

BATH COUNTY SCHOOL BOARD

AGENDA ITEM: INFORMATION { } ACTION { X } CLOSED MEETING { }

SUBJECT: **SUPERINTENDENT’S REPORT - ACTION**

Approval to Submit Technology Plan – Ed Ozols

BACKGROUND: **BCPS revised the division Technology Plan to reflect changes at the division level, including 1:1 laptops for students, and new and emerging technology standards from the Virginia Department of Education. A committee was formed, comprised of Ed Ozols, Technology Supervisor; Sue Hirsh, Division Superintendent; Bryan Secoy, School Board representative; Joey Crawford, Millboro Elementary School ITRT; Mark Hall, Bath County High School ITRT; Tammy Lindsey, Valley Elementary School ITRT; Allison Hicklin, Millboro Elementary School Principal; Steve Sizemore, Valley Elementary School Principal; Kayala Jordan, Bath County High School Teacher; Suzanna Paxton, Valley Elementary School Teacher; Kristy Pasco, Valley Elementary School Teacher; and Denise Eaton, Millboro Elementary School Teacher. The committee met on 11/29/2016, 1/18/2017, 3/29/2017 and began by formulating a teacher survey to help define a direction for the plan. The new plan reflects the results of the survey and incorporates the most recent standards from the VDOE. The plan is a roadmap for future technology development within the division and will be reviewed and revised as new technology emerges or new direction comes from the VDOE.**

RECOMMENDATION: **Recommend approval of the 2017-2020 Technology Plan.**



BATH COUNTY PUBLIC SCHOOLS TECHNOLOGY PLAN 2017-2020



MAY 2, 2017
BATH COUNTY PUBLIC SCHOOLS
www.bath.k12.va.us

1. EXECUTIVE SUMMARY

1.1. The Bath County Public Schools Technology Plan articulates the path that the division will follow as it seeks to continue a tradition of innovation and performance with instructional and administrative applications as they may be enhanced through the integration of technology. While the division has successfully implemented a number of significant programs in recent years, the rapidly changing technology field demands a vigilant look to the future to anticipate needs as well as meeting current demands. The technology plan is aligned with the Educational Technology Plan for Virginia, and provides for:

- 1.1.1. Continued acquisition, installation and support of appropriate computer hardware and technology infrastructure.
- 1.1.2. Program development to ensure successful integration of technology that will improve services to students, staff and the community.
- 1.1.3. Professional development and support for staff members to enable their full participation with technology integration.
- 1.1.4. The Bath County Public Schools Technology Plan will help ensure that our students receive a high quality educational experience that prepares them for their role as citizens and lifelong learners in the 21st century.

1.2. Summary of Connection to the Division's Mission

- 1.2.1. The divisions mission statement "Bath County Public Schools will provide for the overall educational needs of all students with the highest standards possible and will be the schools of choice for Bath County citizens." directs the team to develop a technology plan that meets the needs of students who will work in careers that are well defined today, but will also likely occupy positions that have not yet been defined. Students in these positions will increasingly rely on technical skills to be productive.
- 1.2.2. Bath County Public Schools will build on established technology infrastructure, programs, and services to enhance teaching and learning to prepare students for the 21st Century. All students need access to technology with integration into content areas. Availability of and access to appropriate technology is essential to developing the total child and preparing a student for lifelong learning. Bath County Public Schools will continue to provide a classroom environment in which relevant and meaningful learning will occur. The integration of technology skills into all curricular areas and successful completion of state Standards of Learning will ensure a more appropriate educational experience for all students, K-12. The successful implementation of the division technology plan will help ensure that the Bath County Public Schools mission and board goals are achieved.

1.3. School Board Goals

- 1.3.1. To produce graduates who become citizens with strong academic, technical, physical, and social skills and who possess an appreciation for the arts.
- 1.3.2. To be an integral part of our unique community and a source of public pride.
- 1.3.3. To utilize our financial resources responsibly.
- 1.3.4. To provide facilities which are safe, accessible, and well maintained for school and community use
- 1.3.5. To provide technology tools and services for students and staff, according to the division Technology Plan, to meet SOL Objectives and Educational Technology Standards, respectively.
- 1.3.6. Technology use in Bath County Public Schools will mirror the focus areas of the Virginia Department of Education Technology Plan:

1.4. ENVIRONMENT - Schools need to consider physical and virtual environments in new and innovative ways to support learning activities. The elementary schools are creating makerspaces and adding opportunities for students to learn coding as part of a division-wide Science, Technology, Engineering, art, and Math (STeAM) focus. The high school has added classes emphasizing coding and technical drawing skills as part of the Career and Technical Education (CTE) program.

1.5. Security- Bath County Public Schools uses a variety of tools to safeguard division data and student activities.

1.5.1. Web Filters

1.5.2. While users are on the division network, Barracuda Web Filter filters for content, malware, social media, and rogue app threats by utilizing the latest definitions of spam, virus, content categories, spyware filter, intrusion prevention, IM protocols, policies, security updates, attacks and document formats.

1.5.3. While student are utilizing the 1:1 devices outside of the division network, they are protected by Lightspeed System's web filter.

1.5.4. Firewall

1.5.4.1. The division uses Cisco firewalls to prevent intrusions and cyber-attacks.

1.5.5. Education

1.5.5.1. The division provides education to staff and students to inform them of Internet dangers including malware and viruses as well as the dangers inherent in utilizing social media sites.

2. STANDARDS

The division recognizes that our teachers need additional technology skills to effectively provide students with the skills that they will need to be successful in post-secondary school settings. While the Virginia Department of Education (VDOE) has defined a set of skills they consider to be important for teachers, the committee feels that the National Educational Technology Standards (NETS•T) and Performance Indicators for Teachers are appropriate additions to the VDOE prescribed skillsets.

- 2.1. **ENGAGEMENT** - Educators must employ multiple ways to engage students in learning through technology. This engagement, described in more detail in the VDOE Computer Technology Standards of Learning for Virginia's Public Schools, should reflect student learning styles, cultural backgrounds, and personal interests while assisting students in developing these essential skills.
- 2.2. **APPLICATION** - Students need to understand the proper application of technology tools (i.e., choosing and applying the most appropriate technology for communicating and problem solving) and to be creative and innovative.
- 2.3. **TOOLS** - Students should not use technology tools just to replicate paper-and-pencil activities. Tools should extend student capabilities to perform functions that would be difficult, if not impossible, without technology. Tools should be authentic—ones students will encounter in the non-school environment.
- 2.4. **RESULTS** - Results are not just a matter of meeting accountability requirements but using data, including real-time assessments, to inform instruction. Teachers addressing 21st century skills and knowledge must employ both formative and summative assessments.

3. SUMMARY OF WORK OF THE PLANNING COMMITTEE AND ITS BENCHMARKS

3.1. Summary of the Evaluation Process and Planned Update Cycle

3.1.1. 2016-2017 Technology Plan Participants

- 3.1.1.1. Ed Ozols, Technology Supervisor
- 3.1.1.2. Sue Hirsh, Division Superintendent
- 3.1.1.3. Bryan Secoy, School Board representative
- 3.1.1.4. Joey Crawford, Millboro Elementary School ITRT
- 3.1.1.5. Mark Hall, Bath County High School ITRT
- 3.1.1.6. Tammy Lindsey, Valley Elementary School ITRT
- 3.1.1.7. Allison Hicklin, Millboro Elementary School Principal
- 3.1.1.8. Steve Sizemore, Valley Elementary School Principal
- 3.1.1.9. Kayala Jordan, Bath County High School Teacher
- 3.1.1.10. Suzanna Paxton, Valley Elementary School Teacher
- 3.1.1.11. Kristy Pasco, Valley Elementary School Teacher
- 3.1.1.12. Denise Eaton, Millboro Elementary School Teacher

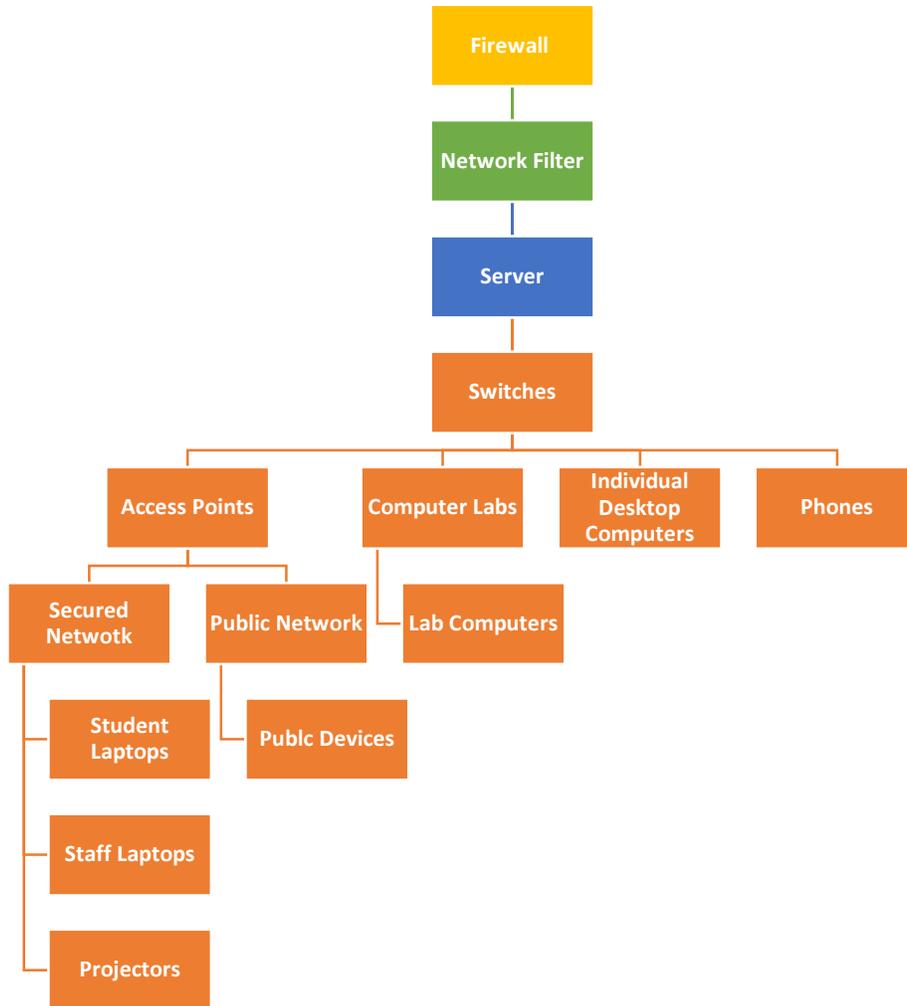
3.2. Staff Survey

- 3.2.1. Staff at Bath County Public Schools rated their technology use in their classroom at 6.02 on a scale of 10. They rated technology use in their school at 6.55 on a scale of 10. They would prefer that their technology training would be in small groups and short sessions. The main reason cited for not using technology was the limitations of the technology itself.

3.3. Needs Assessment: Current Status of Technology

- 3.3.1. Bath County Public Schools has made progress in upgrading the Internet status of all locations.
- 3.3.2. We now have Voice Over Internet Protocol (VOIP) Phones at all schools.
- 3.3.3. All lab hardware is sufficient for SOL testing.
- 3.3.4. The 1:1 laptops are sufficient for SOL testing.
- 3.3.5. Students and staff now have access to Office 365.
- 3.3.6. High School teachers have access to Microsoft Classroom, which is a learning management system.
- 3.3.7. More services, including registration, are being integrated through the use of cloud based programs.

3.4. Hardware and Network Infrastructure



4. DIVISION-WIDE COMPUTER USE

4.1. Student and Teacher Computer Use

4.1.1. Students

4.1.1.1. Students in grades 7-12 have been issued 1:1 Windows based laptops. The division plans to have all students in grades 5-12 to be issued 1:1 laptops for the 2017-2018 school year. Students in lower grades can access digital curriculum using school based computer labs and laptop carts. Additionally, students at the elementary school level can use Android based tablets. High School students have access to computers in school labs, including a general school lab, a Business Education lab, a Technology Education lab for CTE students, and a distance learning lab where students can remotely interact with distance education classes provided by Dabney S. Lancaster Community College. There are additional desktop computers located in the media centers at all three schools.

4.1.1.2. Students utilize both laptop and desktop computers for SOL testing and for benchmark testing at the beginning and end of each school year.

4.1.2. Teachers

4.1.2.1. Teachers are provided with computers to maintain and update student information such as attendance and grades. Many of the teachers use their laptops to further engage students in the educational process. Teachers who integrate the computer into the classroom and who write a technology based lesson plan are eligible to receive a new laptop geared toward their classroom (depending upon available funds).

4.2. Support Services

4.2.1. A layered network of technology support services has been established through the years, providing a cost-effective means for problem-solving technology issues. The division technology supervisor provides training and support to the building level technology support personnel, as well as assistance to individual users when necessary. The most complex installation/setup/support tasks are performed by network engineers and other specialists. The division has secured specialized support for mission-critical systems such as student records, school activity funds, media center applications, food service, integrated learning systems, payroll, and accounts payable on an as-needed basis. Instructional Technology Resource Teachers provide valuable support for teachers and students each day. When additional assistance is necessary, building level lab managers/computer technicians are the next line of assistance. Paid student technology assistants complete work orders in the high school. The technology supervisor assigns these work orders on an as needed basis. Technology assistants have been in place since 2001, and this program take advantage of the wealth of knowledge and problem-solving skills that these responsible students possess. Additionally, it provided the student workers with 21st century job skills. Duties and responsibilities of an ITRT include (from Instructional Technology Resource Teacher and Technology Support Positions: A Handbook for School Divisions) but are not limited to:

4.2.1.1. Working collaboratively with individual or groups of teachers to integrate technology into instruction.

4.2.1.2. Assisting with curriculum and content development.

4.2.1.3. Disseminating information regarding technology resources, emerging technologies, best practices using technology, and professional development opportunities.

4.2.1.4. Facilitating or conducting technology-related professional development for school staff.

4.2.1.5. Assessing levels of teacher and student technology use and skills.

4.2.1.6. Working with appropriate division or school-based curriculum and technology staff to help school staff in integrating technology into the curriculum.

4.2.1.7. Modeling effective instructional strategies using technology.

4.2.1.8. Serving as a member of the division technology committee.

4.2.1.9. Supporting implementation of the division and state technology plan.

- 4.2.1.10. Researching use of newer technologies in instruction.
- 4.2.1.11. Using data to design technology-based instructional strategies.
- 4.2.1.12. Recommending hardware, software, and related resources.
- 4.2.1.13. Identifying trends in software, curriculum, teaching strategies, and other educational areas.
- 4.2.1.14. Creating learning resources for teachers, staff, and students.
- 4.2.1.15. Serving as a strong advocate for technology integration.
- 4.2.1.16. Participating in software selection and use.

4.3. Professional Development

- 4.3.1. Professional development occurs throughout the school year, beginning with the in-services in August before school starts.

4.4. School Administration Building

- 4.4.1. SAB has a fiber connection.

5. NEEDS ASSESSMENT: MAJOR PROJECTS

- 5.1. Currently we are undergoing a needs assessment with Cisco and Microsoft. We will continue to assess and upgrade our system as the budget allows.

6. NEEDS ASSESSMENT: SURVEYS

- 6.1. See attached survey and section 3.2.

7. ACTIONS

8. STATE GOALS AND OBJECTIVES WITH LOCAL STRATEGIES AND MEASURES

- 8.1. More PD for teachers regarding available technology. A calendar will be developed prior to the beginning of the school year. A portion of the PD will be provided by the ITRT in the classroom. The focus for the year will be developed prior to the beginning of the school year. Staff will be given access and training to utilize Atomic Learning as a personal PD source. Off-site conferences will be mapped out at the beginning of the school year.
- 8.2. Continued educational focus for maker space and stem labs on elementary level.
- 8.3. Computer labs at the elementary schools will expand their focus to include coding.

- 8.4. Technology resources are changing quickly. The division will be utilizing new technology to enhance student education. New technology will be investigated prior to purchase to determine how it will benefit the students and how it will integrate into the system.
- 8.5. We will continue to annually survey staff and students to determine equipment, software, and professional development opportunity needs.
- 8.6. We will develop a process to evaluate software prior to purchase.
- 8.7 Bath County Public Schools is committed to maintaining a website that is accessible to all - including people with disabilities - and to meeting or exceeding all state and national accessibility standards. We will work towards website WCAG 2.0 Level AA compliance, which will be the new standard for government websites, effective January 18, 2018.

9. APPENDICES:

- 9.1. Survey
- 9.2. Division Acceptable Use Policy
- 9.3. Internet Safety
- 9.4. VADOE Technology Standards for Instructional Personnel
- 9.5. VADOE Computer Technology Standards of Learning
- 9.6. VADOE Essential Elements of ICT Literacy
- 9.7. National Educational Technology Standards for Teachers (NETS-T)
- 9.8. Instructional Technology Resource Teacher and Technology Support Positions: A Handbook for School Divisions

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(Appendices are available electronically upon request.)

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