



**Information Technology Division
Annual Report
2021-2022**

Message from Chief Information Officer

As I take this annual opportunity to look back at the past school year, I expect my conclusion is very similar to yours – along with the District, the Information Technology Division has faced many challenges and as with all FBISD teams, the IT team has stepped up to the challenges. Unlike 2020-2021 school year where FBISD continued to experience the effects of a pandemic, the 2021-2022 school year was the first time the District returned to full face-to-face environment, another herculean effort to get our teachers and students back into the classrooms. IT worked collaboratively with all divisions to help teachers and students return to a full classroom once again. We also restarted and completed several Bond 2018 projects that were put on hold due to the pandemic, such as the Audio/Video replacement in cafeteriums and auditoriums and the deployment of interactive flat panels. Finally, we continued the effort to educate staff and students on various information security topics and began to understand how to get ahead of the cyber security wave.

The goal for the Office of the Chief Information Officer continues to be a prompt, effective and trusted information technology organization for Fort Bend ISD teachers, students, and staff. The Information Technology Division will achieve this through transparency, accountability, and end user-led IT governance. Our campuses and classrooms depend on technology and the IT Division's success is measured by how effective it can meet District staff and student needs. We can anticipate the technological needs with constant dialog with key divisions within the District as well as ongoing effort to understand and leverage new and upcoming technology to serve the District's mission and vision. We are committed to working together with teachers, students, staff, and administration to provide the best educational experience using available technology. Our technology services and resources are a vital part of the Fort Bend ISD's commitment to academic excellence.

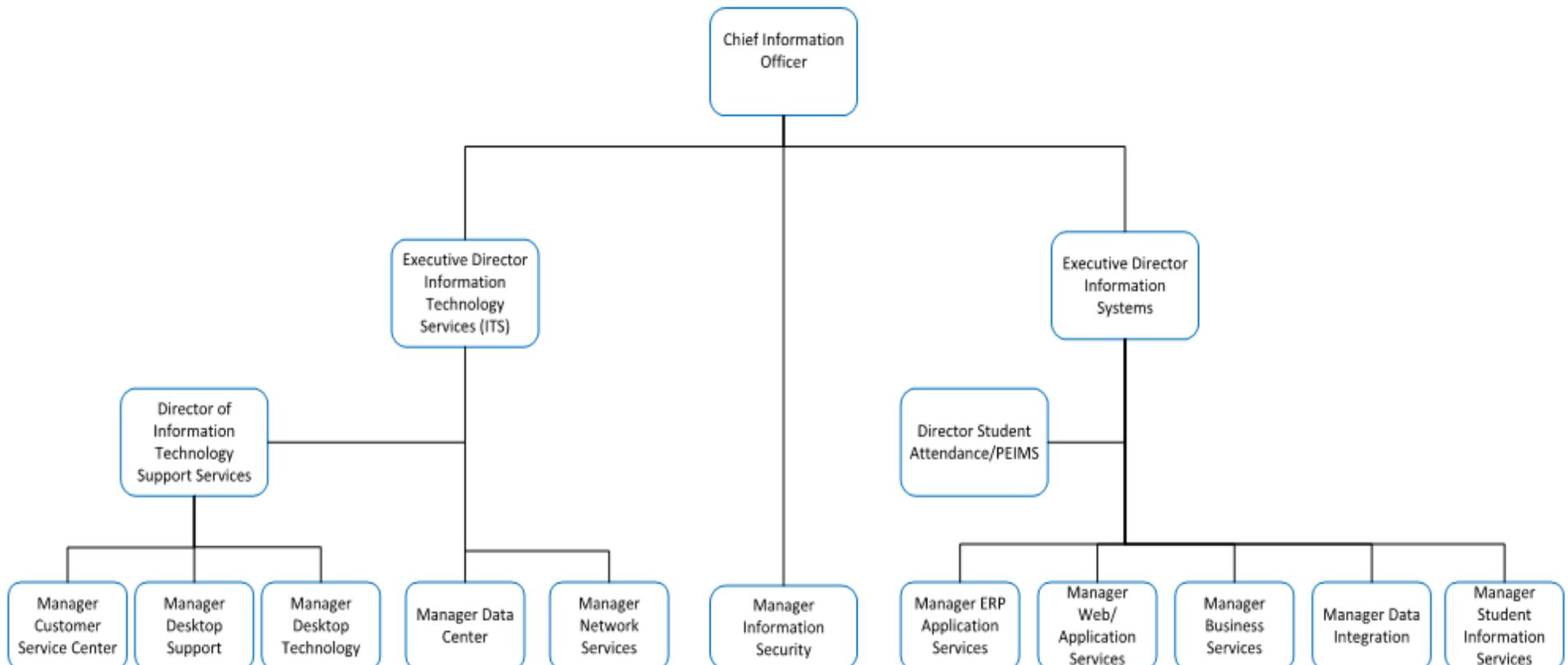
*Long Pham
Chief Information Officer
Information Technology
Fort Bend ISD*

INFORMATION TECHNOLOGY DIVISION

Mission: The Information Technology Division exists to provide our customers with technology solutions and services that are innovative, dependable, scalable, and sustainable.

Vision: The Information Technology Division will be recognized as innovative K-12 technology leaders by providing effective use of existing and emerging technology to enable the continuous improvement of teaching and learning.

Fort Bend ISD Information Technology Division



The Information Technology Division is comprised of two departments, Information Technology Services, and Information Systems. The two departments consist of several teams supporting all technology hardware, software, and data. Our IT teams provide a wide number of efficient, cost-effective services assisting in the realization of the District's academic vision. More detailed information about each service can be found on our [Service Catalog website](#).

Information Technology Services (ITS)

- **Network Services**
 - Network Services
 - Wireless LAN Services
 - VoIP Phone Services
 - Network Engineering
 - Network LAN/WAN Services
 - Network LAN/WAN Support
 - Structure Cabling
 - Network Security
 - Remote Network Access (VPN)

- **Data Center and Server Management**
 - Data Center
 - Storage/SAN (Storage Area Network)
 - Servers
 - Cloud Services
 - System Backups
 - Active Directory
 - Email, Server/email Security, User Management
 - Identity Management
 - Application Support (Teams, SharePoint, etc.)

- **Desktop Support**
 - Desktop Support
 - Mobile Devices
 - Printers
 - Projectors
 - Smart Displays/Elmo
 - Desktop audio/video
 - Student Technology Toolset Management
 - Broadcast Studio Audio/Visual
 - Board Meeting Support
 - Enterprise Video, Webcasting, Video CMS
 - Elementary Support/High School/Support Site Support

- **Desktop Technology**
 - Desktop Tools
 - Asset Management
 - Print Services
 - Active Directory Policy Management
 - Desktop Security
 - Desktop Hardware Standards
 - Software Life Cycle Management
 - Desktop Application Packaging, Deployment and Compliance
 - Desktop Risk Management

- Patch Management
- **Customer Service Center**
 - Remote Desktop Support
 - Remote Mobile Device Support
 - Remote Printer Support
 - Enterprise Application Support
 - Password Management
 - First Level Network/Telephone Support
 - First Level Application Support
 - Account Management Services
 - IT General Information Support
 - Cisco Phones Support

Information Systems (IS)

- **Attendance**
 - Local, State and Federal Reporting
 - Texas Education Agency (TEA) Records Exchange Services
 - PEIMS Support Services
 - Office of Civil Rights Reporting
 - Average Daily Attendance (ADA)/Registrar Support
- **Web/Application Services**
 - Application Implementation and Project Management
 - Custom Programming and Reporting
 - Datamining (MSSQL, Power BI, and Excel)
 - Second and Third Level Application Support
 - Internal Web Services
 - External Web Services
 - Custom Web Development
 - Web Community Manager (formerly known as Schoolwires)
 - SharePoint Online
- **Business Services**
 - Vendor Management
 - Contract Management
 - Sourcing Management
 - Grant/Bond/E-Rate Management
 - Operation Expenses Management
 - Disaster Recovery Processes
- **Database Administration**
 - SQL Database Administration
 - Database Design
 - Database Tuning
 - Data Extraction, Encryption and Transmission
 - Data Analysis
 - Process Automation
 - Business Process Analysis

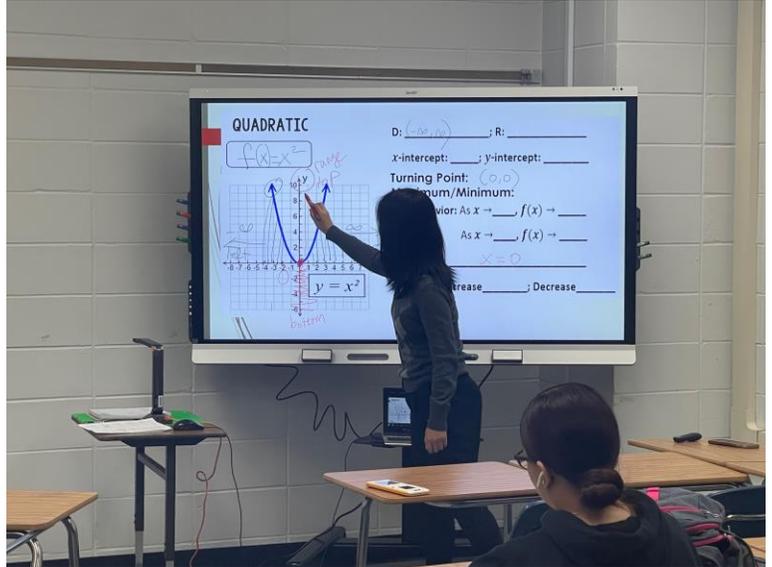
- **Data Integration**
 - Operational Data Stores Business-to-Business Integration and Data Exchange
 - Unified Data Management (UDM)
 - Bulk Data Transfer
 - Online Resources and Textbooks - User Account and Roster Provisioning

- **Enterprise Resources Planning (ERP) Application Services**
 - PeopleSoft Human Capital Management (HCM)
 - PeopleSoft Financials (FSC)
 - PeopleSoft Database Security Support
 - PeopleSoft Security
 - PeopleSoft FSC Training

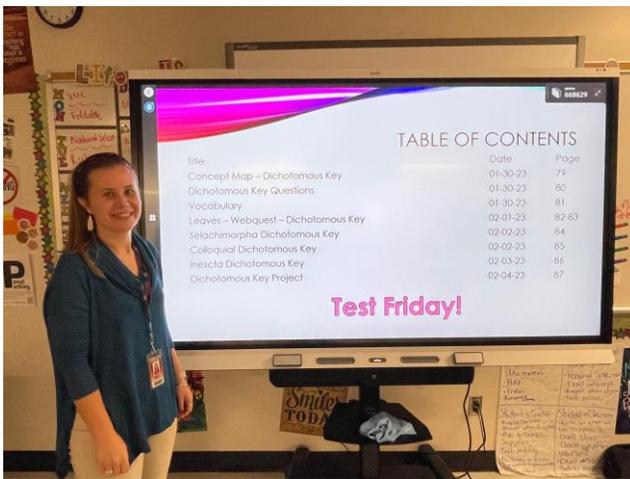
INTERACTIVE FLAT PANEL

Facilitating delivery of instruction in the classroom

The project began in 2017 with a committee of teachers, principals, District administrators, Department of Teaching and Learning, and parents assessing future classroom technology needs in FBISD as a part of the planning for the 2018 Bond. This committee recommended the replacement of the projectors with some type of interactive display (SMART Board, Interactive Projector, Flat Panel, etc.). Based on this recommendation from various stake holders, an [Educational Technology Master Plan](#) was developed and a budget was prepared and submitted for inclusion in the 2018 Bond proposal. Through many internal District meetings and public



Board Meetings the 2018 Bond was refined and finalized and went to the voters in November of 2018. With 74% support, voters approved the bond package which included the funds dedicated to bringing an interactive display to every classroom. The initial proof-of-concept project included the deployment of interactive, smart projectors in two of the new FBISD elementary schools. The team quickly found that the installation and the continuing maintenance of these smart projectors became very difficult where Information Technology Services (ITS) analysts had to constantly calibrate the projectors, a skill requiring higher technical knowledge of the maintenance for these projectors.



With the decreasing cost of display technology and the advances of the software, the project considered the possibility of using interactive flat panel technology. While the project was delayed six months during the pandemic, in November of 2020, project planning continued. A team consisted of IT, Teaching and Learning, and Purchasing worked for three months to prepare a list of technical and educational requirements for the display technology. On February 28, 2021, a request for proposal (RFP-21-057AB) was published soliciting bids from various vendors and manufacturers for interactive flat panel displays. The bids were scored by IT, Teaching

and Learning, and Purchasing in April 2021 and three finalists were invited to demonstrate their products to FBISD.

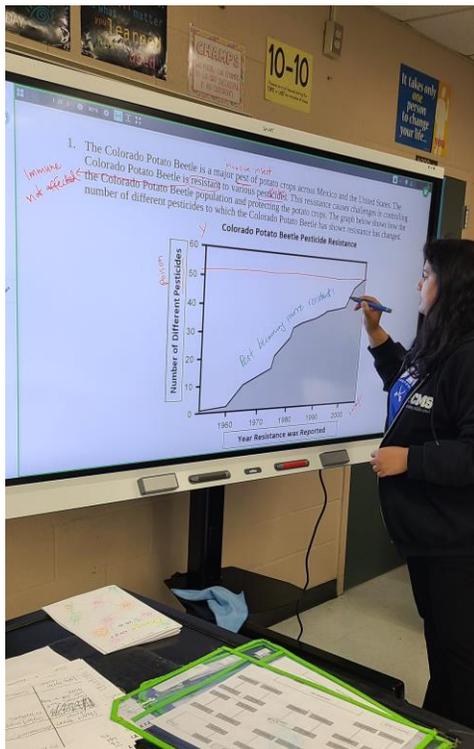


On April 21, 2021, the three manufacturers presented their panels to more than 60 FBISD staff, including more than 40 teachers. This large group spent a day, learning about each panel model, features, ease of use, included software, etc. Each evaluating team member then completed a score card for each product, rating what s(he) liked and did not like about each panel. After this robust process, the SMART 6000s panel was selected as the best tool for our classrooms to replace the aging projectors.

Due to global supply chain issues, the panels were not be available in the quantity FBISD needed until October/ November of 2022. During this time, ITS took the opportunity and worked with demo panels to ensure full functionality on the District's network and Teaching and Learning developed a

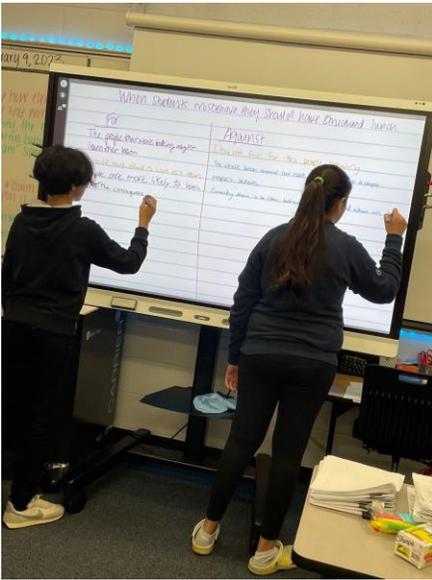
large library of training materials to support teachers

during implementation. As the District approaches the installation timeframe, more training and communications were sent to staff to ensure all teachers have the relevant information. When the project is four weeks from installation on a campus, additional communications were sent to the campus' teachers with important timely information.



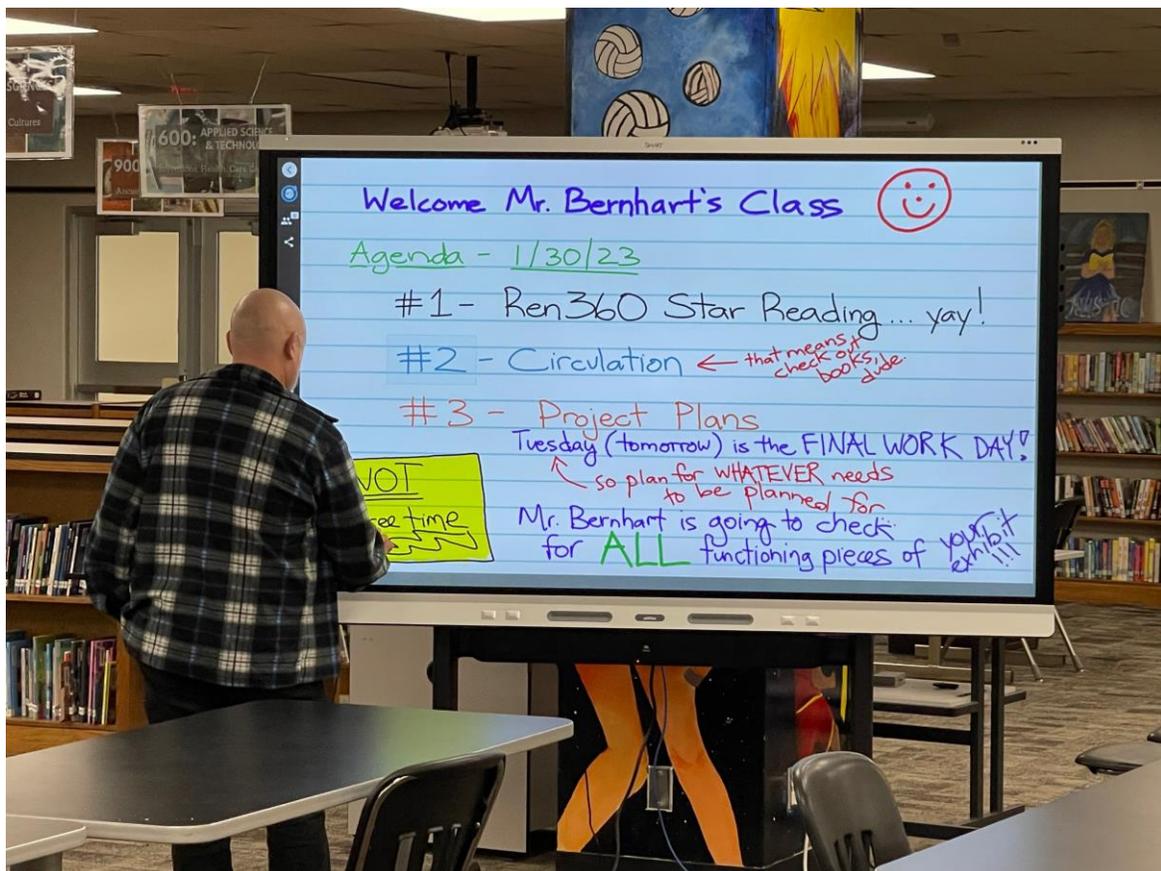
Lakeview Elementary School reopened last year with the new panels after a rebuild of the building. The feedback from teachers has been overwhelmingly positive. The panel will give classrooms an additional stand-alone computer, the ability to wirelessly send content (from the teacher laptop or student's devices), share the panel content out to

student devices, easily record daily lessons, and many more features. If a teacher simply wishes to use the panel in the same way s(he) used his/her projector, then s(he) may continue to do so. At a minimum, the panel will be sharper, brighter, and more reliable than the existing projector. Perhaps with time, training, support, and experience, many teachers will begin to incorporate these new features into their day-to-day instruction delivery.



The wonderful thing about the new interactive flat panel is that it serves as another tool, providing teachers opportunities to incorporate different methods of instruction. The panel will provide teachers with many options for accomplishing their instructional delivery goals with the students and teachers can personalize the panels to suit their style, their pedagogy, and their growing skill with the device. Finally, the existing classroom projector

will be left in place until the end of the 2022-23 school year. This will give teachers time to get comfortable with the device, ask questions, and work out any issues while using the projector as a backup.



INFORMATION TECHNOLOGY BY THE NUMBERS

- 2.66 Petabytes (PB) security camera storage used (1 Petabyte = 10^{15} bytes of digital information = 1.5 million CD discs)
- 655 TB general storage used (1 Terabyte = 10^{12} bytes = 130,000 digital photos)
- 40.7 TB content filtered by firewall (1-week avg. from top 5 applications)
- 918.72 GHz of virtual environment processing power used
- 16 Gbps average peak Internet bandwidth used by the District every day
- 6.5 Gbps average peak Internet bandwidth used by the wireless users every day
- 86 million files on 280 Terabytes (TB) stored in OneDrive at the end of January 2023
- 65,981,706 Fort Bend ISD web page views
- 40,188,397 unique Fort Bend ISD web page views
- 34,084,130 Inbound emails in the last 90 days (from 2/1/2023)
- 20,450,000 denied Internet destinations by firewall (1-week avg - from top 5 destinations denied)
- 8,262,864 new visitors to Fort Bend ISD web sites
- 7,147,012 websites blocked by content filters (1-week avg - from top 5 blocked websites)
- 3.6 million files on 10.8 TB stored on SharePoint at the end of January 2023
- 3,825,783 outbound emails in the last 90 days (from 2/1/2023)
- 3,220,201 returning visitors to Fort Bend ISD web sites
- 1,310,000 attacks from the Internet blocked at the firewall (1 week average -- from top 5 attacks)
- 899,769 emails sent in a 6-month period (between 8/2021-1/2022)
- 273,599 payroll checks processed
- 179,482 SPAM emails filtered in a 6-month period (between 8/2021-1/2022)
- 179,930 absences processed
- 143,595 denied applications blocked by the firewall (1 week average – from top 5 denied applications)
- 126,266 Active Directory accounts maintained
- 125,100 email accounts at the end of January 2023
- 113,125 spywares blocked at the firewall (1 week average – from top 5 spywares)
- 108,719 technology help cases created (between 8/21-8/22)
- 98,135 technology help cases resolved (between 8/21-8/22)
- 79,000 student devices redistributed to classrooms
- 85,779 calls to the Service Desk (between 8/21-8/22)
- 64,352 calls presented (between 8/21-8/22)
- 45,250 spywares blocked (top 5 spyware)
- 41,295 devices were collected, cleaned, prepared, and returned to classrooms

- 37,483 devices were checked out to students for COVID online instructions delivery
- 37,961 employees E-forms processed
- 24,639 requisitions processed
- 22,785 total purchase orders processed in PeopleSoft FSC
- 14,424 emails were cleaned from 23 SPAM events
- 2,504 sub request forms
- 8,000 universal docking station deployed, replacing old HP docking station
- 5,655 cameras in use consuming over 1.76 Petabytes of storage space
- 4,414 iPads were deployed to Fine Arts
- 3,179 Change Forms processed
- 3,032 Exit Forms submitted
- 2,943 Taleo interface hires
- 2,356 laptops and iPads were deployed to SPED
- 1,922 District vendors on purchase orders
- 1,250 devices prepared and 53 were deployed for VILS program
- 535 stipend request forms
- 440 virtual machines
- 229 Employee Document Review forms
- 262 Title 1 Grant laptops and iPads deployed
- 205 coding and robotics laptops deployed
- 58 Open Records Requests – fulfilled
- 28 Non-PeopleSoft Production servers with 5.02 TB space utilized
- 17 physical virtual servers
- 12 physical server appliances
- Microsoft Teams usage – last 180 days from 2/1/2023:
 - 9,227,892 Audio time (minutes)
 - 7,991,152 Video time (minutes)
 - 5,592,208 Screen share time (minutes)
 - 1,448,292 chat messages
 - 60,413 Total participated meetings (the sum of the one-time scheduled, recurring, unplanned, and unclassified meetings a user participated in during the specified time period)
 - 57,684 Total organized meetings (the sum of one-time scheduled, recurring, unplanned, and unclassified meetings a user organized during the specified time period)
 - 86,803 1:1 calls
 - 2,172 channel messages

- Preparing for major PeopleSoft for major upgrade 3/2022
 - Kicked off the PeopleSoft upgrade and completed first pass of upgrade on HCM and Financials (go-live in February 2023)
 - Created Payroll task list in new fluid PeopleSoft environment to aid in decreasing user payroll processing issues.
- eSupplier – configuration and setup ready to go but has been long process and not live yet but using PeopleSoft delivered functionality instead of purchasing additional software (savings of \$40K)
- Created Delegation of Approvals in HCM (user to delegate their authority for specified period of time)
- Conducted Azure proof-of-concept failover testing and configuration for PeopleSoft disaster recovery (allow PeopleSoft to run on Azure cloud in a disaster)
- Automated download and patching process for PeopleSoft Update Manager, preparing for PeopleSoft Tax Updates
- Traced over 500 data issues for Business and Finance and HR to determine root-cause and provide solutions
- Provided SQL support and logic for Budget Office Tableau reports



- Records review electronic form project upload process for HR with approvals and automation
- Automated Job Description form assignment for new hires/rehires
- Completed logic to mark Exit Forms as ineligible to rehire
- Offloaded over 60 queries to reporting server for HR with automations to reduce deadlocks in production
- Optimized Business and Finance Payroll Positions query, reduced running time to 1 minute from 10 min.
- Changed the Global process for online budget checking to batch mode, preventing deadlocks during peak times
- Created "Date" dimension table with columns Financial year, firstDayOfFinancialYear, lastDayOfFinancialYear, saving hardcoding changes
- Built and modified Workflow for Assets, Requisitions, and Budget Transfers.
- Upgraded Appian for multi-factor authentication (MFA), increasing security stance and protection of personal employee data
- ERP RFP project – about 60 people engaged in the effort during RFP development, evaluations, and demos
- Created PowerShell script to validate Operating System patching level for ITS to validate patching is completed
- Developed new SBEC certification process using bulk insert and SQL, replaced legacy loading process, reduced dependencies from other teams
- Created Appian activity logs to Reporting database with using SSIS package, which provides an efficient way of querying activities for audit purposes
- Coded batch processes to upload asset system data in bulk with validations used in laptop purchases
- Developed component interface to upload NIGP codes for Purchasing which is how purchasing classifies items

Web and Application Services

Our Web and Application Services team provides timely and comprehensive support services for all Web sites and applications (cloud and on-premises) adopted by the District. Sometimes, custom applications are called for. Our Web and Application Services team takes on the challenge and provides application development services to support the District's needs and initiatives when other solutions are not available.

Some of the team's 2021-2022 successes include:

- Migrated from ClassLink to Microsoft's My Apps and Clever, a solution provided by Microsoft as part of our annual EES contract resulting in annual savings of \$193,000.
- Accommodations/adjustments in all applications for Virtual Learning Program (VLP) –Skyward setup and reporting
- Created Wellness Survey Screener custom web app to replace Salesforce solution and Wellness Investigation Application launch
- Remote Conferencing custom web app to replace PowerAutomate/Jira solution
- Migrated Transfinder maps from address-to-address points and migrated Transfinder to Cloud! (Been two years that we have actively working on cleaning this up with Transportation)
- COVID Reporting and Notification - multiple automated processes created to help report
- COVID-positive and close contact cases to internal leadership and notifications to families
- Completed IT Approvals workflow configuration to route approval by software and hardware
- Created Service Catalog for Information Systems service offerings
- Created Staff interface and logic for Docuware retention policy
- Non-campus paraprofessionals moved to Kronos
- PowerSchool Performance Matters implementation
- Police projects:
 - New mobile data terminal (MDT) for our police officers, testing with Verizon LTE
 - New recording server application NICE
 - NetMotion VPN
- SNAP Cloud for mental health services
- DEVOS - increased signage usage
- HB 4545 implementations - Active Classroom, EduSmart, Mission Math, Savavs iLit, and DreamBox Math
- Helmet Tracker implementation for Athletics
- Covid R-Zero light launch (campus room sanitizers)
- Larger adoption of Blackboard Comms across the District to unify communications (Police, Transportation, Internal Communications.)
- Docuware
 - Created building modification request file cabinet for Design and Construction
 - Created space relocation file cabinet and workflow process for Design and Construction
 - Created Cell Tower Feasibility/Cell Tower Building Modification file cabinets and workflows
 - Re-created Purchasing Bid Intake file cabinet and workflow process for Purchasing department.
- Scaled VideoInsight system to 27 servers (25 for security cameras and two for SPED cameras) to accommodate District growth and to comply with State Law requirements
- Implemented Accruals module for supervisors of paraprofessionals to track employee COMP time in Kronos



Business Services

Our Business Services Coordinator has a single area of responsibility for visibility, tracking and continuity of all IT contracts. Our coordinator develops and maintains vendor relationship to obtain the best services, pricing, and supports for the District.

Some of the Business Services Coordinator's 2021-2022 successes include:

- \$2.3M approved from ERate for first window of Emergency Connectivity Fund
- Received \$154,623 reimbursement from ERate for Category 1 services for 2020-2021, which was provided in 2021-22 as is a year behind
- Implemented structured budget planning process including confirmed quotes from all vendors
- Completed development of Contract Tracker with all details for all IT contracts

Data Integration

The Data Integration team focuses on collecting data from multiple diverse source systems into a single centralized location where the data is cleansed, transformed, and packaged for secure transport and loading into diverse target systems in support of a range of business initiatives and technical implementations. The team

- Provides operational data store services for trend analysis and reporting purposes
- Creates and manages business-to-business integrations and secure data exchange
- Provides data modeling, data profiling, and data cleansing services
- Provides centralized processing and distribution of student picture

Some of the team's 2021-2022 successes include:

- Implemented 19 additional instructional resources into Clever & ClassLink (now converted to Clever)
- Support all implementation that requires data files to be created and transported to vendors
- An increase from 27M records to 59M for this reporting period

Student Attendance/PEIMS

The Public Education Information Management System (PEIMS) encompasses all data requested and received by TEA about public education, including student demographics and academic performance, personnel, financial, and organizational information. The team serves as a central point-of-contact for District and campus assistance and supports for all attendance and PEIMS related data. Our PEIMS team oversees the loading, validating, and submission of the District's PEIMS data to the Texas Education Agency (TEA).

To accomplish this, the PEIMS team

- Collaborates with campuses to ensure Student Unique ID data is accurate and resolves all discrepancies.
- Creates current and concise reports on attendance coding and percentages for verification and planning purposes.
- Utilizes the Texas Student Data System to submit all required data to TEA.
- Provides regular and scheduled training sessions to campus and departmental personnel and individualized training as needed for new campus staff.
- Provides support for staff with the following applications:
 - TEAL/TEASE
 - OnData Suite
 - Certify
 - TREx



The team attended Region IV ESC training sessions and participated in the TASBO Winter Conference. As part of the Team's continued commitment to enhance and improve timelines for PEIMS submissions, the PEIMS Team submitted the 2021-2022 PEIMS submissions a week ahead of each of TEA's submission deadlines! The team continued to focus on data accuracy and communicated expectations to all stakeholders.

Some of the team's 2021-2022 successes include:

- Completed PEIMS reporting and new PreK changes to process and capture data (Phase 2 post PeopleSoft upgrade is how to display certifications and designations)
- Various fixes to TRS reporting to aid user in troubleshooting changes.
- Extended PEIMS Open Labs each Friday for FBISD end users
- Over 2,500 trained participants from PEIMS-based training sessions
- More closely monitored over 800 campus attendance/data meetings
- No PEIMS nor attendance audits received from TEA
- Maintaining support to nearly 600 On Data Suite end users
- Continued state level recognition via TASBO
- All FBISD comprehensive high schools will be staffed with a PEIMS Specialist (addition of 3 FTEs)



Student Information Systems

Our Student Information Systems team manages the District's student information system, Skyward. The Skyward team

- Provides the ability to manage a student's entire life cycle in the District from enrollment through graduation, or withdrawal
- Provides the District with a single system of record for all students
- Allows for the tracking of student demographic and special programs
- Allows for the tracking of student schedules, including courses, teachers, and grades
- Allows for the tracking of information for federal and state reporting such as attendance and discipline.
- Provides teacher gradebooks and report cards
- Allows for data mining of data for reporting
- Provides the ability for parents to enroll students electronically
- Upgrades and updates Skyward as new federal, state, or local requirements arise



Some of the team's 2021-2022 successes include:

- Created custom forms in Skyward for the demands to automate paper
 - Remote Conferencing
 - VLP Parent Survey
 - Student email Authentication Job Aid for Parents
 - SEL Clinic Consent
 - HB4545 and SB9
 - High School Semester Exam Exemption
 - Fitness Gram
 - Special Ed Summer School
 - ESL Summer School
- Developed a solution that for Class Size Waivers using data from Skyward to confirm if class sizes exceed the State's class size enrollment guideline for the District to file TEA waiver(s) and for principals to send communication to parents in a timely manner
- Automated and standardized system for processing State and Local assessments by creating Student Assessment Management System (SAMS)
- Created Master Schedule Reports for Human Resources (HR) to help assist HR in monitoring how teachers are coded in Skyward as opposed to how they are coded in HR
- Created four new custom transcripts for Class of 2024 per District's EIC policy
- Moved Skyward from virtual back to physical servers in November 2021 to provide stability
- Discontinued a dedicated Cogent line to ISCorp as using our current network bandwidth, resulting in data integration activities reduced from 3-7 hours to consistent 45 minutes events and a cost savings of \$40,927
- Exported Skyward attachments to a file share system and reclaimed space in the database to decrease backup times and increase system efficiencies with Progress database in December 2021
- New Student Online Enrollment (NSOE) improvements:
 - Added new stages to assist with monitoring the queue
 - Automated emails to parents after NSOE application received
 - Added new "charter school" withdrawal codes to assist with monitoring
- Included all Summer Schools/Programs students in Skyward this year for the first time! This was needed for COVID tracking to know who was onsite and when
- Added Academic Hours to Secondary Courses to assist with Monitoring of Student Course Requests – Report Created and shared with Department of School Leadership, Social Emotional Learning, and Business and Finance Department
- Created Monitoring Reports for Curriculum Committee for courses being offered at each campus

STUDENT INFORMATION SYSTEMS

Annual Report | July 2021 – June 2022

All values displayed represent data collected between 07/01/2021 and 06/30/2022

SUPPORT TICKETS SUBMITTED



PROJECTS/TASKS COMPLETED

- Created custom forms in Skyward to eliminate paper processes:
 - Remote Conferencing | VLP Parent Survey | Student email Authentication Job Aid for Parents | SEL Clinic Consent | HB4545 and SB9 | High School Semester Exam Exemption | Fitness Gram | Special Ed Summer School | ESL Summer School | Verizon Connect
- Created Master Schedule Reports for HR to help them monitor how teachers are coded in Skyward vs HR
- Custom transcripts for Classes of 2022-2024 per EIC policy
- Skyward moved from virtual to physical servers in Nov 2021
- Discontinued dedicated Cogent line to ISCorp as using our current network bandwidth has jobs down from 3-7 hours to consistently at 45 minutes
- Skyward attachments exported to a file share and reclaimed space in the database to decrease backup times and increase system efficiencies with Progress database in December 2021
- New Student Online Enrollment (NSOE) improvements:
 - Added new stages to assist with monitoring the queue
 - Automated emails to parents after NSOE application received
- Added additional Summer School programs to Skyward to help identify students and staff onsite when a positive COVID case was identified
- Added Academic Hours to secondary courses to assist with Monitoring of Student Course Requests – Report created and shared with DSL, SEL and B/F
- Created Monitoring Reports for Curriculum Committee – courses being offered at each campus
- Monthly report: Special Ed student count per class by entity
- Created monitoring reports for master schedule builders:
 - Missing Period | Period Conflict | Missing Corequisite

NEWLY ADDED

Courses	Data Mining Reports	Scheduled Tasks	Processing Lists
105	6,266	1,559	91

DISTRICT HEAD COUNTS

JUL 2021

JUN 2022

74,969



76,425

SKYWARD LOGINS

3,121,646

Family Access

11,565,914

Student Access

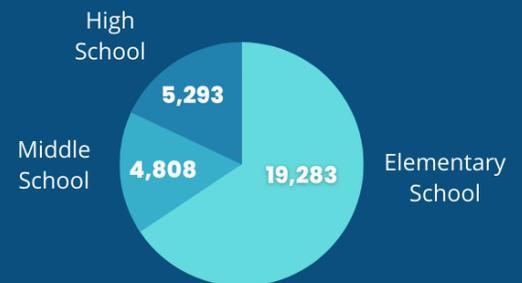


EMAILS SENT

15,852,506

NEW NSOE APPLICATIONS

29,444



SKYWARD TRAINING

97

Trainings Offered

1,283

Attendees

39 STUDENT MERGES

364 STUDENT PURGES

- Supported summer school programs with over 500 student device checkouts to students and opened Technology Depot to support summer school students through summer programs
- Assisted and supported of virtual learning program (VLP) classrooms and Remote Conferencing, allowing students an online instruction option until the District returns face-to-face
- Supported Summer School programs with over 500 student device checkouts to students and opened technology depot to support summer school students through summer
- Collected 36,578 (97.6%) of the 37,483 devices checked out to students during COVID
- Performed the following tasks on more than 65,000 devices used to support learning and work from home during COVID before returning them to campus/classroom use: inspect for damage (repaired 2,562), cleaned, reimage (erase and reload operating system and all software), replace any missing FBISD barcodes, rename all devices based on post-COVID distribution, re-inventory (barcode, serial number, model, specs, etc.), rewire carts, install devices in carts
- Prepped 1,250 devices for use with the VILS program for student at-home use (had to prep for max anticipated numbers as actual program numbers were not available)
- 53 VILS devices were checked and the other 1,197 were returned to the campus carts
- Refreshed 6,620 staff laptops with new HP 840 G8 laptops
- Replaced more than 8,000 legacy HP docking stations with new, universal USB-C docks to support the new staff laptops
- Surveyed all instructional spaces District-wide (more than 6,000 rooms) to determine if the space would receive a new SMART Interactive Flat Panel and what size would be required
- Placed the initial SMART Panel order and finalized plans for implementation including communications, training, and logistics

Desktop Technology

Our Desktop Technology team provides application implementation services for systems purchased by the District. In addition, our Desktop Technology tea configures and provides supports for systems that manage our fleet of Windows laptops and computer, and Apple products.

Some of the team's 2021-2022 successes include:

- Migrated 32,000 Apple devices (iPad, Macbook) from on prem management to cloud management
- Built seven new Windows versions in SCCM (Systems Center Configuration Manager) to support imaging devices
- 42 driver packages built to support new device models and configurations
- Packaged 121 new software titles for automated deployment via (SCCM and Software Center.
- Deployed Local Administrator Password Solution (LAPS) that facilitated the removal of local admin accounts from all District devices and servers and moved this service to Active Directory greatly increasing the security of all District IT resources, creating a more secured environment
- Migrate JAMF (Apple device management) from on-prem servers to cloud based servers
- Refresh all local Apple caching servers (these servers reduce the demand Apple device place on District bandwidth by serving app and iOS updates from local servers)
- Upgraded SCCM platform
- Implemented SCCM reporting servers
- Created SCCM Baseline to enable the auditing and repair of group policy on workstations
- Adobe Acrobat Reader added to monthly SCCM patching cycle
- Rolled out Adobe enterprise licensing solution linking Adobe license to PeopleSoft job titles and student enrollment data allowing for automatic license assignments nightly

Network Services

Our Network Services team support for all wired and wireless network, the firewalls, and the telephone system for the District. The team provides ongoing maintenance, design, and day-to-day support to the large efforts of securely and reliably transporting data between campuses and to/from the Internet. The team provides the remote

access virtual private network (VPN) services to District employees and vendors with approved access to applications and resources that are otherwise not available except from within the District network.

Some of the team's 2021-2022 successes include:

- Implemented network infrastructure at Triplex for Police Department and Extended Day (Construction Project)
- Implemented network infrastructure at multiple campus expansion projects throughout the District
- Upgraded Wide Area Network (WAN) lit-fiber connections from 10G to 40G
- Implemented Multifactor Authentication on VPN to enhance remote access security
- Upgraded Calabrio, District call center call recording software
- Upgraded Attendant Console software used to quickly route incoming calls to the District
- Upgrade Call Manager IP PBX system software to maintain District telephone system up to date
- Implemented 20G Enterprise Internet, doubling bandwidth without doubling cost
- Moved PSTN PRI connections to new hardware to remove old Nortel DMS telephone switch in Telephone closet
- Built out Telephone Room at Admin into a new IDF to accommodate the Board Room remodeling
- Deployed network infrastructure and wireless in new addition at CVME
- Removed and redeployed network and wireless infrastructure to 28 temporary buildings moved in summer of 2021, 19 temporary building moved in summer 2022
- Implemented interactive voice menu at all campuses for the main number to streamline calls into the campus to the most frequent destinations (counselors, nurses, registrar, etc.)
- Implemented new Palo Alto firewalls at Admin with more horsepower in a smaller chassis



Data Center & Server Management

Our Data Center and Server Management team concentrates on services reside in FBISD Data Center as well as enterprise services reside in the Cloud. The team provides physical and virtual servers to host systems needed by the District. In addition to server hosting, the team maintains enterprise services such as account and access management, domain name services, dynamic host configuration, email services, Office365 services, SharePoint services, to name a few.

Some of the team's 2021-2022 successes include:

- Deployed a small POC Hyper-Convergence solution by Cisco called HyperFlex at Co-Lo data center for deploying critical workload in support of Disaster Recovery (DR) tolerance needs.
- Mitigated Log4j vulnerability, a world-wide vulnerability
- Transitioned ILink services from Classlink to Microsoft's My Apps feature along with buildout of SAML (Security Assertion Markup Language) auth applications to support Single Sign-On experience. This supported in reducing operational fund expenditure
- Upgrade SolarWinds to a confirmed secure patch version post recent security incident withing SolarWinds corporation

- Implemented multi-factor authentication District-wide for all staff
- Disabled Legacy Authentication tenant-wide to secure cloud identities
- Assessing feasibility of CommVault HyperScale cluster deployment between primary (Admin) and secondary (Co-Lo) data centers to introduce additional fault tolerance to data backups by allowing the ability to both run backup jobs and store backups at redundant sites
- Deployed District-wide full DDI (DNS, DHCP, IPAM) solution provided by Infoblox
- Board Q&A Manager – development of solution for single repository of all Board questions and ETEAM provided responses for Board items and general questions (go live 7/1)

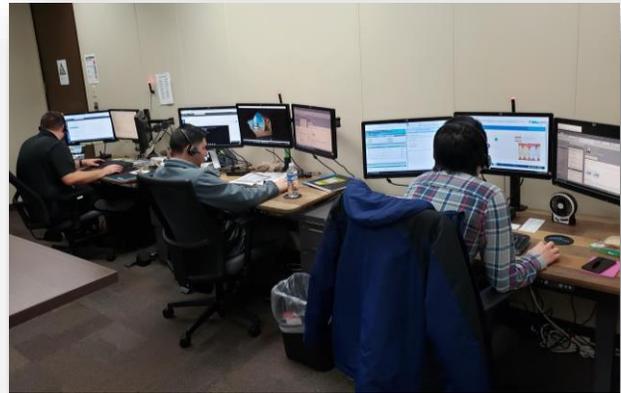


Service Desk

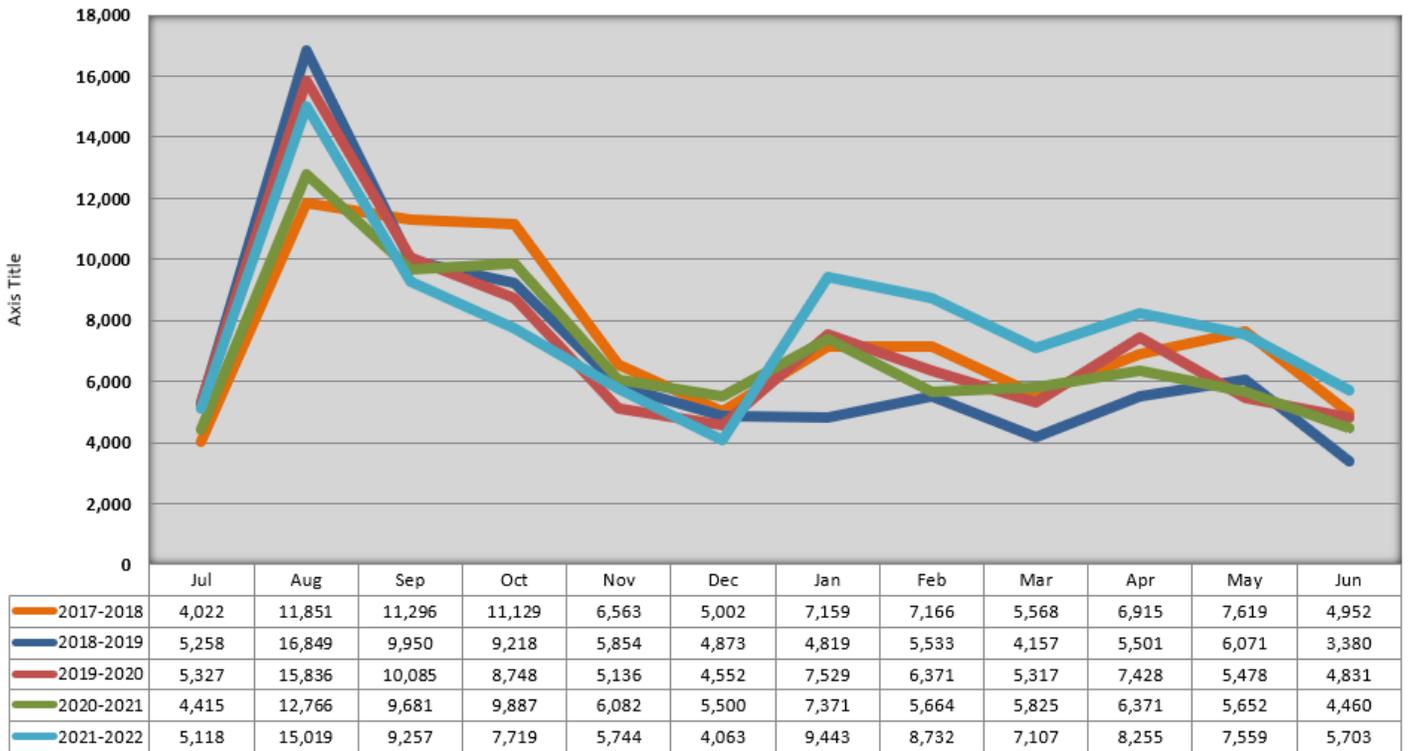
Our Service Desk continues to diligently serve as the District's frontline troubleshooting resources every day. The team is IT first line of troubleshooting. During the 2021-2022 school year, there were over 61,500 calls presented to our team and they handled 88% of the calls. As the numbers show, each year, the team is overwhelmed by the number of calls at the start of schools even with contracting help! However, the challenge will be even greater for the 2023-2034 school year, especially when funding is not available for contracting resources.

Some of the team's 2021-2022 successes include:

- 63,666 total cases resolved (an increase of 6,237 from the previous year)
- Increased our device counts per Analyst from 2,821 in 20-21 to 3,235 in 21-22 while stimulatingly increasing our 24-hour ticket closer rate for field analysts from 34% in 20-21 to 44% in 21-22
- Increased first touch resolution for CSC (users who have their issue resolved by the customer service center immediately with a phone call) from 94% in 20-21 to 99% in 21-22

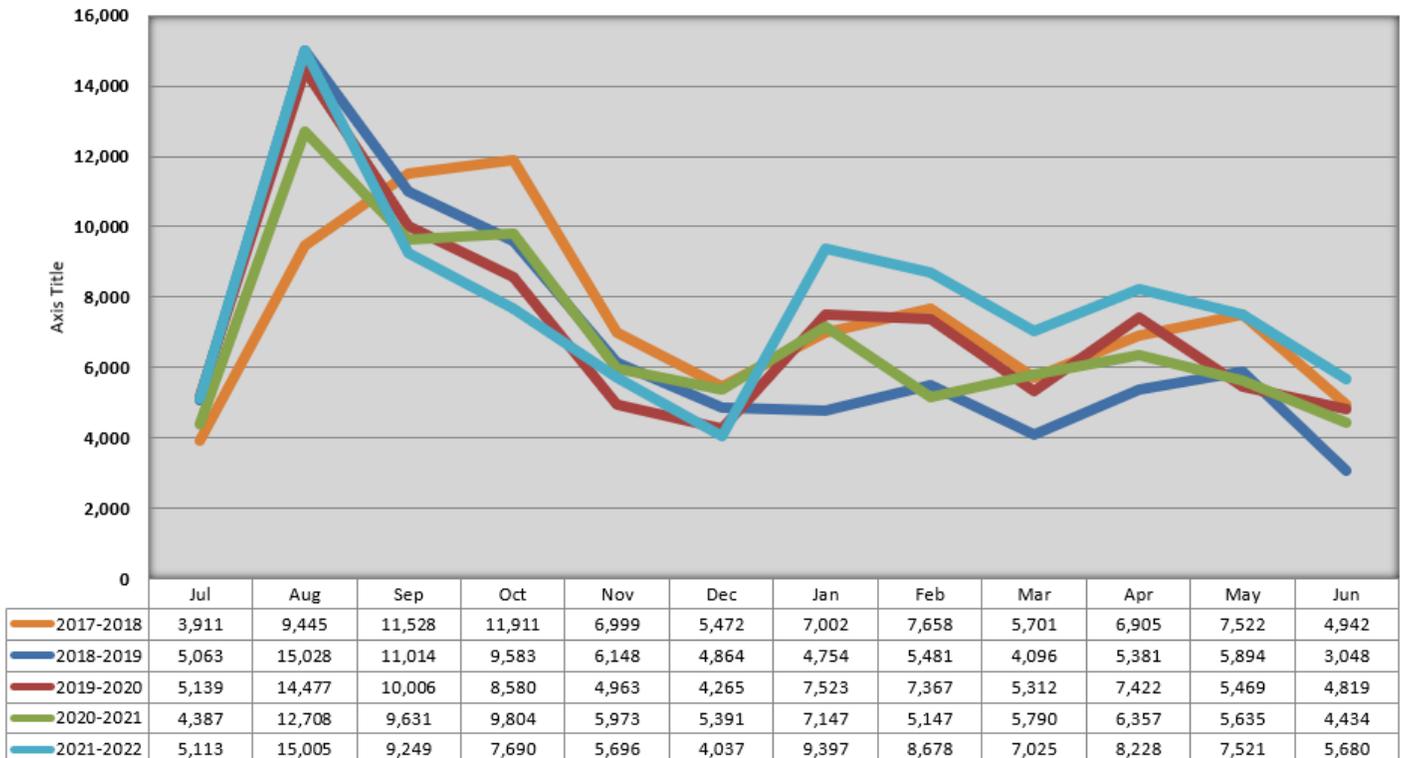


Cases Created



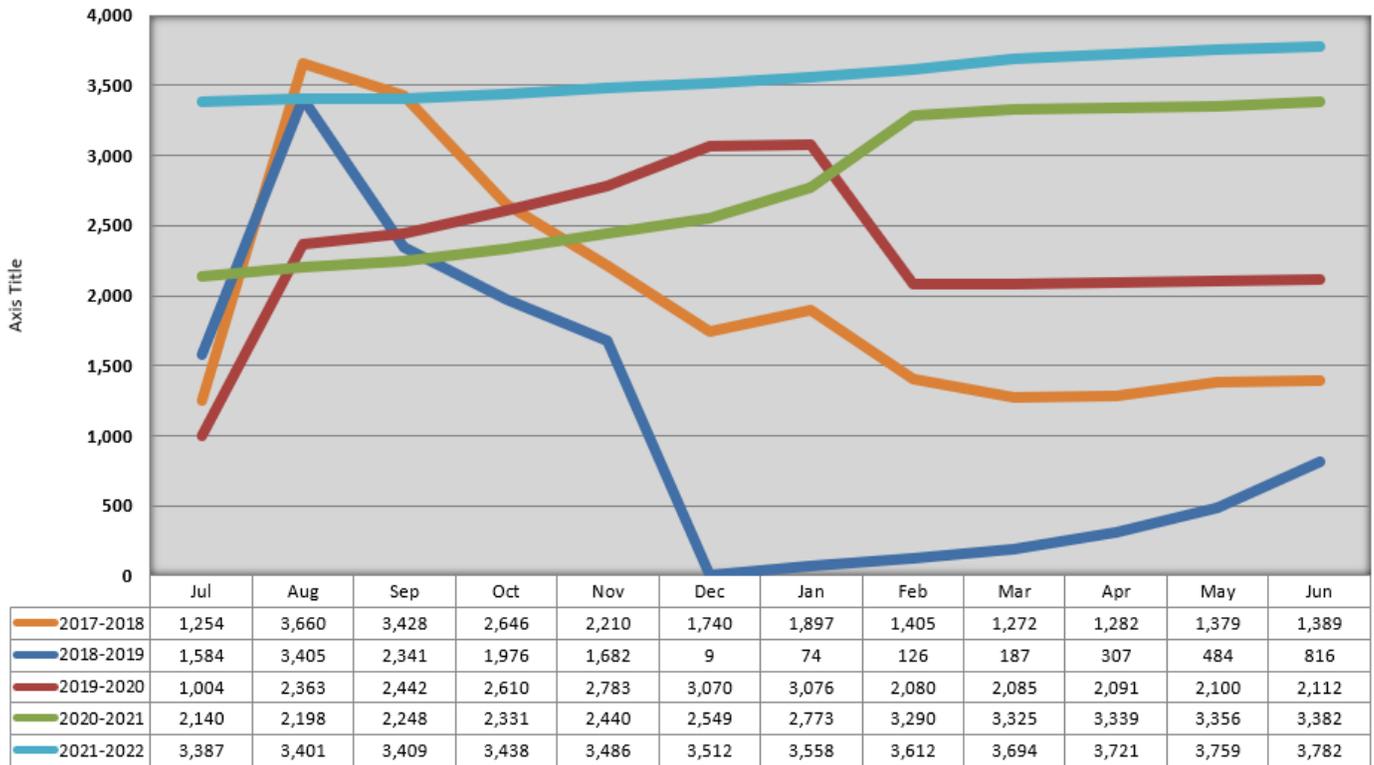
Number of cases created by the Service Desk

Cases Resolved



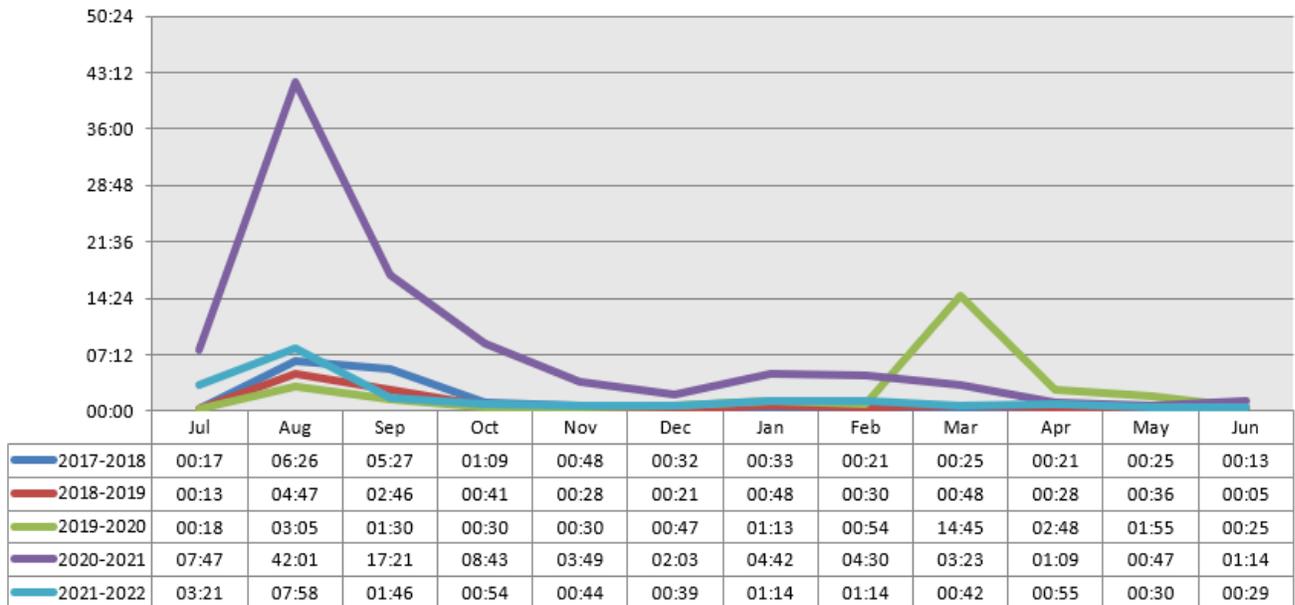
Number case resolved by the Service Desk

Cases Remaining Open



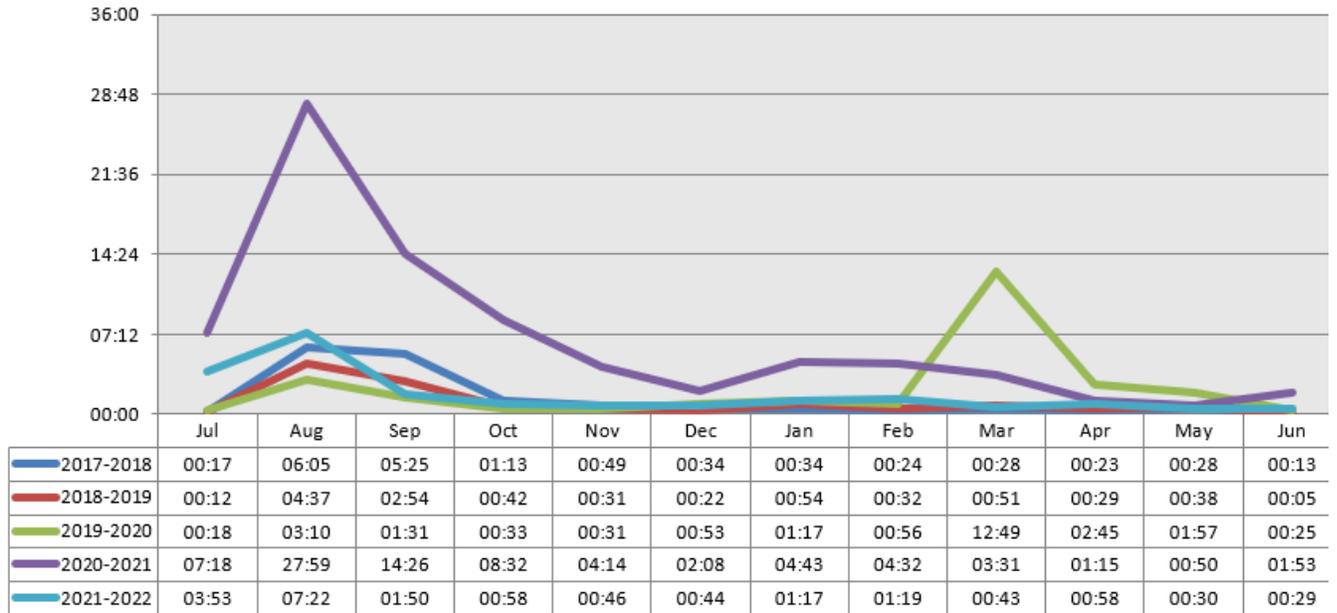
Number of opened cases

Average Speed of Answer



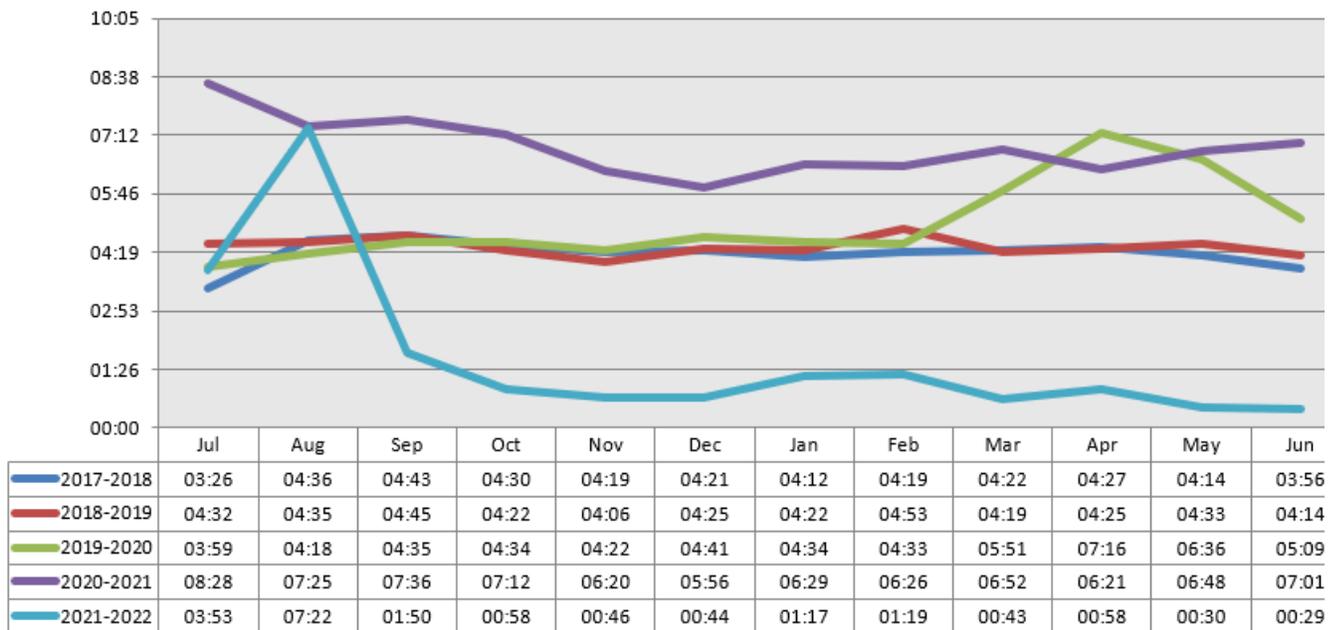
Average time a call is answered (in minutes and seconds)

Average Hold Time



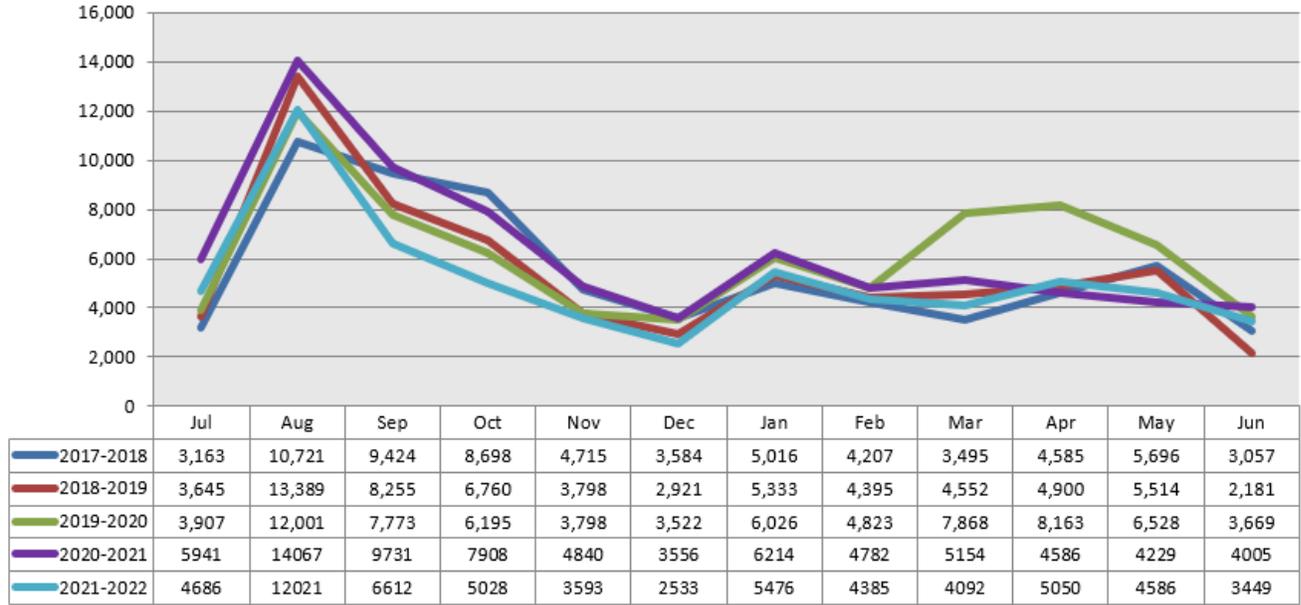
Average hold time for a caller in the queue (in minutes and seconds)

Average Talk Time



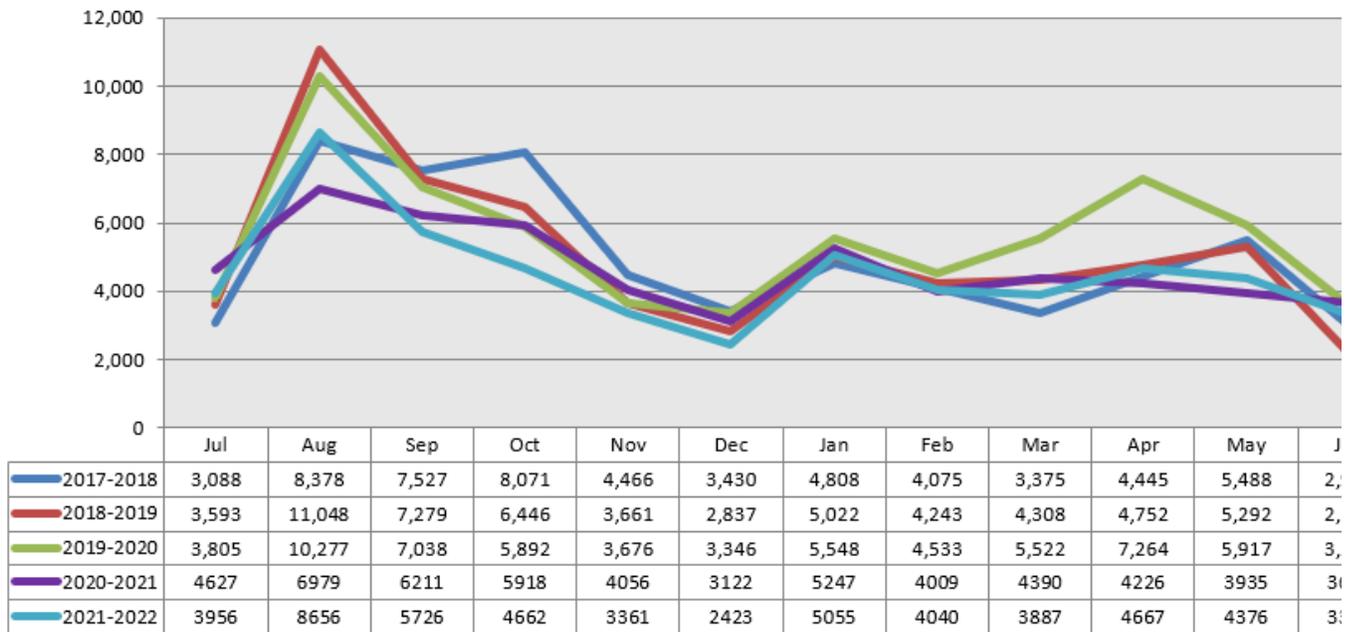
Average talk time to assist an end user (in minutes and seconds)

Calls Presented



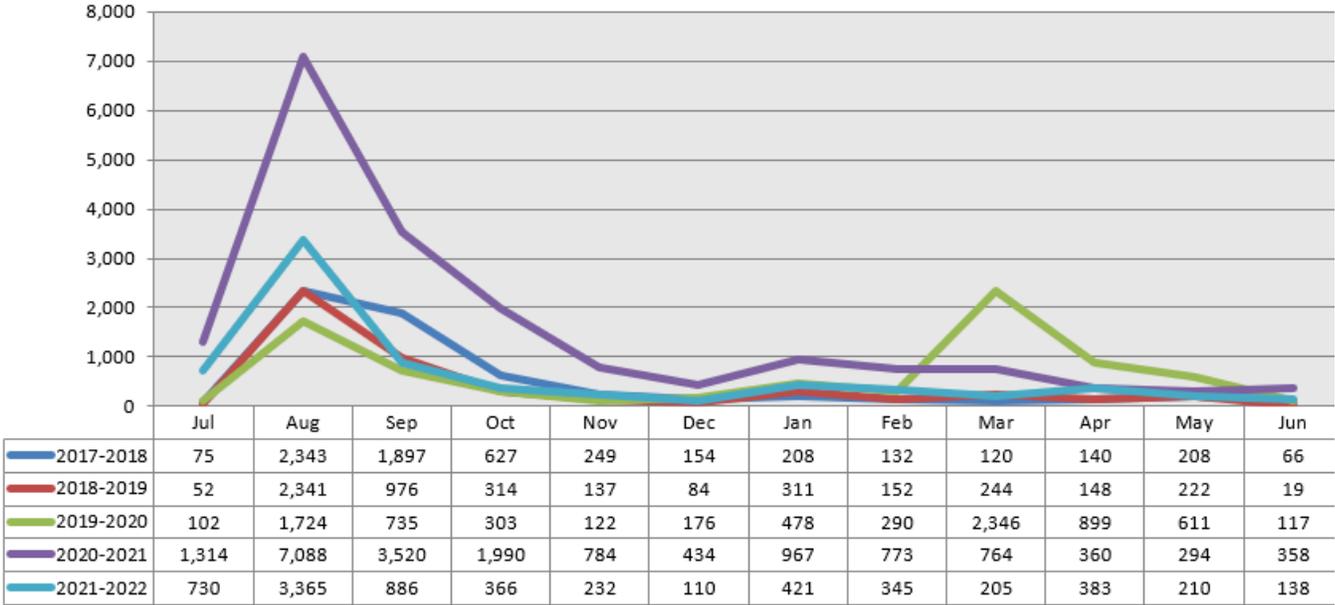
Number of calls presented to Service Desk

Calls Handled



Number of calls handled by the Service Desk

Calls Abandoned



Number of calls abandoned

Information Security

Information Security Manager

With the District's increase usage of technology and proliferation of digital threats from inside and outside of the District's network, the District's Information Security Manager continues to ensure all FBISD technology processes, equipment, practices, and environment are secured and follow industry best practices.

FBISD Information Security Website

FBISD launched a public facing Information Security website (<https://www.fortbendisd.com/infosec>) targeting Students and Parents with cybersecurity information, suggestions on how to stay safe online and links to various resources that Parents, and Students will find beneficial. This new site is being updated regularly and we plan to keep expanding the content so be sure to check back often.

Cybersecurity Steering Committee

The District has implemented a

Cybersecurity Steering Committee to help determine the direction and focus of FBISD's cybersecurity efforts. The committee, which meets quarterly, is comprised of campus leadership (principals and teachers from elementary, middle, and high schools), administrative department leaders, IT, Board Members as well volunteers from the public. Discussion topics this past year ranges from SSL Decryption and email security to Bond funding updates and deeper dives into technical areas of interest to the committee.

MFA Rollout Continues

The District continued the rollout of Multifactor Authentication (MFA) for all Staff access, expanding from only key IT systems to now requiring MFA for all external District access -- especially our email system, the main target of cyber criminals. MFA requires additional authentication steps beyond a simple username and password (very similar to requiring both a bank card and PIN to be used to conduct financial transactions at an ATM). Prior to this change District accounts were frequently compromised resulting in loss of productivity for the affected individuals as well as an increase in containment and cleanup efforts performed by IT Staff.

System Patching & Vulnerability Scanning

Information Technology continues proactive vulnerability scanning of all critical systems to ensure the systems are properly configured and patched. This activity is in addition to external vulnerability scans performed by the Department of Homeland Security as well as annual penetration testing performed by third party organizations to



ensure FBISD is addressing the most critical needs of our information security program. Regular vulnerability scans, annual penetration testing and on-going efforts to harden and secure workstations and servers follows industry best practice guidance for reducing the District's attack surface, the assets that criminals want to harm or compromise, to minimize the likelihood of a crippling cyber security incident.

Monthly Cybersecurity Tabletop Exercises (TTX)

In addition to all cybersecurity strengthening activities already underway FBISD also conducts a range of preparedness drills to assess and improve the District's ability to respond to and remediate a variety of possible threats facing educational institutions and especially K-12 organizations. In addition to "live exercises", where simulated attacks are performed to assess a team's ability to respond, Tabletop Exercises (TTX) are discussion focused scenarios which can be used to assess preparedness, refine response plans, and prepare for a greater variety of threat types in a shorter period of time. Being prepared is key to minimizing the effects of a cyberattack and shortening the time to recovery if a cyber security event occurs.





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