Paulding County School District
Technology Division Quarterly Report

The Class of 2024 - From left: Emily Weist (SPHS), Kaiden Applewaite (HHS), Casey Butler (EPHS), Nicholas Alexander (PCHS), Alliston Young (NPHS)

October 2024

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Engage. Inspire. Prepare.

The mission of the Technology Division aligns with the district's mission and vision to integrate technologies into instruction, learning, and operations to prepare ALL students for success through engagement, inspiration, and preparation utilizing innovative practices and resources. The division views technology as integral to a life-long education learning model being a vital component for a student's success in higher learning and in the workplace today and tomorrow.

Cybersecurity Tips

Follow these tips to help you stay safe online and with your devices:

Digital Safety

- Never install unapproved software.
- Verify attachments are safe before downloading them.
- Verify links before clicking.

Device Security

- Secure your devices when not in use.
- Use strong passwords and apply device updates.

Internet Safety

- Beware of public Wi-Fi networks.

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Introduction

Dear Paulding County School Board and Community Stakeholders,

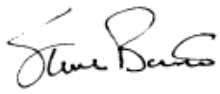
We are pleased to present the Paulding County School District (PCSD) Technology Division Quarterly Report. This report is designed to provide board members and the community with a comprehensive update on the progress and key performance indicators of our Technology Division that includes departments of Technology Support and Services, Instructional Technology, Enterprise Systems, and Network Operations.

The four technology departments provide administration, services, and support for all technology solutions, infrastructure, equipment, and resources for the school district as highlighted below:

- *Tiered support* of district technologies, including hardware and applications, with a support helpdesk, onsite support, and escalated systems administration and engineering support
- Complete *implementation of technologies* with program and project management for district initiatives including application solutions, equipment, and infrastructure
- *Training, coaching, and mentoring* our educators in the integration of technologies within instruction
- *Engineering, cybersecurity, systems administration*, and disaster recovery management for enterprise systems, network, and data
- *Network operations* including architecture, administration, security, maintenance, physical infrastructure, and cabling for the high performance, secure wired and wireless network

We are committed to ensuring that the technological needs of our district are aligned with our mission to engage, inspire, and prepare ALL students for success today and tomorrow through appropriate and strategic complete lifecycle implementation to promote student and organizational excellence.

Sincerely,



Steve Barnette
Superintendent

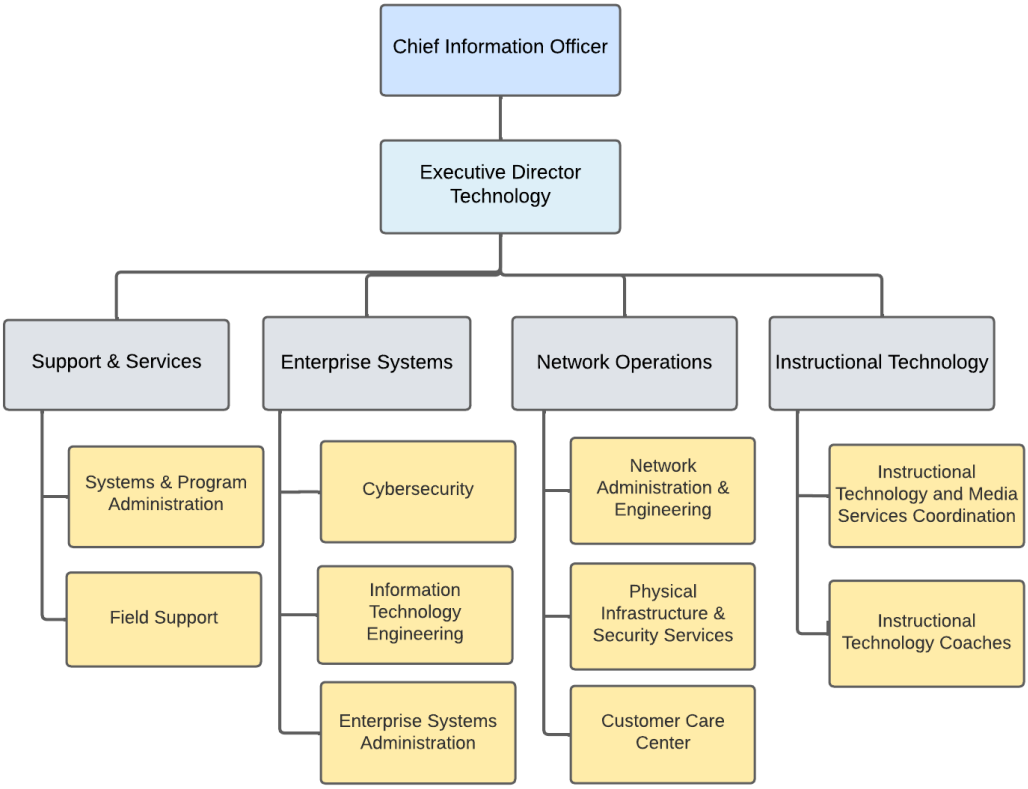
Julie Ragsdale
Chief Information Officer

Technology Division Overview

The Technology Division of the PCSD strives to provide the most effective and appropriate technology solutions, applications, equipment, and infrastructure, combined with the best service, training, and support to integrate technology as a vital component of teaching and learning.

The Technology Division is comprised of four departments to fulfill all technical roles and responsibilities for the district's teaching, learning, and operations: Support and Services, Enterprise Systems, Network Operations, and Instructional Technology.

PCSD Technology Division



Technology Support and Services

Support for our district's technologies, including hardware and applications, is provided through our team, comprised of a customer care center, onsite field support, and escalated systems administration, and engineering tiered support. This department also provides services for our district's initiatives, consisting of program and project management, quality assurance, and full lifecycle program implementation.

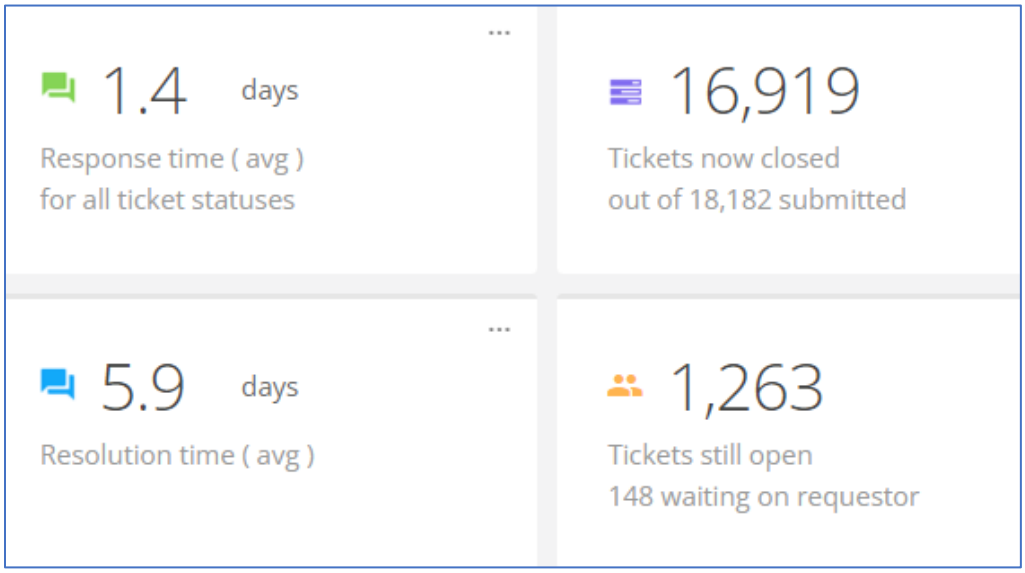
Helpdesk and Field Support

Support and Services team members provide Level 1 support through a customer care center helpdesk via a web ticketing system or phone calls as well as onsite field support. Support that can be provided remotely is done so through the customer care center which includes dedicated support for instructional applications in addition to servicing all technology-related support cases. Support and maintenance requiring firsthand service is routed to field support technologists assigned to multiple sites. Support cases requiring escalation are routed to system administrators as a Level 2 tier of support, and problems requiring alternative solutions or specialized services are routed to engineering as Level 3 support.

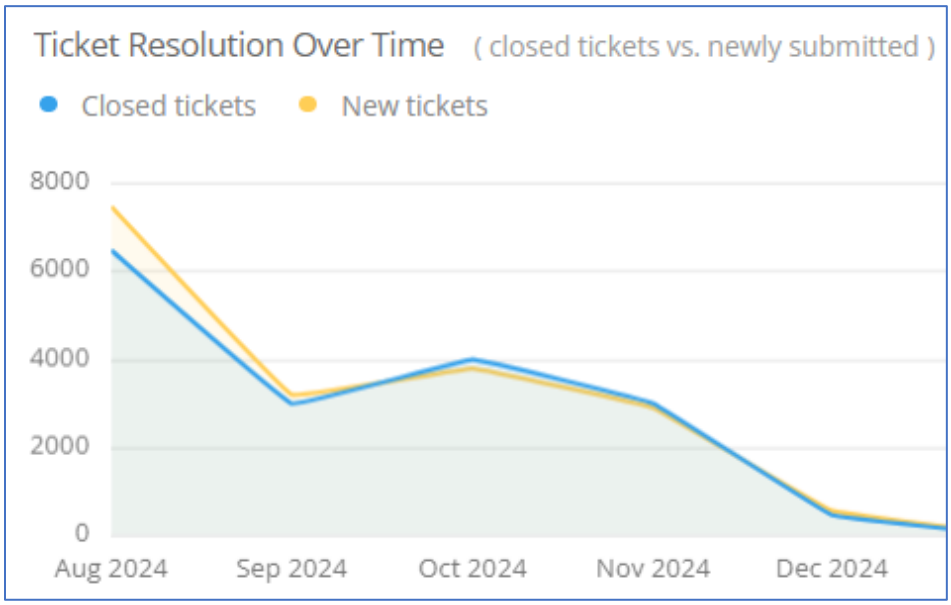
Field or onsite support is provided for district sites to include all staff and student end users, technology infrastructure, and equipment. Standard technology classroom equipment includes an interactive flat panel, a teacher laptop and docking station, a classroom phone, a Wi-Fi access point, and student laptops which are school based for elementary students and take-home laptops for middle and high students. Sites also include additional computing, printing, and other equipment within specialized instructional units and offices as well as multiple enterprise software applications and platforms for curriculum and operations.

Support Ticketing Data FY25

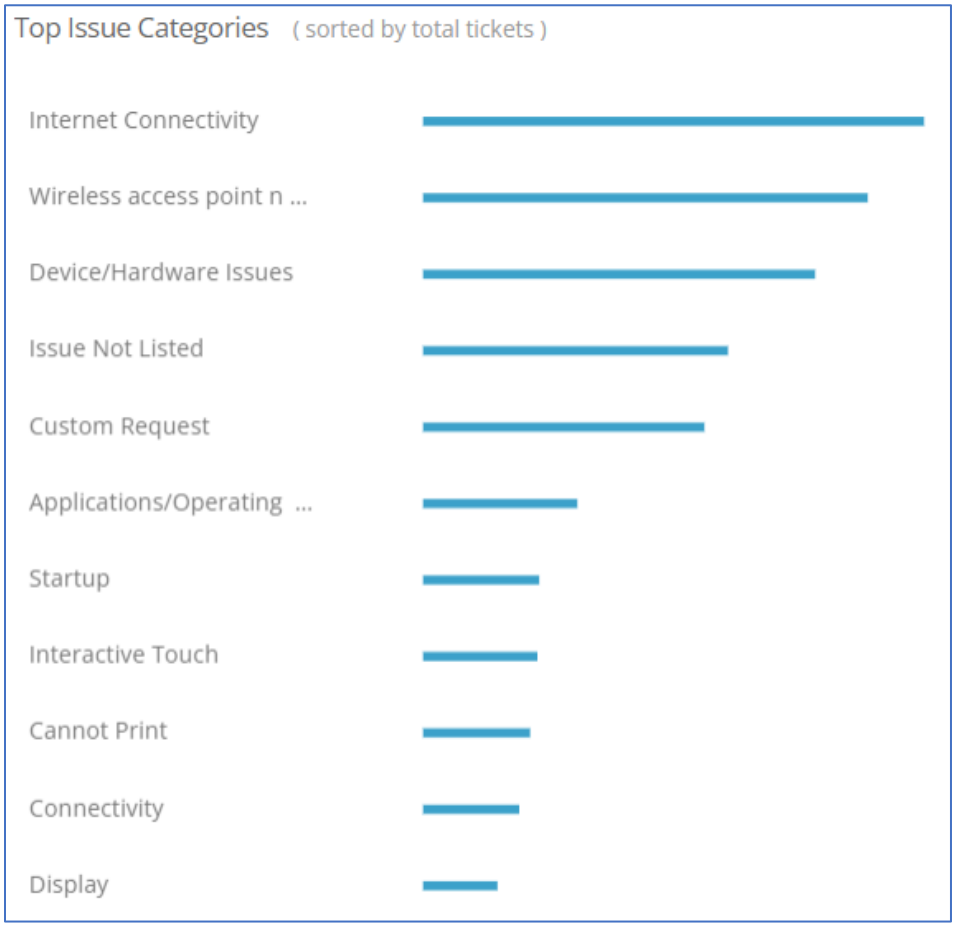
July 1, 2024 - December 3, 2024



Tickets closed 16,919



Ticket range displayed 2,519 to 535



System Administration and Program Management

The Support and Services department performs essential services to manage initiatives in support of the district's strategic plan, such as the student laptop program. Inventory tracking, program implementation, refresh programs, deployment, installation and de-installation services, quality assurance, and maintenance support plans are some of the services provided by team members.

Support Initiatives

Support initiatives aligned with the district's strategic plan include:

- Student Laptop Program Parent Dashboard Laptop Program Information
- Equipment Refresh Program – Continuous technology equipment refresh schedule based upon the lifecycle of the equipment.

Instructional Technology

The Instructional Technology department provides instructional training, coaching, and mentoring for our educators in the use and integration of technologies, including applications and tools for delivering engaging instruction in a digital world. The department also provides media services coordination for our district.

Training, Coaching, and Mentoring

Instructional Technology Coaches are certified teachers with expertise in technology applications and technologies and their integration in the delivery of instruction. Successful technological integration within teaching and learning promotes student engagement as well as effective student application of technologies.

Instructional Technology Coaches (ITCs) are assigned to multiple schools to provide training sessions developed for the district annually as dictated by the needs of the year, such as a new curricular platform, as well as standard applications and tools utilized by teachers. In addition to these scheduled training sessions, ITCs are within their schools to offer coaching, additional training, mentoring, and co-teaching per school or teacher request. The ITCs also provide support for teachers with instructional applications and platforms.

Instructional Technology Initiatives

Instructional Technology initiatives aligned with the district's strategic plan include:

- Build staff efficacy to impact innovative practices within instruction
- Expand instructional capacity to integrate STEM Innovation Lab resources and equipment
  STEM Innovation Lab resources monthly utilization:
  - August 2024: 110 items, 10 types
  - September 2024: 290 items, 35 types
  - October 2024: 336 items, 29 types

2024-25 Instructional Technology Coaching Schedule

Fall Semester
DLD | August 30th: IT Support for New Hires

Spring Semester
DLD | January 17th: IT Midyear Update

Technology Management in a 1:1 Classroom

ISTE 2.6.b Foster Classroom Management of Tech
Goal: To fight points of frustration with tech issues

Canvas with Mastery Connect Part 2

ISTE 2.7.b Use Tech to Create Assessments
Goal: To use Mastery Connect to design and implement a variety of assessments to inform instruction

Canvas with Mastery Connect Part 1

ISTE 2.5.c Create Innovative Learning Environments
Goal: To prepare Canvas for successful use with students and the later integration of Mastery Connect

Microsoft 365 Engagement

ISTE 2.5.b Design Authentic Learning Activities
Goal: To create customized, authentic learning activities using advanced features

Average Attendance:
74.99%

Sessions	Session Attendance	Schools Completed
Session 1	75.90%	34 of 35
Session 2	73.31%	22 of 35
Session 3		
Session 4		

Elementary	Top 3	Middle	Top 3	High	Top 3
New Georgia ES	91.53%	McClure MS	88.60%	Paulding County HS	88.96%
Abney ES	84.74%	South Paulding MS	87.21%	North Paulding HS	85.86%
Panter ES	81.19%	Crossroads MS	83.93%	South Paulding HS	67.78%

UPDATED: 11/3/24

Instructional Technology Coordination

Instructional Technology coordination includes oversight for technology integration and use to incorporate International Standards for Technology in Education (ISTE) with educators and students. Support, survey, and professional development attendance data is analyzed throughout the year to develop and provide targeted instruction and support for educators. Escalated instructional solution support is provided within this function as well as media services coordination.

Technology Teacher Leader Development

The department leads an annual technology focused teacher leader program named Re://Genesis serving 20 teachers annually selected through an application process. This program is designed to develop building-level leaders with a focus on technology expertise. Teachers selected are in years two through seven of their careers, as a focus of the program is teacher retention. Teachers are provided professional development in areas to promote job satisfaction within education and bring needed leadership and technology skills back to their peers.

Enterprise Systems

Systems administration, engineering, cybersecurity, support, and services for our district's enterprise applications and solutions to meet the instructional, educational, and operational requirements of the organization are provided by the enterprise services team. Implementation support, programming, report writing, data analysis, data center and server management, and engineering solutions development are responsibilities within this team.

Cybersecurity

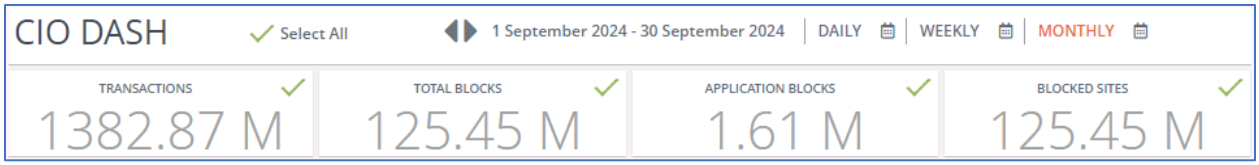
The Enterprise Systems department is committed to ensuring the cybersecurity and cyber safety of our staff and students and employs a comprehensive set of measures to meet this commitment. At the forefront of our cybersecurity strategy is a proactive firewall solution that acts as a robust barrier to external threats. This firewall is equipped with advanced threat detection capabilities to identify and block malicious attempts to breach our network. We also employ conditional access policies, which restrict access to sensitive resources based on predefined criteria to ensure only authorized individuals with necessary permissions can access certain information.

To further bolster our security, we conduct network scanning and risk behavior analysis to detect any anomalous activities or potential vulnerabilities. This proactive approach allows us to identify and address security risks before escalation into issues. To safeguard our accounts, we enforce strict measures such as blocking access with policies and multi-factor authentication (MFA). To protect personally identifiable information (PII), we deploy data loss prevention (DLP) policies that monitor and prevent the unauthorized sharing or leakage of sensitive data.

In addition to our comprehensive cybersecurity measures, our division prioritizes cybersecurity awareness and training. We provide training sessions to educate on the latest cybersecurity threats and best practices for safe and secure online behavior. As part of our educational efforts, we also implement phishing testing campaigns to simulate real-world phishing attacks to assess the vigilance of our staff to

recognize and respond appropriately to phishing attempts. We identify areas that may require additional training and reinforcement with a proactive approach to help fortify our defenses.

Web Content Filtering



Enterprise Applications

The enterprise team maintains all servers and enterprise applications, develops system integrations, and deploys applications for instructional and operational functions of the district. Reporting, data analytics, and programming support are provided by the team along with escalated support for the variety of solutions. The department also oversees a comprehensive backup, cyber incident, and disaster recovery plan, work, and response protocol.

Network Operations

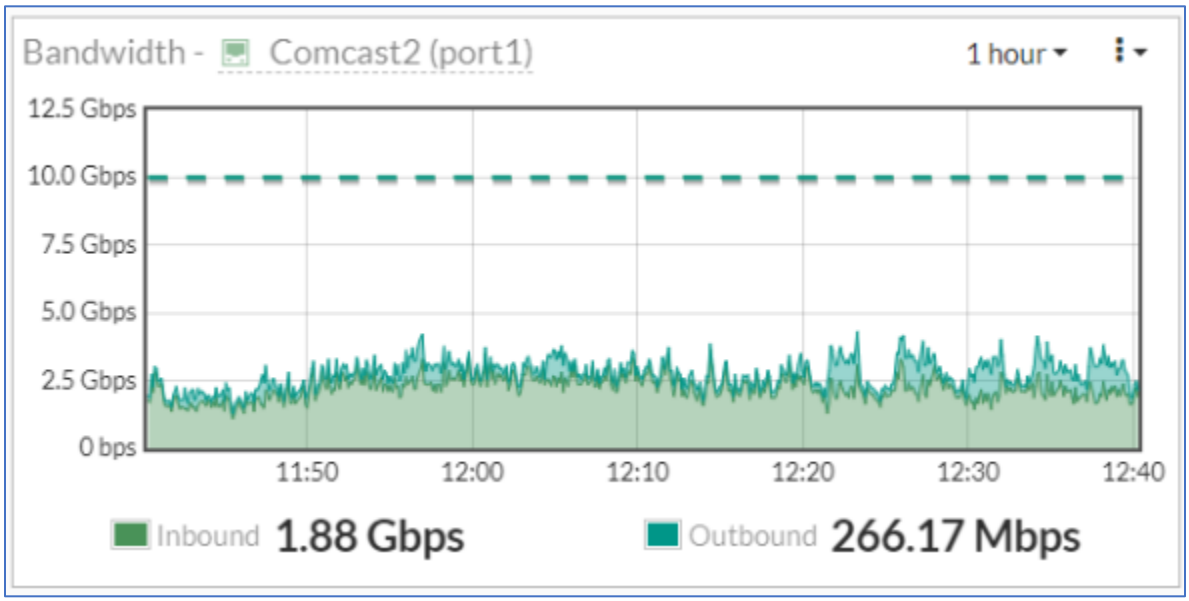
Network administration, engineering, maintenance, security, and physical infrastructure installation and services and support are provided by the network operations team. The division provides a fiber optic wide area network serving all sites, including enterprise Wi-Fi, to meet the access needs of our increasing demand with mobile computing devices for all users and a shift of operational devices to wireless connectivity and management.

Network Administration and Engineering

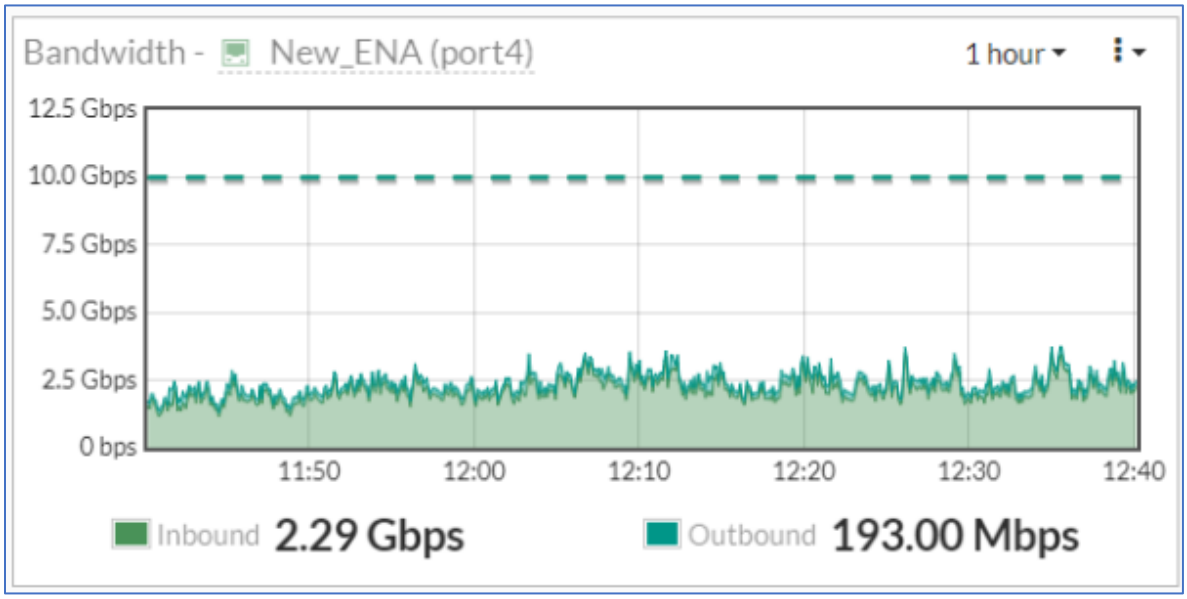
Network engineering team members provide the network architecture, configuration, management, and maintenance for the network encompassing a fiber optic wide area network (WAN) connecting all district sites and local area networks (LANs) at each site. All sites are equipped with high performance and secure network with Wi-Fi coverage. The engineering team administers network solutions for user access and security and all network hardware and software to include firewalls, web content filtering, network switches, Wi-Fi controllers, and access points. The team also manages telecommunications for the district.

Firewall Analytics

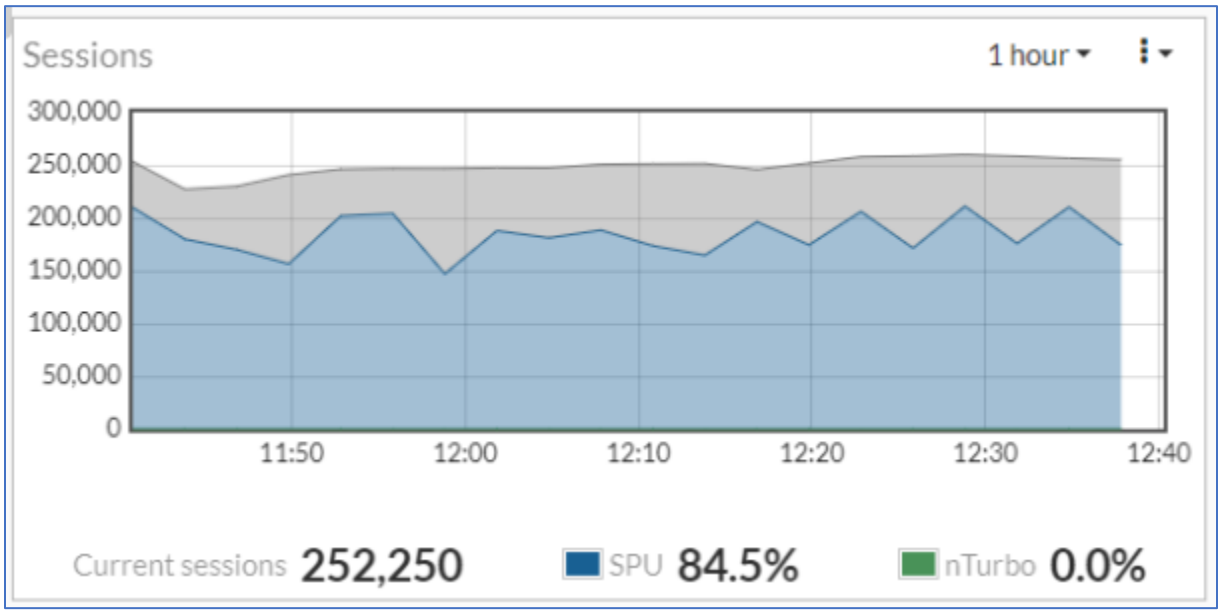
Internet bandwidth, External, 1-hour reporting, 1 of 2 internet connections



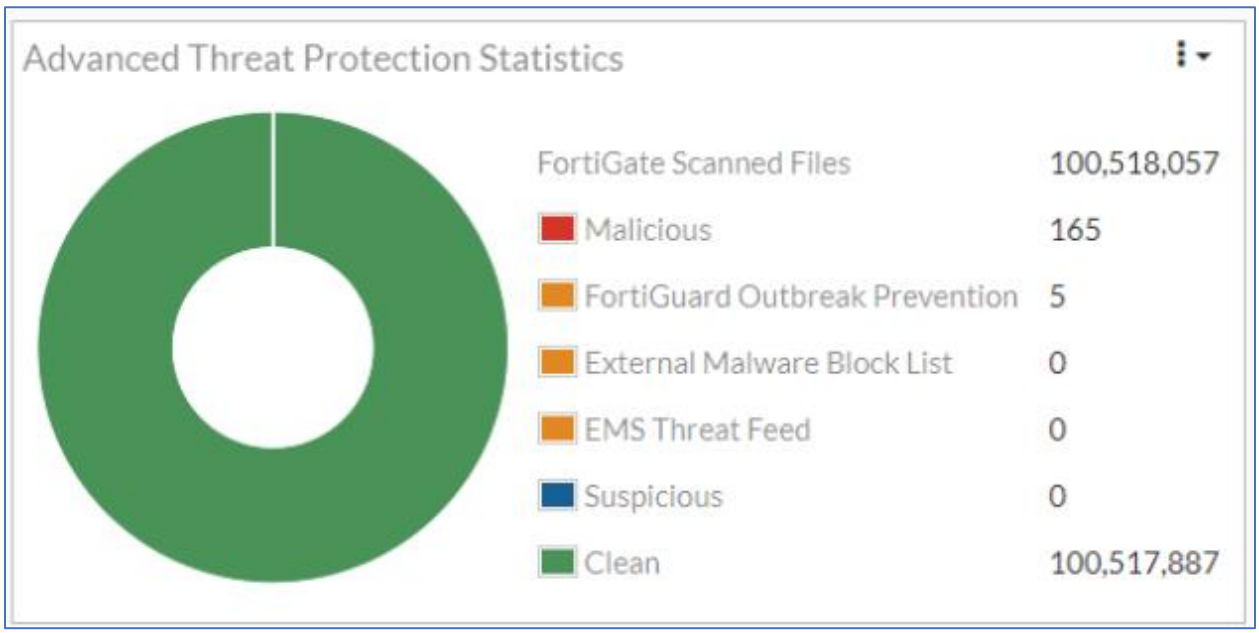
Internet bandwidth, 1-hour reporting, 2 of 2 internet connections



Web sessions, 1-hour reporting



Network traffic scanned files, 1-week reporting



Physical Infrastructure

The network infrastructure team provides onsite services and support to install and maintain network hardware and cabling, including fiber and Ethernet. Installation services and support for the district's video surveillance system is also performed by the network infrastructure team.

Cabling infrastructure initiative

As part of the district's strategic plan, cabling redesign and upgrades are included with facilities improvement goals. Currently, sites are re-cabled for needed upgrades as part of school renovation and modification construction projects. The Technology Division works to add additional cabling projects each year as funds permit.

Security Systems Administration

The Network Operations department is responsible for the implementation, management, and support of the district's physical security systems including video surveillance and door access control solutions.

Conclusion

The Technology Division is tasked with high expectations to fulfill all technical service, implementation, training, maintenance, and support roles for K-12 education and organizational business operations. This is an immense undertaking and exacerbated with limited resources including funding for solutions and personnel. The division maximizes grant funding and places a high priority on staff development to have personnel serve multiple roles and fulfill greater responsibilities. Collaboration and teamwork are essential in producing the deliverables required for technology in education, and the Technology Division strives to deliver the best service and support for our students, staff, and community.

PCSD Board of Education: Thank you for your continued support of technology initiatives and the PCSD District Strategic Plan to promote excellence in education for our students.

Glossary

Bandwidth: The maximum rate of data transfer across a network, measured in bits per second.

Cabling Infrastructure: Physical cables such as Ethernet or fiber optic used to connect network devices, providing the foundation for data transmission.

Conditional Access Policies: Security protocols restricting access to resources based on pre-defined conditions to ensure authorized access only.

Cybersecurity: The practice of protecting systems, networks, and data from digital attacks, unauthorized access, or damage.

Data Loss Prevention (DLP): Tools and strategies to prevent the unauthorized sharing or exposure of sensitive information.

Disaster Recovery Management: A strategy to restore systems, data, and operations in the event of a failure, cyberattack, or other disruption.

Enterprise Applications: Large-scale software solutions used for operations, instructional purposes, and organizational management.

Firewall: A security device or software designed to monitor and control incoming and outgoing network traffic based on security rules.

Helpdesk: A support service providing assistance with technology-related issues, often available via phone or ticketing systems.

Interactive Flat Panel: A large, touch-enabled screen used in classrooms to facilitate interactive teaching and learning.

Instructional Technology Coaches (ITCs): Certified teachers with expertise in technology integration, providing training and mentoring to other educators.

ISTE Standards: A framework developed by the International Society for Technology in Education to guide the effective use of technology in education.

Lifecycle Program Implementation: A process that manages technology solutions from initial deployment through maintenance and eventual replacement or decommissioning.

Multi-Factor Authentication (MFA): A security measure requiring two or more verification factors to access a system.

Network Administration: The management and maintenance of network systems, including hardware, software, and user access.

Network Operations: Services and functions responsible for maintaining and securing wired and wireless network systems.

Phishing Testing Campaigns: Simulated phishing exercises to educate and assess an organization's staff on identifying and handling fraudulent communications.

Program Management: The coordination and oversight of multiple related projects to achieve strategic objectives.

STEM Innovation Lab: A resource providing equipment and materials for integrating science, technology, engineering, and mathematics into learning.

System Administration: The role involving the configuration, maintenance, and operation of computer systems and servers.

Tiered Support: A multi-level support system that escalates technical issues through levels of expertise, from basic (Level 1) to advanced (Level 3).

Wide Area Network (WAN): A telecommunications network extending over a large geographic area, connecting multiple locations.