



BIG SPRING SCHOOL DISTRICT

Office of the Technology Director

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District Technology Plan

District Mission: The Mission of the Big Spring School District is to provide challenging curricular and extracurricular opportunities, within a safe environment, that meet the unique needs of every individual by expanding interests, enhancing abilities, and equipping every student with knowledge, skills, and character essential to become a responsible citizen of our community, our nation, and the world.

District Vision: Shaping the future, one student at a time.

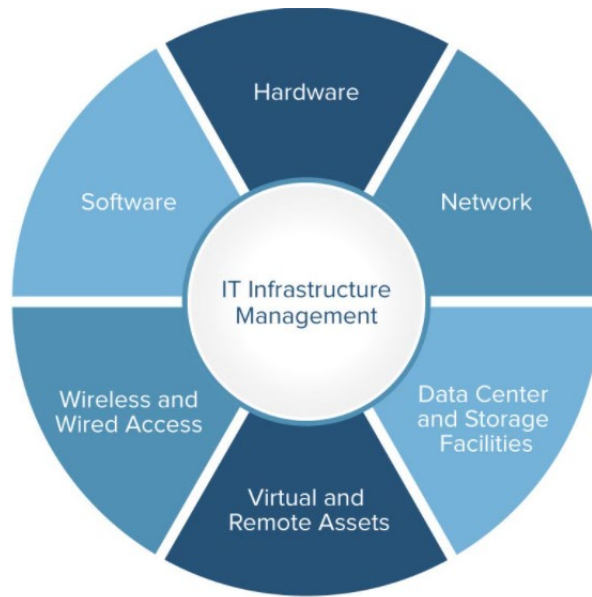
Technology Mission & Vision: The Big Spring School District recognizes that technology is an essential tool that allows our students and staff to communicate and acquire knowledge in a rapidly changing world. The district's Technology Department aims to provide reliable, efficient, current and accessible technology to maximize education opportunities. All students will have access to technology-rich learning experiences so they may become lifelong learners and productive members of the 21st century workforce.

Technology Goals:

- Develop and support resources necessary to promote technology proficiency and high academic standards by all learners.
- Ensure the families and community members have access to technology resources that enable them to be actively engaged in partnerships that encourage high student achievement.
- Provide all stakeholders with access to timely and accurate information to assist in streamlining the delivery of instruction and enhancing the efficiency of business operations.
- To maintain an infrastructure that supports increasing device counts, bandwidth, and software usage.
- Protect the integrity of the district's information and IT assets by strengthening our cybersecurity posture.

Current Assets and Supports

Infrastructure Overview



Big Spring School District has made a substantial commitment to technology in the classroom. We currently have a District wide data network in place with over 3,000 network clients. This investment in infrastructure and equipment is in a constant state of renewal, in that as we purchase new equipment whenever possible our existing equipment is repurposed and reassigned to an appropriate location. This helps us target needs across our district and ensure that we are maximizing the value of our equipment.

The District currently supports 66 network switches accommodating 6 Ethernet ports and a Wi Fi access point in each classroom. The wide-area data network on the campus connects five buildings via self-provisioned point-to-point fiber optic links at 10 Gbps. All IDF wiring closets have a direct 10GB link to the core switch in the District Office MDF. One building is connected via microwave transmission at 2 Gbps. The District Office MDF is connected to the Capital Area Intermediate Unit via a point to point 3 Gbps fiber link for internet access. The District subscribes to 550 Mbps internet bandwidth through the IU Consortium. All central network equipment, Wi Fi APs, and phones are powered through uninterruptible power supplies and diesel generators.

Infrastructure Objectives

- Continue to upgrade network and Wi Fi infrastructure to meet site and district needs.
- Review internet bandwidth usage regularly and determine annually if bandwidth needs to be increased in order to meet site and district needs.
- Replace broken/depreciated network equipment.

Hardware Overview

Classrooms

Big Spring School District commits to a minimum level of technology access in all district classrooms. This level is currently defined as encompassing the purchase, installation, maintenance, repair of the below resources:

- 1 Teacher Computer
- 1 Projector/Smartboard or 1 Interactive Panel
- 1 VoIP Telephone
- 1 Wi Fi Access Point
- 1 IP Clock/Intercom speaker
- Network Connectivity
- Access to a centralized printer

Student 1:1 Devices

Big Spring School District commits to provide an effective and sustained 1:1 program for all students to have access to the tools and resources necessary to participate in classes whether in-person or remotely. The current 1:1 devices are:

- Kindergarten – iOS devices
- Grades 1 to 8 – Chrome OS devices
- Grades 9 to 12 – Windows devices
- Special Ed – all the above with accommodations where defined

Specialized Devices in Classrooms

The district commits to provide specialized hardware for specific coursework in the curriculum such as Computer Aided Design, STEM, Keyboarding, Advanced Media, Civil 3D, and Art.

Hot Spot Program

The district commits to ensure internet access for all students through 112 internet hotspots that are provided free to families without internet either due to lack of service where they live or due to financial hardship.

Hardware Objectives

- Review and upgrade the district security camera system
- Category 6 wiring and new Bells, Clocks, PA system in the high school
- Replace loaner devices in the high school classrooms
- Replace broken/end of life computer equipment

Learning Resources

Overview

The district's virtual learning environment is a collection of interoperable web-based platforms that provide access to teaching and learning resources. Available software supported by the District includes:

<ul style="list-style-type: none">• Adobe• Aimsweb• Amplify• Aspen (SIS)• BrainPop / BrainPop Jr• Blackboard (website and connect)• CAOLA (Cyber School)• Clever SSO• Codesters• ConnectEd• Destiny• DRC Insight• E-hallpass• EdPuzzle• Epic• ExploreLearning Gizmos• Flextime Manager• Get More Math• Google for Education• Go Guardian• HMH Into Reading• iepWriter• I-Ready• Imagine Learning• IXL	<ul style="list-style-type: none">• Lifetouch• Microsoft Office• Naviance• Navigate 360• Pear Deck• Performance Matters• Prodigy• Read & Write / TextHelp• Read Live• Read Works• Registration Gateway• HMH / SAMS• Scholastic• Seesaw• SMART Technology• Splash Learning• Study Island• Terrace Metrics• ThinkLink (FOSS Science)• Turnitin• Tynker• Typesy• Progress Learning• Wilson Learning – Fun Hub/Fundations• Xtra Math
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Learning Resources Objectives

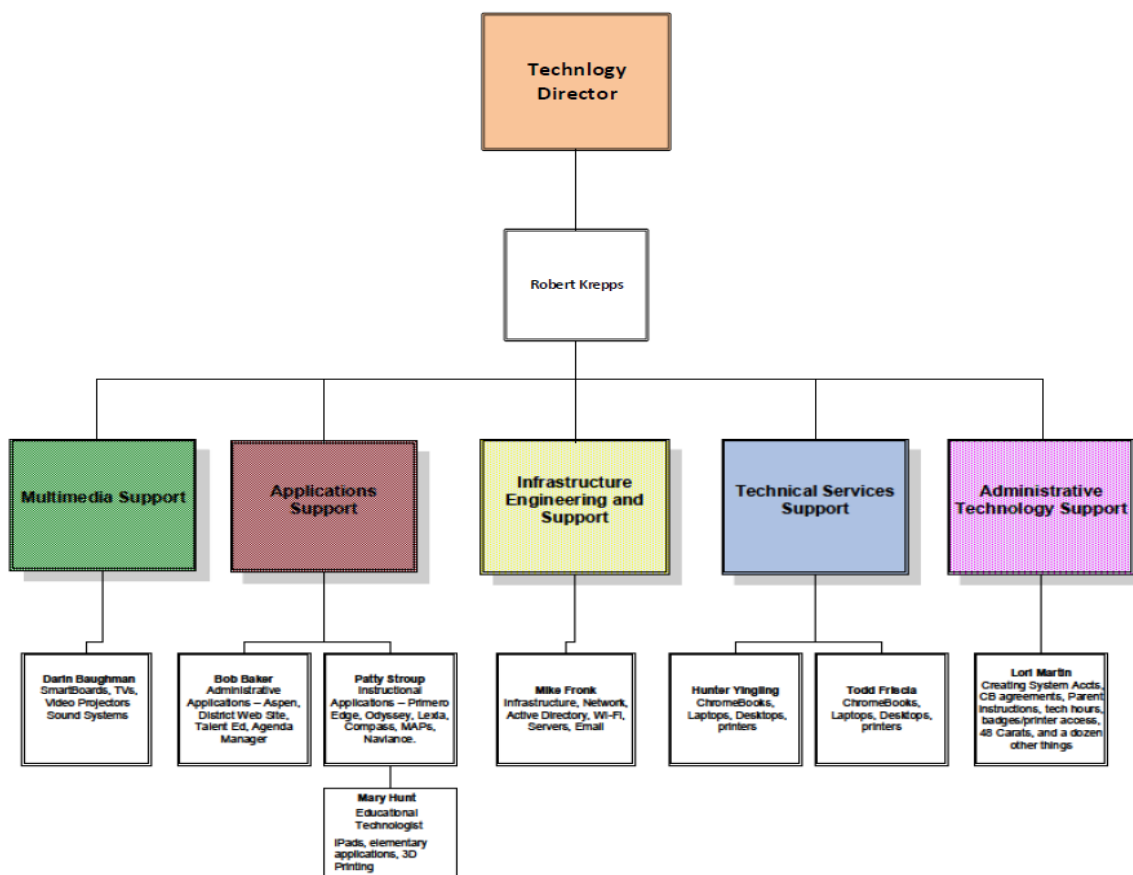
- Continue to establish and or revise policies and procedures involving acceptable use, digital citizenship, content filtering, and passwords.
- Ensure students, educators, and parents have continuous access to digital content and resources aligned to district's curriculum.
- Establish and grow a digital resources portal to share and collaborate tips, strategies, guidelines to professional staff, families, and administrators across the district.

Technical Support

Six full-time and one part-time IT Service positions are staffed by Questeq, Inc. With corporate headquarters in Coraopolis, PA, Questeq specializes in outsourcing technology for K-12 districts in PA and has been in business for over 35 years. The district has an ongoing contract with Questeq to provide technical resources on the ground, along with a centralized Help Desk and NOC (Network Operations Center). These positions include a Technology Director, an Infrastructure Engineer, an Applications Manager, two Computer Technicians, a Multi-Media Specialist, and part-time Educational Technologist (dedicated to the elementary buildings).

In addition to Questeq, the District IT staff consists of 1 full-time and 1 part-time staff. These positions include a Business Applications Manager and a part-time Administrative Assistant.

Over the past 12 months, covering the period July 1, 2022 to June 30, 2023, the Information Technology department responded to and resolved over 4,000 help desk tickets.



Technical Support Objectives

- Promote and ensure Customer Satisfaction by incorporating state of the art tools and processes that utilizes IT Service Management best practices.
- Ensure the availability of and access to information that enables stakeholders to make timely, informed decisions by strengthening data and knowledge management approaches.
- Adopt new information technologies to improve business and IT operations.

Curriculum Support

Learning targets guide when and how technology is used. Technology is never invested in solely for its own sake, instead it is leveraged and prioritized to:

- Help students meet learning goals aligned to district and state standards.
- Provide access to up-to-date enhanced resources aligned to district curriculum.
- Support differentiation. Technology tools make it easier for teacher to adapt and modify learning activities and resources to meet the needs of diverse learners.
- Technology tools can be used to give teachers and students timely feedback regarding whether students are learning, allowing teachers to respond more quickly when students are confused and move on more readily when everyone has learned the material.
- Staff professional development in effective use of technology with students is offered as new curriculum is adopted.
- Online safety and cyberbullying prevention lessons are in place at a variety of grade levels.

Assessment of Technology

The Technology Department will conduct a systematic review of the District technology needs and requirements, considering what is needed today, and the expected needs based on the District strategic plan. The goals of the ongoing assessment are:

- Identifying aging and inefficient hardware, software, infrastructure, and connectivity required to support learning.
- Highlight any technology gaps and identify possible solutions through conducting market reviews and cost-benefit analysis.
- Prioritizing needs to enable making decisions about how best to allocate resources.
- Identifying financial planning considerations and recommendations.

Financial Forecast for 2023 – 2028

Access to technology is generating new learning opportunities in the classroom. It enables teachers to evolve educational models to include personalized instruction, new collaboration models and many new innovative and engaging strategies.

Funding technology infrastructure, 1:1 devices, and digital learning resources requires strategic, short-term and long-term financial planning in order to maintain the sustainability of the Technology Plan henceforth.

Technology General Budget	23-24 Forecast	24-25 Forecast	25-26 Forecast	26-27 Forecast	27-28 Forecast
Teacher Laptop Lease	120,598	120,598	120,598	120,598	120,598
Classroom Technology Supplies	18,000	20,000	20,000	20,600	22,000
Classroom Computer Equipment	57,975	143,750	46,000	102,000	75,000
District Software Contracts	250,850	250,850	250,850	250,850	250,850
Internet Connectivity & Hotspots	92,532	93,000	93,000	93,000	93,000
Non Classroom Technology Supplies	16,000	16,500	17,000	17,500	18,000
Infrastructure Computer Equipment	0	23,250	25,000	25,000	27,500
District Phones	45,434	40,000	40,000	40,000	40,000
CAIU Hosting and Software Contracts	9,189	10,000	10,000	10,000	10,000
Hardware Maintenance Agreements	74,543	75,000	78,000	78,000	80,000
Misc Staff & Office Expenses	1,150	1,200	1,200	1,200	1,200
Questeq Contract	816,520	832,282	848,928	850,000	850,000
1:1 Equipment	293,000	350,000	300,000	300,000	350,000
	\$1,795,791	\$1,976,430	\$1,850,576	\$1,908,748	\$1,938,148
Technology Capital Projects	23-24 Forecast	24-25 Forecast	25-26 Forecast	26-27 Forecast	27-28 Forecast
DAO CAT6 Cabling		125,000			
Security Camera Upgrades & Replacements	100,000	50,000	50,000	50,000	100,000
Upgrade DAO Storage Network and Servers	140,000				175,000
Upgrade District WiFi & Switches (after eRate Reimb)				350,000	
	\$240,000	\$175,000	\$50,000	\$400,000	\$275,000