatives and grant programs, please describe below a plan for meeting requirements of such initiatives and grant programs.

### **Part III. DIGITAL CLASSROOMS PLAN - ALLOCATION PROPOSAL**

The DCP and the DCP Allocation must include five key components as required by s.1011.62 (12) (b), F.S. In this section of the DCP, districts will outline specific deliverables that will be implemented in the current year that are funded from the DCP Allocation. The five components that are included are:

- A) Student Performance Outcomes
- B) Digital Learning and Technology Infrastructure
- C) Professional Development
- D) Digital Tools
- E) Online Assessments

This section of the DCP will document the activities and deliverables under each component. The section for each component includes, but is not limited to:

- o Implementation Plan – Provide details on the planned deliverables and/or milestones for the implementation of each activity for the component area. This should be specific to the deliverables that will be funded from the DCP Allocation.
- o Evaluation and Success Criteria – For each step of the implementation plan, describe process for evaluating the status of the implementation and once complete, how successful implementation will be determined. This should include how the deliverable will tie to the measurement of the student performance outcome goals established in component A.

Districts are not required to include in the DCP the portion of charter school allocation or charter school plan deliverables. In s. 1011.62(12) (c), F.S., charter schools are eligible for a proportionate share of the DCP Allocation as required for categorical programs in s. 1002.33(17) (b).

Districts may also choose to provide funds to schools within the school district through a competitive process as outlined in s. 1011.62(12)(c), F.S.

<b>A) Student Performance Outcomes</b>
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Districts will determine specific student performance outcomes based on district needs and goals that will be directly impacted by the DCP Allocation. These outcomes can be specific to an individual school site, grade level/band, subject or content area, or district wide. These outcomes are the specific goals that the district plans to improve through the implementation of the deliverables funded by the DCP Allocation for the 2014-15 school year.

Enter the district student performance outcomes for 2014-15 that will be directly impacted by the DCP Allocation below:

<b>Student Performance Outcomes</b>		<b>Baseline</b>	<b>Target</b>
1.	ELA Student Achievement	58%	60%
2.	Math Student Achievement	55%	60%
3.	Science Student Achievement	54%	60%
4.	ELA Learning Gains	63%	65%
5.	Math Learning Gains	64%	67%
6.	ELA Learning Gains of the Low 25%	62%	65%
7.	Math Learning Gains of the Low 25%	65%	68%
8.	Overall, 4-year Graduation Rate	66%	72%

### **B) Digital Learning and Technology Infrastructure**

State recommendations for technology infrastructure can be found at [http://www.fldoe.org/BII/Instruct\\_Tech/pdf/Device-BandwidthTechSpecs.pdf](http://www.fldoe.org/BII/Instruct_Tech/pdf/Device-BandwidthTechSpecs.pdf). These specifications are recommendations that will accommodate the requirements of state supported applications and assessments.

Implementation Plan for B) Digital Learning and Technology Infrastructure:

<b>Infrastructure Implementation</b>					
	<b>Deliverable</b>	<b>Estimated Completion Date</b>	<b>Estimated Cost</b>	<b>School/ District</b>	<b>Outcome from Section A)</b>
B.1.	Purchase Wireless Access Points	June, 2015	\$47,000	Ft. White High School, Columbia City Elementary, Westside Elementary, Pinemount Elementary	Schools will have sufficient wireless coverage and capacity for digital classroom and online assessments

B.2.	Purchase Switching infrastructure	June, 2015	\$270,000	Ft. White High School, Columbia City Elementary, Westside Elementary, Pinemount Elementary, Admin Complex	Adequate infrastructure to successfully implement wireless access points across schools and provide connection to the internet
B.3.	Cabling for access points	June, 2015	\$14,000	Ft. White High School, Columbia City Elementary, Westside Elementary, Pinemount Elementary	Cabling to power and deliver data to wireless access points

Evaluation and Success Criteria for B) Digital Learning and Technology Infrastructure:

Describe the process that will be used for evaluation of the implementation plan and the success criteria for each deliverable. This evaluation process should enable the district to monitor progress toward the specific goals and targets of each deliverable and make mid-course (i.e. mid-year) corrections in response to new developments and opportunities as they arise.

<b>Infrastructure Evaluation and Success Criteria</b>		
Deliverable (from above)	Monitoring and Evaluation and Process(es)	Success Criteria
B.1. Purchase Wireless Access Points	Monitor load-balancing of devices across access points using wireless controller	All wireless devices are able to connect to network to be used for digital curriculum and online assessments
B.2. Purchase Switching infrastructure	Switch installation and verification at the school site	Verification from school of adequate connectivity of wired

		connections and proper PoE to power wireless access points. Core switch at Admin Complex to provide connection to the internet
B.3. Cabling for wireless access points	Verify all drops are tested and labeled correctly	Verify that the wireless access points can power on and deliver data across the cabling.

Additionally, if the district intends to use any portion of the DCP allocation for the technology and infrastructure needs area B, s.1011.62 (12) (b), F.S. requires districts to submit a third-party evaluation of the results of the district’s technology inventory and infrastructure needs. Please describe the process used for the evaluation and submit the evaluation results with the DCP.

**C) Professional Development**

State recommendations for digital learning professional development include at a minimum, – High Quality Master In-service Plan (MIP) Components that address:

- School leadership “look-fors” on quality digital learning processes in the classroom
- Educator capacity to use available technology
- Instructional lesson planning using digital resources
- Student digital learning practices

These MIP components should include participant implementation agreements that address issues arising in needs analyses and be supported by school level monitoring and feedback processes supporting educator growth related to digital learning.

Please insert links to the district MIP to support this area, attach a draft as an appendix to the district DCP or provide deliverables on how this will be addressed.

Implementation Plan for C) Professional Development:

The plan should include process for scheduling delivery of the district’s MIP components on digital learning and identify other school based processes that will provide on-going support for professional development on digital learning.

If no district DCP Allocation funding will be spent in this category, please briefly describe below how this category will be addressed by other fund sources.



<b>Brief description of other activities</b>	<b>Other funding source</b>
C.1. Designing Blended Learning: innovative teachers at the secondary level will be the targeted participants for this learning opportunity.	Professional Development for Digital Learning Grant
C.2. Employing Technology in the Content Areas: Professional Learning opportunities will be provided for teachers and site-based instructional leaders to enhance their capability of infusing technology within the classroom	Professional Development for Digital Learning Grant
C.3 Educational Leadership in the 21st Century	Professional Development for Digital Learning Grant

**Evaluation and Success Criteria for C) Professional Development:**

Describe the process that will be used for evaluation of the implementation plan and the success criteria for each deliverable. This evaluation process should enable the district to monitor progress toward the specific goals and targets of each deliverable and make mid-course (i.e. mid-year) corrections in response to new developments and opportunities as they arise.

<b>Professional Development Evaluation and Success Criteria</b>		
<b>Deliverable (from above)</b>	<b>Monitoring, Evaluation and Process(es)</b>	<b>Success Criteria</b>
C.1. Train a cadre of teachers at each secondary school to develop an understanding of blended learning, including what it is and how it benefits students.	Sign in sheets; agendas; invoices of registration of courses	100% of the cadre of teachers will complete the course and share with colleagues at their school site
C.2. To develop instructional capabilities for developing, delivering, evaluating and maintaining instructional materials with technology.	Sign in sheets; agendas; invoices of registration of courses	Usage reports will provide evidence that participating educators have increased usage of the digital products.
C.3 Educational technology leadership and management, at the school level. Development of strategies to better use technology to support teachers and improve student achievement.	Sign in sheets; agendas; Invoices; review of completed project	75% of administrators will be trained and submit a completed project

## D) Digital Tools

Digital Tools should include a comprehensive digital tool system for the improvement of digital learning. Districts will be required to maintain a digital tools system that is intended to support and assist district and school instructional personnel and staff in the management, assessment and monitoring of student learning and performance.

Digital tools may also include purchases and activities to support CAPE digital tools opportunities and courses. A list of currently recommended certificates and credentials can be found at: <http://www.fldoe.org/workforce/fcpea/default.asp>. Devices that meet or exceed minimum requirements and protocols established by the department may also be included here.

Implementation Plan for D) Digital Tools:

If no district DCP Allocation funding will be spent in this category, please briefly describe below how this category will be addressed by other fund sources.

Brief description of other activities	Other funding source
D.1. Pilot computer refresh plan. First year will include four schools on a 3-year cycle. More schools will be added each year	Five-Year Work Plan; 2 mil
D2. Edgenuity	General Funds
D3. Study Island, Renaissance Learning	Title 1 Funds
D4. CPalms, Focus, Performance Matters	Training will be paid for out of Professional Development for Digital Learning funds

Evaluation and Success Criteria for D) Digital Tools:

Describe the process that will be used for evaluation of the implementation plan and the success criteria for each deliverable. This evaluation process should enable the district to monitor progress toward the specific goals and targets of each deliverable and make mid-course (i.e. mid-year) corrections in response to new developments and opportunities as they arise.

<b>Digital Tools Evaluation and Success Criteria</b>		
Deliverable (from above)	Monitoring and Evaluation Process(es)	Success Criteria
D.1. Computers will be leased at four schools in year one of our refresh plan. All computers / devices at those four schools will meet specifications	The computers / devices will be compared to the specifications provided by FLDOE to be in compliance with the testing software for at least 3 years.	The schools will have ample computers meeting specifications to complete online testing as well as digital curriculum for the foreseeable future
D.2. Edgenuity	Students will use Edgenuity as a credit recovery and online course throughout the middle and high schools	Students enrolled in Edgenuity will have a completion rate of at least 75%
D.3. Study Island, Renaissance Learning	Study Island and Renaissance will be used throughout the entire District. Renaissance will be a monitoring tool in both Math and Reading	75% of students will show growth from STAR Math and Reading testing throughout the year.
D.4. CPalms, Focus, Performance Matters	Certain teachers and Administrators will be trained on CPalms, Focus, and Performance Matters	Sign in sheets from trainings will be retained and portfolios will be produced by Administrators.

**E) Online Assessments**

Technology infrastructure and devices required for successful implementation of local and statewide assessments should be considered in this section. In your analysis of readiness for computer-based testing, also examine network, bandwidth, and wireless needs that coincide with an increased number of workstations and devices. Districts should review current technology specifications for statewide assessments (available at [www.FLAssessments.com/TestNav8](http://www.FLAssessments.com/TestNav8) and [www.FSAssessments.com/](http://www.FSAssessments.com/)) and schedule information distributed from the K-12 Student Assessment bureau when determining potential deliverables.

Implementation Plan for E) Online Assessments:

If no district DCP Allocation funding will be spent in this category, please briefly describe below how this category will be addressed by other fund sources.

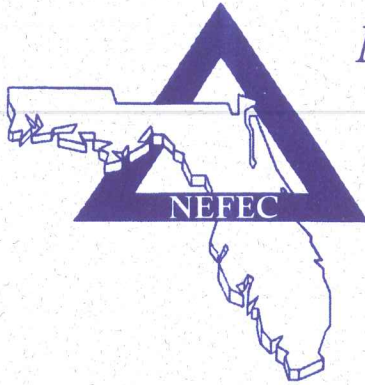
Brief description of other activities	Other funding source
E.1. Implement process for restricting other bandwidth and/or burst bandwidth speeds during testing windows	No Cost. We have the equipment in place, but not the process.
E.2. Increase bandwidth to the schools and internet	General fund
E.3. Computer refresh plan (also mentioned in Digital Tools section D.1.)	Five-Year Work Plan; 2 mil

Evaluation and Success Criteria for E) Online Assessments:

Describe the process that will be used for evaluation of the implementation plan and the success criteria for each deliverable. This evaluation process should enable the district to monitor progress toward the specific goals and targets of each deliverable and make mid-course (i.e. mid-year) corrections in response to new developments and opportunities as they arise.

<b>Online Assessment Evaluation and Success Criteria</b>		
Deliverable (from above)	Monitoring and Evaluation and Process(es)	Success Criteria
E.1. Process to restrict other bandwidth during testing windows	Monitor bandwidth tools during testing windows to verify that we never burst above 100% bandwidth capacity	Verifying through bandwidth tools that sufficient bandwidth was provided during testing

		windows by restricting other bandwidth
E.2. Increase bandwidth to school sites and internet	Monitor bandwidth tools verify the schools have sufficient bandwidth at the school level and to the internet at the district level	Verifying through bandwidth tools that sufficient bandwidth is provided to the schools and internet for online testing as well as daily digital curriculum
E.3. Testing lab computers and mobile computers	Monitor amount of devices needed to complete online assessments at each school	Verify a sufficient number of computers are provided for online assessments



## North East Florida Educational Consortium

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## NEFEC DCP Infrastructure Evaluation

for Columbia County School District 9/15/2014

### Evaluators:

Ethan Caren, Senior Information Technology Analyst

David Beckner, Senior Information Technology Analyst

Columbia County is targeting two Elementary Schools, Westside Elementary and Pinemount Elementary in their 2014-15 Digital Classroom Plan. This infrastructure evaluation is based upon the condition of the school's infrastructure as of the summer of 2014. Westside was built in 2000 and Pinemount Elementary was built in 2009.

### Bandwidth:

Columbia County's intrasite network topology is a star configuration with all sites connecting back to Columbia County School District via MetroE DAN connections. As such, their single Internet connection is shared amongst all devices and users on the network from all sites.

Current: Columbia's most recent bandwidth upgrade was to the current 155 Mbps internet connection through ATT. This current bandwidth to the internet gives Columbia a bandwidth to student ratio of 13.8 Kbps per student. This is well below the 100Kbps recommended by FLDOE ([http://www.fldoe.org/BII/Instruct\\_Tech/pdf/Device-BandwidthTechSpecs.pdf](http://www.fldoe.org/BII/Instruct_Tech/pdf/Device-BandwidthTechSpecs.pdf)).

Future Plans: Columbia's plans on upgrading bandwidth include increasing the bandwidth of the district's single Internet connection to 1 Gbps as soon as ATT through DMS makes this possible. In the interim Columbia will upgrade the district pipe to 250 Mbps yielding a bandwidth to student ratio of 22.3 Kbps and once 1 Gbps is available, the ratio becomes 89.1, closer to the FLDOE requirements. Columbia County will most likely go out to bid for Internet Services as ATT/DMS is too slow at providing the FLDOE recommended bandwidth.

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### **Internal Wired Network:**

**Current:** The internal networking equipment of Pinemount Elementary School pre-dates the construction of the school in 2009 because used equipment was installed. To cut costs, used, inexpensive non-managed Amer brand switching was used throughout the school. Another site in Columbia County with aging equipment is Westside Elementary School. Built in 2000, the current switching equipment has the oldest networking equipment in the district. The unmanaged 10/100 Mbps Amer brand switches have been in place since approximately 2005.

A weak point of Columbia County's internal network is the site-to-site District Area Network (DAN) which consists of Metro Ethernet connections through ATT and managed by DMS. For example, Westside Elementary has 774 students with 20 Mbps MetroE connection to the DAN. This yields a bandwidth to student ratio of 25.8 Kbps, well short of the recommended 1000 Kbps recommended by FLDOE.

**Future Plans:** To address the present and future needs for supporting more devices, Columbia County plans on replacing all of the old unmanaged 100Mbps switching at Westside and Pinemount with new more robust and managed Cisco equipment which support 1Gbps connectivity.

### **Internal Wireless Network:**

**Current:** Ruckus Wireless Access points are used throughout Columbia County with 355 total AP's, 320 of which are located in Instructional Locations for student use. With 800 classrooms and 11,218 students, the student to AP radio ratio is 35 to 1. This is short of the recommended of 10-15 to 1 ([http://www.fl DOE.org/bii/instruct\\_tech/pdf/Wireless-Tech-Specs.pdf](http://www.fl DOE.org/bii/instruct_tech/pdf/Wireless-Tech-Specs.pdf)), but is adequate for the number of wireless devices currently in use on the network.

### **Technology Staff:**

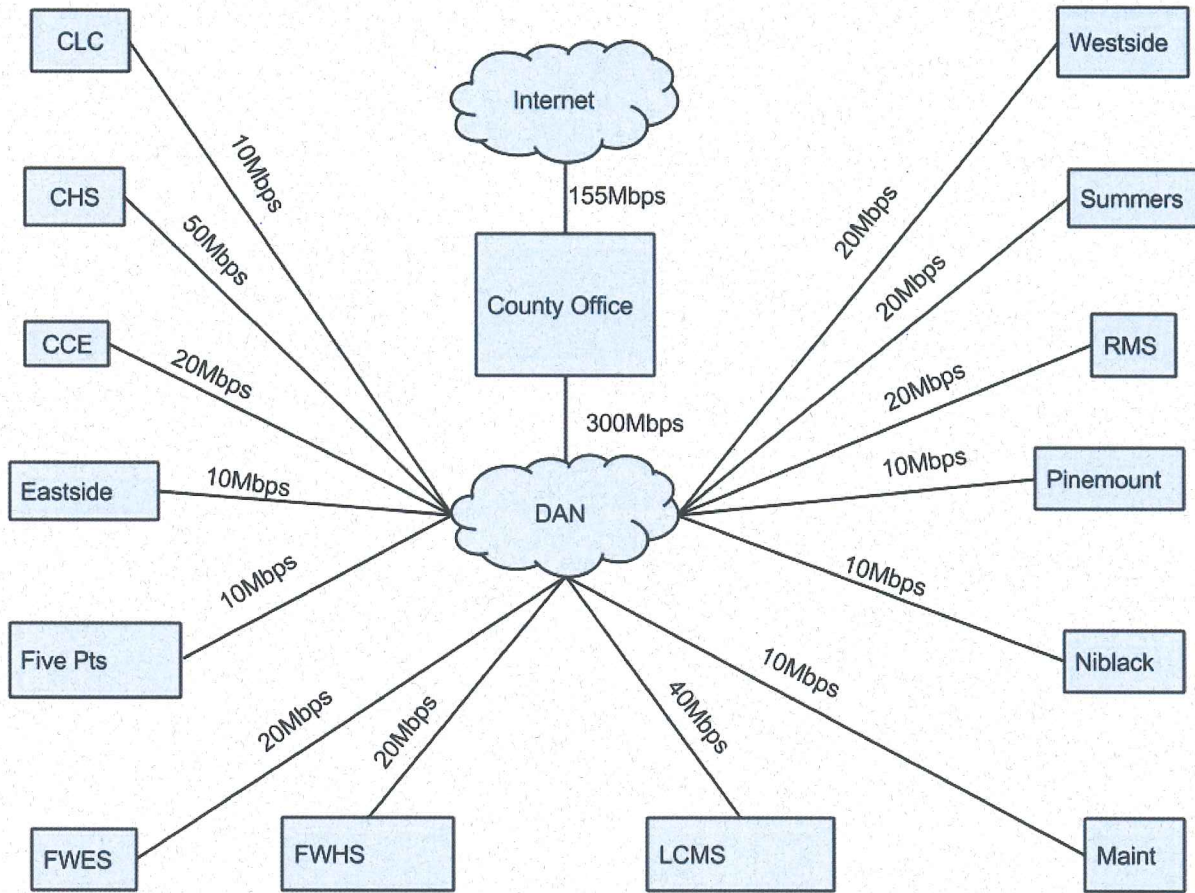
**Current:** The staff of Columbia County School District consist of a team of six full time District level techs that share responsibilities at each of the sixteen sites in the district. With 6,404 devices, this equates to approximately 1,067 devices per full time Tech.

### **Summary:**

Columbia County's primary need is to upgrade bandwidth for their Internet connection as well as the the connections to each site in the DAN to meet FLDOE requirements. Additionally, replacement of old switching only supporting 10/100 ports is needed. The equipment at Pinemount and Westside is in the worst shape and is the logical next step in upgrading the infrastructure of Columbia's network. Before more wireless devices are added to the network, there is a need to increase in Access Point density to meet FLDOE recommendations.



# Columbia County School District Topology





Student Instructional Computers - Columbia County High School				
Devices Eligible for Online Testing		Devices Ineligible for Online Testing		
Desktops	Laptops/Netbooks/ Chromebooks	Tablets 9.5" or above	Tablets less than 9.5"	Other Wireless Devices
1292	225	259	1047	2560
Total: 5383				

Note: These categories break Student Instructional Devices into those adequate or not adequate for FSA Online Testing according to:  
[http://www.fsassessments.com/wp-content/uploads/2014/06/FL\\_System\\_Requirements\\_for\\_Online\\_Testing\\_07-08-2014.pdf](http://www.fsassessments.com/wp-content/uploads/2014/06/FL_System_Requirements_for_Online_Testing_07-08-2014.pdf)

Total Instructional Computers eligible for Online Testing	1776
Total Non-Student Computers:	1021
Total Computers:	6404
Total Student Population:	11218
Student Population Pinemount Elementary:	491
Student Population Westside Elementary:	774
Total Staff Population:	1366
Total Classrooms:	800
Total Number of Instructional Access Point Radios:	320
Total Number of Full Time IT Staff:	6
Total District Bandwidth (Mbps):	150

	Recommended By FLDOE
Ratio of Students per Student Instructional Computers:	2.08
Ratio of Students per Online Testing Approved Computers:	6.32
Ratio of Kilobits per Second of Bandwidth per Student:	13.37
Ratio of Kilobits per Second of Bandwidth per Person:	11.92
Ratio of Kilobits of Bandwidth per Total Devices:	23.42
Ratio of Wireless Devices per Access Point Radio:	4.78
Ratio of Students per Instructional Access Point Radio:	35.06
Ratio of Access Point Radios per Classroom:	0.40
Ratio of Devices per Full Time IT Staff:	1,067.33
	100Kbps*
	10 - 15**

*FLDOE Bandwidth per Student:	<a href="http://www.fl DOE.org/BII/Instruct_Tech/pdf/Device-BandwidthTechSpecs.pdf">http://www.fl DOE.org/BII/Instruct_Tech/pdf/Device-BandwidthTechSpecs.pdf</a>
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