

Technology Department Board Update

2023-2024

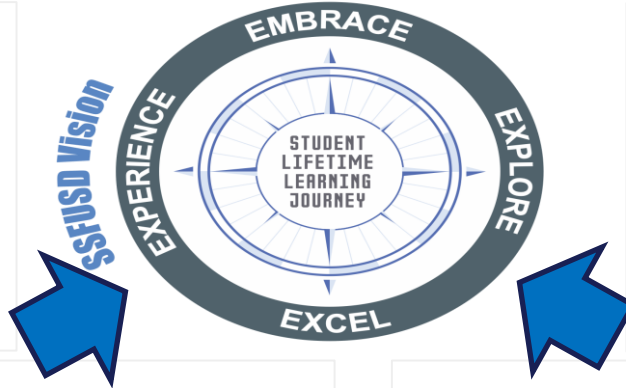


SSFUSD District Goals

LCAP GOAL 1

Academic Achievement

The district will provide a high quality curricular program for students that will raise student proficiency on the California Common Core State Standards as measured by overall academic achievement on state assessments, CA Dashboard results, interim assessment data and ELPAC/Reclassification data.



LCAP GOAL 4

Special Education

The district will provide high quality curricular programs for students with IEPs that will raise student engagement in school and proficiency on the California Common Core State Standards as measured by overall academic achievement on state assessments, and engagement rates.

LCAP GOAL 2

Professional Development

Identified classified staff, certificated and administrative staff will participate in professional development to create capacity and expertise in curriculum program implementation based on the development of scope and sequence as measured by walkthrough observations and other evidence (artifacts and student work).

LCAP GOAL 3

Student, Parent & Community Engagement

Improve parent school engagement through an increase in participation in site and district parent groups such as SSC, PTSA, DELAC, ELAC, AAPAC as well as in other parent meetings as measured by attendance sign in sheets.

District Priorities

A) Improve Curriculum, Instruction & Assessment

B) Bolster Professional Learning and Collaboration

c) Strengthen Leadership Capacity



SSFUSD *own* STRENGTHENING OUR SYSTEMS

the
GAS TANK
BENCHMARKS
checking student progress toward goals.

HOW CAN WE LEVERAGE DATA?

the
STEERING WHEEL
INSTRUCTION
guiding our learning objectives
ENGAGES US + TAKES US FORWARD

the
GPS
NAVIGATION
our goals
LCAP, DEPT.,
SITE, TEAM, TCHR.

FFME -
A PROCESS TO
DETERMINE WHAT
TOOL, PRACTICE, OR
SERVICE WILL
HELP US SOLVE
OUR IDENTIFIED
NEED

WHAT IS OUR ACTION PLAN?

HOW DO WE REFLECT +
RELENTLESSLY FOLLOW UP?

the
SEATS
CURRICULUM
defines the skills to be taught
STANDARDS, RIGOR,
RELEVANCE

#BELIEVE

the
ENGINE
PERFORMANCE MANAGEMENT MEETINGS
showcasing data + progress
ILTs, PLCs, DEPT. MEETINGS

EVERYONE DRIVES THE CAR
AT HIS / HER OWN LEVEL.

the
WHEELS
SYSTEMS + ASSESSMENT
sets the pace

WHAT QUESTIONS HELP US DETERMINE
ROOT CAUSES OF PERFORMANCE?

the
MIRRORS
PROFESSIONAL LEARNING SYSTEM
reflecting + growing in our professional practices

EQUITY



Director of Technology Services

Oversees the infrastructure of technical operations, tracking the technology itself to achieve goals, meeting quotas, mitigating security risks, increasing user satisfaction, maintaining existing operations and systems, and developing new technical solutions.



Agenda

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Thank you



Mission

Technology Department

2023-2024



Mission

We embarked on a transformation journey to learn, adopt, and implement organization fundamentals while servicing the students, teachers, parents, and staff with increasing customer satisfaction, speed, and innovation.



Talent

Technology Department

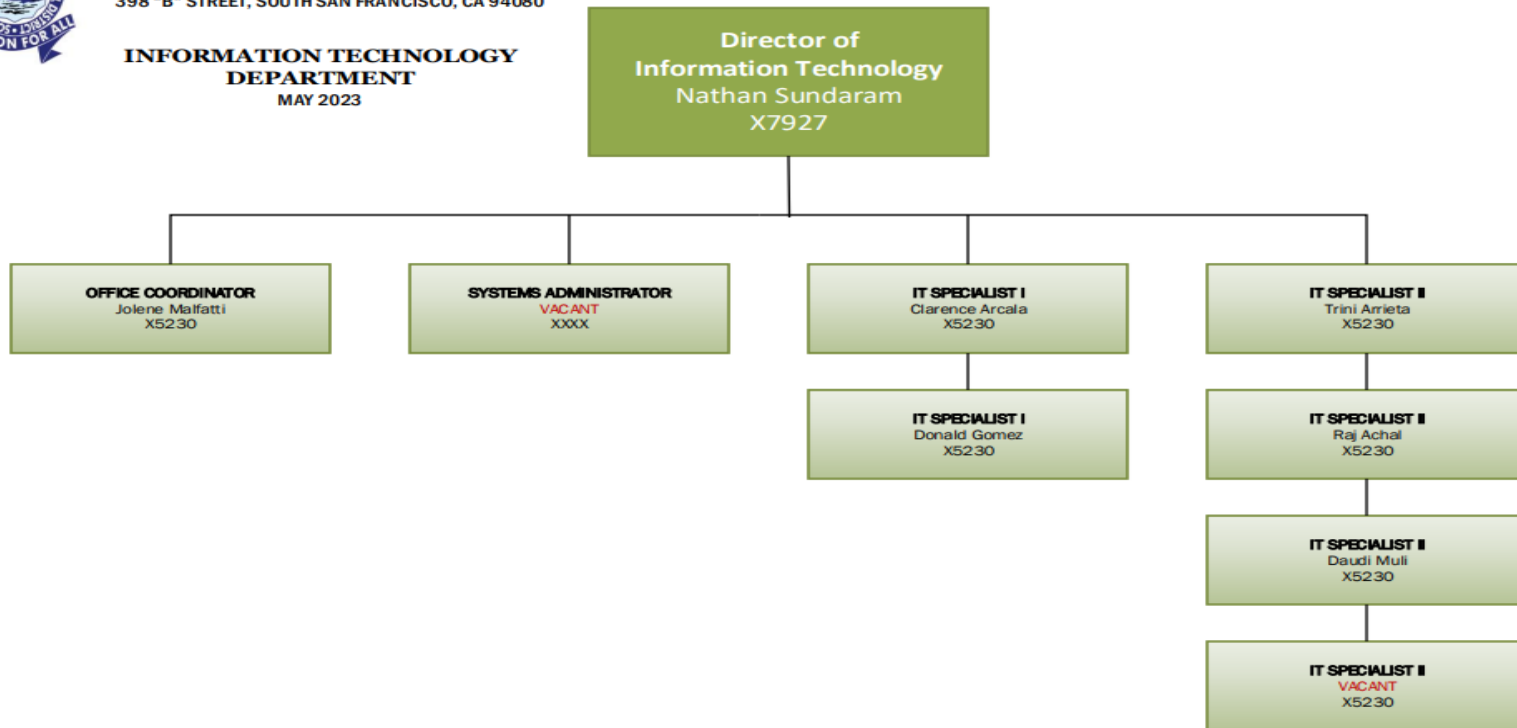


Technology Department



**SOUTH SAN FRANCISCO UNIFIED
SCHOOL DISTRICT**
398 "B" STREET, SOUTH SAN FRANCISCO, CA 94080

**INFORMATION TECHNOLOGY
DEPARTMENT**
MAY 2023



Talent

- We provided staff with the online knowledge platform “Pluralsight” for professional development.
- Ticket resolution time and quality have improved.
- Customer service and satisfaction continues to improve.
- One of the technology staff was on medical leave during the last school year has returned.
- The Systems Administrator position is still vacant, and a consultant is filling the role.
- This year, the Technology Department have student interns assisting during the summer for the first time.



Accomplishments

2023-2024



Accomplishments Summary



Culture

Improved Customer satisfaction
Promoted Professional Development
Established Ownership
Enhanced Collaboration
Improved Communication

Vendor Management

Installed Governance
Established Project Management
Ensured Quality Deliverable
Vendor Performance
Negotiated better rates and services
Budget and Timelines

Innovation

Automate tasks
Security awareness
Choosing right tools
Extend the usage of tools
Proactiveness



Key Highlights

- Our core infrastructure is more stable than ever with 99.999% availability. This has resulted in **zero internet issues** and **no major infrastructure issues** over the **last eight months**.
- Increased security camera availability from 60% to **90%**. It is more reliable than ever at an outstanding **98%** (a significant jump from prior record of 70%)
- Products were purchased and implemented with very little training for users or staff. We have engaged vendors to provide training for staff. We will extend the training to users this year.
- Elimination of dormant products previously purchased but were unused resulted in significant financial savings for the district.
- Negotiated better contract rates for services to benefit the district financially. Switched vendors for cost-saving and quality of services.
- Implemented robust backup of our systems and services.
- Created a first draft of a Disaster Recovery Plan and Ransomware Protection solutions. Both have been tested and validated.
- Upgraded our phone system to be more efficient and cost-saving, and we enacted our T-Mobile partner to provide the best cellphone coverage during emergencies and cellular congestion.



Network Electronics and Cabling

Network Electronics and Cabling - Board Approved on 3-12-2020.

This project was completed in 2022. However, the change order approved to install an additional 70 Wireless devices was stalled due to their unavailability. This impacted a few sites due to internet instability resulting in teacher's inability to continue teaching. Students were at risk of impacting their star test and other tests due to internet connectivity issues.

Action Taken

- Remediated the connectivity issues by finding 50+ of the old wireless devices that were removed earlier, reinstalling them, and ensuring the internet was available in all classrooms.
- Mr. Sundaram engaged the manufacturer (Ruckus) to obtain 70 wireless devices and installed them in a span of two months.



Network Electronics and Cabling

Though the project was completed in 2022, some internet issues persisted throughout the school sites.

Action Taken

- Established the Governance and Vendor Performance Metrics.
- The contracted vendor lacked the technical expertise to identify and resolve the issues.
- Engaged manufacturers and other subject matter experts and established working sessions to triage the issues.
- Connected all 190 Cisco network devices and 800 access points to the portal to monitor its health.
- Setting up alerts, monitoring, staying proactive.

We have made remarkable strides in addressing all the technical and architectural issues at all 17 sites, a testament to the expertise and dedication of our technical team.

As a result of our efforts, we have achieved a significant **milestone-zero ticket** for internet issues in the last eight months, instilling confidence in future success.



Internet & Telecom

Discontinued **ATT Opteman's Service** to connect the sites to the district, which saved the district **\$132,000/year**. This service from ATT is no longer needed when the District switched to another provider.

Renewed the fiber connectivity service (Board approved in March 2024) between the district and 16 sites at a lower cost and consolidated the individual service contracts to take advantage of E-rate and CTF savings, thus saving the district **\$188,640** a year.

TPx Project —The project approved by the Board in 2019 to convert our phone service was stalled, but we have been paying for the services since 2019. Restarted the project last year, set up the project governance, and streamlined the project management. By doing so, 1000+ telephone numbers have been exported to TPx from ATT, and the project is near completion, pending the redundancy test scheduled at the end of July.

We are realizing a saving of \$38,000 with this migration.



Internet & Telecom

E911

Kari's Law and RAY BAUM's Act-compliant E911 mandate that multi-line telephone systems allow direct 911 dialing without a prefix and notify a central location within the facility when a 911 call is made. Additionally, 911 calls must convey "dispatchable location" information, such as street address, floor level, and room number, to ensure first responders can quickly locate the caller.

Technology team coordinated with the 911 dispatch center and site leaders to perform E911 testing at all sites to comply with regulations. 164 unique phone lines have been tested as part of E-911 testing. We have remedied the issues we found during testing.

T-Mobile - Wireless Priority Service (WPS)

WPS provides priority calling when cellular networks are congested and provides more than a 93% call completion rate during emergency response incidents. We have added this service to our existing cell phone subscription to better prepare us for emergency situations.



Pure Storage

Storage Upgrade - Board Approved on 11/18/2021

I started the project late last year, assembled the team, and established the success criteria and key objectives for this project.

Action Item:

- We meticulously established and implemented project Governance, ensuring a secure and well-managed project.
- Designed the solution to include redundancy, disaster recovery, and ransomware protection.
- Separated the data and backups as per the best industry practice
- Migrated to the new solution and operations.
- We left no stone unturned in testing the disaster recovery and ransomware protection scenarios, providing you with the reassurance of our preparedness for any eventuality.
- Key staff provides access in activating ransomware recovery scenarios.

We have a faster and more modern data storage system by implementing this solution.



Disaster Recovery

A significant effort was made to prepare ourselves for disaster recovery scenarios.

- We have taken a proactive step by establishing a backup schedule for all our core infrastructure device settings and configurations.
- Due to our poorly designed server backups, we redesigned the storage solution by separating the data and the backup and went the extra mile to store a copy of our backup in an alternate location with ransomware protection.
- We have tested a recovery of the backup to ensure our solution is effective.



Device Deployment

A couple years ago, we received Cannon printers as a donation. Last year, we deployed almost 400 printers, and 200 printers are scheduled to be deployed in the next two months.



Deployed 45 All-In-One desktops to Parkway Heights Middle School to support substitute teacher's access to the curriculum. Each devices' setup usually takes 3 – 4 hours. Staff wrote the script to automate the setup, which only **takes 5 minutes**. This enabled us to roll out these devices with less effort.



Device Deployment

36 ECHS computer lab monitors were upgraded. We deployed a 32-inch donated monitor to replace 13-inch monitors. District cost was \$500 dollars to purchase the video cable for this upgrade .

Lab before upgrade



Lab after upgrade



Security Cameras

The District has around 500 security cameras.

- Response time and Resolution time from a vendor to fix the security cameras took days, if not weeks. Very Reactive.

Action Taken –

We decided to bring the maintenance of the security camera in-house to better service the sites.

- Upgrade the server software and camera firmware.
- Mr. Sundaram went through the process site by site and addressed any issues and ensured all were in working order.
- 25 new cameras were installed, and 50 cameras were fixed.
- We have since rectified these issues and set up email alerts and a dashboard to monitor the security camera's health.

This resulted in our security cameras are **100% up and running** and faster turnaround time, saving the district **\$130,000** per year



Audio & Video Systems

Serra Vista Auditorium upgrade

This project was approved in 2019 and stalled. Started the project last year

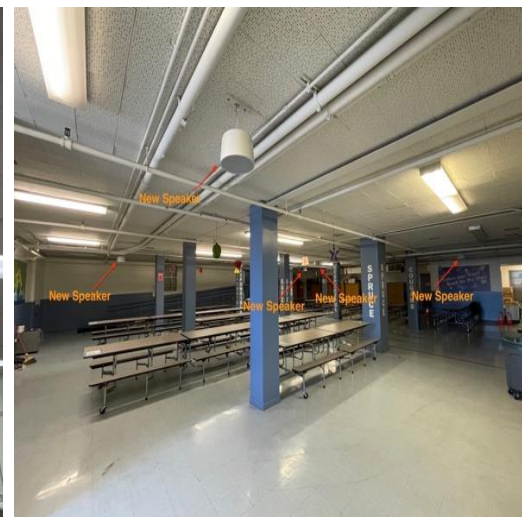
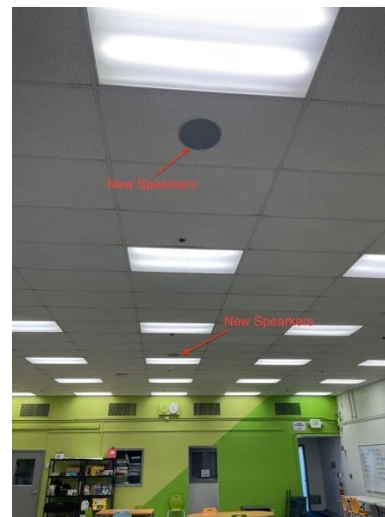
- Installed a new Project system.
- Camera with Live stream capabilities
- Wireless microphones for meetings and events
- Upgraded Sound system.



Spruce Gym, Cafeteria, STEM

This project was approved in April 2024.

- Installed new wireless microphone at GYM.
- Wireless microphones in the cafeteria for meetings and events
- Upgraded Sound system in STEM room



Audio & Video Systems

Interactive TV

Partnering with JS site leaders, we did a two-month proof of concept with two different manufacturers of interactive TVs. Post POC working with the site leaders, we picked Newline Interactive TV and deployed it to JS and a few other Sites.



Security

- Locked down access to our email systems and another office suite from outside US access.
- The security audit was conducted, and our Google Workspace and Microsoft environments were hardened.
- Proactively, we have bolstered our firewall policy to shield our systems from any potential outside interference.
- Added additional rules to scan and secure our emails
- Implement 2-Factor Authentication for our privileged access accounts as an additional security layer.
- Hardware access key as backup and alternate method to securely access core systems.



Landscape

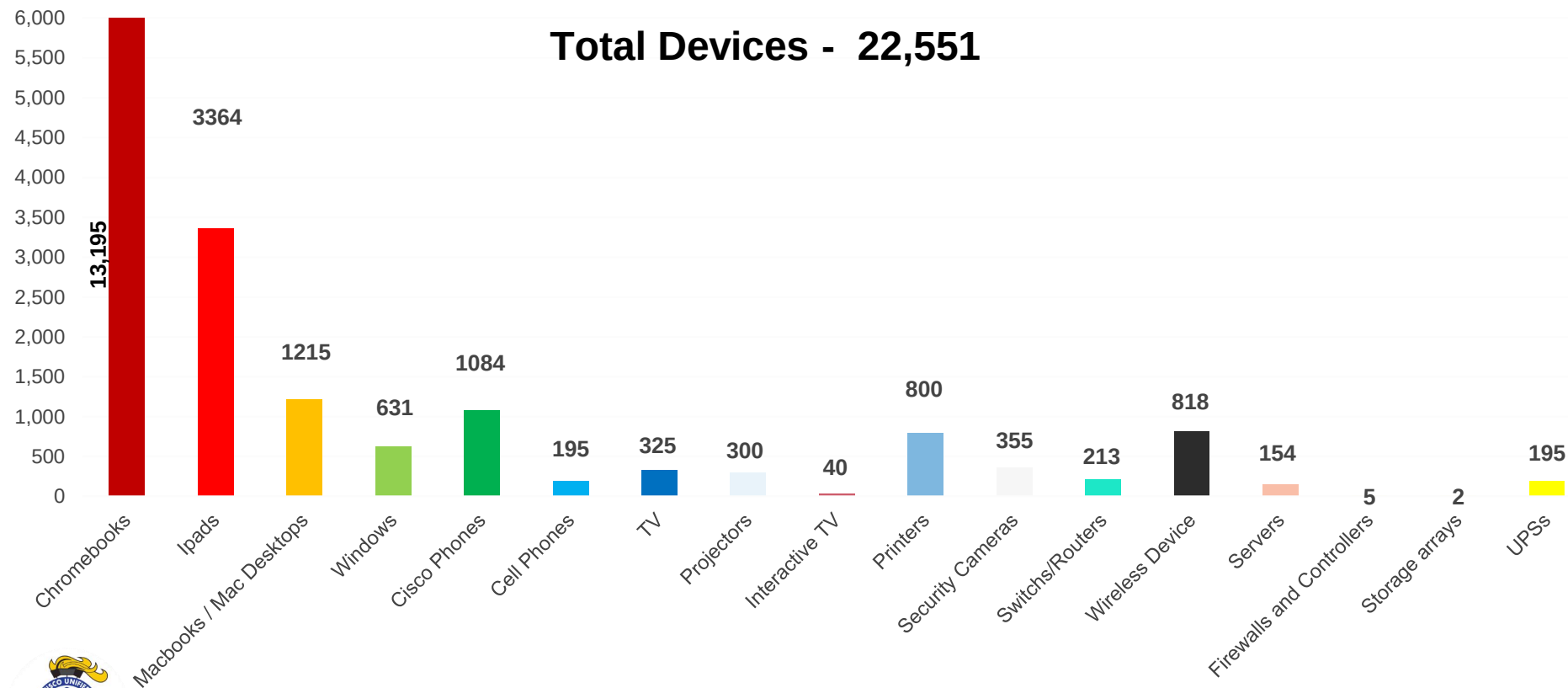
Technology Department

2023-2024



Technology devices at the District

Total Devices - 22,551



Opportunities

Technology Department

2023-2024



Opportunities

- Security is not a matter to be taken lightly. We have not installed all necessary measures properly, which calls for immediate action.
- Technology is an afterthought.
- Improved for collaboration for the initiatives.
- Adapting and embracing technology standards.
- Planning sessions and communication are warranted. Example: Summer program. Onboarding and introducing new tools/programs.
- Implement device management solution for Windows and Android hardware.
- Upgrade the Palo Alto Firewall to the latest release.
- Implement a new security detection and prevention system.
- Expand physical security cameras and upgrade some outdated systems and hardware.
- Enhanced review of the contract to get the best rate and services
- Improve the ticketing system.
- Upgrade outdated and inadequate power supply units.



Thank You

