Long Range Technology Plan

2016 – 2026

David Stelmazewski

Superintendent

Engage. Inspire. Enrich.

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District Profile

ESC Region:	20
City, State, Zip:	Boerne, TX 78006
Phone:	(830) 357-2000
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County District Number:	130901
Number of Campuses:	10
Total Student Enrollment:	7516
Percent Economically Disadvantaged:	18.8%
Technology Expenditures:	$14,300,000
Number of Campuses with Direct Connection to Internet:	10
Percentage of Campuses with Direct Connection to Internet:	100.00%
Number of Classrooms with Direct Connection to Internet:	570
Percentage of Classrooms with Direct Connection to Internet:	100.00%
Computer/Student Ratio:	5:1 K-5 Elementary, 3:1 6-12 Secondary
Computer/Teacher Ratio:	1:1
Number of campuses that need to complete Clarity Survey:	10
Percentage of campuses that have completed the Clarity Survey:	100.00%

Plan Last Edited: 12/1/2015

Plan Status:	In Development
Years Included in the Plan:	2016 - 2026
Number of Years Covered by the Plan:	10
Does the District File E-Rate?	Yes

Long Range Technology Planning Committee

Stakeholders who had significant input into the development of this plan included:

	Name	Position	Representing
1	John Atchison	Chief Technology Officer	District Leadership/IT
2	Kerri Sparkman	Educational Technology Coach	Educational Technology
3	Ellie Maxwell	Principal – Cibolo Creek Elementary	Principal Elementary
4	Julie Turner	Educational Technology Coordinator	Educational Technology
5	David Boggan	Director of Communications	District Leadership/Communications
6	Donna Sharp	Vice President, Board Member	Board of Trustees
7	Robert Green	Network Specialist	Information Technology
8	Jodi Spoor	Principal – Champion High School	Principal Secondary
9	Rachel Snyder	Classroom Teacher - Elementary	Curington Elementary
10	Amy Atchison	Classroom Teacher - Secondary	Boerne High School
11	Jayne Burton	Classroom Teacher - Secondary	Champion High School
12	Ed Kinnear	Classroom Teacher - Secondary	Boerne Middle School South
13	Julie Loftin	Classroom Teacher - Elementary	Fabra Elementary
14	Lisa McLaughlin	Classroom Teacher - Secondary	Boerne Middle School South
15	Krista Lux	Classroom Teacher - Secondary	Boerne Middle School North
16	Bret Bunker	Classroom Teacher - Secondary	Boerne High School
17	Melissa Stangle	Classroom Teacher - Elementary	Cibolo Creek Elementary
18	Oralia Mattox	Classroom Teacher – Elementary	Kendall Elementary
19	Anna Barfknecht	Librarian	Boerne Middle School North
20	Shannon Padgett	Librarian	Cibolo Creek Elementary
21	Kelly Stewart	Classroom Teacher – Elementary	Fair Oaks Ranch Elementary
22	Wendy Zamzow	Classroom Teacher – Secondary	Champion High School
23	Debra Whittenberg	Classroom Teacher – Elementary	Fair Oaks Ranch Elementary
24	Kellie Williams	Classroom Teacher – Elementary	Cibolo Creek Elementary
25	Sarah Stone	Classroom Teacher – Secondary	Boerne High School
26	Sandie Ford	Director of Career and Technology	District Leadership/CTE
27	Anne Unruh	Assistant Director of Special Education	Special Education
28	Brian Combs	Parent, CCES	Parent/Community
29	John Hodge	Parent, BMSN	Parent/Community
30	Maryanna Pearson	Parent, FES	Parent/Community
31	Chuck Egli	Parent, FORE	Parent/Community
32	Jenny Price	Parent, BMSS	Parent/ Community
33	Kevin Orama	Student, Class of 2016	Boerne High School
34	Megan Kubesh	Student, Class of 2016	Champion High School
35	Susan Trizinsky	Classroom Teacher - Elementary	Kendall Elementary

District Mission

The Boerne Independent School District, in cooperation with the parents and community, prepares its students for life long academic success, responsible citizenship, and sound character. This supportive Boerne community places a high priority on education, reflected in the reputation for excellence that Boerne ISD has built and sustained through the years.

Goals for Technology

The Boerne Independent School District has created a plan to set measurable goals and deadlines for the district's continuing growth, to provide the resources necessary for our teachers and students and provide the necessary support to the learning process. In years past, the Boerne ISD Board of Trustees demonstrated its commitment to expanding and improving the digital landscape of our district through bond elections that included extensive technology propositions: $1.7 million in 1999, $1.2 million in 2001, $2 million in 2004, and $14 million in 2013.

Recommendations incorporated in this plan support the delivery of the Texas Essential Knowledge and Skills (TEKS) integrated with Technology Application TEKS as required by the Texas Education Agency. These recommendations supplement the instructional experience with access to technology. It is meant to be sustainable and impactful and is an articulation of the common vision for technology in the district.

Teaching and learning will provide not only content knowledge but also skills needed for success through the use of technology, raising the bar for future-ready success for all students of Boerne ISD. Technology can provide a depth and richness to instructional approaches so that students of all learning modalities can be reached. Education preparation and development in the effective use and integration of technology will be a determining factor in the success of this plan.

Like the technology it describes, this long-range plan must be frequently evaluated and updated to remain relevant and useful. In our fast-paced society, it is virtually impossible to predict what technologies will benefit our classrooms during the next several years. However, this plan does address the leadership, administration and instructional support necessary to provide for a comprehensive technology program that will benefit everyone in Boerne ISD. The success of this program is dependent upon the ability of the district to provide the necessary tools, resources and upgrades of existing equipment.

The Boerne ISD technology plan also recognizes the need for a powerful and dynamic infrastructure. Without a strong backbone, we will not be able to support the goals of the district and state. In a time where communication with parents and community is vital, the success of that communication is dependent upon a solid infrastructure behind the scenes.

The technology priorities of BISD have come together in one plan with input from our classroom teachers, students, administration, and community stakeholders. Information received from our Clarity surveys and meetings with district personnel were crucial in building our plan. We have made every effort to put forth goals and objectives that are attainable in our fast growing district and provide the best for our students and teachers.

It is the district's strongest belief that through the implementation of this technology plan for the integration of curriculum and technology, the goals of excellence in teaching, learning and effective management within the Boerne Independent School District will be further advanced.

Assessment Process

Maximizing every student's potential through rigorous and relevant learning experiences preparing students to be 21st century global leaders is Boerne ISD's primary mission. To determine the technology needs throughout the district, ongoing, comprehensive needs assessment methods are used. Boerne ISD conducts extensive surveys and assessments with campuses and administrative departments to analyze the current status of technology in the district and determine future needs. Items analyzed include: personnel support, professional development, curriculum integration, infrastructure, hardware, software, student achievement, and technology resources. The Clarity survey is also used as a tool for self-assessment and planning of effective technology integration across the curriculum.

Results from these assessments are used to determine funding priorities, provide information for technology planning, and measure the impact of state and local efforts to improve student learning through the use of technology. Technical coordinators assess systems needs within departments. Internal assessments from department managers are conducted. External assessments are conducted by technology consultants as needed.

Other assessment tools were used to develop the Boerne ISD Long Range Technology Plan based on documented research and proven technology solutions:

- Department status meetings are frequently held to discuss current projects and events. Discussion also includes issues, concerns and trends that may impact technology users within the district.
- Principal meetings to gather specific updates to technology.
- TASB (TX Association of School Boards) – conference includes other district executives where information/concerns regarding education in the state are shared and discussed. Also, listen to informative speakers and take technology course offers.
- TCEA (TX Computer Education Association) – conference includes other district technology people where information/concerns regarding technology education in Texas are shared/discussed – speakers are heard and workshops are offered.
- CoSN (Consortium for School Networking) – state and national conferences which allow IT leadership to network with and learn from other Educational IT leaders from Texas, the United States, and a number of international countries.
- Other state and national conferences as deemed appropriate.

Additionally, adherence to Federal and State regulations are a top priority that is factored into the needs assessment. The safekeeping of student data and the district's computing infrastructure will ensure that the district is compliant with federal and state mandates including the Family Education Rights and Privacy Act (FERPA), the Children's Internet Protection Act (CIPA) and the Health Insurance Portability and Accountability Act (HIPAA).

In summary, the needs assessment includes alignment to board goals, district goals, campus improvement goals, and department goals. This provides a systematic process to acquire an accurate, thorough picture of the strengths and weaknesses of technology that will determine priority goals, to develop a plan, and to allocate funds and achieve results.

Existing Conditions

As discovered in the bond planning process and, more recently, in the technology planning process, the district realized that much progress had been made in meeting needs and that the district should continue to elevate past efforts – principally focusing on Curriculum, Assessment and Instruction, Professional Development and Technology Infrastructure and Support. These key areas, along with conditions in the administrative and infrastructure areas are stated below.

- Teaching and Learning
- Educator Preparation and Development
- Leadership, Administration and Support Services
- Technology Infrastructure and Support

Focus of Classroom Instruction

Every classroom in Boerne ISD has been provided with an Internet-connected classroom computer, digital LCD projector, VoIP classroom phone, and a variety of web-based applications and resources. Every K-12 teacher is provided with an Apple iPad. Additionally, every K-5 classroom has been provided with an interactive display or interactive white board and at least 2 student desktop computers. Document cameras are frequently used throughout K-12 classrooms, and every K-12 teacher and student has access to computer labs and libraries to accomplish technology skill development, research, work related to technology-infused projects, and instructional interventions. Each campus is provided with multiple mobile device carts consisting of laptops or Apple iPads.

The district employs an average of one Educational Technology Coach (ETC) for every three regular education campuses, a shared Librarian for middle schools, and a shared Librarian for high schools; both groups serving as excellent resources and technology support persons for classroom teachers. They assist teachers with planning and teaching technology integration activities and projects that help students learn content objectives and reinforce learning.

Network Infrastructure

In 2014 – 2015, Boerne ISD adopted a partnership with Guadalupe Valley Telecommunications Cooperative (GVTC) to provide a reliable, high-speed fiber optics network connecting all 10 campuses and 3 auxiliary buildings. Each regular campus has a dedicated 1 Gigabit connection to the GVTC data network. The district internet connection consist of 2 – 250 Megabyte connections, co-located at the Central Office and Boerne High School, which operate in an active/passive state to provide for redundancy and failover.

At the Central Office data center, a Cisco 6500 series router/switch provides Gigabit connectivity between each campus and all of the servers. Both high schools connect back to the Central Office through a Cisco 6500 series router/switch across a 1 Gigabit WAN link provided by GVTC. In addition, every campus has 1 Gigabit connectivity to the desktop in every classroom. Campus data closets are inter-connected using 1 Gigabit fiber optics connection using no less than OM-3 fiber optics cabling as a standard. Each campus is configured with its own data, voice, and video Virtual LANs (VLANs) to better manage traffic and to increase data security.

Every connected device is filtered using a web content filter, which prevents browsing to inappropriate website content. Students and teachers are filtered using different policy rules as deemed appropriate by district leadership and the district's Acceptable Use Policy. Packet shaping technology is also leveraged to help prioritize data traffic by type and content.

Wireless Infrastructure

All campuses throughout the district have a Cisco wireless infrastructure and contain a Cisco Wireless Access Point (WAP) in every classroom, with the exception of Fabra Elementary. A new campus location is in the construction phase, scheduled for completion by the 2016 – 2017 school year at which time the new Fabra Elementary school building will receive the same wireless infrastructure configuration. In the interim, wireless coverage at the existing location is evaluated and WAPs are provided as requested when the need arises. This wireless network infrastructure is available for student, staff and guest use when on school premises.

Server and Data Center Infrastructure

The Information Technology Services department supports approximately 72 virtual servers running VMware 5.1, and approximately 8 physical servers. A NetApp Storage Area Network (SAN) is used as a repository for student, teacher and server data. Data backups are performed daily with data copied to a separate drive array for redundancy.

A Cisco VoIP phone system connects via the SIP protocol and provides telecommunications communication for the entire district. A Cisco Unity voicemail system also provides employees with a voicemail box which integrates into the Exchange email system for email notification when a voice message is received. In addition, every instructional classroom has a Cisco VoIP phone which is configured with location information for use with E911 services.

Physical Security and Video Surveillance

An IP video surveillance system is installed at Boerne High School and Champion High School which records footage back to the central data center. In addition, all campuses have secure badge access entries at the campus main entrance which is centrally managed and monitored. A secure vestibule is located on each campus and provides a visitor check-in system that is updated daily with state and national sex offender data.

Classroom Technology Initiatives

Teacher Devices

Every classroom teacher has a Windows-based desktop computer that provides them with access to their email, student gradebook and attendance, online curriculum resources, and other instructional and district-related services and software. They also may use their desktop as a classroom presentation device, used in conjunction with a document camera, LCD projector and interactive whiteboard. An Apple iPad Air was also issued to every classroom teacher to support interactive learning and classroom presentation.

Student Devices

In January 2015, over 1200 outdated student desktops were refreshed as part of the 2013-2016 bond program, and in April 2015, over 330 mobile laptops were deployed as mobile lab carts. Currently, there are approximately 2253 student desktop and approximately 1305 laptops deployed district-wide.

In addition, the district has deployed over 1200 Apple iPads across the entire district as either a complete mobile iPad cart or individually to classrooms for student use.

Every K-8 classroom has an average of 2 student computers in each classroom. Each elementary school has a minimum of 2 student computer labs, while each middle school campus has a minimum of 5 student computer labs and high schools have a minimum of 8 student computer labs.

Campus	# Student Desktops	# Student Laptops	# Student iPads	Total Devices
Boerne High School	306	232	161	699
Champion High School	506	220	143	869
Boerne Middle School North	270	246	125	641
Boerne Middle School South	297	232	71	546
Fabra Elementary	185	120	136	441
Cibolo Creek Elementary	166	37	115	318
Curington Elementary	166	76	143	385
Kendall Elementary	176	71	165	412
Fair Oaks Elementary	181	71	161	413

Software and Instructional Applications

An inventory management system using an SQL database and barcode labeling process was purchased in September 2014, and is used to track and record inventory information of all computers, audio-visual equipment, mobile devices, and other technology related components as they arrive in the district. This database allows us to know what equipment we have, the equipment's age, and where it is located. Reports can be shared with campus and district personnel, and will be used to make informed purchasing decisions.

All staff members utilize Microsoft Exchange and/or Office 365 for email communications with multiple levels of virus protection and spam filtering utilizing Microsoft Exchange Online Protection, Sophos Antispam Gateway, and System Center Endpoint Protection programs. Students have access to Google Apps for Education (**GAFE**) and are provided with an online Google account, granting access to a suite of products provided by the GAFE software suite. Staff members access student information and gradebook via iTCCS and collaborate and design instructional material using a variety of software including Microsoft Office, GAFE, Adobe Master Suite Collection, Eduphoria, etc.

The following table contains a list of some of the major applications in use in Boerne ISD:

Name	Purpose
iTCCS	Student Information System / Financial System
Eduphoria SchoolObjects	PDAS, Workshop, Aware, T-TESS
SchoolConnects	Automated Notifications
FinalSite	District Website and Communications
Microsoft SharePoint	Document Management / Internal Portal
Microsoft Office 2013	Productivity Suite
Google Apps for Education	Student Email / Online Productivity Tools
Microsoft Lync/Skype for Business	Collaboration
Microsoft Exchange	Email and Voicemail
Cisco CallManager	VoIP Phone System
School Check-In	Visitor Management System
TipWeb	Textbook Management
Wasp Inventory Control	Technology Inventory Management
iSupport	Request Management System
Destiny	Library Management System
eSped	Special Education, Individual Education Plans and Section 504
Subfinder	Substitute Management System
FitnessGram	Activity and fitness assessment, reporting, and tracking for TEA
Transfinder	Bus Routing System
Earobics	Multisensory Learning Solution
Geogebra	Math Learning Website
Google Sketchup	CAD Drawing Tools
iStation	Reading Learning Website
Learning.com	Learning Website
Plato	Credit Recovery Software
Think Through Math	Math Learning Website
Inspiration	Learning Website
Kidspiration	Learning Website
Various major publishers (Pearson, McGraw Hill, HMH)	Digital Instructional Materials
SchoolStream	Online Job Application System

Information Technology Support Structure

The Information Technology Services department provides service and support to all campuses and auxiliary facilities in the acquisition and use of technology throughout the district. This department works closely with the Curriculum and Educational Technology departments to ensure that technology is integrated into the classroom to enhance student learning.

The department provides support in the following areas:

Network Operations Team

This team supports and maintains the District's Wide Area Network (WAN) and Local Area Networks (LANs) on all campus and administrative sites. They are also responsible for the installation of all file and application servers, data backups, security and policy management, Mobile Device Management (MDM), and anti-virus management.

Strategic Operations Team

This team is responsible for all technology asset management, inventory and procurement. Members of this team help make technology procurement recommendations based on industry compatibility requirements and compatibility with existing systems. All Technology purchases are routed through the Strategic Operations Team for the CTO's approval.

All software purchased for use within the District must have approval from both the Curriculum and Technology Departments prior to purchase. All hardware must be approved by the Technology Department. This safeguards against compatibility issues and helps to confirm adherence to established standards for Curriculum. The Technology Department maintains a list of approved hardware and software containing most items commonly used throughout the District.

The Technology Department maintains a procurement guidelines handbook which details technology purchasing procedures and also includes a technology pricing catalogue with pricing and vendor information for the most commonly requested items.

Customer Services and Support Team

This team supports Boerne ISD's computer and networking needs with desktop and peripheral support, multimedia services, customer service desk, application and file sharing, and equipment repair. Several individuals within this group are responsible for keeping each assigned campus running on a day to day basis.

In October 2014, a management review of the Technology Department was conducted by Texas Association of School Board Officials, TASBO. Recommendations were made based on the findings within the report. Many of the strategic goals within this Technology Plan address recommendations made by the review.

Technology Needs

Student Needs

Students need technology that is embedded throughout the curriculum and that focuses on skills that support the Technology Application TEKS, collaboration, communication, creativity, critical thinking, and digital literacy and citizenship. Enhancing the classroom with District-owned devices and District-provided Wi-Fi allows students to utilize technology to grow and prepare for tomorrow's challenges, and ensures that digital resources are readily available.

An online collaborative learning space within a proposed Learning Management System provides information for both students and teachers to ensure that they have access to the resources and support inside and outside the classroom.

Teacher Needs

- Teachers need Instructional and District Leaders, Educational Technology Coaches, and Principals that provide professional development opportunities to transform traditional instructional spaces into innovative and interactive learning centers to support student-centered learning. In addition, teachers need recurring professional development in the areas of pedagogy redesign, digital literacy and citizenship and the use of digital tools.
- The District should provide teachers with access to purposeful classroom technology and devices that can quickly connect to reliable, responsive technology infrastructure and access intuitive, user-friendly systems.
- Clear processes and policies should be defined for all district staff and reviewed and revised on a recurring basis.
- Teachers need just-in-time technical and educational technology support from appointed staff to minimize downtime and assist with the integration of technology applications into instructional lessons.

Administrative Needs

District administrators need to continue to create clear and concise strategic plans that align with one another and support district goals and initiatives. A continued dedication to providing clear direction, streamlined business processes, and operational efficiency using measurable data and Key Performance Indicators through user-friendly, enterprise-level applications is supported throughout this plan.

The continued commitment to transparent communication, strategic planning, budget allocation, and professional staffing is vital to further support the administrative needs of the District.

Technology Needs

Based on the Clarity survey results, the technology infrastructure is viewed as a strength. Increasing the number of devices at the secondary level in ELAR and Social Studies classrooms, and increasing the number of devices in grade levels K - 8 to 3:1 will help classrooms to align with the growth of delivered content and provide increased access to online materials. To further support this initiative, all campuses should strive to achieve redundant LAN connectivity speeds of 10 GB or greater. In addition, all secondary campuses should strive to achieve redundant WAN connectivity speeds greater than 1 GB.

The existing data center has room for improvement. The district needs to implement a design strategy for a robust, well-maintained data center with an off-site, co-located, or cloud-based disaster recovery site. The data center should contain redundancy and optimal connectivity to deliver district services quickly and efficiently to all connected users. In addition, a Disaster Recovery Plan should be developed, and reviewed and revised on a recurring basis.

Currently there is a great need to establish an obsolescence program that identifies aging technology and provides a clear strategy for upgrade or replacement. To do this, a full audit and inventory of all hardware and infrastructure should be performed.

To continue to provide transparency to all district stakeholders, district leaders should continue to research reliable communication and content delivery platforms to support the delivery of information and services. A centralized Intranet Portal should be established to operate as a collaborative data and informational repository for all district staff.

All district facilities should be equipped with access control and video surveillance in all identified locations. In addition, district leadership should design a Disaster Recovery Plan that aligns with the district Crisis Management Plan in the event of system failure or crisis.

The Technology Department should continue to employ highly-skilled technical and instructional staff members to maintain adequate specialist to technology ratios and to support district technology initiatives. The District should try to maintain a Campus Technology Support Specialist to device ratio of 1:1000.

GOAL 1

Facilitate the integration of a technology-infused curriculum which aligns with the Texas Essential Knowledge and Skills (TEKS), while enhancing academic achievement, ensuring technology proficiency, and producing learners who are powerfully equipped to thrive in our 21st century society.

Objective 1.1				Category: Teaching and Learning
Students will utilize technology as an avenue for educational exploration and achievement.				
Budget:				

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
1.1.1	Provide the means and support for students to meet basic technology competencies and provide opportunities to participate in advanced or specialized technology applications courses.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Curriculum and Instruction, Classroom Teachers, Campus Administration	Technology Applications course offerings (Code.org, STEM)
1.1.2	Students will have the opportunity to participate in a CTE course pathway beginning in Middle School, that incorporates digital learning components providing foundational technology competencies for college and career and opportunities for student internships with BISD.	State: Original Status: Planned	2016-2026	Educational Technology Department, Curriculum and Instruction, Career and Technology Education Coordinator	Middle School CTE course offerings
1.1.3	Provide students with the opportunity to engage in collaboration, completion, and submission of instructional materials electronically.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Curriculum and Instruction, Classroom Teachers, Campus Administration	Utilization reports within Learning Management System
1.1.4	Provide students with the opportunity to complete and submit both district-mandated benchmarks and state standardized assessments electronically.	State: Original Status: Planned	2018-2026	Testing Coordinator, Educational Technology Department, Curriculum and Instruction, Classroom Teachers, Campus Administration	Submitted testing benchmarks and assessments

		Category: Teaching and Learning
Objective 1.2		

Teachers will foster a learning environment which synchronizes technology, pedagogy and content.

Budget:

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
1.2.1	Teachers will have the opportunity to build an online knowledge base of technology-infused exemplar lessons using district approved lesson design guidelines for all core content areas.	State: Original Status: Planned	2017-2026	Educational Technology Department, Curriculum and Instruction, Classroom Teachers, Campus Administration	Lesson designs in online format
1.2.2	Utilize Educational Technology Coaches, working with district and technology leaders, to support the classroom teacher in integration of technology into the curriculum.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Curriculum and Instruction Department	One Educational Technology Coach assigned to each campus
1.2.3	Continue to expand secondary Technology Applications high school course offerings to meet the required secondary curriculum and support future STEM initiatives.	State: Original Status: In Progress	2016-2026	Curriculum and Instruction Department	Secondary Technology Applications course offerings
1.2.4	Offer a CTE course pathway beginning in Middle School that incorporates digital learning components providing foundational technology competencies for college and career and opportunities for student internships with BISD.	State: Original Status: Planned	2016-2026	Curriculum and Instruction, Educational Technology, Career and Technology Coordinator, Campus Administration	Middle School CTE course offerings (Code.org)
1.2.5	Continue to encourage and support electronic collaboration between students for educational purposes.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Curriculum and Instruction, Campus Administration	Students and staff connecting and using personal devices, connectivity logs and reports

Objective 1.3				Category: Teaching and Learning

The District will support the teaching and learning process by providing tools and supportive resources that infuse technology into the classroom and stimulate student achievement.

Budget:

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
1.3.1	Provide students with prolific access to technology tools and devices by increasing the ratio of technology devices to students to 1:1 for Grades 6 – 12 in ELAR and Social Studies classrooms, 3:1 in general education classrooms for Grades K-5, and 1:1 to support identified student populations (ELL, GT, Dyslexia, 504, etc.)	State: Original Status: Planned	2016-2019	Chief Technology Officer, Curriculum and Instruction Department, 504 Coordinator	Campus technology inventory, technology resource calendars, 1:1 Sub-committee plan and recommendations
1.3.2	Develop and implement a CTE course pathway, introduced in Middle School that incorporates digital learning components providing foundational technology competencies for college and career and opportunities for student internships with BISD.	State: Original Status: Planned	2016-2026	Curriculum and Instruction Department, Educational Technology Department, Career and Technology Education Coordinator	Technology-related Middle School course offerings
1.3.2	Develop and implement an instructional learning model that aligns with the Teacher Appraisal and Evaluation System to provide for the integration of 21st Century teaching and learning throughout the district.	State: Original Status: Planned	2017-2026	Curriculum and Instruction, Campus Administrators and Teachers	Campus inventory, Number of Technology Infused Lessons available in proposed Curriculum Management System
1.3.3	Research and recommend the use of a preferred Learning Management System.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Department, Curriculum and Instruction Department	Sub-committee recommendation, system design submission, purchase orders
1.3.4	Research and recommend a flexible and collaborative Curriculum Management System to develop a compilation of technology-infused instructional resources.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Educational Technology Department, Curriculum and Instruction Department	Sub-committee recommendation, system design submission, purchase orders
1.3.5	Create and implement lesson design templates for district-wide use within the proposed Curriculum Management System.	State: Original Status: Planned	2016-2026	Curriculum and Instruction, Educational Technology Department	Available lesson design templates

1.3.6	Model and implement an ongoing Digital Citizenship Program, and provide online informative resources and annual training for district staff.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Educational Technology Department, Director of Communications	Sub-committee program outline, online informational resources, parent open-house presentations
1.3.7	Model and implement an ongoing Digital Citizenship Program, and provide online informative resources for students, parents, and community stakeholders.	State: Original Status: Planned	2017-2026	Educational Technology Department	List of open-house events offered throughout the year
1.3.8	Annually evaluate and revise the Digital Citizenship Program and training modules for appropriate district staff.	State: Original Status: Planned	2016-2026	Educational Technology Department	Updated information and training schedules
1.3.9	Recommend and install interactive classroom presentation and collaboration devices in identified instructional spaces for grades K-12.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Campus inventories
1.3.10	Research, evaluate, and recommend emerging digital instructional resources and learning materials for core content areas.	State: Original Status: Planned	2016-2026	Curriculum and Instruction Department, Campus Administration	Sub-committee recommendations, digital resources and materials purchased

GOAL 2

Enhance and provide ongoing training opportunities for students, staff, and supporting community members with an emphasis on creating a digital learning community and to be front runners as technology-driven global leaders.

Objective 2.1					Category: Educator Preparation and Development
Provide professional development opportunities for teaching and integrating Technology Applications TEKS into the core K-12 curriculum.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
2.1.1	Increase campus-based Educational Technology Coaching staff to provide one ETC for each instructional campus.	State: Original Status: Planned	2016-2026	Assistant Superintendent of Business, Educational Technology Department	Educational Technology Coach staffing positions
2.1.2	Continue to use Educational Technology Coaches on each campus to serve as instructional coaches and mentors to support all instructional staff.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Curriculum and Instruction, Campus Principals	Educational Technology meetings, ETC collaboration sign-up calendars
2.1.3	Provide targeted Instructional Technology training for Educational Technology Coaches and other key user groups based on the Clarity and Eduphoria survey results from teachers and instructional leaders and reflective meeting dialogues.	State: Original Status: In Progress	2016-2026	Assistant Superintendent of Business, Chief Technology Officer, Educational Technology Department	ETC trainings, Clarity and Eduphoria survey results, meeting agendas and minutes
2.1.4	Provide structured guidelines and expectations for campus-based Educational Technology Coaches and other campus technology specialists to lead and train colleagues in creating technology-rich, student-centered learning environments.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Department, Librarians	Scheduled meeting agenda and minutes
2.1.5	Develop and deliver high quality professional development courses for teachers that focus on preparing them to redesign instruction, integrate technology into their subject areas, and use the available resources to make sound, data-driven decisions.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Curriculum and Instruction Department, Teachers	Staff development classes offered, survey feedback results
2.1.6	Further develop and implement an Innovative Leaders Program (Teachers train teachers) to assist Educational Technology Coaches in modeling technology-infused lessons for colleagues on each campus.	State: Original Status: Planned	2017-2026	Educational Technology Department, Chief Technology Officer, Curriculum and Instruction Department	Innovative Leaders Program participants, modeled instructional sessions

2.1.7	Develop and implement training opportunities that emphasize instructional redesign that produces high levels of learning based upon the H.E.A.T. framework. (Higher-order thinking, Engaged learning, Authentic connections, Technology use)	State: Original Status: In Progress	2016-2026	Educational Technology Department	List of training courses offered
2.1.8	Offer examples of best teaching practices through a variety of methods including informal, face-to-face, co-teaching with Educational Technology Coaches, streaming video, just-in-time training and support, web-based courses, and Web 2.0 applications.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Curriculum and Instruction Department	Inventory of online resources, classroom observations, Lesson designs
2.1.9	Provide a structure for teachers to visit classrooms of their colleagues, and welcome others into their classrooms in order to share best practices and build collegial relationships in professional learning communities.	State: Original Status: Planned	2017-2026	Principals, Educational Technology Department, Teachers	Documentation of visitations
2.1.10	Use new and existing resources to share instructional ideas, classroom management strategies and best practices for special and general education and special programs.	State: Original Status: In Progress	2016-2026	Assistant Superintendent of Business, Teachers, Educational Technology Department, Principals, Dyslexia Specialists, Reading Specialists, GT Coordinator	Shared resources listed on district storage media and/or Curriculum Management System
2.1.11	Encourage and support educators and instructional support staff in participating in local, regional and statewide professional development opportunities including online professional development and/or continuing education.	State: Original Status: Planned	2016-2026	Assistant Superintendent of Business, Campus administration, Educational Technology Department, Chief Technology Officer, Teachers	Conference registrations
2.1.12	Establish guidelines, minimum standards and goals for technology integration in instructional planning.	State: Original Status: Planned	2017-2026	Educational Technology Department, Campus Administrators	Submitted Lesson designs within Curriculum Management System, performance appraisal through Teacher Appraisal System
2.1.13	Coordinate with campuses to deliver technology guided training during staff meetings or other identified assemblies.	State: Original Status: Planned	2016-2026	Educational Technology Department, Campus Administrators	Staff Development agendas

Objective 2.2				Category: Educator Preparation and Development	
Encourage and support all instructional personnel to meet the ISTE National Education Technology Standards for technology literacy and fluency.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
2.2.1	Develop a guide that lists the Technology Applications TEKS at each grade level and recommends strategies and resources for integrating these into the core curriculum; tie these resources to the FIO (Focused Instructional Overview).	State: Original Status: Planned	2016-2026	Educational Technology Department, Curriculum and Instruction Department	Published guide
2.2.2	Provide opportunities for teachers to collaborate with their supervisor, Educational Technology Coach, and Library Media Specialist annually to set goals for using technology to engage students.	State: Original Status: Planned	2016-2026	Campus Administration, Library Media Specialists, Educational Technology Department	Submitted Lesson designs, Teacher Appraisal System reviews
2.2.3	Provide opportunities for one-on-one follow up from ETC to ensure mastery of content and to set goals and expectations for the implementation of strategies.	State: Original Status: Planned	2016-2026	Campus Administrators	Follow up schedules, Teacher Appraisal System reviews
2.2.4	Expand and enhance online and face-to-face training options using a variety of formats to infuse appropriate technologies into teaching and learning.	State: Original Status: In Progress	2016-2026	Educational Technology Department, Chief Technology Officer	Training offerings and feedback

Objective 2.3				Category: Educator Preparation and Development	
Develop a professional program for all Library Media Specialists and evolve the traditional Library into a 21st Century digital learning and collaboration environment.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
2.3.1	Provide opportunities for Library Media Specialists to observe successful innovative learning programs at other schools and districts.	State: Original Status: Planned	2016-2026	Campus Principals	Visitor logs, visitation notes
2.3.2	Provide the Library Media Specialists with the opportunity to attend professional conferences that will provide networking and staff development opportunities such as Digital Citizenship and Literacy, Makerspace, Coding, etc.	State: Original Status: Planned	2016-2026	Assistant Superintendent of Business, Campus Principals	Conference schedules

GOAL 3

Model, monitor and provide systems of support for continuous, quality communication and partnerships amongst District stakeholders, which meet the demands of the 21st Century, and equips students with the skills they need for post-graduation success.

Objective 3.1				Category: Leadership, Administration, and Support Services	
Develop, budget for, implement, and evaluate dynamic plans and processes that leverage technology and that are reflective of the changing workforce and economy.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
3.1.1	Utilize the Chief Technology Officer to communicate and plan with district leadership and the School Board to ensure effective use of technology throughout the District.	State: Original Status: In Progress	2016-2026	Superintendent, District Leadership	Yearly budgets, departmental organizational charts, Board reports
3.1.2	Utilize a strategic planning process that aligns with other district and campus strategic and improvement plans.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, District Leadership	Established planning process, District and campus improvement and strategic plans
3.1.3	Develop a long-term technology plan that remains current and flexible to the evolution of technology, and aligns with the District Strategic Plan and other District initiatives.	State: Original Status: Planned	2016-2026	Chief Technology Officer, District Leadership, Technology Planning Committee	Published and approved technology plan.
3.1.4	Document the workflow of support systems and financial management systems within the District's financial systems to support the business operations of the District.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Financial system reports
3.1.5	Evaluate and recommend a transportation scheduling system that integrates with the District financial system.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Facilities and Construction	Evaluation of existing Transportation system

Objective 3.2				Category: Leadership, Administration, and Support Services	
Create innovative, flexible and responsible technological environments to maximize teaching and learning.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
3.2.1	Support consistent communication and planning processes through participation in District committees and regularly scheduled inter-departmental meetings.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Meeting schedules and minutes
3.2.2	Employ consistent, effective and appropriate communication between technology-related areas and others through written communications, email, and meetings with district personnel.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Informational emails, Requests For Change documented processes and procedures, System Status notification on Customer Support Center
3.2.3	Continue to evaluate and provide supportive documentation, resources, and content using a variety of digital and web-based platforms to deliver information to appropriate audiences to sustain learning communities within the district.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Communications	District website, District Intranet, social media, SchoolWay mobile app, SchoolConnects
3.2.4	Provide appropriate instructional related training to all relevant staff to facilitate technology integration, collaboration and presentations by both teachers and students.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Coordinator	Training events, in classroom technology integration training schedules
3.2.5	Provide instructional software licenses required to support instructional programs within all campuses.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Curriculum and Instruction	Software inventory, purchase orders, district approved software list

Objective 3.3				Category: Leadership, Administration, and Support Services	
Offer expanded curricular and instructional opportunities to students via online, digital technology, and a variety of distance learning technologies.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
3.3.1	Explore online and distance learning opportunities at all levels to provide additional curriculum-based content, activities, and resources to students.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Curriculum and Instruction	Video conferencing and telepresence utilization reports by campus and district
3.3.2	Evaluate, update, and enhance classroom and campus technology models to support online testing, certification, and digital curriculum for students.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Curriculum and Instruction	Classroom equipment standards, digital curriculum subscriptions, utilization reports during online testing
3.3.3	Research exploration of emerging technologies and development of new, innovative and cost-effective solutions.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Curriculum and Instruction	Innovative and emerging technology reports, pilot groups
3.3.4	Investigate and recommend a technology check-out program for students.	State: Original Status: Planned	2018-2019	Chief Technology Officer, Educational Technology Department, Curriculum and Instruction	Inventory reports, device check-out request and usage reports

Objective 3.4				Category: Leadership, Administration, and Support Services	
Engage employees in ongoing, relevant and timely professional development and learning delivered in a variety of formats.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
3.4.1	Design, implement, evaluate and support a technology professional development and learning technology program for all staff.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Department	Technology component within required training plans for all staff members, Learning Management System reports
3.4.2	Prepare trainers to develop and deliver training including one-to-one training, online models, distributed, instructor led, and other formats designed to meet the needs of BISD personnel.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Coordinator	Training survey reports, Webinars presented by Educational Technology Coaches
3.4.3	Create online support guides, allowing anytime access to aided documents for departmental and campus level personnel.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Department	Knowledge Base articles, handbooks, training documentation and How-To content
3.4.4	Develop and implement trainings as needed to secure required skills for new technologies being implemented.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Department	Schedule of trainings offered and attendance data
3.4.5	Provide training required to create Subject Matter Experts in each department and/or campus, which can serve as liaisons when working on system or application upgrades.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, District Leadership	Documentation of training received
3.4.6	Provide Technology Department personnel with formal and informal training classes relevant to job duties of the department.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Documentation of training received
3.4.7	Maintain relationships with software vendors and update the district process to ensure appropriate utilization, leveraging their training modules.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Coordinator	Frequent communication with vendors

Objective 3.5				Category: Leadership, Administration, and Support Services	
Integrate the use of technology tools to improve efficiency and effectiveness of operational processes.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
3.5.1	Pursue and utilize available grants, donations, bond funds, federal and/or local funds, and strategic partnerships to support the technology plan.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Strategic partnerships, funding reports
3.5.2	Align financial resources to support Technology Plans through approved resources.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Funding aligned with an approved Technology Plan
3.5.3	Provide a detailed plan containing acquisition, support, and sustainability for student device programs for grades K-12.	State: Original Status: Planned	2016-2026	1:1 Planning Subcommittee	Proposed multi-year plan for implementation
3.5.4	Design and implement consistent and reliable operations of equipment and services through efficient maintenance of service contracts for support, replacement and upgrades.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Service and support agreements/contracts, high systems availability
3.5.5	Assess technology initiatives based on performance surveys, campus and teacher Clarity survey results, defined technical requirements, helpdesk and technical support response results.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Coordinator	Analysis report of information attained through appropriate feedback methods, assessments tied to Strategic Plans
3.5.6	Standardize and streamline Technology processes and procedures.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Published processes and procedures
3.5.7	Gain feedback regarding Technology processes and procedures.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Surveys, meeting notes
3.5.8	Revise and streamline Technology inventory management processes.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Inventory process guidelines

3.5.9	Continue to evaluate and improve the Technology Customer Support Center to serve as a single point of contact for all Technology questions and issues.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Number of technology related incidents reported
3.5.10	Evaluate efficiency and productivity of Technology Customer Support Center using Key Performance Indicators metrics and call center monitoring tools.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Number of incidents by category, call center data reports
3.5.11	Explore current support tools and other features offered to identify areas for service improvement.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Listing of available features for adopted support tools
3.5.12	Continue to administer and support a Technology Knowledge Base, add valid and useful articles, and remove irrelevant information in a timely manner.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Number of Knowledge Base articles
3.5.13	Identify and replace or upgrade outdated technology equipment as defined by the Technology Lifecycle Replacement Plan.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Obsolescence Plan, Inventory of technology purchased

Objective 3.6				Category: Leadership, Administration, and Support Services	
Include community input into the planning and support of the integration of technology into teaching and learning.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
3.6.1	Actively participate in community development programs aimed at delivering understanding of how technology is structured and utilized in Boerne ISD.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Educational Technology Coordinator, District Leaders	Meeting schedules and agendas
3.6.2	Utilize technology communication tools as well as face-to-face opportunities to maintain collaborative communications with parents, district personnel, and community members.	State: Original Status: In Progress	2016-2026	Superintendent, Director of Communications	Meetings schedules and agendas, Board meeting videos on the Boerne ISD website
3.6.3	Employ a variety of methods to share with the community how allocated bond funds for technology are being utilized to support student success.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, District Leadership	Publications, newsletters and campus signage, published strategic plans, quarterly bond reviews
3.6.4	Expand the use of technology resources to support community-based District programs such as the Boerne ISD Adult Education Program.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Curriculum and Instruction	Increased community use of technology resources
3.6.5	Utilize the Boerne ISD website to spotlight technology initiatives.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Curriculum and Instruction, Director of Communications	BISD website content, teacher and classroom recognitions
3.6.6	Foster communication and collaboration through the use of a Technology Blog and other social media venues.	State: Original Status: Planned	2016-2026	Educational Technology Department, Chief Technology Officer, Director of Communications	Blog or social media posts and comments
3.6.7	Actively participate and communicate with local and state-wide district technology leaders to share strategies and support for initiatives and discuss achievements, challenges, and informed best practices.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Educational Technology Coordinator	Meeting schedules and agendas

GOAL 4

Develop and maintain a reliable and secure infrastructure that allows all staff, students, parents and stakeholders access to a collaborative electronic learning environment.

Objective 4.1				Category: Technology Infrastructure and Support
Implement and maintain an obsolescence program to maintain and update technology devices, network hardware, and other technology related equipment and infrastructure.				
Budget:				

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
4.1.1	Maintain accurate records of software, licensing, subscription-based services, and hardware inventories.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Inventory database audits and reports.
4.1.2	Implement a Technology Obsolescence Plan to refresh existing, aging equipment and introduce new technology.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Inventory database audits and reports, project calendars and schedules.
4.1.3	Upgrade district servers based on criteria defined in the Technology Obsolescence Plan.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Server inventory and reports, and purchasing invoices
4.1.4	Identify and leverage cost-effective solutions for increasing the server infrastructure to support users and applications, maintaining data integrity, data security, redundancy, and reliability.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Server inventory, reports, and purchasing invoices
4.1.5	Maintain, update, and expand the Storage Area Network capacity and functionality to accommodate growing District capacity needs.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Equipment inventory, purchasing invoices
4.1.6	Maintain and update existing network infrastructure and perimeter devices in network closets and data center locations, including firewalls, web and spam filters, monitoring and reporting devices, and co-location of mission critical resources.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Network topology diagrams, infrastructure inventory, reports, and purchasing invoices

4.1.7	Upgrade, monitor, and manage Local Area Network routers and access switches to provide the necessary bandwidth and service levels required for application and service delivery.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Purchasing invoices, Network performance reports
4.1.8	Maintain and update as needed district-wide wireless infrastructure and wireless security standards to ensure reliable wireless connectivity and adequate density and coverage.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Wireless topology diagrams, wireless inventory, reports, and purchasing invoices
4.1.9	Ensure that all campus network closets have adequate ventilation and HVAC units to extend the life of and obtain consistent service from the network equipment.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Facilities and Construction	Reports on air temperature levels within network closets.
4.1.10	Upgrade and maintain fiber optic cable and connectivity between campus MDF closets and IDF closets with appropriate current standards to support speeds of 10 Gigabit or greater, and maintain consistent, reliable backbone and access bandwidth across the campus LAN.	State: Original Status: In Progress	2016-2019	Chief Technology Officer	Purchasing invoices, Network performance reports, Fiber optics cabling test results and documentation
4.1.11	Upgrade and maintain fiber optic cable and WAN connectivity between campuses and the data center to support speeds of 10 Gigabit or greater at secondary campuses and speeds of 1 Gigabit or greater at elementary and auxiliary campuses/locations to support District growth and needs.	State: Original Status: Planned	2016-2019	Chief Technology Officer	Service agreement documentation, Network performance reports
4.1.12	Perform periodic external audits of network and server infrastructure performance, integrity, scalability and security.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Audit results
4.1.13	Plan and budget for emergency technology repair, cable adds/moves/changes and maintenance supplies.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Emergency Purchase Order requests, Reports on requests for adds/moves/changes

4.1.14	Upgrade and maintain a district-wide Internet connection speed that calls for 2 – 250 Megabyte connections or greater for redundancy and disaster recovery as needed to support District growth and needs.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Service agreement documentation, Network performance reports
4.1.15	Maintain and expand the existing VoIP infrastructure to account for growth, needs, and emerging capabilities.	State: Original Status: Planned	2016-2026	Chief Technology Officer	IP Telephony service logs, Topology diagrams, New functionalities tested and implemented, KPI and metrics reports

Objective 4.2				Category: Technology Infrastructure and Support	
Provide the necessary technology infrastructure and services to support district growth at existing campuses and new facilities.					
Budget:					
	Strategies	Status	Timeline	Person(s) Responsible	Evidence
4.2.1	Install and maintain all technology required for new construction facilities including network equipment, security and access equipment, network and wireless infrastructure, hardware, applications, and any/all technology related equipment necessary.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Equipment inventory, purchasing invoices
4.2.2	Coordinate with service providers and vendors to ensure data communications services and access are available to begin school operations upon completion of construction.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Service agreements, purchasing invoices

Objective 4.3				Category: Technology Infrastructure and Support

Provide scalable and reliable voice, video, and communications and content distribution planforms and infrastructure to improve district communication, collaboration, and transparency, and to support digital instruction initiatives through teaching and learning.

Budget:

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
4.3.1	Expand and maintain a VoIP telecommunications telephone, cellular, messaging, and voicemail systems throughout the district to maintain interoperability with POTS lines and fax machines, improve District communications, and provide immediate access to information and District communication initiatives.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, District Superintendent, Director of Communications	All stakeholders have appropriate communications tools including IP phone, voicemail, email, and cell phones or radios (where appropriate)
4.3.2	Ensure all instructional spaces and key locations have an IP phone handset.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Inventory reports and audits
4.3.3	Provide unified communications technology to support classroom collaboration, student engagement, and teaching and learning initiatives.	State: Original Status: Planned	2016-2026	Chief Technology Officer	VoIP available in all existing and new BISD campuses/locations, staff extensions and phone allocation reports, documentation of additions, changes, and upgrades made yearly
4.3.4	Design and implement a video distribution system for live or recorded online video content streaming, distance learning and training, delivery of instructional content, meetings, and events.	State: Original Status: Planned	2016-2019	Chief Technology Officer, Director of Communications	Online live and recorded content, video archive
4.3.5	Evaluate the existing SchoolConnects system and recommend a District broadcast communications system for parent and stakeholder notification of student attendance information and District related events and notifications.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Communications, Campus Attendance Personnel	Notification and usage reports

4.3.6	Evaluate the existing SchoolWay mobile application, and recommend a free, downloadable mobile application for all stakeholders to deliver District news, events, updates, accolades, etc.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Communications	Notification and usage reports
4.3.7	Evaluate, design, update, and support a user-friendly, flexible, and device-responsive district, campus, teacher, and departmental websites to spotlight district initiatives, and meet current and future needs of students, staff, parents, and community stakeholders.	State: Original Status: Planned	2018-2026	Chief Technology Officer, Director of Communications, Campus Principals, Assistant Superintendent of Curriculum and Instruction, Campus Instructional Personnel	Updated webpages, usage logs and reports
4.3.8	Evaluate, design, update, and support a user-friendly, flexible, and device-responsive District Intranet Portal.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Communications	District Intranet pages
4.3.9	Maintain enterprise-level email messaging, unified communications, and collaboration systems for all district staff to support teaching and learning.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Email access and activity report logs
4.3.10	Provide support and assistance in development of telecommunication services required to maintain a safe and organized school environment and support emergency service systems including but not limited to fire alarm systems, intrusion alarms, Push-to-Talk communication, Impact Weather, E911 services, VoIP emergency connections and POTS lines.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Facilities and Construction, Director of Personnel and Legal Affairs	List of applications and purpose, Emergency Response guidelines, Emergency Response notifications
4.3.11	Improve the support and reliability of communications devices during emergency situations.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Communications, Director of Facilities and Construction, Director of Personnel and Legal Affairs	UPS systems installed, POTS lines identified, back-up power installed, SRST gateways installed, functional two-way PTT systems/devices used, campus command center locations

Objective 4.4				Category: Technology Infrastructure and Support

Provide technology systems, and design strategies and measures which will promote student and staff safety and accountability, increase cyber security and prepare for disaster response and recovery.

Budget:

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
4.4.1	Evaluate and expand existing School Check-In visitor management system and recommend ID tracking and visitor check-in systems at each campus, Central Office, and other District locations as applicable.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Personnel and Legal Affairs	Visitor logs from campuses, training for campus and department personnel operating check-in systems
4.4.2	Monitor, operate and maintain the video surveillance system at existing District campuses and facilities.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Personnel and Legal Affairs, Director of Facilities and Construction	Surveillance system design acceptance and periodic system evaluations
4.4.3	Design and expand the existing video surveillance infrastructure to all campuses district-wide.	State: Original Status: Planned	2016-2019	Chief Technology Officer, Director of Personnel and Legal Affairs, Director of Facilities and Construction	Surveillance system design acceptance and periodic system evaluations
4.4.4	Evaluate and recommend a school bus video surveillance solution to aide in the protection of all passengers and drivers while in transit to and from school.	State: Original Status: Planned	2016-2019	Chief Technology Officer, Director of Personnel and Legal Affairs, Director of Facilities and Construction, Director of Transportation	Surveillance system design and acceptance and periodic system evaluations
4.4.5	Manage security applications in conjunction with Boerne Police and Fire Departments and maintain required devices thereby supporting a safe and secure learning environment for all BISD students and staff.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Personnel and Legal Affairs, Director of Facilities and Construction	Safe and secure classrooms, documented security procedures, coordination with emergency response teams

4.4.6	Evaluate and expand existing employee access control tracking systems through the use of Boerne ISD issued ID badges to ensure that all campuses have perimeter and protected entrance access control security in place.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Personnel and Legal Affairs, Director of Facilities and Construction	Employee ID badges, key card access at all facilities, scanning of badges for staff activity and access
4.4.7	Review and refine the District's Crisis Management Plan to improve the disaster recovery communication capabilities and infrastructure, and include all technology-related systems and plans for the preparation for, response during, and recovery from natural or human-made disasters.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Communications, Director of Facilities and Construction, Director of Personnel and Legal Affairs	Disaster Recovery Plan, Crisis Management Plan
4.4.9	Ensure that each district facility has an operational "command center" that functions as a safe location to stay in communication with District administration, first responders, and community stakeholders in the event of an emergency.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Director of Communications, Director of Facilities and Construction, Director of Personnel and Legal Affairs	Bi-Annual campus "command center" assessment and review audit
4.4.10	Increase online security in the district through the use of monitoring and scanning tools, updated policies and procedures, Responsible Use Policies, and awareness trainings.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Personnel and Legal Affairs	Password policy, technology review audits, implementation of best practices and standards, training certificates of completion
4.4.11	Maintain the integrity and security of all student, staff, and District data.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Properly configured perimeter devices such as firewalls, web content filters, spam filters, backup system, etc., password reset schedule, security devices and policies, properly configured training environment with unrecognizable student and contact data for training, data retention and management policies

Objective 4.5				Category: Technology Infrastructure and Support
Deploy support systems that maximize efficient use of technology and infrastructure by all students and staff.				
Budget:				

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
4.5.1	Employ appropriately skilled technology staff to promote successful implementation of technology projects and to provide the highest quality product and service at the most cost effective price.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Project satisfaction surveys, support request surveys, yearly performance evaluation results
4.5.2	Employ highly qualified Network Administrators, Network Specialists, Subject Matter Experts and technical staff to provide a continual, consistent, high level of service.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Service Level Agreements (SLAs), job descriptions, KPI and metrics reports, yearly performance evaluations
4.5.3	Install, utilize and maintain network systems management and monitoring tools to provide network, desktop and server inventory, analysis, monitoring, and management for proactive needs evaluations, problem resolution, and service of all technology within the District.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Service logs, network management reports, KPI and metrics reports
4.5.4	Install, utilize and maintain network security and monitoring tools to advance network security, access control, CIPA compliance, network mitigation, response and recovery process to ensure consistent and reliable network operations.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Service logs, monitoring and security reports, KPI and metrics reports
4.5.5	Provide extended, ongoing support for network maintenance, operations and training.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Timesheets, service logs and surveys, training reports, Request for Change (RFC) logs
4.5.6	Continue to research, evaluate, and support a timekeeping system for campus and district support staff; and integrate with the ERP system.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Business and Finance Department	Employee time and attendance data
4.5.7	Monitor, manage, and increase resiliency of Internet access and provide additional bandwidth when needed in support of applications and services for operations, and teaching and learning.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Bandwidth utilization and monitoring reports

4.5.8	Provide a response system that promotes a high quality of service by leveraging technology and personnel with a help desk, appropriate number of network/system administrators, and technicians.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Request surveys, KPIs and metrics reports
4.5.9	Decrease time to resolution on all reported service requests.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	KPI and metrics reports
4.5.10	Implement real-time resolution process for qualified service requests.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	KPI and metrics reports
4.5.11	Continue to develop and demonstrate high-value, lightweight, repeatable processes for service delivery.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	KPI and metrics reports
4.5.12	Develop and implement efficient shipment, inventory and asset management processes and procedures.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	KPI and metrics reports
4.5.13	Evaluate and increase technology support staffing ratios to adhere to a device support ratio of 1:1000.	State: Original Status: Planned	2016-2026	Chief Technology Officer	Staffing reports, device inventory reports
4.5.14	Monitor and manage a self-service and request management system through which campus and department staff can enter and track requests for assistance with issues, needs, training, and questions related to technology equipment, applications, and user access.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	KPI and metrics reports, iSupport tracking system
4.5.15	Support labor scheduling and job assignment software to auto-generate substitute assignments and work requests.	State: Original Status: In Progress	2016-2026	Chief Technology Officer, Director of Personnel and Legal Affairs	Data reports
4.5.16	Create a new campus-based, customer service oriented, technology position that provides just-in-time support for students and technology related issues, specifically focused on the success of student device initiatives and support for teaching and learning.	State: Original Status: Planned	2020-2026	Chief Technology Officer	New technology positions created

Objective 4.6				Category: Technology Infrastructure and Support

Leverage enterprise architecture standards to improve information technology efficiency.

Budget:

	Strategies	Status	Timeline	Person(s) Responsible	Evidence
4.6.1	Research, design, and implement application and desktop virtualization environment solutions.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Number of virtual applications, inventory reports of virtual desktop thin clients
4.6.2	Continue to research and move targeted services to the cloud or hosted solutions where cost savings or service increases can be realized.	State: Original Status: In Progress	2016-2026	Chief Technology Officer	Number of cloud based applications
4.6.3	Leverage device discovery, utilization monitoring, security, and access control technologies to further support existing BYOD initiatives.	State: Original Status: Planned	2016-2019	Chief Technology Officer	BYOD device usage data by campus, user, and device
4.6.4	Research and design an enterprise level Disaster Recovery Plan and co-location of mission critical systems and services.	State: Original Status: Planned	2016-2026	Chief Technology Officer, District Leadership	Disaster Recovery Plan handbook procedures, co-location health check and reports
4.6.5	Evaluate and design a data center infrastructure that emphasizes redundancy, recoverability, scalability, and efficiency.	State: Original Status: Planned	2016-2019	Chief Technology Officer	Data center uptime percentage reports, KPIs, data center hardware inventory and design drawings
4.6.6	Evaluate existing HVAC units and design an appropriate HVAC system for the data center to maintain adequate temperature levels.	State: Original Status: Planned	2016-2019	Chief Technology Officer, Director of Facilities and Construction	Temperature control readings within data center
4.6.7	Research, design, and implement an enterprise-level power generator for the data center and Disaster Recovery site.	State: Original Status: Planned	2016-2019	Chief Technology Officer	Generator usage reports
4.6.8	Research, design, and implement a fire suppression system for the data center and Disaster Recovery site.	State: Original Status: Planned	2016-2019	Chief Technology Officer	Safety procedure handbook, staff safety training certificates of completion

4.6.9	Evaluate existing backup strategies and recommend off-site backup technologies to maintain off-site or cloud-based backup copies of confidential and mission critical data.	State: Original Status: Planned	2016-2019	Chief Technology Officer	Off-site backup usage reports, backup retention plan
4.6.10	Research and evaluate opportunities for electronic document management, submission, retention and storage systems.	State: Original Status: Planned	2016-2026	Chief Technology Officer, Assistant Superintendent of Business and Finance	Decreased printing costs by campus and departments, annual printing usage reports
4.6.11	Research and implement a print management system to control printer access, monitor and manage print jobs, set quota controls, expand functionality for mobile devices, and audit usage of district network printers.	State: Original Status: Planned	2016-2019	Chief Technology Officer	Printer usage reports