

HPE **aruba**
networking

HPE Aruba Networking Central with AIOps

Monitoring PoE on switches using AI

HPE 
GreenLake



You thought using PoE switches would make life easy, right?

What's not to like about a switch that allows a single cable to carry power and data? Nothing, that's what. So, you dive right in. You study power-over-ethernet (PoE) options as you're being asked to source new cameras, Wi-Fi 6E APs, and a never-ending list of other IoT devices people want. You find that some switch vendors use standards, and some offer proprietary options. You read about 802.3af, you hear about 802.3bt, and you learn that budgeting for PoE can be a challenge.

Do your existing switch's PoE budget support your evolving needs?

Well, maybe. But you'll need to spend time inventorying existing endpoints and looking at new ones to determine power budgets for each switch. Remember, some newer IoT devices and access points use more power. You'll need to go through the same process if looking at new switches so it's a good use of time. Based on what you've found it seems you've been troubleshooting endpoint and Wi-Fi issues that could have been avoided. Your switches were delivering insufficient PoE output.

An AI networking sixth sense would have been nice.

Wired insights using HPE Aruba Networking Central with AIOps

Luckily, we've included wired, wireless, and WAN AI-powered insights that help identify when your infrastructure and endpoints run into trouble. Instead of spending hours troubleshooting random issues, IT gets a list of AI-powered Insights that point out actual network problems. You can see impacted sites, infrastructure, and clients at a global level or by drilling into specific sites.

For switches, our AI continuously monitors PoE budgets, central processing unit (CPU) and memory utilization, as well as port flaps on infrastructure running AOS-CX and AOS-Switch operating systems. IT can see if the switches are providing enough power as new endpoints are added and if any of these devices was denied or had power demoted (cut back). Insights pinpoint where PoE problems are affecting your IoT devices and access points, so IT can plan for changes accordingly. It's definitely more efficient than guessing.

An HPE Aruba Networking customer case study

It's unfortunate today, but as schools sit empty over the summer and during the school year they are often targets of theft and vandalism. A mid-sized school district asked their small but energetic IT team to install cameras over the summer to deter break-ins, graffiti, and other incidents. At the district's direction, IT also installed new, high-speed HPE Aruba Networking Wi-Fi 6 access points (APs) in high-traffic areas and vape detection/air quality monitoring devices throughout the campus.

As they plugged the new APs, cameras and monitors into existing HPE Aruba Networking switches, all seemed to be functioning fine. At least for a short while. But when the staff, teachers and students started the school year, users suddenly experienced random connectivity and performance problems, even in areas where the new APs had been installed. Some of the cameras and monitoring devices were even rebooting, seemingly at random. What was going on?

Their HPE Aruba Networking systems engineer (SE) volunteered to take a look.

With proficiency in HPE Aruba Networking Central, the SE introduced the IT team to the built-in AI Insights dashboard, which displayed PoE problems and identified which switches and endpoints were impacted, and why. Within an hour, they'd discovered the root of the problems and devised a plan: They'd borrow PoE injectors for some of the cameras until they could install an additional HPE Aruba Networking switch or power supplies to some of their existing switches. Problems solved.

Summary

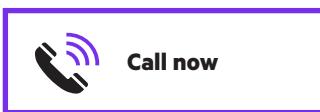
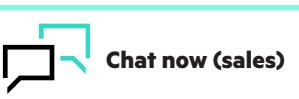
Installing additional endpoints, including newer cameras that may require more power, created the need for a new PoE plan. Luckily, in today's fast-paced world, HPE Aruba Networking Central includes AI networking features that help IT get to the root cause of wired and wireless issues faster. Simple-to-use AI and machine learning automatically identify issues and deliver proactive actions to take, empowering IT while also relieving them of time-consuming troubleshooting.

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