HPE aruba networking

Better Together: HPE Aruba Networking CX Switches and HPE Aruba Networking Central

Explore the power and simplicity of managing HPE Aruba Networking CX Switches with HPE Aruba Networking Central

Hewlett Packard Enterprise

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EXCEEDING LIMITS

What if your network switch management was both powerful and simple?

Creating a secure, high performance, always-on network that's designed for operational efficiency and growth begins with a modern infrastructure—and network switches are the beating heart of enterprise connectivity. Your ability to manage network switch capabilities directly impacts user and device experience, network security, and IT operational efficiency. However, deploying, configuring, and managing access, aggregation, and core switches located across enterprise, campus, and remote sites is complicated and resource intensive. Simplify and automate Day 0 thru Day N tasks to enable a high-performance, secure, and always-on wired network foundation with HPE Aruba Networking CX switches managed by HPE Aruba Networking Central.

HPE Aruba Networking Central simplifies the way you build, deploy, and operate wired networks

HPE Aruba Networking Central is a cloud-based networking solution that empowers IT with AI-powered insights, intuitive visualizations, workflow automation, and edge-to-cloud security to manage campus, branch, remote, data center, and IoT networks from a single dashboard. Designed to manage any-sized network from the cloud, HPE Aruba Networking Central provides powerful management operational capabilities to HPE Aruba Networking CX switches to help simplify IT operations, improve agility, and reduce costs by unifying management of all network infrastructure.

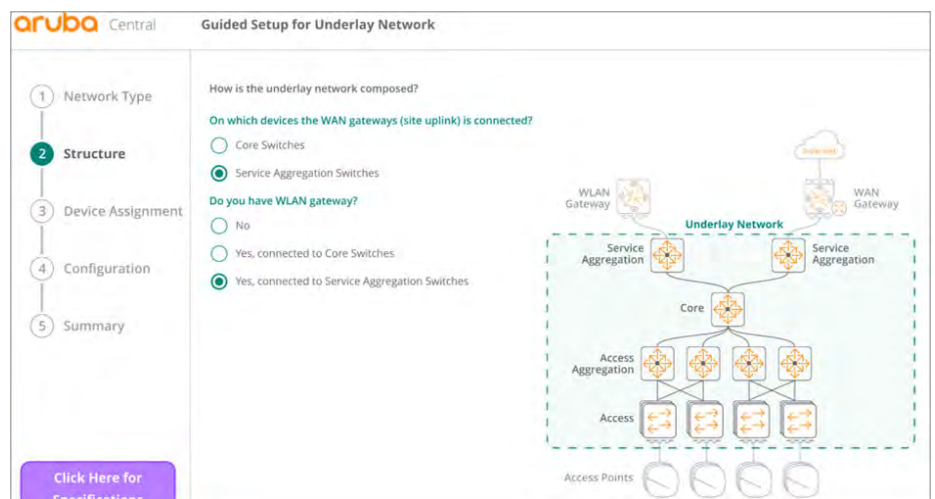With HPE Aruba Networking Central, you can:

- Streamline network operations with unified management of switches and wireless, VPN, and SD-WAN
- Simplify switch onboarding and provisioning with configuration automation
- Continuously optimize network and switch performance with AIOps
- Unify, configure, and automate policy for wired and wireless across campus and data center

Simplify switch configuration and deployment

Onboarding, configuring, and provisioning network switches can be time-consuming and complex. HPE Aruba Networking Central accelerates this process with an easy setup wizard, flexible configuration options, and Zero Touch Provisioning.

For Day 0 and Day 1 operations, network admins can save time and reduce manual errors by using the HPE Aruba Networking Central NetConductor guided setup network wizard that automatically identifies the network configuration and deploys it with minimal user input. This simplifies creation of underlay networks with HPE Aruba Networking CX switches at core, aggregation, and access layers.

Figure 1. Designing underlay with HPE Aruba Networking Central NetConductor network wizard

Port profiles in HPE Aruba Networking Central enable comprehensive configuration of switch ports that can be applied to up to 1000 switches simultaneously.

For Day N operations, after the basic network topology is identified and configured, network admins can use a simple UI-based approach with frequently used functions to configure individual switches or the multi-editor option to simultaneously configure multiple switches with common requirements. Both options offer built-in device validation, making it easy for network admins to stage, test, and roll-out changes while ensuring compliance with existing policies and common criteria. Network admins can choose the most suitable method based on their specific requirements—enhancing network stability and ensuring optimal network performance.

Advanced switch configuration with MultiEdit

Using HPE Aruba Networking Central's MultiEdit feature for advanced CX switch configurations gives network admins the power to configure multiple switches at the same time. It uses automation and analytics to ensure deployments are consistent, conformant, and error free. The automation workflows allow for changes without the overhead of programming by providing operators with a user-friendly, CLI-like interface. This gives IT teams the power to smoothly coordinate end-to-end service roll outs, rapidly initiate network-wide changes, and ensure policy conformance after network updates.

The power of advanced HPE Aruba Networking CX switch configurations

- Intelligent, error-free configuration with validation for consistency and compliance

- View and edit multiple switches at the same time

- Customized validation tests for corporate compliance and network design

- Automated, large-scale configuration deployment without programming

- CLI-like interface with predictive assistance for operational simplicity and requiring no new skills
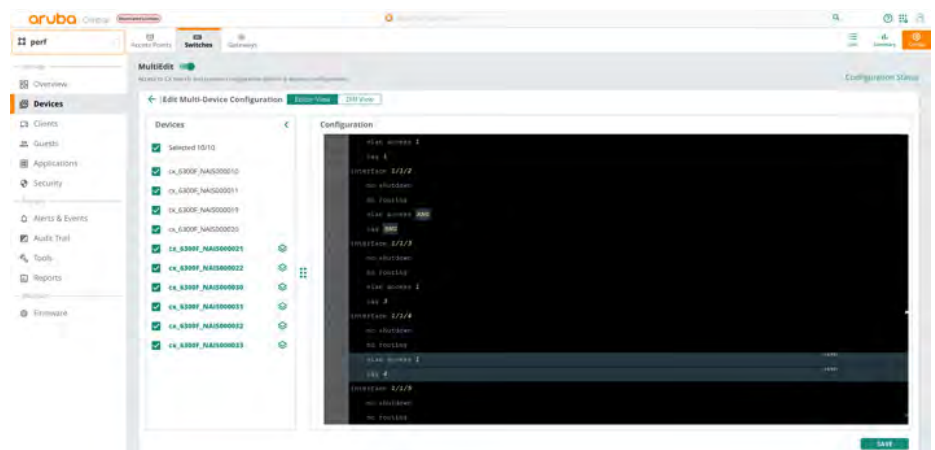
Figure 2. MultiEdit for configuring HPE Aruba Networking CX switches at scale

Proactively resolve issues with AI-powered insights

When network- or business-impacting problems occur, quick detection, root cause identification, and resolution are at the core of maintaining a stable environment. HPE Aruba Networking Central includes a full-service AIOps solution that automates common troubleshooting activities, reducing IT support tickets and associated costs. By implementing AI Insights for CX Switches in HPE Aruba Networking Central, you can pull telemetry into HPE Aruba Networking Central from the on-box Network Analytics Engine (NAE) agents that run natively on the CX switches to resolve issues before they impact switch performance. This includes seeing the aggregated status of all agents that run on each CX device, as well as mapping that aggregated status to standard alert severities to help pinpoint and prioritize issues on a network or device level.
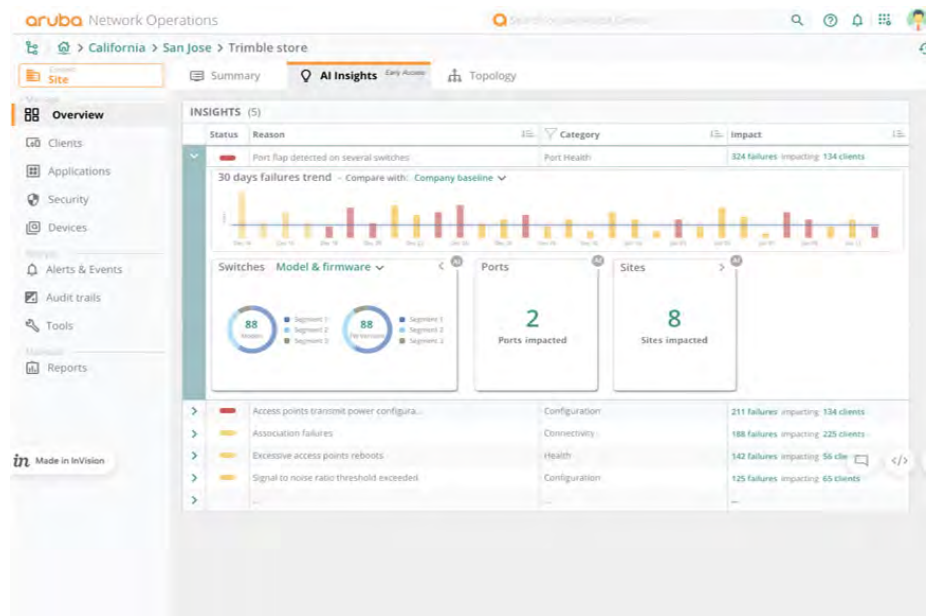
How the Network Analytics Engine works

NAE runs within the AOS-CX operating system on supported AOS-CX switches (HPE Aruba Networking CX 6200 Switch Series and above) and feeds telemetry to HPE Aruba Networking Central. It monitors a switch's configuration using agents that pull data from two key databases:

- **Configuration and state database:** Provides NAE agents with full access to configuration, protocol state, and network statistics—all fully exposed through REST APIs.

- **Time series database:** Contains relevant historical data correlated to configuration changes. This provides operators with the ability to capture, archive, and quickly access the state of the network surrounding a network event. NAE agents test for conditions on the switch, its neighboring devices, or on traffic that is passing through the network, and then take actions based on the results of the test.

Figure 3. AOS-CX Network Analytics Engine provides telemetry to HPE Aruba Networking Central AI Insights

AI Insights available for CX switches include details on port errors, PoE failures, and insights into system health such as CPU and memory usage. Drawing on the scale and power of the cloud and advanced analytics, these AI Insights help accelerate root cause analysis with extremely high accuracy, so network operators can more proactively identify and resolve common wired network problems.

Underlay and overlay-based automation for campus and data center

Get ready to replace static VLANs and ACLs with intent-based policy automation and orchestration, intuitive access controls, and AI-based discovery and profiling of all connected clients. HPE Aruba Networking Central NetConductor simplifies network operations by creating underlays and overlays with minimal manual intervention—using a network wizard to automate creating campus and data-center underlay networks of CX switches. It uses an intuitive interface that saves time and eliminates manual errors by automatically identifying and enforcing configuration and network topology.

With HPE Aruba Networking Central NetConductor, client traffic and security policies are decoupled from the underlying network construction—no more VLAN and routing table spreadsheets, or manual configuration of ACLs. Benefits include:

- **Role-based policies for least-privilege access:** Eases adoption of Zero Trust and SASE security frameworks with identity-based roles and policies

- **Overlay-based automation:** Simplifies the creation of standards-based overlays (EVPN/VXLAN) with an intuitive GUI

- **Extended Dynamic Segmentation:** Extends Dynamic Segmentation capabilities across multiple network overlays for global scale

- **AI-powered visibility:** Identifies and secures network endpoints with AI-powered discovery, profiling, and continuous monitoring
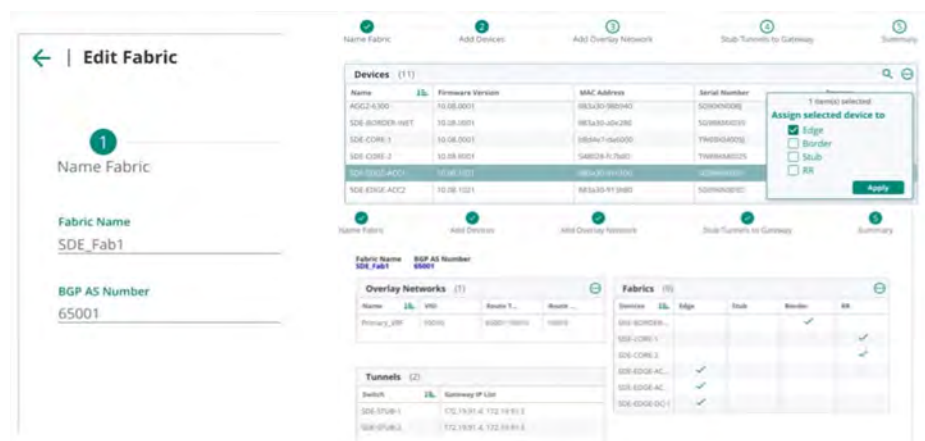

Figure 4. Automate with HPE Aruba Networking Central NetConductor and Fabric Wizard

Switches for all enterprise environments—
edge access to data center

From small to large enterprise environments, HPE Aruba Networking's comprehensive switch portfolio includes solutions ideal for access, aggregation, core, and data center deployments. The power of the CX switching portfolio provides a choice of fixed ports or modular chassis with non-blocking speeds from 1GbE to 400GbE. This gives you the flexibility to start with a low port count and scale to full-density switches—all with built-in automation and analytics—as your business requires. Features include high availability platforms with redundant management, fabric, power, and fans and high-density industry-standard high power 90W Class 6 and HPE Smart Rate multi-gigabit ports. Designed to handle extreme temperatures, the ruggedized switch series is ready to extend your enterprise network beyond the office to challenging, harsh environmental spaces.

Figure 5. HPE Aruba Networking CX switches span edge access to data center

Summary

Managing HPE Aruba Networking CX switches from edge access to data center managed with HPE Aruba Networking Central provides network admins with a powerful cloud-based networking solution that delivers a secure, high-performance enterprise network. AI-powered insights, intuitive visualizations, workflow automation, and edge-to-cloud security allow you to manage campus, branch, remote, data center, and IoT networks from one dashboard.

Learn more at:

HPE Aruba Networking Central datasheet

HPE Aruba Networking CX Switch overview

HPE Aruba Networking Central NetConductor video

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