

Information Technology Division Annual Report 2022-2023

## Message from Chief Information Officer

Through dedicated focus, diligence, and collaboration, the 2022-23 school year became another milestone for Information Technology in Fort Bend ISD (FBISD). We began the year on the heels of one of the largest audio/video replacement projects FBISD has ever undertaken. Our team successfully, ahead of schedule, and under budget, deployed 5,278 Interactive Flat Panels (IFP) across all occupied classrooms across all schools, replacing outdated projectors. We revised our master plan and created the FBISD 2022 Technology Master Plan to serve as a blueprint for the upgrade of our aging wired/wireless/data center infrastructure and replace outdating student devices. The plan allows for opportunity to expand our data storage and Internet connectivity. The Fort Bend County voters graciously passed the 2023 Bond Referendum, allowing us the capital funds needed to execute this technology master plan.

The 2022-2023 Information Technology Division Annual Report provide us with an opportunity to highlight achievements by our highly skilled and dedicated staff members. These achievements directly impact the work that our teachers and district staff perform every day in support of our students to reach their full potential "to pursue futures beyond what they can imagine." The work accomplished in this report did not happen overnight nor by IT staff members only. The collaborations and constant communications between Information Technology staff and our stakeholders resulted in strategic partnerships and cooperations that provided the necessary skills, ideas, equipment, and tools to make it all possible.

Looking forward to the 2023-24 school year, our IT team will focus on the next two years to start and complete the 2023 Bond projects and several major system upgrades and/or replacements. We will participate in the District's Vision 2030 strategic planning and provide the technology ideas and serve as technology subject-matter experts. We will focus on policies, procedures, and efforts to reinforce our cybersecurity defensive posture to protect our valuable data, our students, and our staff. We will encourage participation in our technology steering/stakeholder committees and urge all district participants to challenge our IT team to look for innovative solutions.

As FBISD continues to rely on technology in the daily activities of our students and our staff, the goal for the Office of the Chief Information Officer and the IT Division continues to be a prompt, effective and trusted information technology organization, and partner for Fort Bend ISD teachers, students, and staff. The Information Technology Division will achieve this through transparency, accountability, and user-led IT governance. The IT Division's success is measured by how effective it can meet our District's staff and student technology needs. We will meet the ever-increasing technological challenges with constant dialogs with district divisions, departments, and campuses as well as ongoing efforts to understand and leverage new, upcoming technologies to serve our District's mission and vision. Our technology services, resources, and staff members are and will continue to be a vital part of the Fort Bend ISD's ecosystem and 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 <u>Service Catalog</u> website.

### **Information Systems (IS)**

- Attendance
  - o Local, State and Federal Reporting
  - Texas Education Agency (TEA) Records Exchange Services
  - PEIMS Support Services
  - Office of Civil Rights Reporting
  - o Average Daily Attendance (ADA)/Registrar Support

#### • Web/Application Services

- Application Implementation and Project Management
- Custom Programming and Reporting
- Datamining (MSSQL, Power BI, and Excel)
- o Second and Third Level Application Support
- Internal Web Services
- External Web Services
- Custom Web Development
- Web Community Manager
- SharePoint Online
- $\circ$  SchooLinks
- Learning Management System (Schoology)

#### Business Services

- Vendor Management
- Contract Management
- o Sourcing Management
- o Grant/Bond/E-Rate Management
- Operation Expenses Management

#### Database Administration

- SQL Database Administration
- o Database Design
- Database Tuning
- Data Extraction, Encryption and Transmission
- o Data Analysis
- Process Automation
- o Business Process Analysis

#### • Data Integration

- o Operational Data Stores Business-to-Business Integration and Data Exchange
- Unified Data Management (UDM)
- o Bulk Data Transfer
- o 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

### **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

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

#### • Desktop Support

- o Desktop Support
- Mobile Devices
- Printers
- Projectors
- o Document Cameras
- Interactive Flat Panels
- End-user Software Support
- Desktop audio/video
- Student Technology Toolset Management
- o Broadcast Studio Audio/Visual
- Board Meeting Support
- Enterprise Video, Webcasting, Video CMS
- Elementary Support/High School/Support Site Support

#### • Desktop Technology

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

o 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

## **INTERACTIVE FLAT PANEL**

Throughout the Spring of 2023, the Information Technology Services (ITS) department worked to complete the deployment of 5,592 interactive flat panel displays to every instructional space in FBISD. This project was the



culmination of 6 years of effort beginning in 2017 when a committee of teachers, principals, District administrators, Department of Teaching and Learning, and parents assessed future classroom technology needs in FBISD as part of the 2018 Bond planning and recommended the replacement of the projectors with interactive displays.

Beginning in November of 2022, the ITS department began taking delivery of 1,000 per month at our warehouse in Sugar Land. By equipping this warehouse with full network access, FBISD was able to work with our vendor partner to unbox, pre-activate, name, configure, and inventory every panel in the warehouse before delivery to campuses.

This strategy allowed us to deploy up to 80 panels per night working between 5pm-3am to eliminate any disruption to instruction during the day.

Deployment of each high school required 3 nights, each middle school required 2 nights, and an elementary school was deployed in a single night. Working with two deployment crews and scheduling around major campus events, holidays, and STAAR testing, all 5,592 panels were deployed by mid-April 2023. This allowed teachers time to become familiar with the panel while still having access to their existing projector for a more seamless transition process.



The panels 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 is sharper, brighter, and more reliable than the existing projector.

From the few feedback so far, some of our teachers love the new panels and start to do a lot more with the panels as they deliver instructions. As we visited campuses and classrooms, we also noted an increased in

student engagement with the interactive panels. We hope this new tool will continue to provide our teachers with another mechanism to boost our students' learning and help them discover new ways to learn.

## EASTER DAY FLOOD

In addition to accomplishments, the 2022-23 School Year brought lessons for IT to learn as well. On Sunday April 9<sup>th</sup>, 2023, the District's primary data center in the Administration Building was impacted by a major water

leak that started on the 2<sup>nd</sup> floor, directly above the data center, that eventually made its way down into the data center on the 1<sup>st</sup> floor. Although the water leak started many hours before, the leak was detected on Sunday morning and alerted through water sensors located beneath the data center floor. The Information Technology (IT) Division in conjunction with Facilities Department responded quickly to the incident to triage and prevented further escalation of the issue. While the data center was impacted by the water, the leak was



identified just in time to prevent catastrophic outcomes. Thanks to the swift and timely actions of the data



center team along with the facilities team, the leak was contained in a way that minimized the overall data service outage to just under 15 hours. Even though the event was contained, had the water not detected, the entire data center and/or major servers may be rendered offline for days, weeks, and even months while replacement hardware are being procured and reinstalled. This disaster could have resulted in extended outage to major systems such as PeopleSoft, security cameras, GT applications, etc., possibly crippling our day-to-day operations.

Both the data center and adjacent spaces were restored and renovated as of late 2023. This "close call" provided an affirmation to the importance of formalizing disaster recovery and business continuity for our IT systems, infrastructure, and services. While the IT teams have taken appropriate steps to reduce the chances of such an incident occurring in the future, we are also in the process of creating the disaster recovery standard operation procedure and starting to investigate what it will take to address IT business continuity in case a disaster occurs.



### **Information Technology By the Numbers**

- 3.21 Petabytes (PB) security camera storage used (1 Petabyte = 10<sup>15</sup> bytes of digital information = 1.5 million CD discs)
- 676 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)
- 1180.36 GHz of virtual environment processing power used
- 15 Gbps average peak Internet bandwidth used by the District every day
- 12 Gbps average peak Internet bandwidth used by the wireless users every day
- 95 million files on 348 Terabytes (TB) stored in OneDrive at the end of November 2023
- 69,609,265 Fort Bend ISD web page views
- 38,707,204 Inbound emails in the last 90 days (from 8/31/2023)
- 20,450,000 denied Internet destinations by firewall (1-week avg from top 5 destinations denied)
- 17,175,922 emails sent from Skyward
- 11,579,592 Student logins to Skyward Student Access
- 10,937,699 Student logins via Clever
- 9,538,891 WinDSX transactions (badge readers)
- 7,147,012 websites blocked by content filters (1-week avg from top 5 blocked websites)
- 4.3 million files on 13.0 TB stored on SharePoint at the end of November 2023
- 4,216,435 outbound emails in the last 90 days (from 8/31/2023)
- 3,117,381 logins to Skyward Family Access
- 1,310,000 attacks from the Internet blocked at the firewall (1 week average -- from top 5 attacks)
- 793,715 Teacher logins via Clever
- 583,262 Kronos punches
- 320,000 spyware downloads blocked at the firewall (30-day average, from 1/23 to 11/23)
- 257,298 payroll checks processed
- 247,254 Raptor visitor sign-ins
- 170,553 absences processed
- 164,900 Unique logins to Naviance
- 143,595 denied applications blocked by the firewall (1 week average from top 5 denied applications)
- 128,733 Active Directory accounts maintained
- 127,595 email accounts at the end of November 2023
- 121,100 Savvas unique logins
- 112,400 Unique logins to McGraw Hill instructional resources
- 103,532 technology help cases created (between 7/22-7/23)
- 84,694 calls to the Service Desk (between 7/22-7/23)
- 78,027 students enrolled as of June 2023
- 64,593 payment vouchers processed
- 52,580 calls presented (between 7/22-7/23)
- 45,250 spyware downloads blocked (top 5 spyware)
- 41,592 Goods receipts processed
- 40,484 Employee EForms for contracts, salary letters, job description, etc.
- 35,138 Raptor Volunteer Sign-ins
- 29,336 Unique messages sent from Blackboard/Finalsite
- 25,717 total purchase orders processed in PeopleSoft FSC

- 20,614 New Student Online Enrollment (NSOE) applications
- 16,782 Documents stored in Docuware
- 14,915 PCard transactions processed
- 12,782 Assets added to PeopleSoft
- 8,620 emails were cleaned from 10 SPAM events (between Jan. and Sep. 2023)
- 6,139 Skyward Data Mining reports
- 6,222 cameras in use across 29 security camera servers
- 4,240 employees and supervisors using Kronos
- 3,133 Change Forms (Employee Transfer) processed
- 2,901 new scheduled tasks in Skyward
- 2,627 sub request forms
- 2,595 Taleo interface hires (New Hires/Rehires)
- 2,425 new vendors created
- 2,412 Exit Forms submitted
- 1,962 district vendors on purchase orders
- 1,915 student devices distributed to classrooms to address student growth
- 1,369 Records Review Forms directly updated into Job Data and Employee Profile after approval
- 1,207 Budget Request Forms processed
- 1,150 Processing Lists added in Skyward
- 1,024 PeopleSoft support tickets closed
- 463 stipend request forms
- 396 virtual machines
- 248 new courses added in Skyward
- 78 Skyward trainings offered to 1,414 attendees
- 32 Non-PeopleSoft SQL servers with Production servers with 5.8 TB space utilized
- 17 physical virtual servers
- 12 physical server appliances
- Microsoft Teams usage last 180 days from 5/30/2023:
  - o 7,510,635 Audio time (minutes)
  - o 6,614,634 Video time (minutes)
  - 4,435,640 Screen share time (minutes)
  - o 1,582,742 chat messages
  - 52,594 Total participated meetings (the sum of the one-time scheduled, recurring, unplanned, and unclassified meetings a user participated in during the specified period)
  - 49,650 Total organized meetings (the sum of one-time scheduled, recurring, unplanned, and unclassified meetings a user organized during the specified period)
  - 98,072 1:1 calls
  - o 1,836 channel messages
- Schoology usage
  - o 9,226,751 course materials created
  - 5,542,936 files created
  - o 3,522,154 assignments submitted
  - o 2,889,100 assessments submitted
  - o 2,501,915 tests/quizzes submitted
  - 1,688,064 discussions submitted
  - 93,460 unique active users

- Raptor:
  - Visitor Sign-Ins: 247,254
  - Contractor Sign-Ins: 7,800
  - Student Sign-Ins & Outs: 575,289
  - Volunteer Sign-Ins: 35,138
  - Total Sign-Ins: 865,481
- Clever
  - Student login percentage of 100%
  - Teacher login percentage of 93.6%
  - o 10,937,699 total student logins
  - 793,715 total teacher logins

### **Information Systems**



#### ERP (PeopleSoft) Team

Oracle PeopleSoft Human Capital Management (HCM) and Financials and Supply Chain Management (FSCM) are the current FBISD Enterprise Resource System (ERP) solutions. The system was purchased in 2006 and has been upgraded to the current version with a 2019 SQL server, always-on backend database. The Oracle product line supports the District's business and staffing needs, including purchasing, warehouse/inventory, accounts

payable, accounts receivable, financial reporting, fixed assets, general ledger, human resources, payroll, benefits management, position control, and state & federal reporting, inclusive of custom PEIMS (Public Education Information Management System) and TRS (Teacher Retirement System) reporting. The District uses Oracle Planning and Budgeting cloud solution (PBCS) with interfaces directly with both HCM and FSCM systems. A separate real-time replicated database offloads data for reporting purposes and restricted SQL access for other systems. The HCM system is the source for



various integrations with other District systems which require staff data, including Active Directory and interfaces with four other hosted solutions: UKG Dimensions (formerly known as Kronos) for time keeping, ReadySub for absence reporting and substitute callouts, Oracle Taleo for Applicant Tracking and Oracle PBCS

for budgeting. The HCM system provides all staff related data to the Data Integration team for encrypting the



data and transmitting the data to 3rd party vendors including all benefit vendors. The FSCM system interfaces with different vendors for punch-outs, catalog ordering and electronic invoicing, and with Tableau for data visualization and Oracle PBCS for budgeting. Throughout the years, major modifications have been made to these modules to meet the

needs of FBISD.

#### **ERP** (Peoplesoft) Team Responsibilities

- All custom development and systems analysis and design for the ERP (Enterprise Resource Planning) Systems.
- All In-House upgrades and custom retrofit development to the ERP Systems.
- Support for all Staff PEIMS/TRS/Payroll/Employee Records reporting systems.
- Support for all Finance Business operations: Procure to pay: Requisitioning, purchasing, receiving, and paying for goods and services.
- Support for all financial state and federal reporting.
- Support for Budgeting software for the district
- Support for Taleo Software related to hiring.
- Security for all Oracle ERP applications
- Support for all backups of ERP software.

#### ERP Team accomplishments (operations and projects) (2022-23)

HCM/FSC	Item	Description	
HCM/FSC	PeopleSoft 2023 Upgrade	Upgraded the FSCM and HCM Application and Technology Platform Toolset, retrofitting more than 5,000 customizations and reduced and isolated customizations	
HCM/FSC	SQL Server 2019 Upgrade	Upgraded SQL Server from 2017 to 2019 on all eight PeopleSoft development and production applications.	
HCM/FSC	Conducted Disaster Recovery Test	Annual mock disaster recovery test. Restored both environments from old backup.	
HCM/FSC	Created PowerBI ERP Metrics Usage dashboard	Tracks usage of applications and number of logins with drilldown to date.	
HCM/FSC	Oracle Security Patches	Applied four quarterly Oracle critical security patches	
HCM/FSC	RFQ Specs for Business Processes	Conducted analysis of existing processes and customizations, and reviewed vendor submissions to streamline business processes	
НСМ	Item	Description	

НСМ	Contract Roll July	Contract roll for July employees mock testing and deployment	
HCM	Contract Roll August	Contract roll for August employees mock testing and deployment	
НСМ	Contract Roll Sept	Contract roll for September employees mock testing and deployment	
НСМ	Benefits Open Enrollment	Yearly benefits Open Enrollment selections for the next year and code changes to interfaces.	
HCM	Applied Quarterly Tax Updates	Applied the updates for Federal Reporting	
НСМ	Onboarding emails to personal email	Implemented Onboarding process to send automatic emails to new hire's personal mail	
НСМ	New Stipend report.	Implemented stipends report process for Manager Self-Serve and HR	
НСМ	Kronos multiple jobs	Configuration change in PS to allow correct salary calculation for employees with multiple job assignments.	
НСМ	Cleanup and POC to allow Longevity pay	Created process to clean up several thousand staff members' FBISD district years of service, providing analysis to HR	
НСМ	Offload PS Queries to reporting database server	Offloaded total of 73 PS queries to reporting database servers for performance enhancements	

### Statistics (HCM)

FSC

Board Item

HCM	Support Tickets	427 Support Tickets closed	
HCM	Change Forms	3,133 Employee transfer forms	
HCM	Term Forms	2,412 Employees leaving the district	
HCM	Payroll	257,298 Employee paychecks processed	
HCM	Taleo	2,595 New Hire/Rehire applications processed	
HCM	Budget Request Forms	1,207 Budget request forms processed	
HCM	Sub Recommendation Forms	2,627 Substitute recommendation forms processed	
HCM	Stipend request forms	463 Stipend request forms processed	
НСМ	Records Review forms	1,369 Records review application directly update the data into Job data and employee profile after approval from records team	
НСМ	E-forms	40,484 Employee E-Forms to sign Contracts/Salary Letters/Job Description etc.	
FSC	Item	Description	
FSC	Board Item	Created Board Item Tracking Dashboard to view	

all board item projects over \$50k

FSC	Form 1099	Implemented 1099 Updates for 2022 Tax reporting	
FSC	Fiscal Year End	Facilitated Fiscal Year End Processing and improved processing time and efficiency	
FSC	Voucher Approval	Created New Accounts Payable Approval Workflow process	
FSC	Merged logins for Multiple Budget Managers	Merge multiple accounts per user into one login account	
FSC	Vendor loader	Created Vendor Contact Load process for future eSupplier use	
FSC	Requisition Loader	New process for departments to create requisitions from a spreadsheet upload	
FSC	Procurement	Implemented new Fluid eProcurement module	
FSC	Approvals	Implemented Fluid Approvals for all users	
FSC	nVision Reports	Changed nVision to open standard and light weight "Open XML" mode from legacy "Excel Automation" Mode	
Statistics (FSC)			
FSC	Support Tickets	597 Support Tickets Closed	
FSC	Purchase Orders	25,717 Purchase Orders Processed	
FSC	Vendors	1,962 Distinct Vendors Purchased from	
FSC	Vouchers	64,593 Payment Vouchers/Invoices Processed	
FSC	Assets	12,782 Assets Added to PeopleSoft	
FSC	Procurement Cards	14,915 PCard Transactions Processed	
FSC	Receipts	41,592 Received goods processed	
FSC	Vendors	2,425 New Vendors Created	

#### <u>Skyward</u>

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

#### Skyward Team's responsibilities:

- 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 Skyward team's 2022-2023 successes include: 2022-2023 SkywardAnnualStatusReport.pdf

# **STUDENT INFORMATION SYSTEMS**

### Annual Report | July 2022 - June 2023

All values displayed represent data collected between 07/01/2022 and 06/30/2023

#### DISTRICT HEAD COUNTS SUPPORT TICKETS SUBMITTED **JULY 2022 JUNE 2023** 5,088 76,425 78,027 +1602 **PROJECTS/TASKS COMPLETED** SKYWARD LOGINS Created Custom Forms: Library Parent Communication Opt-In | New Progressive HS Application | Semester Exam Exemptions | ESY 11,579,592 3,117,381 Registration | ESY Contact Hours | Human Family Access Student Access Sexuality/Violence Prevention Opt-In Created New Reports: Excessive or Duplicate Credits | Reese Failed Semester Grades, Pass Credit Denied | Special Education Inclusion | Semester Grade Mismatch | Permit Code Validation EMAILS SENT Updated National School Lunch Program and Community **Eligibility Provision Student Codes** 17,175,922 New Student Online Enrollment Improvements Enabled Document Upload Functionality Blocked Identified Harmful File Types Automated Custom Data Load for SPED Program Name **NEW NSOE APPLICATIONS** Security Improvements Enabled Single Sign-On for all Students and Staff, 20,614 including Multi-Factor Auth (MFA) for Off-Premises Staff Implemented US-Only GeoFence New Password Strength Requirements for Parents High 2023 Boundary Changes (33 Campus->Campus Pairings) School 4.046 Generated Affected Student List for all Boundary Changes Elementary Middle 13,341 Created "Opt-Out" Skyward Forms for Qualifying 3.263 School School Students Targeted "Opt-Out" Form Release to Qualified Students, Collected Responses, Produced Reports and Moved Students According to Responses Received Configured 11 Summer Programs in Skyward, and Led Individual Program Leader Trainings SKYWARD TRAINING Configured Three New Campuses and Two Combined Campuses, Archived Four Inactive Campuses 1.414 78 Attendees **Trainings Offered** NEWLY ADDED Data Mining Scheduled Processing Courses Reports Tasks Lists STUDENT STUDENT 248 6.139 2,901 1.150 MERGES PURGES

- Created Custom Forms:
  - Library Parent Communication Opt-In | New Progressive HS Application | Semester Exam Exemptions | ESY Registration | ESY Contact Hours | Human Sexuality/Violence Prevention Opt-In
- Created New Reports:
  - Excessive or Duplicate Credits | Reese Failed Semester Grades, Pass Credit Denied | Special Education Inclusion | Semester Grade Mismatch | Permit Code Validation
- Updated National School Lunch Program and Community Eligibility Provision Student Codes
- New Student Online Enrollment Improvements
  - Enabled document upload functionality
  - Blocked identified harmful file types
- Automated custom data load for SPED program name
- Security improvements
- Enabled single sign-on for all students and staff, including multi-factor authentication (MFA) for ofpremises staff access
- Implemented US-only geofence
- New password strength requirements for parents
- 2023 Boundary Changes (33 Campus->Campus Pairings)
- Generated affected student list for all boundary changes



- Created "Opt-Out" Skyward Forms for qualifying students
- Targeted "Opt-Out" Form Release to qualified students, collected responses, produced reports and moved students according to responses received
- Configured 11 summer programs in Skyward, and led individual program leader trainings
- Configured three new campuses and two combined campuses, archived four inactive campuses

#### 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.

Total Numbers:

- Blackboard/Finalsite
  - 29,336 unique messages sent over the year.
- Clever
  - Student login percentage of 100%
  - Teacher login percentage of 93.6%
  - o 10,937,699 total student logins
  - o 793,715 total teacher logins



- DocuWare:
  - Total Number of Documents stored: 16,782
- Kronos:
  - Total Punches: 583,262
  - Total Employees and Supervisors in application: 4,240
- McGraw Hill
  - o 112,400 total unique logins
- 0 112;
  Naviance
  - 164,900 total unique logins
- Raptor:
  - Visitor Sign-Ins: 247,254
  - Contractor Sign-Ins: 7,800
  - Student Sign-Ins & Outs: 575,289
  - o Volunteer Sign-Ins: 35,138
  - Total Sign-Ins: 865,481
- Savvas
  - o 121,100 total unique logins
- Schoology
  - 5,542,936 files created.
  - o 9,226,751 total course materials created.
  - o 3,522,154 assignments submitted.
  - o 2,889100 assessments submitted.
  - o 2,501915 tests/quizzes submitted.
  - 1,688,064 discussions submitted.
  - 93,460 total unique active users
- VideoInsight
  - 6,222 Security Cameras
  - o 29 Security Camera Servers
- Website
  - o 69,609,265 total views
- WinDSX
  - o 13,377 Card Holders
  - o 9,538,891 Events/Transactions

#### New Projects Completed:

- Axon
  - Implemented body camera refresh for police.
- DocuWare:
  - Implemented new Background Check process implemented.
  - Implemented Retention Policy built for HR file cabinet.
- Kronos:
  - o Implemented Campus Paraprofessionals added to Kronos.
  - Implemented Crossing Guards added to Kronos.
  - o Implemented Weighted Average Calculation for overtime/comp time calculations.
- Raptor:
  - Added program Shared Dreams



- o Implemented Fueling Brains Academy
- Police
  - Implemented Planning and configuring of 90 in-car laptops (MDT'S)
  - o Implemented NetMotion always-on VPN for MDT'S
  - o Implemented NICE Screen, Phone, and Radio recording software
  - Implemented ScholarChip rebadge printing campaign
- SPED
  - Implemented ReThink Autism
  - $\circ$   $\;$  Implemented OnWard switch transportation SPED bus ridership tracking from
- Transportation / Facilities
  - Completed EJ- Ward fueling system cloud migration.
  - o Implemented Vector Solutions Bus training certification software.

#### **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's responsibilities include:

- Providing operational data store services for trend analysis and reporting purposes
- Creating and managing business-tobusiness integrations and secure data exchange
- Providing data modeling, data profiling, and data cleansing services
- Providing centralized processing and distribution of student pictures

Some of the team's 2022-2023 successes include:

- Implemented a service for processing all CTE student certifications from 14 vendors
- Support all implementations that require data files to be created and transported to vendors
- Daily processing of 41M records and generation of 490 unique files sent to authorized internal and external business partners



#### **Business Services**

Business Services Coordinator has a single area of responsibility for visibility, tracking and continuity of all IT contracts. The Business Services Coordinator develops and maintains vendor relationship to obtain the best services, pricing, and supports for the District. The Business Services Coordinator focuses on ensuring accurate and timely fillings for ERATE eligible services and reimbursement while working closely with identified ERATE consultants that support the District.

Some of the Business Services Coordinator's 2022-2023 successes include:

- Received \$162,865 reimbursement from ERate for Category 1 Services for 2021-2022, which was provided in 2022-2023 as they are one year behind.
- \$17.6M approved from ERate for third window of Emergency Connectivity Fund for the purchase of computer equipment.
- \$5.7M funding has been committed by Universal Service Administrative Co. for Category One Services (LIT and Dark fiber leases), Category Two (LAN, WAN equipment and services) for 2022-2023. Reimbursement will be provided this upcoming 2023-2024 funding year for Category 1 Services.
- Completed development of ERate Spend Tracker with all details for Category One and Category Two projects from 2015 through 2023
- Collaborated with Purchasing and Teaching and Learning on a new Docuware Software Request form for software renewals or new purchases of software, subscriptions, and licenses from non-awarded vendors.
- Implemented process flow charts for Bid Intake Form Request, Board Approved Contract SOW Signature and ERate Invoices for Bears.
- Implemented communication roll-out for Affordable Connectivity Program which provides \$30 off



monthly internet bills and \$100 off laptop purchases for income eligible families.

- Assisted with the non-renewal of Contracts for Mesa, PowerSchool's (Performance Matters) and Windstream
- Processed 72 annual support invoices and paid on time.
- Completed 2023-2024 Budget planning cost build-up including confirming all quotes.
- Completed Universal Contract Request for 2023-2024 annual renewals and new purchases for contracts under \$50K.

#### PEIMS/Student Attendance/Enrollment

The PEIMS (Public Education Information Management System)/Student Attendance/Enrollment team oversees the loading, validating and submission of the District's PEIMS data to TEA (Texas Education Agency). The team focuses on data accuracy and communication of expectations to all stakeholders. The efforts of the PEIMS/Student Attendance/Enrollment team result in a positive impact on PEIMS reporting and overall data accuracy for Fort Bend ISD.

The PEIMS/Student Attendance/Enrollment team provided 78 training opportunities throughout the 2022-2023 school year to support campus staff. Total participants were 5,884 campus staff. Training sessions covered deadlines, data requirements, up to date information, and reminders of day-to-day job functions for campus staff. In addition to these training opportunities for campus staff, the PEIMS/Student Attendance/Enrollment team conducted 1,138 campus visits supporting secondary and elementary campus staff with PEIMS, Student Attendance and Enrollment tasks and training.

The following are a few of the team's accomplishments for the 2022-2023 school year:

• Completed two Standard Operating Procedure documents (SOP):

- SOP Attendance  $\cap$
- 0 SOP – Enrollment
- Conducted monthly District Data • Steward meetings with 11 district department teams to ensure department staff were kept informed with current PEIMS data collection information.
- Completed four PEIMS data • submissions and four PEIMS data re-submissions a week ahead of each of the TEA submission deadlines:
  - Submission 1 and **Resubmission 1 - PEIMS** Fall Snapshot (including student leaver)



Submission 2 and  $\cap$ 

Resubmission 2 - Mid-Year (prior year financial Actual)

- Submission 3 and Resubmission 3 Summer (school year attendance, discipline, course 0 completion)
- Submission 4 and Resubmission 4 Extended Year (summer program) 0
- Completed eight PEIMS data collections:
  - Early Childhood Data Submission (ECDS) Kindergarten 0
  - Early Childhood Data Submission (ECDS) Prekindergarten 0
  - Residential Facility Tracker (RFT) Collection 0
  - State Performance Plan Indicator (SPPI) 14 Collection 0
  - **Class Roster Collection Fall Submission** 0
  - Class Roster Collection Winter Submission
  - Special Education Language Acquisition Collection (SELA) 0
  - Child Find Collection 0
- Provided data verification process and training to campus staff for completion of two required • Reconciliations of Teacher's Roster Information and Attendance Accounting Records, one in September at the end of the first six weeks and one in February at the end of the fourth six weeks.
- Provided process and training to campus staff for completion of Data Verification every six weeks. sds **PEIMS**
- Completed Mini Campus Attendance • Audits for 36 campuses.
- 935 Campus Attendance Committee and • Data Integrity Team meetings were

conducted and facilitated by PEIMS/Student Attendance/Enrollment team members.

1,535 FBISD PEIMS Support Portal cases were responded to by the PEIMS/Student • Attendance/Enrollment team in 2022-2023

Number of Training Opportunities provided by PEIMS/Student Attendance/Enrollm ent Team 2022-2023	Training provided by PEIMS/Student Attendance/Enrollment Team 2022-2023	Attendance
Annual	PEIMS: Back to School Training Conference	176 campus staff
Annual	PK Data Coding in Skyward training through Teams	45 PK campus staff
2	Teaching Parents Attendance Webinars	85 parents
19	Bi-Weekly Campus Support through Teams	2,802 campus staff
10	Campus Data Steward meetings through Teams	686 campus staff
24	PEIMS Assistance Open Lab meetings through Teams	1,127 campus staff
12	OnData Suite trainings through Teams	405 campus staff
4	Six Weeks Data Verification Process Open Hour sessions through Teams	297 campus staff
2	Enrollment-Registration Campus Staff Huddle meetings through Teams	197 campus staff
2	PreK Registration Process collaboration training with PreK Department staff	40 PreK campus staff
1	PEIMS New ADA Attendance Training	24 campus staff

#### Database Administration (DBA) team (SQL)

Database Administration (DBA) team is responsible for the administration of Microsoft SQL Server Databases, responsible for the implementation, configuration, maintenance, and performance of critical SQL Server

RDBMS systems, to ensure the availability and consistent performance of our District's applications except Peoplesoft. The DBA ensuring the systems' operational readiness (readiness, consistency, quality, security, health, and performance), executing data backup and recovery, and performing server monitoring, specialized data handling and data loads in support of multiple teams within the district.

DBA maintains and supports more than five hundred (500) databases across 35 production servers besides the development and test environments. This consumes more than 6.5 terabytes of data. Currently, DBA heavily engaged in migrating district's SQL server environments running on version 2012 to its latest and greatest version of SQL Server 2022



with the support and assistance from other team members. We have successfully migrated eight (8) production server instances and are actively working to complete the remaining by August 2023. DBA is responsible for:

- Creating database design, creation, and testing activities for every department.
- Engages in creating and maintaining database standards and policies.
- Managing database access and permissions.
- Managing database performance and availability.
- Monitor and administer optimum utilization of database objects.
- Implementing custom alerts and events triggering potential database performance and integrity issues.
- Designing strategies for database backup, archiving, and storage.
- Performing database tuning, indexing, etc.
- Monitoring usage, transaction volumes, response times, concurrency levels.
- Identify and manage database security issues, audit trails.
- Documenting disaster recovery plans.
- Liaising with business analysts, applications/operational staff, IT managers and other technical staff.
- Reviewing and managing database security, integrity, and backup procedures.

### **Information Technology Services**



#### IT Support Services (Desktop Services and Desktop Technology)

Our Desktop Services team provides on-site support and maintenance to organizational computer systems, desktops, and peripherals for all K-12 campuses and administration locations in FBISD. Services include installing, diagnosing, repairing, maintaining, and upgrading all organizational hardware and equipment while ensuring optimal workstation performance.

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.

#### Accomplishments for 2022-23 School Year:

- Completed classroom Audio/Video (AV) 2018 Bond project which placed 5,278 Interactive Flat Panels (IFP) across all occupied classrooms across all schools.
- Collected, inventoried, renamed, prepped, and redeployed thousands of devices to support the two new consolidated sites of Blue Ridge-Briargate Elementary and Mission Bend-Glen Elementary as well as the moves of Ferndell Henry Center for Learning and MR Wood.
- Deployed hundreds of devices to support the addition/move of 14 new temporary building classrooms at high growth campuses.
- Assisted with onboarding over 700 new FBISD employees including laptop preparation and deployment.
- Developed a new IT end-of-year online application to allow staff an online mechanism to report the condition of the classroom IT inventory more easily. There were 94,208 items submitted with data on condition, battery life, location, etc. at the end of 22-23 school year.

- Using data from the new end-of-year online application, over 28,000 student devices were flagged as requiring servicing 2023 summer.
- Worked with the two vendors, ImageNet, and PaperCut, to redesign the server architecture supporting printing/copying/scanning to further improve system performance and stability.
- Physically reset 14,926 iPads to migrate from JAMF mobile device management (MDM) to Microsoft Endpoint Manager.
- 94,029 technology work orders completed.
- 152,078 computers, iPads, printers, projectors, panels, etc. maintained.
- 75,036 student laptops prepped for STAAR test administration.
- 5,647 1:1 laptop deployed/maintained at Title I secondary schools.
- Completion of Phase 1A and 1B of Large Venue AV Refresh (cafeterias & libraries) which involved the replacement/refresh of large venue projector and audio systems in approximately 140 locations throughout all schools.
- Deployment of campuswide technology for Almeta Crawford High School, Sonal Bhuchar Elementary, Alyssa Ferguson Elementary
  - Total Computers deployed: 3,703
  - o Total Interactive Flat Panels deployed: 269
  - Total Printer deployed: 127
  - o Total Wireless Access Points deployed: 537
  - Total network switches deployed: 50
  - Total Phones deployed: 541
  - 0
- Deployment 25 cafeteria menu boards in collaboration with Child Nutrition Department (CND)

#### Plans for 2023-24 School Year:

- In addition to servicing 28,000+ student devices, IT technology analysts replaced over 1,900 student laptops due to keyboard vandalism. New processes will be rolled out at the start of 23-24 school year to address this issue with students.
- Deploying new IT Service Management (ITSM) tool to facilitate and streamline support.

#### **Network Services**

Our Network Services team supports 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 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.

#### Accomplishments for 2022-23 School Year:

• Started the initial order of equipment to start network infrastructure refresh as per the 2023 Bond plans.



- Collaborated with Communications Department to broadcast high school graduation ceremonies from Mercer Stadium
- Worked with Design and Construction to deploy the network infrastructure at three new campuses (AFES, SBE, ACHS) including data cabling, networking gear, wireless system, and phones.
- Worked with Design and Construction to smoothly teardown, move, then refitted 14 temporary buildings this summer to meet the changing demographic needs at our campuses.
- Resolved 32 full campus network outages due to fiber optic cabling cuts
- Worked with Desktop Services to resolve 189 partial outages due to equipment failures from electrical outage or weather events.
- Implemented data decryption on staff web traffic to gain the visibility to stop malware and viruses infecting staff computers.
- Implemented new 20G Internet circuit with new lower-cost provider on short notice over Juneteenth holiday to resolve an Internet outage. Old vendor is Windstream and new vendor is Crown Castle.
- Worked with Data Center team to build out infrastructure to implement SCEP/extensible authentication protocol (EAP)- transport layer security (TLS) authentication for iPads connecting to the district wireless network to improve security and future proof our connection types.
- Installed two new voice gateway devices that connect our IP telephone switch (PBX) to the telephony carrier's publicly switched telephone system (PSTN)



- Move away from carrier's plain old telephone system (POTS) & direct inward dial (DID) lines and implemented 100+ EPIK (long-term evolution (LTE) mobile network) analog terminal devices to provide analog phone services for critical life/safety systems at campuses and support sites including elevator phones, intrusion alarms, and fire alarms. Resolved several issues between the device provider and the monitoring services by connecting their technical staff to build a SIP trunk between their systems to minimize the large number of failed calls that initial deployment suffered.
- Finished refresh of all Uninterruptible Power Supply batteries for the network systems across the District. Replacing the batteries dramatically improved the network uptime by allowing these systems to stay powered on through brief but chronic power outages, lightning storms, and other power system glitches. Improving the uptime has also reduced man hours by Information Technology Division staff to address these outages that disrupt classroom instruction.
- Implemented Multifactor Authentication (MFA) on the remote access VPN system to improve security around access into District systems.
- Implemented out of band wireless system at the Triplex with a separate inernet connection for using by the Emergency Operations Center.
- Implemented a call queue in the IP PBX for use by the Emergency Operations Center.
- Arranged purchase of scarce IP version 4 internet-routable IP addresses to both save money and to improve the stability of our vendor-facing systems. IPV4 addresses are increasingly scarce and have become a bigger cost component of our internet circuit expenditures. Changing the addresses we use

also causes issues with our vendors who filter on them to identify our internet traffic. Procuring this address space will both save us money as well as make transitions to new internet carriers much smoother.

#### Plans for 2023-24 School Year:

- Upgrade wireless system including eight new wireless local area network (LAN) controllers and 8,000+ new wireless access-points capable of WiFi 6E.
- Refresh the local area network/ wide area network (LAN/WAN) gear across the district.
- Refresh the datacenter network infrastructure (Application Centric Infrastructure ACI) that has reached end of life.
- Implement new security policies in the Cisco's application centric infrastructure (ACI) to improve FBISD datacenter security.
- Implement new policies in the wireless architecture and deploying TLS certificates to district-managed laptops, computers, and other wireless devices to both streamline wireless access, improve the end user experience, and improve our wireless security.
- Re-design some of wireless system to be able to route more of our wireless traffic out the internet at the secondary datacenter to utilize more internet bandwidth on our secondary Internet circuit.
- Increase the bandwidth between the primary datacenter at Admin Building to the secondary datacenter to 40G to add capacity to the system to load share wireless traffic between FBISD Internet circuits.
- Implement a session initiation protocol (SIP) trunk between FBISD IP PBX and the PSTN (publicly switched telephone system). The current integrated digital network (ISDN) primary-rate interface (PRI) technology will be decommissioned by Windstream later.
- Implement Cisco Identity Services Engine (ISE) to replace the Aruba Clearpass network security system to reduce costs and improve functionality.
- Implement a secondary Network Time Protocol Server at the Triplex. The Network Time Server provides highly accurate time to various systems across the District including the phones system, network systems, etc.

#### **Data Center Services**

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.

#### Accomplishments for 2022-23 School Year:

- Deployed Isilon Admin File Share cluster 475 Terabytes (TB) capacity.
- Migrated 45.5 TB file share data from Isilon Video cluster to File Share cluster. Task includes migration of Directory Name Server (DNS) entries, login scripts and permissions without impacting user access.
- Deployed Isilon disaster recory (DR) file share cluster 475 TB capacity for data replication from Admin.
- Created replication policies between primary file share cluster and secondary cluster at DR site. The task included implementing monitors to alert if replication fails. Data replication did not introduce any noticeable overhead to user access of data.

- Deployed Superna Eyeglass as Isilon replication and failover monitoring solution.
- Migrated 4.5 TB file share data from 3 of 5 Windows DFS file servers to Isilon File Share cluster. Task: Decommission Windows 2012 servers.
- Updated file share permissions using JDL security groups. Task: Active Directory Redesign effort to reduce permission overshare.
- Purged 3.2 TB file share data from Windows DFS file servers.
- Deployed Advanced Group Policy Management application on Windows 2019 server. Implemented group policy change approval requirements. Task: Decommission Windows 2012 servers



- Disabled 336 DFS namespace targets. Task: For decommission of Windows Distributed File System service and Windows 2012 servers.
- Disabled 104 application accounts identified as "no longer in use." Task: Active Directory (AD) Redesign cleanup.
- Decommissioned remaining 10 Isilon NL nodes equivalent to 135 TB storage capacity.
- Deleted 493 security groups. Task: Active Directory Redesign cleanup.
- Disabled links for 15% of department login scripts and replaced scripts with group policy-based drive mappings. Task: Active Directory Redesign Simplified OU structure requirement.
- Drafted Advanced Group Policy Management installation and process documentation.
- Upgraded SolarWinds Orion to ver 2023.3.
- Upgraded Log Insight V8.02 to VMware Aria Operations for Logs.
- Created a topographical map for SolarWinds Orion. WAN links to all campuses are represented on the map in their geographical locations within the district.
- Upgraded Netwrix Auditor to the more secure version of 10.5.
- Created an alert that notifies The Network Team when a UPS is utilizing battery power.
- Created an alert that notifies The Network Team when the UPS returns to utility power.
- Trained Network Team on bulk adding of switches to SolarWinds.

- Added all campus MDF and IDF HVAC units to SolarWinds Orion. SolarWinds can alert high and low temperatures from those locations.
- Created alerting within SolarWinds for water detected under the datacenter floor.
- Created alerting within SolarWinds for smoke detected within the datacenter.
- Configured SolarWinds Orion for SNMP monitoring of Cisco Fibric-Interconnects, and vEthernets for VMWare environment.
- Set up SolarWinds Application monitoring to assist with Papercut Application monitoring.
- Implemented SAML authentication into SolarWinds Orion.
- Cleaned up several outdated accounts from within SolarWinds.
- Trained SolarWinds users on logging in with Azure.
- Worked with Eaton to Load Bank Test the Datacenter UPS systems.
- Stood up new HyperFlex environment (Spaceship).
- Migrated virtual environment from Alpha and Bravo Pods to Spaceship (HyperFlex).
- Stood up new data backup storage environment (Commvault Hyperscale) at both Primary (Admin Building) and Secondary (Skybox) data centers.
- Migrated legacy backup environment to Commvault Hyperscale.
- Windows Hello for Business Deployment for Police Department.
- Installed new rack, reconfigured, and performed cable management Co-Lo server equipment.
- Sunsetting Windows Server 2012.
- Self-service password reset (SSPR) deployment.
- ClassLink to MyApps migration.
- Deleted 585 inactive mail-enabled security groups from Active Directory
- Moved various teams to new Terminal server.
- Move mothership to Hyperflex.
- Finalize legacy DNS migration.
- Migrate servers from UCS to Hyperflex.
- Get VMware's networking and security virtualization (NSX) up and running in the environment.
- Implemented Infoblox ADP on External Nodes.

#### Plans for 2023-24 School Year:

- Replace the remaining 85% of login scripts with group policy drive mappings.
- Migrate to the Active Directory Simplified Organization Unit (OU) structure for user/device objects.
- Test and document Isilon H500 failover process.
- Delete approximately 1000 security groups that are unutilized.
- Strengthen Active Directory user account management by limiting access.
- Work with departments to consolidate file shares and purge orphaned/stale data.
- Complete the decommission of Distributed File System (DFS) servers and cleanup DFS links in AD.
- Delete orphaned OUs in Active Directory.
- Migrate network away from VMware NSX.



- Implement new storage system for VMware.
- Implement new compute and storage resources for the DR site.
- Upgrade VRealize Operations Manager to the latest version.
- Upgrade Netterain to latest version and update datacenter(s) drawings and layouts.
- Implement Infoblox ADP on Internal Nodes.

#### **Customer 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 2022-2023 school year, there were over 52,408 calls presented to our team and they handled 93.5% 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 2023-2024 school year, especially when funding may not be available for contracting resources.



#### Accomplishments for 2022-23 School Year

- CSC handled 52,408 calls (out of 56,029) presented
- Average hold time was 1 min 1 sec
- Average call time was 5 min 43 sec
- Did trainings at Reese to all campus EA's and department EA's
- CSC went to the new IFP's training
- CSC assisted with Resource Manager in taking in student returns at TEC.



Number of cases created by the Service Desk



Number cases resolved by the Service Desk



Number of opened cases



Number of handled cases



Number of calls abandoned

#### Plans for 2023-24 School Year:

- Strive to improve handle calls vs presented calls stats.
- Continue to strive to maintain low average call times.
- Strive to improve calls handled vs cases created.

### **Information Security**

Fort Bend ISD, like all educational institutions, faces ever increasing pressure from criminal actors who attempt to compromise our data security and systems availability for financial gain. Criminal organizations target schools to steal valuable personally identifiable information (PII) such as names, dates of birth (DOB), social security numbers (SSNs) in order to leverage these identities for financial fraud. In addition, criminal enterprises will use ransom techniques (using malicious software to render computers inoperable until a ransom is paid) thus preventing normal school operations. New threats involve threatening to publish sensitive data if a ransom is not paid.

For security reasons FBISD cannot publicly disclose the exact methods and tactics used to protect our Staff and Students but we do want to take the opportunity to share some of the ways we work around the clock to help keep our organization Safe and Secure online and to ensure that normal school operations are not impacted by hostile actors (or, if a breach is successful, steps we have taken to reduce the downtime the District might experience).

#### **Protecting Staff, Students and Systems**

The District employs many layers of defense to protect the enterprise from attack including perimeter firewalls and content filters which are updated in real-time with the latest threat intelligence feeds from industry reports, threat researcher identified risks and law enforcement sources. In addition to content filtering the District employs many additional layers of defense to protect sensitive data and critical assets to ensure continuity of operations and, more importantly, uninterrupted student learning.

#### System Patching & Vulnerability Scanning

Information Technology continues proactive vulnerability scanning of all critical systems to ensure the systems are properly configured and patched. Continuous external vulnerability scans conducted by the Department of



Homeland Security and UT Austin, as well as annual penetration testing performed by third party organizations, ensure FBISD is addressing the most critical needs of our information security program. Internal risk assessments and system audits, 3rd party risk management including Data Protection Agreements with every data sharing partnership, and focused 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.

#### **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.



awareness of cybersecurity, information privacy and staving safe online at school as well as home. For

#### **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 and volunteers from the community. Discussion topics this past year included SSL Decryption (providing filtered internet access to staff and students is a requirement of of the Children's Internet Protection Act (CIPA)), user account security including instruction on staying safe online and requiring all high school and middles school students to set secure passwords, enhanced to change their passwords,



providing filters and email security, Bond funding updates, and deeper dives into other technical areas of interest of the committee.

#### 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. Being prepared is key to minimizing the effects of a cyberattack and shortening the time to recovery if a cyber security event occurs.

