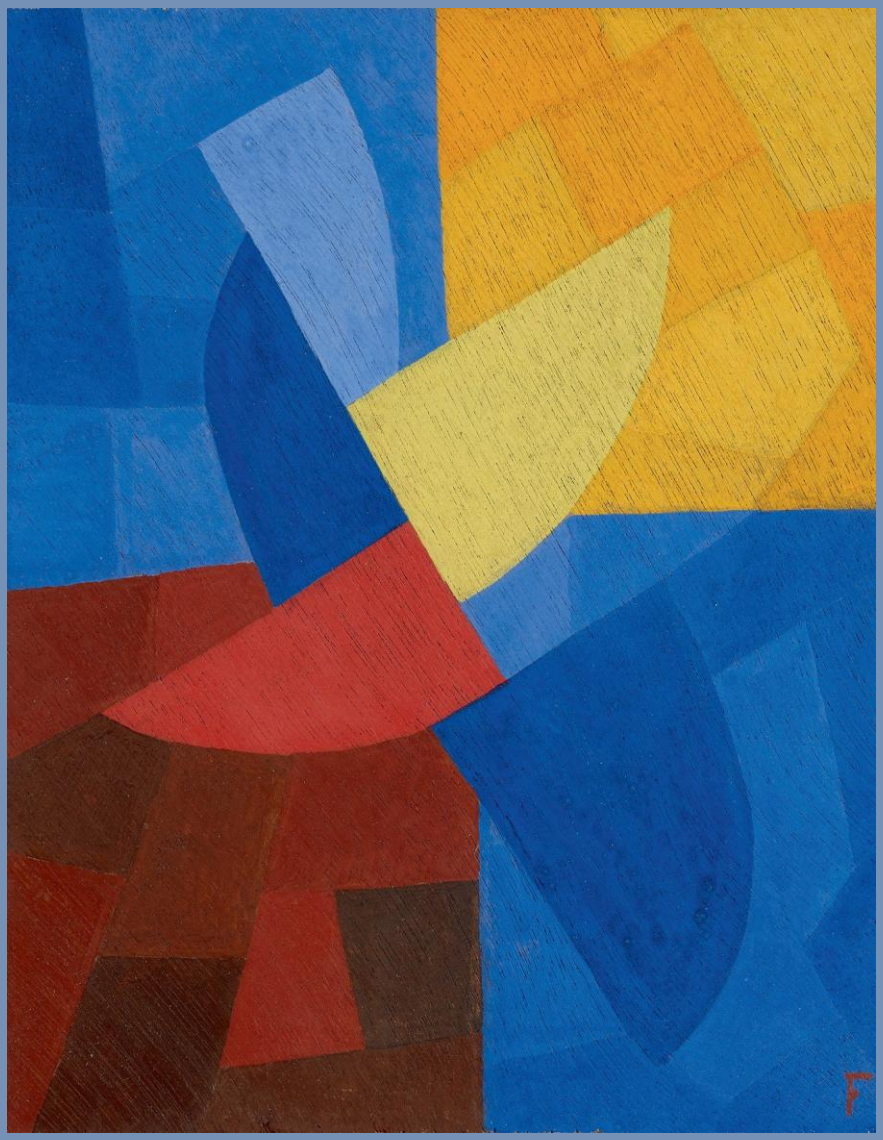
# Annual Report
of the
# Chief Technology Officer



CTO

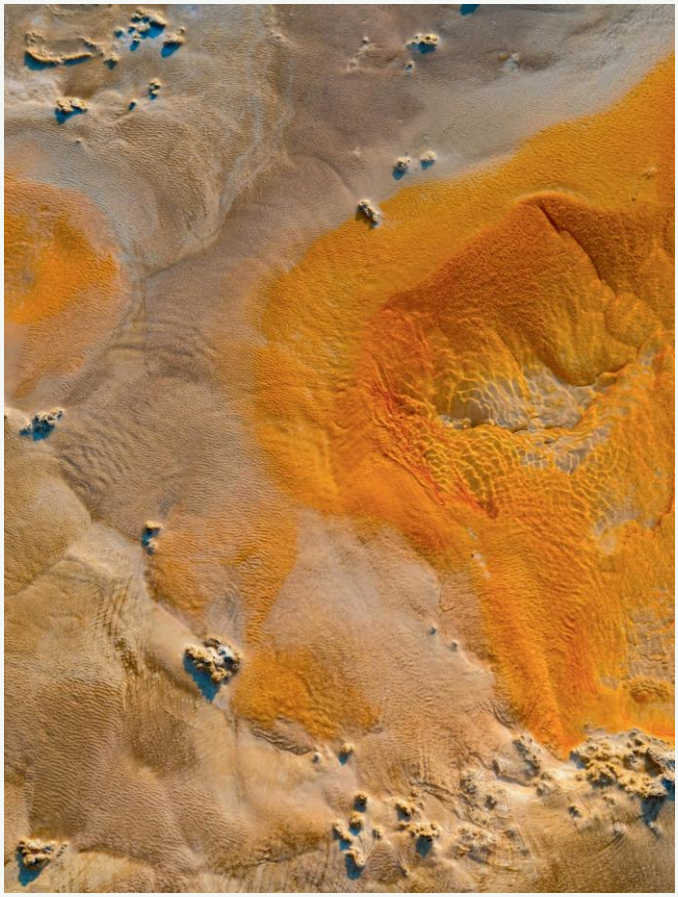
2024/2025

# The Intersection of Art and Technology

Art has been transformed by technology's digital tools and techniques, altering traditional forms in exceptional ways. The use of computer-generated images, digital art, virtual reality images, augmented reality images, and AI generated images have contributed to a Renaissance effect in art and photography and this fusion of ideas and techniques renders a revolutionary intersection between art and technology.

The usage of artistic images in everyday life has benefited with royalty free images and public domain art, and the result demonstrates the extraordinary value of expressive art now available for usage in the classroom and in the workplace, outside of the traditional venues of galleries and museums.

Here, the everyday experience is enhanced with the powerful addition of art as expression, with color and design available for individual interpretive meaning in a powerful way.



The image shown is by Brett Meliti, taken in 2024, a photograph from Yellowstone National Park, enhanced to show nature as art and thoughtfully published on the ***Unsplash*** website for public usage. This type of extraordinary sharing of artistic images enhances the beauty of art, the quality of photography, and the love of our planet.

Please enjoy the art throughout this annual report as a reflection of communication and the expressive aspects of art in our world. As art is a reflection of our culture, the intersection of art and technology demonstrate the intense value of mixed media and the immense creativity that exists within and throughout our lives.

Cover photograph "Composition" by Otto Freundlich 1932.

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Superintendent Gabriella Blakey
& APS Board of Education

*Multicolored abstract painting by Geordanna Cordero 2018 from Unsplash*

*Estonia by Oskar Kadaksooz 2025 from Unsplash*

# Technology Departments

**Richard Bowman, Ph.D.**
**Chief Technology Officer**

**Brian Thompson**
Technology Infrastructure & Operations
Executive Director
- Server Operations: Erdem Gundogdu, Director
- Inventory Control: Robert Allison, Manager

*Farbstuden 10 Blatter IV by Karl Weiner 1923*

**Eric Ekblad**
Information Security
Chief Information and Security Officer

**Alice Fritz**
Technology Applications
Director
- Educational Applications: Brian Stewart, Assistant Director

**Laurie Lehman**
APS Esports
Manager

*Farbstudien 10 Blatter V by Karl Weiner 1923*

**Tracy Parker**
Financial Operations
Manager

**Yolanda Delgado**
Project Management
Project Manager

**Josh Meyer**
Technology Client Services (TCS) Field Technicians
Director

**Erika Trujillo**
Technology Client Services (TCS) Service Desk
Manager

# *A Message from Dr. Richard Bowman*

Change is an opportunity for growth, and the 2024/2025 school year offered a journey of commitment to improving student outcomes in my new position as Chief Technology Officer. Transitions offer transformation and I was able to work deeper with Technology to improve our culture and expand our dedication to our students, community, and district.

As Chief Technology Officer for Albuquerque Public Schools I take responsibility and pleasure in continuously serving our students and families. I am passionate about education and my vision for the district includes equality, opportunity, technology, and constant improvement of our schools, our teachers, our staff - all to provide our students with the tools necessary to succeed in our world today and tomorrow, as competent, caring, and educated global citizens.

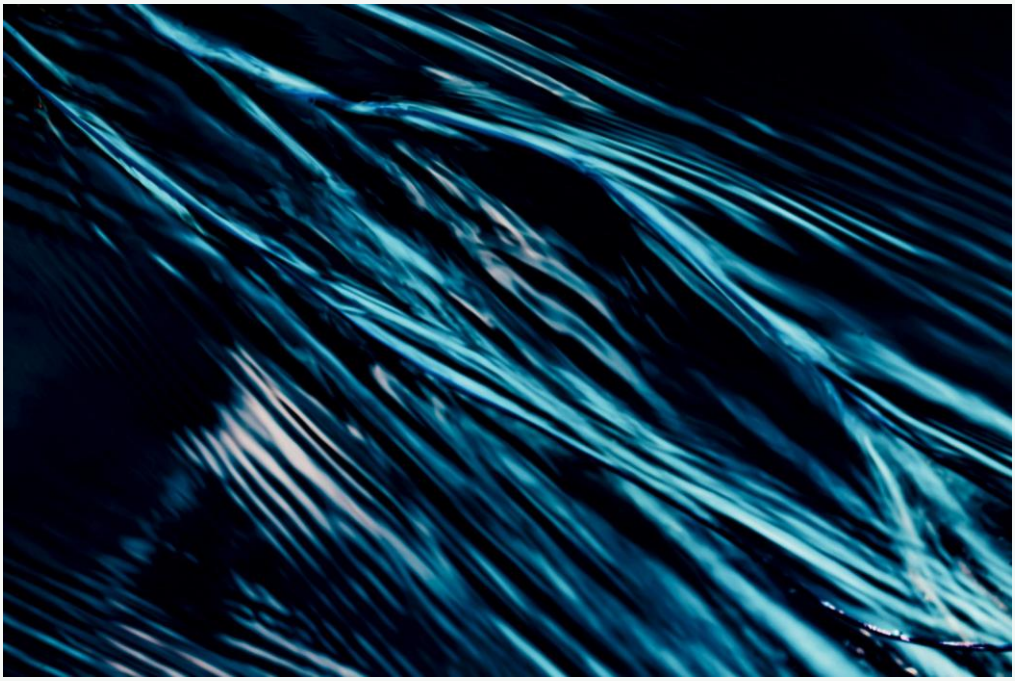
My family has followed our transitions as my wife continues her work at the College of Population Health at the University of New Mexico, my son enters the second year of middle school, and my daughter is set to enter 2nd grade. I feel pride in watching my family grow with resilience and accomplishment.

My several departments collaborate on a daily basis, always with APS students as our guiding beacon. The skills and values we provide our children today are indicative of how our society will function tomorrow. I remain dedicated to ensure our students, staff, and community remain our focus and that we prioritize a continued commitment to equity, engagement, and student success. Their future is in our hands.

My very best,
*Richard*

C T O

# Technology Infrastructure and Operations



*Mariola Grobelska 2025 from Unsplash*

## Mission

The mission of the Technology Department is to provide and maintain a robust, reliable, and secure infrastructure; maintain existing equipment and software with sustainable lifecycles; assist administration, staff and students with training and trusted customer support; facilitate a communication bridge between school and community via our district and IT tools; and support and encourage 21st century learning within our district.

## Vision

The Technology Department vision is that students and educators in the 21st century live in a technology-rich environment marked by diverse aspects, including access to an abundance of information, rapid changes in technology tools, and the ability to collaborate and make individual contributions on an unprecedented scale. To be effective in the 21st century, students must be able to exhibit a range of functional and critical-thinking skills related to information, media, and technology.

**Technology Infrastructure,** also known as IT infrastructure, encompasses the hardware, software, networks, and data centers that an organization uses to support its IT environment and deliver IT services. It essentially provides the foundation for all digital interactions and operations

In a school district as large and dynamic as APS, ensuring seamless connectivity, updated systems, and secure access to technology is no small feat. Behind every smooth login, fast Wi-Fi connection, or successful online lesson, is a dedicated team working tirelessly to keep things running—the Technology Infrastructure and Operations Department, led by Brian Thompson.

Brian, who has been with APS Technology for 11 years, has more than 36 years of experience in telecommunications and networking. Under his leadership, the department has continued to evolve to meet the growing demands of a digital learning environment.

**"This has been a year of progress and performance,"** noted Thompson, reflecting on the past 12 months. "And with good reason—the pace of technological change never slows, and neither does the work required to keep systems running at peak performance."

The Infrastructure and Operations team is responsible for maintaining the backbone of the district's technology systems. That includes continuous planning and execution to keep software, firmware, and hardware up to date. From replacing outdated systems to rolling out new applications, their efforts ensure that APS remains responsive to both current and future needs.

Ongoing maintenance is only part of the equation. The team works proactively to strengthen and modernize the district's network and server infrastructure, building a more robust environment for student learning and administrative functions alike.

From ensuring reliable internet and Wi-Fi connections in every school, to managing data center operations and supporting secure remote access, the team touches every corner of the district's technology ecosystem.

As the technology landscape continues to shift, the department is constantly evaluating new tools and strategies to support teaching, learning, and operational excellence. Their work enables innovations in digital learning, helps streamline administrative workflows, and safeguards district system against cyber threats.

"As we adapt for the future, this progress is only possible through teamwork," stated Thompson. "We've got a strong group of professionals who are committed to service and improvement. The work can be complex, but the mission is always clear—support learning and keep the district connected."

**Key Projects and Successes in 2024-2025**

**Infrastructure**

The infrastructure teams have accomplished numerous system upgrades this year, while also onboarding new systems—all while keeping daily operations across all district sites running smoothly. From data center enhancements to end-user system updates, their work ensures reliability and performance in every school and office.

**Telecom**

- The district has made significant progress in transitioning to SIP (Session Initiation Protocol), a modern standard for managing voice communication. This move includes switching from older H.323 protocol VoIP phones to new Avaya SIP phones, paired with SIP trunking services from Telco carriers.
- Telecom continues to provide critical phone service support to all district sites, handling over 1,800 service tickets annually to ensure uninterrupted communication.

**Network Operations**

- Through participation in the federal e-Rate program, the district has been able to upgrade core network components, switches, routers, Wi-Fi systems, and licensing—across multiple school sites. This year alone, the network team replaced 2,345 Wi-Fi access points (WAPs).
- The impact of the wireless upgrade was dramatic. Wi-Fi-related service tickets dropped by 90%, a direct result of the stronger, more reliable wireless infrastructure now in place.
- A major colocation server room move was completed in partnership with contractors. This project not only enhanced the district's failover and disaster recovery systems but also achieved a 50% cost reduction compared to the previous setup.

**Cabling Project Coordinators**

The Cabling Department plays a foundational role in building the physical infrastructure that powers all district technology. This team manages millions of dollars in projects related to Facilities Design & Construction (FD&C), the Capital Master Plan, and ongoing moves, adds, and changes across APS. This year, the Cabling Project Coordinators oversaw several major infrastructure projects in collaboration with the FD&C department, ensuring that all cabling and network systems met construction and performance standards. From developing project scopes and collecting bids to managing contractors and ensuring on-time installs, the team successfully delivered state-of-the-art cabling systems in the following locations.

- Arroyo Del Oso MS – new 80,000 sq. ft. building
- Monte Vista ES – classroom addition
- Truman MS – new admin, cafeteria, and classroom additions
- Cochiti ES – new classroom addition

The Technology Infrastructure and Operations team may not always be visible, but their impact is felt every day in every classroom and office. From the speed of your Wi-Fi to the security of your data, their work enables all of us to focus on what matters most—teaching, learning, and student success.

**Server Operations**

Led by Erdem Gundogdu, the Server Operations team is responsible for the whole virtual and physical infrastructure that runs the majority of our critical systems district wide. They manage the user and the computer policies that help us work securely and efficiently on the computers. They are one of the most important teams in the district that keep the systems running 24/7 for everyone.

**Server Ops Achievements for 2024/2025**

- Upgraded all the managed Microsoft based workstations and servers to the supported level;
- Changed the DNS server structure and optimized the functionality which resulted in faster and more secure web browsing;
- Started the Windows 11 upgrade project which aims to upgrade all Windows 10 devices before the end of the year so that APS will be using the latest and up to date systems;
- Started using Azure ARC which is the future server patching system;
- Enabled and started to benefit from Intune which is the replacement of many current systems to manage workstation patches, deploy software, and computer & end-user management;
- Installed new policies to the systems for Windows and Microsoft Office systems which enabled end users' benefit from the latest technological changes as they are introduced;
- Implemented several dozens of modifications and optimizations in the Active Directory to improve efficiency, speed, organization, functionality and security of our Microsoft systems;
- Blocked several legacy communications settings to prevent breaches;
- Assigned the in-compliance Microsoft products and licenses to end users and removed potentially harmful products from end user access;
- Worked with many departments to implement their projects including but not limited to OneSync, Centegix, FMX in a timely manner.

## Inventory Control

The APS Inventory Control Department efficiently manages the entire lifecycle of all district technology hardware, supporting 65,000 students and 11,000 staff. This year, the department achieved significant cost savings and operational improvements through enhanced asset tracking, in-house repairs, and a complete overhaul of the salvage process, yielding substantial financial returns for the district.

### Department Overview and Key Responsibilities

The Inventory Control Department oversees a vast technology inventory, including >44,000 computers, >127,000 Chromebooks, and >36,000 iPads, plus various accessories. The department operates effectively with a lean team of 5 FTE, 1 Manager, and contract support. Key responsibilities spanning the hardware lifecycle:

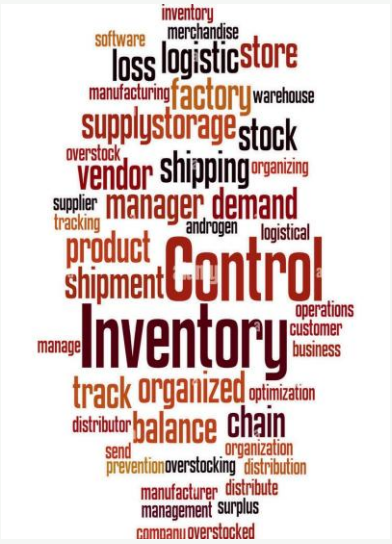
- Needs Projection & Procurement: Forecasting district technology needs and managing all hardware acquisitions;
- Asset Management: Coordinating delivery, maintaining accountability via TipWeb, and implementing a successful checkout system for devices, significantly improving accuracy;
- Student Device Logistics: Ensuring 24-48 hour delivery/pickup of student devices and managing their repair triage, including vendor warranty coordination;
- Salvage & Disposal: Developing streamlined processes for compliant hardware disposal;
- Wireless Device Management: Facilitating purchase, billing, setup, troubleshooting, and tracking for all district cell phones, police body cameras, hotspots, and push-to-talk devices (596 district lines, 120 police lines);
- Additional Support: Assisting with summer programs, specialty labs, and recovery of lost/missing hardware.

**Key Achievements & Impact**

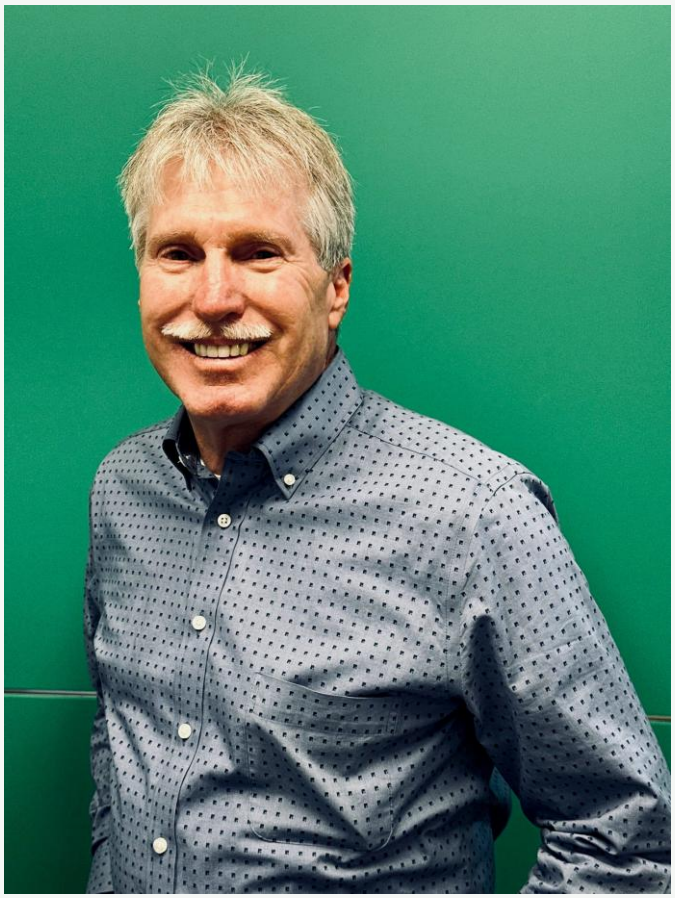
This year, the Inventory Control Department delivered measurable results.

- Improved Accountability: The new device checkout system significantly enhanced asset tracking accuracy.
- Cost Savings from In-House Repairs: Established an in-house repair process for Chromebooks, processing 297 devices and saving >$59,000.
- Transformative Salvage Process:
  - Streamlined the salvage request system, accelerating pickups and ensuring compliance.
    - Entered >116,000 asset-tagged devices and over 20,000 pounds of monitors, cords, keyboards and other non tagged devices into the salvage process.
  - Eliminated an annual spend of $88,000 on salvage processing.
  - A new RFP for salvage resulted in a cost-sharing model, returning >$254,000 to APS while ensuring proper data erasure and e-waste processing.
- Enhanced Device Security: Implemented lockdown procedures for missing devices.

The Inventory Control Department's strategic efforts and operational efficiencies have significantly improved technology asset management at APS. Their initiatives have not only ensured reliable device access for students and staff but have also generated substantial financial benefits, proving their critical contribution to the district's overall success.



# Technology Infrastructure & Operations



*Brian Thompson, Executive Director*

*"If it doesn't challenge you, it doesn't change you!"*

# Information Security

*Arts and Crafts Decorative Forms for the Surface PL 04*
*by Christian Stoll 1920*

## Mission

The mission of Information Security is to provide a trustworthy data environment for all APS students and staff by establishing a proactive and integrative approach and by enhancing the APS culture around Information Security.

## Vision

The vision of Information Security is to become a reputable reference for other educational institutions, recognized for effectively supporting student success and APS operations.

The **APS Information Security (Infosec) Team** is devoted to Information Security and to providing secure and balanced access. Our major tools include Sophos, a software cybersecurity solution and KnowBe4, a security awareness training program.

**Sophos** is a global tool that provides security endpoint protection and also manages threat responses. The Sophos endpoint protection alerts help Infosec stop attacks and prevent suspicious activity on Sophos-installed devices such as desktops, laptops, and Apple devices. Information Security secures the use of appropriate applications by staff, faculty, and students, helps with the integrity of inventory, and is also working towards application awareness in the APS environment. This year the infosec team enhanced our application security policy, made modifications to policies for the support of APS Esports and provided inventory help by using Sophos as one of our tools.

**KnowBe4** helps users spot phishing scams and to be cautious about what URL to click. Our department sends out phishing campaigns with a duration of a few weeks to see if our users will click on a link or if our users can spot “red flags” in an email. The idea is to create awareness within APS. If a user happens to click on the phish linking the email, they will receive a message that they were phished, and are assigned training to help identify phishing emails. The key is awareness; if our users are aware of phishing, the stronger our security culture will become. Our team also has the ability to create trainings based on other issues, including ransomware, password security, and two-factor authentication. KnowBe4 also provides information on how to use Artificial Intelligence responsibly. Due to the rise in AI usage, it is imperative that users do not enter sensitive information into an AI system, as AI can be used to send phishing emails.

In 2024/2025, we continued our efforts in strengthening our security posture, fostering a culture of security awareness and ensuring effective governance. Thanks to the active participation of 21 teams across various departments within APS, we successfully completed the Information Security (IS) assets inventory enabling APS to better understand what we need to protect, prioritize efforts and resources, strengthen accountability and establish a solid foundation for risk assessment. As part of our Information Security culture program, we launched October 2024 as APS Information Security month. This featured a multimedia campaign with videos and posters distributed across APS facilities and schools. Additionally, we participated in the Expo Media Event which targets school principals, giving us the ability to train and help.

Our governance and compliance efforts are focused on developing and refining key policies to provide clear direction. This included reorganization of the Information Security Steering Committee (ISSC) in order to ensure its continued relevance and effectiveness in driving our information security strategy with diverse representation from across APS. This restructuring enabled a deeper understanding of departmental IS needs, fostered diverse perspectives and expertise, and promoted communication and collaboration.

# Information Security

*Eric Ekblad, CISO*

*"We do not leave it to chance."*

# Technology Applications

*Yellowstone National Park by Jeromey Balderama 2020*

## Mission

The mission of the Technology Applications Team is to facilitate frictionless interoperation of Technology systems and processes by aligning integrations with industry best practices.

## Vision

Our vision is to build and mainain the scalable, stable, and responsive integration infrastrcture needed to provide agile solutions for staff and student needs.

The **Technology Applications** Team is composed of two groups, the Solutions team and the CASA (Classroom Applications Systems Administration) team. The CASA team manages classroom applications, our email and document sharing systems, rostering, and coordinates the Application Review Committee. The Solutions team architects new integrations, develops custom solutions, refactors outdated systems, and supports information architecture and security for systems across the district. The entire team supports the District's mission and goals through implementing industry best practices, and standard design patterns with an eye toward efficient use of available resources.

**Noteworthy Accomplishments for 2024/2025**

- Deployed Bitlocker to all Windows workstations throughout the district;
- Upgraded infrastructure to support the migration to Windows 11;
- Supported Deputy Superintendent of Leadership and Learning initiatives through improvements to the Language Essentials for Teachers of Reading and Spelling (LETRS) program compensation and tracking systems;
- Supported the Budget and Accounting teams' CCH ProSystem fx Engagement Software upgrade;
- Resolved challenges for the Auditors Office with importing data from the new consulting firm Clifton Larson Allen;
- Implemented managed Apple accounts and integrated Google Workspace for Single Sign On;
- Implemented an improved Mobile Device Management (MDM)system for Apple devices.
- Completed the implementation in time to onboard devices during annual summer maintenance;
- The improved MDM increased the efficiency of device maintenance by 45-50%;
- In support of Maintenance & Operations, their custom purchase and billing software was rebuilt on a modern platform. The team completed comprehensive discovery, requirements gathering, documentation, build-out, and ongoing monitoring;
- For the district website, aps.edu, critical server updates were performed, Let's Talk integrations received multiple functional enhancements, and user access control was reviewed;
- The intranet was migrated to a modern platform, and integrated with Google for SSO. This change provides teachers with offsite and after-hours access to private staff-only resources;
- Created automations to support Let's Talk security and responsiveness.
- Created automations to incrementally improve Technology's password management strategies;

- Expanded the usage of Project Management tools across Technology, Communications, and Facilities Design and Construction;
- The Tech Apps CASA team took over NM PED's Create New Mexico initiative program to enable continued access to Adobe Creative Suite for schools across New Mexico;
  - Tech Apps CASA now manages Adobe license allocation for 42 public school, districts, and charter schools, and refactored the processes to support 6,161 APS staff and student users;
- 167 new applications were reviewed for privacy, security and interoperability;
- Re-assessments were performed for 172 existing applications to make sure they are still functioning, in use, relevant, and safe for students to use;
- Improved email security through automatic suspension of suspicious logins, phishing, and spam, and follow-up investigations to determine the threat level;
- Made changes in Google Chrome management to extend the life of applications as Google developers made the transition from Manifest 2 to Manifest 3;
- Participated in the migration of the enterprise identity sync tool, UnitySync, to a new tool, OneSync;
- Transitioned many departments to an enterprise SMTP mail solution to facilitate bulk email delivery for the district;
- Access control, security improvement, and optimizations for email distribution groups;
- Made improvements to Google Chat to manage student disruptions;
- Developed a custom application for M & O billing management;
- Developed a custom application for Technology inventory reporting and user support;
- Improved automation of numerous monitoring, data collection, and notification tools such as Formstack, Zapier, Uptime Robot, PRTG, JIRA, and Cherwell;
- Expanded adoption of secure password management tools within the Technology department.

# Technology Applications

*Alice Fritz, Director*

*"Nothing endures but change."  Heraclitus*

# APS Esports

*Steve Johnson 2018 from Unsplash*

## Mission

APS Esports is committed to offering all APS students the opportunity to participate in esports by providing an equitable playing field across the district, a platform for educational and personal growth, and skills needed for career and life.

## Vision

Through esports we will help our students realize their full potential by providing inclusion, enabling collaboration, improving confidence, inspiring excellence, and preparing them to become caring individuals and global citizens.

Since inception in 2018 as the 2024/2025 school year ended, APS Esports completed 7 years and our students were beneficiaries of the program's success. With a focus on Scholastic Esports our students have experienced its many positive benefits, that include soft skills essential in today's world, digital tools crucial to success, a sense of belonging usually found in traditional sports and activities, and the power of friendship with like- minded students. Esports curricula is firmly in place in our middle and high schools and students are following their passion for gaming to college and career opportunities The beautiful integration of esports and education has electrified learning for our students and teachers report increased interest in digital learning opportunities, improved social skills, and firm pipelines to colleges and universities in our state and beyond. Esports is awesome in APS and continues to grow in our elementary, middle, K-8, and high schools.

**2024/2025 Highlights**

**August 2024**

- APS Media Expo - Esports Table
- APS Esports Information Session & PD
- APS Esports onboarding with Manzano Mesa ES, Jefferson MS, Carlos Rey ES

**September 2024**

- Navy Esports at APS September 9-12
- *Esports for Littles* Linkedin Presentation

**October 2024**

- Atlanta Games Week & Esports Summit, Atlanta, GA
- APS Esports at Employee Wellness Fair
- UNM Esports Run it Back Series

**November 2024**

- APS Esports at NMTIE, Isleta Resort
- APS Annual Expo Berna Facio
- APS Esports & Hayes MS onboarding & Game Night set-up

**January 2025**

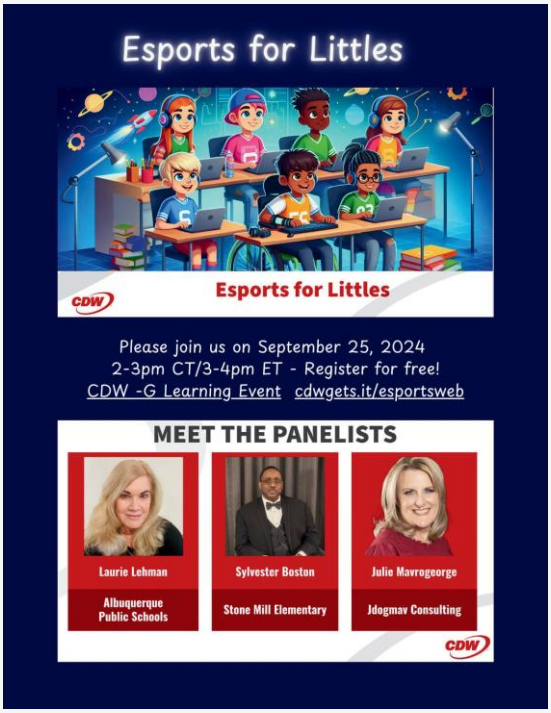
- APS Esports onboarding Polk MS
- Esports LAN Party Del Norte HS

**February 2025**

- APS Esports at Foster Care Resource Fair

**March 2025**

- APS Esports at John Adams MS Career Fair
- APS Esports at Ernie Pyle MS Career Day
- NMSU annual Invitational, Las Cruces, NM




**April 2025**

- APS Esports & NMAA State Championship Finals, Berna Facio

**May 2025**

- APS Esports & Spring into Summer Transition Fair - Berna Facio
- APS Esports at Hayes MS Health Fair
- APS Esports Scholarship Day - City Center

**June 2025**

- Impact Through Education Award

**July 2025**

- APS Esports at Toon Fusion, Expo NM

**2024/2025 APS Esports Milestones, Events, and Accomplishments**

APS Esports completed the second year with an active and successful high school esports curriculum and the first year of middle school esports curriculum. The 2025/2026 school year promises to include more schools and students with esports curricula as students continue to follow their passion for esports and competitive gaming through scholastic esports while becoming engaged in STEM and tech skills and digital learning.

Esports continues to enrich students with social emotional learning opportunities in competive gaming and during esports classes. Besides the soft skills notable in esports, such as learning to communicate effectively, broadening of interpersonal skills, creativity and adaptability, analytical thinking, self-control and negotiation skills, esports is known to build confidence, and provides a safe space where students can learn, thrive, and grow.

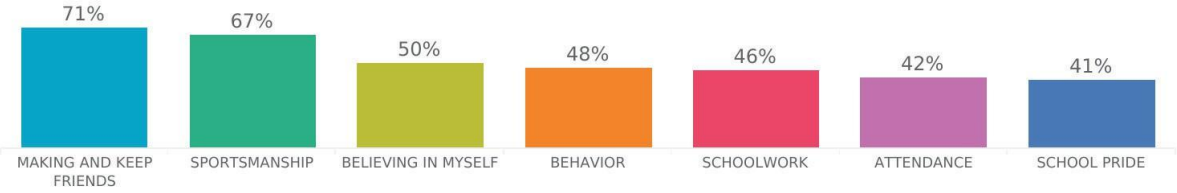
Our annual esports expo is a true community event, where students and families are able to meet in an inclusive environment and share their love of gaming with like-minded individuals. The NMAA Esports Championship Finals showcases esports teams from around the state competing for the top titles and bragging rights for students from all New Mexico high schools.

Esports engages students at all ages and levels. Our goals of sustainable growth, equity and inclusion continue to guide our program as we progress on our journey to engage, educate, and inform students, parents, teachers, administrators, and the community about the many positive benefits of esports. Below are some of this year's accomplishments.

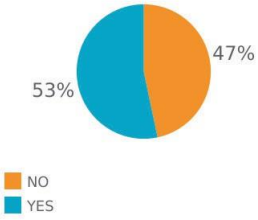
- After winning a $10,000 award for our our program's sustainability, we purchased and distributed 28 Nintendo Switches to our participating elementary and middle schools
- Laurie received the prestigious "Impact through Education" Award from the Gamehers organization
- APS Esports was nominated for national District of the Year by PlayVS
- APS Esports awarded 19 scholarships to our graduating seniors in our 3rd annual Esports Scholarship event
- Laurie was chosen as guest speaker/panelist at the Extron Esports Summit in Anaheim

## APS Esports Student Survey Results Spring 2025

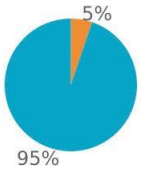
### In what areas has Esports affected you?



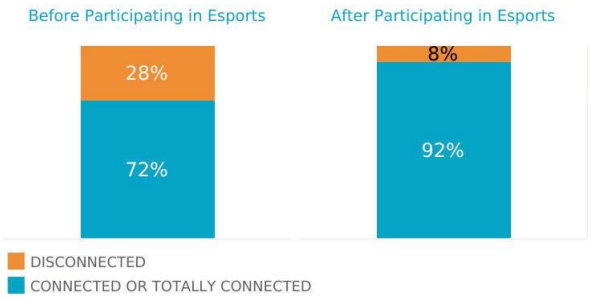

### Before Esports, were you involved in anything at school?




### Do you enjoy being involved in Esports?




### How connected to school did you feel...




Produced by Albuquerque Public Schools, Strategic Analysis & Program Research (SAPR) Department on April 22, 2025.

## *How has esports shaped who you are, inspired you to do your best in school?*

Gaming helped me find friends that are like me. Esports has inspired me to do my best in all my classes so I have good enough grades to be able to play games and compete. When I first joined I was shy I didn't really like talking to anyone but after time went on I find myself speaking more and feeling less shy overall. Esports has made me feel more connected and pride to being at school. It's a confidence booster and it helps me de-stress. Esports has helped me with becoming more level-headed and chill when things go wrong during the game, as well as making me better at communication which has shaped me into a more patient and rational person than I was before joining esports. I just love being in esports. I wasn't in a very good spot back in my first two years of high school and had thought of self harm but worked through all that and found new opportunities to turn me into a better version of myself. I want to succeed for my team and I've learned to think more of others. I have found the community that I was always wanting through esports. Esports has helped me to gain more confidence and be more comfortable around other people. It has inspired me to do better in life not just in school because the amount of progress I see myself having in a game and I feel like I can do the same thing in my life and even beyond. Playing in esports has just helped me have more enjoyment and overall happiness and achievement. Esports inspired me to work as a team and do my best. They have motivated me to show up to school on time and has helped me understand new forms of careers. Gaming really bring me joy and happyness. It gives me a reason to come to school everyday. It's influenced me to get much much better at chess to improve my analytical skills. I have met a great community and I love the people I have met. Gaming and esports have inspired me to come to school and do well in all my classes. It has shown me I can achieve high levels in many aspects of my life. Esports helps me get connected and always believe in myself and that there's other people always there for me. It just inspired me to keep going in this club and be a role model. It has showed me that I have to work hard for what I want. It has helped make more friends and build a good school community.

APS ESPORTS

2025

# APS Esports

*Richard Bowman, Ph.D.*
*Executive Sponsor*

*Laurie Lehman*
*District Manager*

*Tremayne Webb*
*Coordinator*

*"Never doubt that a small group of thoughtful, committed individuals can change the world. In fact, it's the only thing that ever has." Margaret Mead*

*"We Are APS Esports"*

*La Cueva Esports*

*Tres Volcanes Esports*

*Del Norte Esports*

# Financial Operations

*Arts and crafts ornament forms for the surface Pl 17 by Christian Stoll 1920*

# Mission

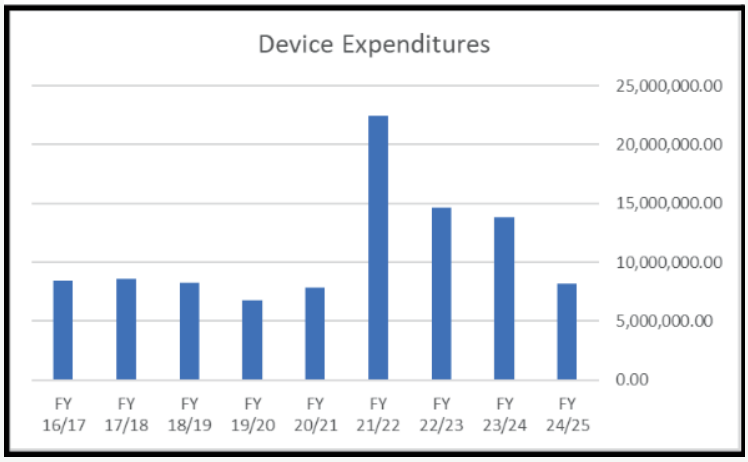
The APS IT Finance Department is dedicated to delivering transparent, efficient, and secure financial management of technology financial resources. We support the district's educational mission by ensuring that technology purchases are strategically aligned with student outcomes, operational excellence, and community engagement. Through collaborative planning, clear-cut accountability, and innovative solutions, we strive to optimize funding to empower stakeholders with the tools and insights needed to advance 21st century learning.

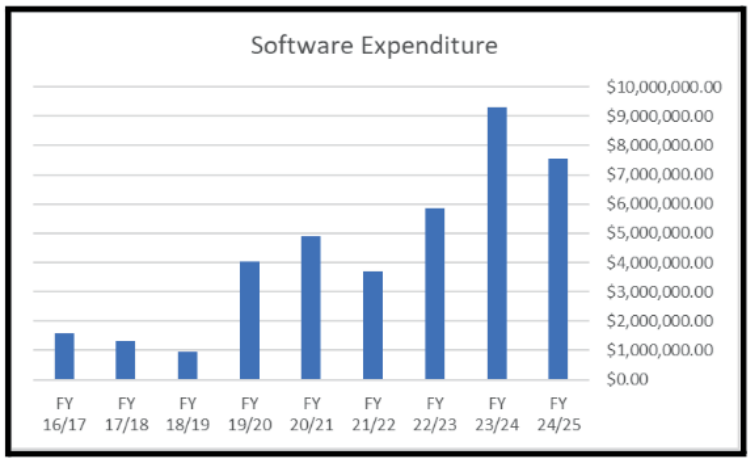
# Vision

Our vision is to be the trusted gatekeeper of APS technology financial resources - enabling a future where informed leadership ensures equitable, innovative and secure digital experiences for every student, educator, and community partner.

The Technology Finance Team is responsible for managing the budget not only for the Technology Department, but also for technology needs of the entire district. From Chromebooks and laptops to the software needed to provide students and staff the tools needed to accomplish their goals, the Finance Team collaborates with our departments to maximize the application of funds while remaining in compliance with statutory and regulatory requirements.

Multi-year accomplishments include $99M spent on devices, district wide, with an emphasis on student devices beginning FY21/22 due to the Covid-19 pandemic. Prior to this, a shift in the approach to device refresh from allocation by student count at each school to needs-based refresh began to indicate a savings. During the pandemic we received additional funds from state and federal sources to reach our one to one device allocation. After the additional funding ended, we have been able to see the same savings between needs-based refresh as well as another change in our approach to salvage procedure.



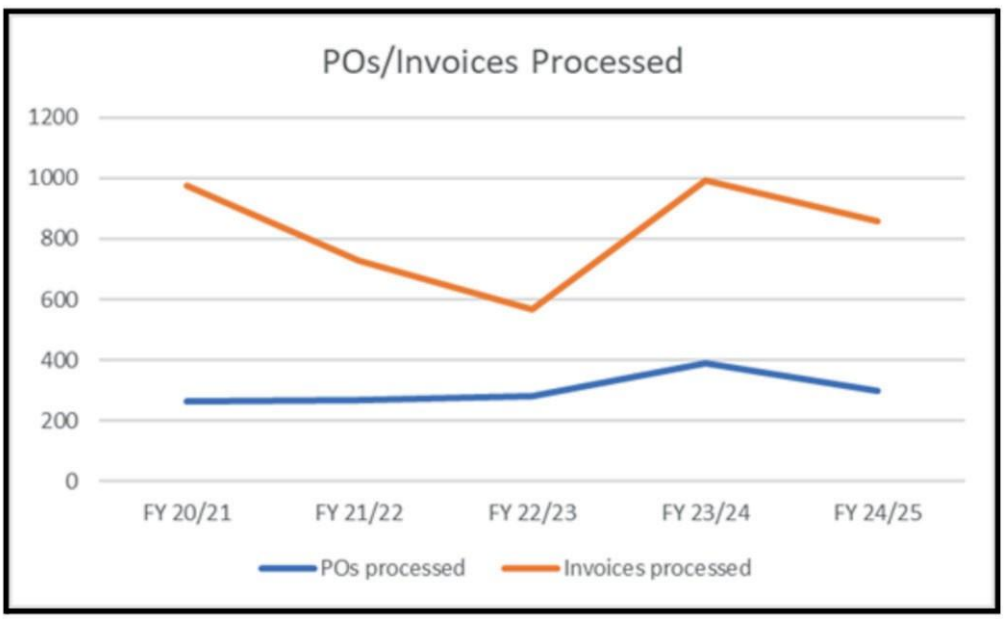




Prior to FY 2019/2020, the Technology Department primarily purchased software pertaining to the department's sphere. As more of the district's software was transferred to the Technology Budget, this is shown in the increasing figures. In the last 5 years, $160.4M was processed, as shown in the chart on the next page.

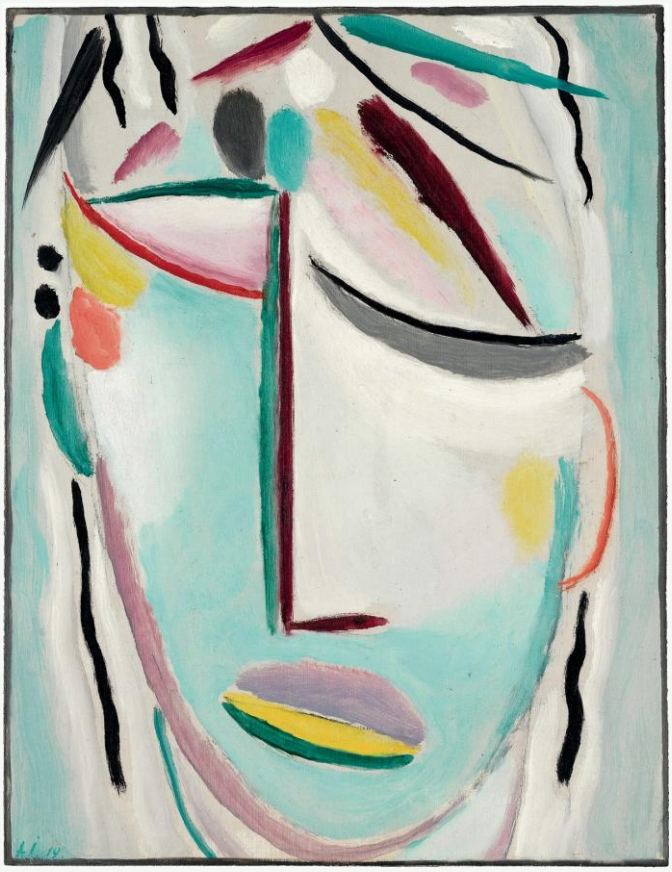
# Financial Operations

*Tracy Parker, Manager*

*"An investment in knowledge pays the best interest." Benjamin Franklin*



# Project Management



*Savior's Face, Martyr by Alexej von Jawlensky 1919*

# Mission

The mission of IT Project Management is to lead, engage, and empower teams toward outcomes that deliver value to APS by implementing sound project management practices.

# Vision

The vision of IT Project Management is to provide excellence in the management of IT projects by collaboration and communication with project stakeholders and project teams to deliver consistent, effective, quality project results

IT Project Management at APS is the systematic process of managing, planning, and developing information technology initiatives. This encompasses projects across key IT domains, including Network Infrastructure, Information Security, Server Operations, Wireless Operations, and Technology Applications. We utilize established principles, procedures, and policies to guide each project from Initiation Phase through to Closing Phase. Our commitment to successful projects is defined by consistent delivery: On Task, On Time, and On Budget.

Major Accomplishments

IT Projects

- E-rate 9, 10, 11
- HPE & Net App Refresh
- Avaya Phone System S/W & H/W Upgrade & Inform 911
- Crisis Alert System Project (Centegix)
- Let's Talk Integration Phase IV

Change Management

- Owner/Facilitator for all Change Requests utilizing Cherwell Service Management - Change Request Dashboard to ensure changes are tracked, documented, and communicated to all stakeholders throughout the district
  - Change Management processes
    - To prioritize changes in a way that fairly reflects change, impact, and urgency
    - To schedule deployments in a way that minimizes conflict and disruption in order to minimize critical system downtime throughout the district
- Change Advisory Board (CAB) meetings on a weekly basis to provide process governance; CAB members represent Stakeholders and Subject Matter Experts (SMEs) from Technology, Police Services, Transportation, M & O, Business Systems, and Student Information Systems
- As Change Manager/Owner, schedules and facilitates CAB in-person meetings held weekly to review, discuss and approve Request for Change (RFC) and/or Emergency Request for Change (ERFC) tickets

**Change Management** (continued)

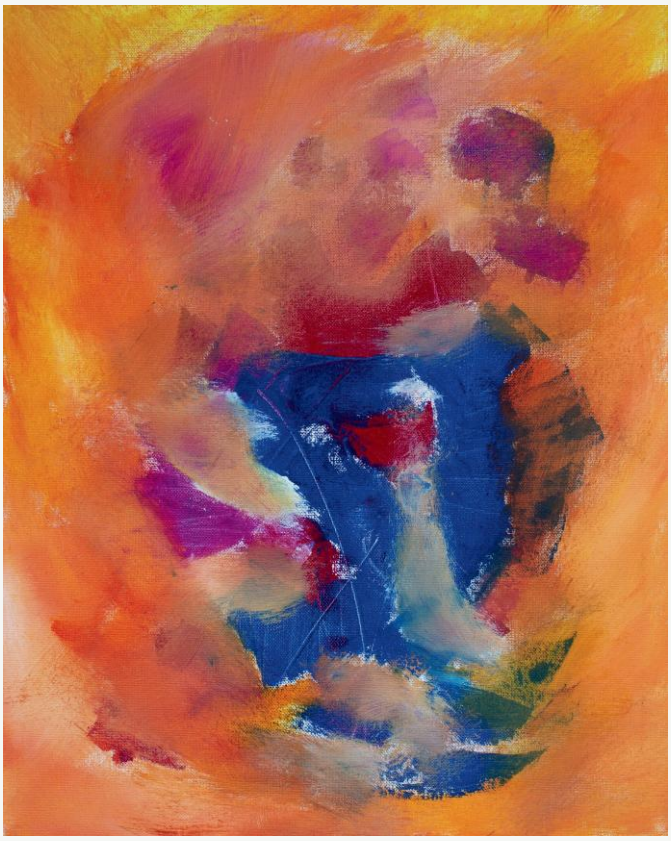
- To protect the live environment from poorly assessed, tested, and implemented changes
  - CAB approval is required for all normal and emergency changes
  - If a change results in an incident or outage, the CAB is effectively responsible as it is the responsibility of the CAB to assess and accept the potential impact of every change
- Prioritize changes in a way that fairly reflects change impact and urgency
  - Change requests originate from multiple stakeholders, some of whom have competing interests
  - It is up to the CAB to prioritize these requests effectively so that the business need is balanced with any potential risk to the infrastructure and see to reduce the number of emergency/expedited requests
- Schedule deployments in a way that minimizes conflict and disruption
  - The CAB utilizes a change calendar populated with project work, upcoming organizational initiatives, and change freeze periods. They will schedule changes around these blocks to avoid disrupting user productivity
  - The CAB works closely with the release and deployment management team to coordinate change/release scheduling

# Project Management

*Yolanda Delgado, Project Manager*

*"Teamwork divides the task and multiplies the success."*

# Technology Client Services (TCS) Field Technicians



*Multicolored Abstract Painting by 13 year old nephew Markus Spiske 2019 from Unsplash*

## Mission

The mission of Technology Client Services (TCS) is to provide fast, comprehensive Technology support to both staff and students, ensuring that everyone has reliable access to fully functional devices. Whether that device is a staff laptop, a classroom interactive panel, a school lab, or a student device, we are here to ensure everything works as it should.

## Vision

Our vision is to provide consistent, reliable technology that empowers students and staff, fostering an environment where technology serves as a seamless tool for driving student success, enhancing learning experiences, and supporting academic achievement.

**TCS - Field End-User Support**

The Technology Client Service Team plays an important role within the District's Technology Infrastructure and Operations. With the knowledge that technology is key in modern classrooms, the team is committed to solving issues quickly and smoothly, keeping the focus squarely on education without tech getting in the way. TCS support staff work year-round to support the following end users and devices. The device numbers are sourced from advanced Mobile Device Management Systems (MDMs).

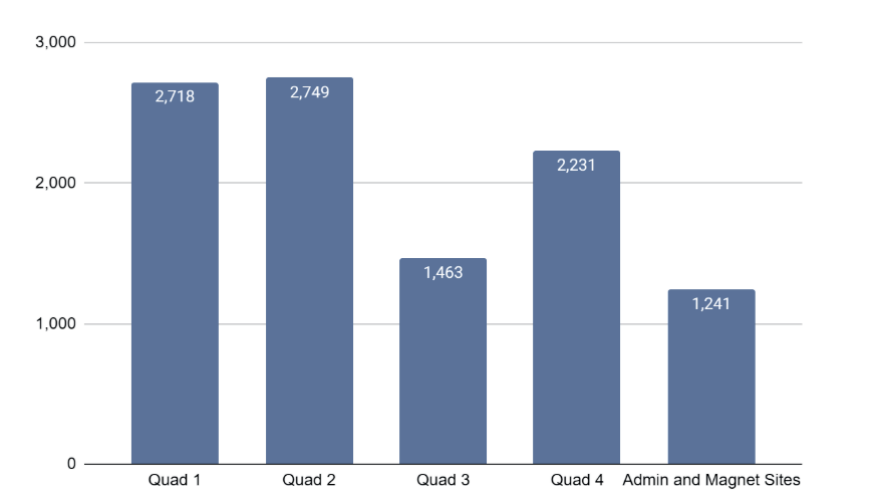
- **Approximately 75,000 end-users**
- >127,000 Chromebooks
- >16,000 iPads
- >15,000 Windows devices
- >2,500 MacOS devices
- >5,000 managed Interactive Smart Panels

**The Role of Technology Client Services Field Technicians**

The TCS Field Technicians are the frontline experts providing tier-two technical support for all device hardware and software across the entire district. These dedicated professionals work directly with students and teachers in the classroom, as well as district employees and administrators, to ensure every end-user has a perfectly functional device. Their direct presence means they can address issues on the spot, minimizing downtime and keeping the focus on learning and productivity.

Beyond daily troubleshooting, the TCS Field Technicians play a crucial role in maintaining a robust and secure digital learning environment. This includes regularly upgrading device operating systems, refreshing staff devices nearing the end of their lifecycle, and upgrading computer lab equipment. These proactive measures are essential for enhancing security, boosting performance, and ensuring our students learn in a safe and advanced technological space.

Total Number of Tickets Closed by TCS Field Technicians in 2024/2025= >10,000. Several factors contribute to some quads having more ticket closures, including the presence of school staff tech coordinators, enrollment levels, and the specific support needs at school sites.



**Introducing Tech Oasis**

TCS launched a new way for APS employees to get tech help in person. TCS created a central tech support hub at City Center (East Tower, 530) called Tech Oasis. Modeled as in-store tech support, it is a place where staff can get hands-on help with a variety of tech issues. This new service complements APS Technology's existing end-user tech support, which includes a Service Desk and Field Support, giving staff more options to get needed assistance.

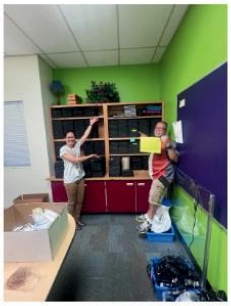
**Staff Device Refresh**

The TCS team plays a critical role in keeping our district's technology safe and effective. They actively find and upgrade district technology, making sure staff and student devices are secure and ready for use. TCS has continued to identify staff devices that have passed their five-year mark. To keep our staff equipped with reliable tools, the inventory control team has sourced Dell Latitude devices, which will be used to refresh these older machines. This move was crucial as it immediately eliminated network security threats that came from using outdated systems. In the past year, TCS located and upgraded approximately **1,905** devices.

**Summer Preventative Maintenance**

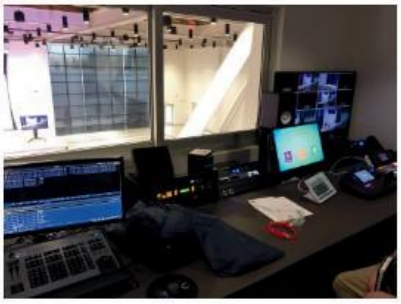
Every summer, the TCS Field Techs engage in numerous summer maintenance projects to ensure a good start to the school year. These projects include Student 1:1 device maintenance, school computer lab maintenance, site-based technology status data collections, and OS upgrades throughout the district. The summer of 2024 included the work below:

- Enrolled >12,000 iPads into our MDM
- Power-washed >470 Chromebooks
- Serviced >1,500 devices



**TCS Audio/Visual**

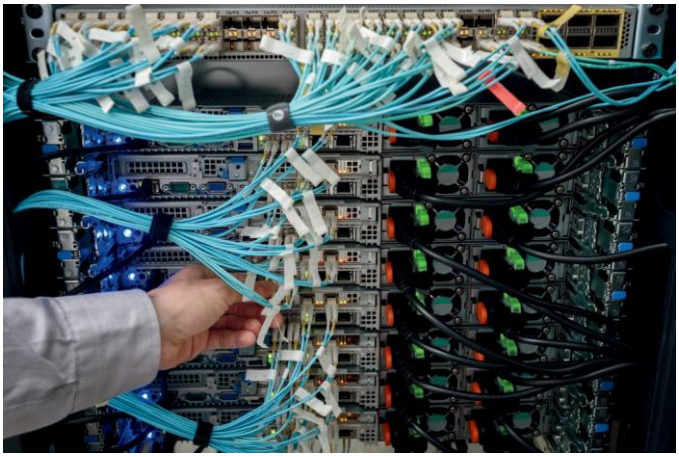
The TCS Audio/Visual support group supports seamless connections for Albuquerque Public Schools and the broader Albuquerque community. Committed to making hybrid meetings, Superintendent events, and Board of Education meetings as comfortable and convenient as possible for all participants, the team continuously refine A/V presentation techniques for major APS events held at Berna Facio, ensuring every large gathering runs smoothly with a focus on production value.



# Technology Client Services (TCS) Field Technicians

*Joshua Meyer, TCS Field Tech Director*

*"Great things are done by a series of small things brought together."*
*Vincent van Gogh*



# Technology Client Services (TCS) Service Desk

*Rich Smith 2020 from Unsplash*

## Mission

Technology Client Services (TCS) Service Desk is committed to delivering timely, reliable, and student-centered technology support. Our mission includes empowering staff and students to teach, learn, and work effectively, while promoting equitable access and continuously improving the quality of our services.

## Vision

Our vision is to be a trusted partner in education by offering exceptional IT support that enables innovation, supports digital equity, and advances the district's mission of academic excellence for all learners.

The APS TCS Service Desk serves as the first point of contact for all district employees and students who need technical support. Our team provides tier-one assistance through phone, remote support sessions, and self-service tools. Every incoming service request is carefully triaged and routed to the appropriate department using our virtual help desk portal. In addition to resolving day to day issues, we manage the district's knowledge base and support key digital learning platforms that are essential for teaching and learning across the district.

**Accomplishments in 2024/2025**

This year the Technology Service Desk has made significant strides in improving support services, system performance, knowledge management, and collaboration.

- Windows 11 Rollout Support: We played a key role in supporting the district wide rollout of Windows 11, including the creation of new categories in our ticketing system to track issues, as well as authorizing user-friendly knowledge base articles and guiding end users through the transition.
- Optimizing our Support System: A comprehensive cleanup of the Cherwell system was completed to improve overall performance. We updated user profiles, restructured team groups, and closed outdated tickets, making the platform more efficient and responsive.
- Knowledge Management and Training: To ensure staff has access to accurate and helpful support materials, we reviewed and updated over 460 internal knowledge base articles. Additionally, new content was developed for both customers and internal staff to address common technical issues and procedures.
- Cross-Department Collaboration: Our team partnered closely with the Testing and Accountability Departments to provide support for online assessments. We also worked alongside other IT Teams to investigate and resolve root causes of any recurring technical issues that impacted multiple systems.
- Security and Compliance: Security remained a top priority throughout the year. The service desk supported the rollout of Multi-Factor Authentication (MFA) for all staff cellphones, and assisted with the follow-up support of BitLocker encryption to protect district devices. We created knowledge base articles focused on cybersecurity topics and collaborated with the Information Security team to identify and respond to phishing attempts and other cyber threats. Additionally, staff began training on recognizing vishing (voice phishing) and hacker impersonation calls.
- Process and Efficiency Improvements: Several internal processes were documented and optimized to improve service delivery. These included streamlined workflows for summer printing support and newly implemented procedures for managing calls during emergency situations. We also worked with other departments to document and enhance service catalog items and overall workflow expectations.

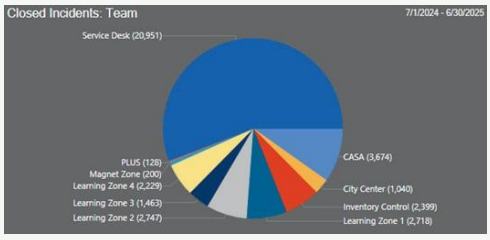
**Key Metrics and Performance Highlights**

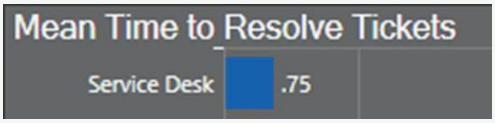
Throughout the 2024/2025 school year, the APS Technology Service Desk managed a high volume of support requests while maintaining a strong focus on resolution speed, quality, and user experience. We received and resolved thousands of tickets with an average resolution time that reflects our commitment to timely support. Many of the most common issues we handled related to password resets, device troubleshooting, account access, software installations, and connectivity.

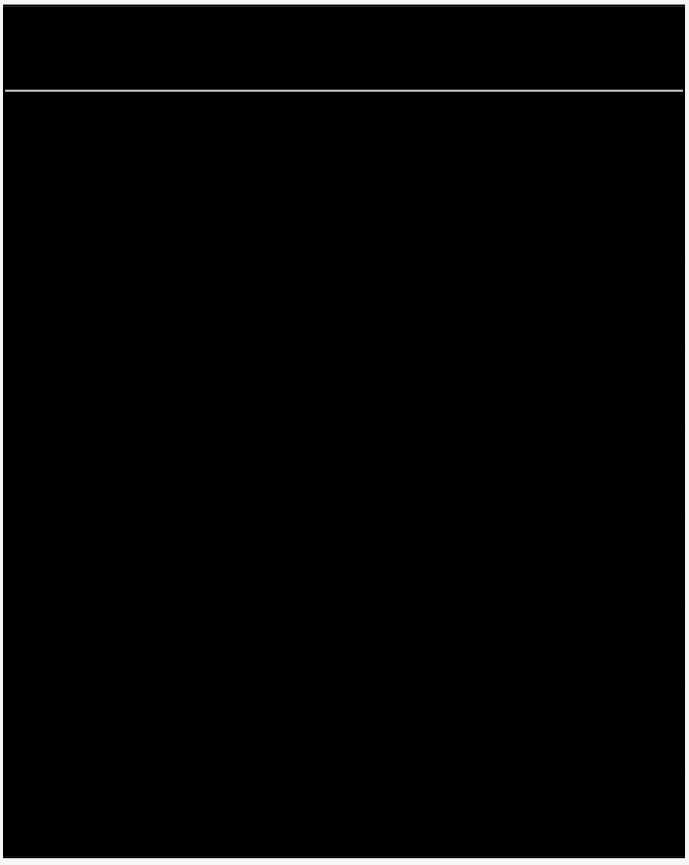
The APS Service Desk continues to be an essential team, personally resolving a large number of incidents, many on the first contact. Tickets were submitted through various channels, including direct phone calls, the Cherwell portal, our public web portal (aps.edu/technology), and the dedicated service desk email address (servicedesk@aps.edu).

The Service Desk categorizes incoming tickets to better understand and respond to district needs. Categories include hardware support, software troubleshooting, account and access issues, and more. Triage efforts ensure that tickets are efficiently routed to the right teams or departments, supporting faster resolutions. In addition to handling service requests, the team completed an extensive review and update of the knowledge base, revising hundreds of articles to ensure they remain relevant, accurate, and user-friendly.

| Queue Name | Answered |
|---|---|
| Total | 21,549 |
| APS_Tech_Service | 19,302 |
| APS_Parent_Studen | 2,247 |



**Looking Ahead: Goals for 2025/2026**

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As we prepare for the upcoming year, the APS Technology Service Desk is focused on several key initiatives. One of our major priorities is the implementation of a new call center environment, which will enhance how we respond to calls and reduce wait times. We are also preparing for a major transition to a new IT Service Management (ITSM) platform, replacing Cherwell with a more modern system. This will allow us to streamline support operations and improve reporting capabilities. The APS Service Desk aims to align our work with district wide goals, particularly in the areas of instructional technology, equity in access, and digital readiness. Our commitment to innovation, collaboration, and continuous improvement will remain central as we move into the new school year.

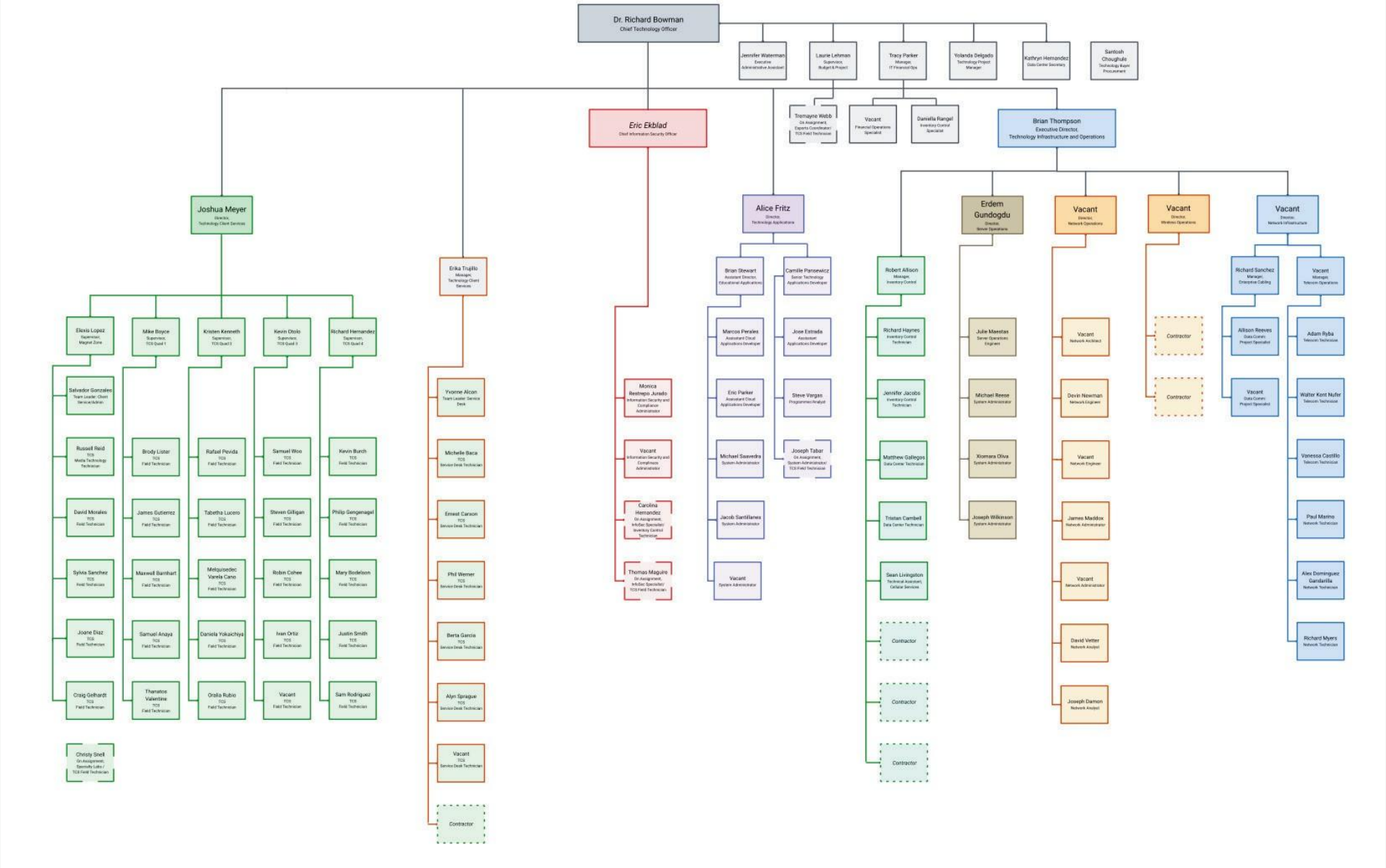
*Erika Trujillo, TCS Service Desk Manager*

*"Strive not to be a success, but rather to be of value." Albert Einstein*

# Technology Department 2025

# Technology Organizational Chart 2025





# Dr. Gabriella Blakey, Superintendent

# APS Board of Education

*Murnau by Alexej von Jawlensky 1910*

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