Brochure

HPE aruba networking

Elevate connectivity with AI-powered network management for Wi-Fi 7

Optimize wireless networks using HPE Aruba Networking Central

Hewlett Packard Enterprise | ANYCORP

HPE Aruba Networking Wi-Fi 7 APs deliver more:

- Improved channel utilization
- Unified security across wired and wireless
- Precision location services
- Scalable IoT/OT support
- Dynamic power savings for sustainability

Figure 1. HPE Aruba Networking 750 Series Access Point

Current state of connectivity

Today's critical applications, IoT devices, and AI workloads demand more reliability, security, and capacity from their Wi-Fi networks. Advanced technologies are required to support this need for enhanced network performance. AI-powered insights, analytics, and automation have revolutionized network management, enabling predictive maintenance, real-time optimization, and enhanced security. These tools create more efficient networks that can adapt to changing business needs without comprising protection, providing:

- Consistent service quality
- Seamless performance
- Adaptive scalability
- Built-in security
- Comprehensive Quality of Experience (QoE) measurements

Increased data volumes, higher user densities, and more complex applications require more network observability that provide real-time insights, keeping service quality high and ensuring the network infrastructure supports evolving needs. The exponential growth in data traffic, driven by IoT devices and hybrid work environments, demands advanced networking solutions with high throughput and low latency for bandwidth-intensive applications. Newer Wi-Fi and alternative wireless standards may support these requirements more efficiently and effectively.

With this exponential growth, organizations are looking for solutions that not only scale but provide flexibility in how they must be deployed whether on premises or in the cloud. Finally, with an increased cyber threat landscape and more demanding enterprise applications, organizations are considering solutions that provide stronger embedded security and quality of experience telemetry built into the network.

The future of connectivity: Pairing Wi-Fi 7 with AI-powered network management

Wi-Fi 7 promises exceptional performance and efficiency, but to truly harness these capabilities, businesses must adopt both access points that go beyond this new standard and a network management solution that offers real-time monitoring, predictive analytics, and automated optimization to deliver a superior user experience. An AI-powered network is not merely about achieving faster speeds; it is about intelligent, automated management that ensures every connection is seamless, secure, and effortless. Without the right network management solution, businesses risk congestion, inefficiencies, security gaps, and operational complexities that can undermine the full potential of Wi-Fi 7.

The Wi-Fi 7 standard adds important features, such as multi-link operation (MLO), 320 MHz channels, and 4K QAM modulation, that provide the foundation for seamless connectivity. To truly harness these capabilities, businesses must adopt access points that go beyond this new standard to optimize wireless performance, strengthen network security, enhance location-based services, and act as a secure IoT platform enabling enterprises to maximize the value of their wireless investment. Most importantly, they require a network management solution that offers real-time monitoring, predictive analytics, and automated optimization to deliver a superior user experience. This solution should simplify operations, enhance security, and ensure that the network is always running at its optimal performance.

To unlock the full power of Wi-Fi 7, businesses need AI for networking that simplifies operations, enhances security, and ensures that the network is always running at its optimal performance. With AI-powered insights and automation, businesses can proactively manage their networks, anticipate and resolve issues before they impact users, and maintain a secure and efficient network environment.

But how do you choose the right Wi-Fi 7 solution? Here are four questions to consider when refreshing your network:

Is your network management solution AI-powered?

A modern Wi-Fi 7 solution should proactively address issues and minimize IT intervention by leveraging telemetry from data lakes and advancements in AI.

Is your network providing broader observability?

Comprehensive visibility into network performance, user behavior, and potential issues is essential for today's network management systems. This level of observability enables proactive problem resolution, ensuring robust performance, enhanced security, and efficient management of diverse and complex network environments.

Is your network deployment flexible?

A good network management system should offer deployment flexibility, whether on-premises or in the cloud, to optimize resources and costs. This adaptability enables organizations to scale their network infrastructure swiftly and cost-effectively, meeting the evolving demands of both customers and employees.

Is your network taking advantage of the latest in security?

Solutions with zero trust access, real-time threat detection, and automated policy enforcement are state of the art. This ensures your network is secure and efficient, delivering both security and operational excellence.

HPE Aruba Networking Central is a unified management solution designed for secure wireless, wired, WAN, and IoT networks. Additionally, our APs use AI and advanced analytics to continuously examine RF data across the network and derive configuration changes based on changing environmental conditions. AI for networking ensures that users and devices experience the best possible performance and reliability while minimizing manual tasks and complexity.

Delivering AI for networking with HPE

1

AI-powered Wi-Fi 7 optimization

HPE Aruba Networking Central catalyzes the full potential of Wi-Fi 7. Its AI-powered capabilities deliver intelligent insights and automation, boost network performance and reliability, and provide continuous monitoring allowing you to take full advantage of Wi-Fi 7's exceptional throughput and low latency. HPE Aruba Networking Central's AI-powered analytics detect network and Wi-Fi patterns and anomalies in real-time, ensuring the peak network efficiency vital for bandwidth-intensive applications and the best user and IoT experiences.

AI-powered capabilities optimize Wi-Fi 7 and security configurations by detecting and resolving real-time connectivity and service issues, performing root-cause analysis, and providing remediation based on knowledge from billions of endpoints. The AI engine proactively diagnoses and resolves Wi-Fi issues, such as improving performance, optimizing bandwidth with 6 GHz radio and resolving device compatibility problems.

2

Deployment flexibility and scalability for Wi-Fi 7 networks

HPE Aruba Networking Central's zero-touch provisioning delivers flexible scalability and deployment options, whether on-premises, in the cloud- public or virtual private cloud (VPC), or network-as-a service (NaaS). As organizations scale Wi-Fi 7 infrastructure, this streamlines onboarding of new devices, ensuring seamless integration without disrupting existing network operations. The automated provisioning process empowers IT teams to deploy new devices swiftly and efficiently, eliminating the need for manual configuration. This capability also ensures all Wi-Fi 7 access points and gateways adhere to predefined policies, minimizing the risk of configuration errors that could degrade performance or compromise security.

Furthermore, zero-touch provisioning facilitates remote management, enabling IT teams to centrally configure and manage Wi-Fi 7 devices access points and gateways from any location across campus, branch, and remote offices. This is particularly advantageous for organizations with distributed networks and remote offices, as it ensures a consistent and secure network environment across multiple sites. With HPE Aruba Networking Central, organizations can effortlessly scale their Wi-Fi 7 access points , maintaining optimal network performance and security.

3

Built-in security with HPE Aruba Networking Central

HPE Aruba Networking Central's security-first, AI-powered networking approach provides a robust foundation for securing Wi-Fi 7 networks. It includes built-in zero trust security, comprehensive visibility, global policy, edge-to-cloud enforcement, and AI-automated security operations.

Unlike other management solutions, HPE Aruba Networking Central includes AI-powered visibility and profiling with Client Insights. Client Insights analyzes native infrastructure telemetry directly from access points, switches, gateways, and clients, without requiring installation of physical collectors or agents, to accurately categorize, and identify IoT devices. This deep visibility helps organizations know with confidence who and what is on the network, and continuously monitor behavior and status—foundational tenets of zero trust security. Information can also be shared with other elements of the security ecosystem, such as SIEMs, to deliver alerts and insights from across the infrastructure. In addition, AI-powered recommendations help administrators understand the Wi-Fi security capabilities of devices. It assesses each device to determine if it is WPA3 capable and apply WPA3 to strengthen encryption, password protection, and threat detection.

Live updates ensure Wi-Fi 7 devices run the latest firmware and software with AI-powered recommendations. By keeping Wi-Fi 7 devices up to date with the latest software versions, organizations can support compliance with industry regulations and standards, particularly important for sectors with strict security and data privacy requirements.

4

Unlock effortless integration with HPE Aruba Networking Central

In addition to unified management across wired, wireless, and SD-WAN, HPE Aruba Networking Central's open architecture supports IoT, private 5G, and third-party monitoring for comprehensive observability.

Our Wi-Fi 7 Access points act as a platform for IoT with support for Bluetooth, Zigbee, and USB port extensions. HPE Aruba Networking Central includes an IoT dashboard for visibility and an apps store to download preconfigured applications from our partner IoT ecosystem.

To complement Wi-Fi 7, HPE Aruba Networking offers private 5G to provide wide area coverage, high speed mobility, and deterministic coverage for mission-critical applications. Our private 5G solution is standardized and eliminates cellular complexity, making private 5G easier to deploy and manage. HPE Aruba Networking Central will act as the single pane of glass for both Wi-Fi and private 5G in the future and enable shared policies and identities.

Recently, we have expanded observability in HPE Aruba Networking Central to facilitate seamless management of multi-vendor environments. This integration ensures comprehensive visibility and control over heterogenous networks, maintaining robust performance through advanced monitoring and observability. Built-in digital experience monitoring in HPE Aruba Networking Central User Experience Insights runs synthetic testing and uses AI to provide detailed insights into network health and application performance as experienced by users across multivendor environments.

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Empower your network's future

Now you can have the improved performance, connectivity, and ability to scale bandwidth necessary to support your most critical applications and AI workloads — all without disrupting services. HPE solutions exemplify the power of AI for networking, integrating advanced hardware, AI-powered management and robust security. It takes advantage of Wi-Fi 7's efficient use of the 6 GHz band to provide smooth, uninterrupted connectivity for bandwidth-intensive applications and high-density environments. And it leverages the unique capabilities of HPE Aruba Networking Wi-Fi 7 APs to seamlessly connect and protect more users and IoT devices. Elevate your network with HPE Aruba Networking Central and Wi-Fi 7, where intelligent management meets unmatched performance and security.

Experience the future of connectivity today.

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