

Seven reasons to adopt HPE Aruba Networking Wi-Fi 7 APs



Wi-Fi 7 APs that deliver more

HPE Aruba Networking's new enterprise Wi-Fi 7 access points (APs) go beyond the latest standard to maximize 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 and unlock operational efficiencies.

The idea that APs can do more than just route traffic is a core part of our product philosophy, and we have consistently expanded on that over multiple Wi-Fi generations. We are proud to continue our innovation with the HPE Aruba Networking 730 and flagship 750 Series Campus Access Points that support Wi-Fi 7 and work with HPE Aruba Networking Central running HPE Aruba Networking Operating System-10.



Figure 1. HPE Aruba Networking 730 Series Access Points

Seven reasons to adopt our Wi-Fi 7 APs

- 1. Maximize performance with radio and 6 GHz flexibility: The biggest advance in recent Wi-Fi, for both Wi-Fi 6E and Wi-Fi 7, has been regulatory approvals that enable use of the 6 GHz band more than doubling the capacity. The new 730 and 750 Series APs can make even greater use of the 6 GHz band by using the flexible tri-band radio configuration that allows repurposing the 2.4 GHz radio as a second 6 GHz radio (or 5 GHz radio).
 - In addition, these Wi-Fi 7 APs use patented ultra triband filtering (UTB) originally developed for the 650 Series APs and unique to HPE Aruba Networking to enable simultaneous use of the upper 5 GHz and lower 6 GHz channels without causing interference. This capability delivers up to 30% more channels to support demanding use cases and is especially critical in certain geographies where the 6 GHz band is restricted. Now organizations don't have to choose the top of 5 GHz or the bottom of 6 GHz they can use both.
- 2. Antenna flexibility: Unlike other vendor products that either lack external antenna support or force the customer into a single configuration, the 730 and 750 Series APs offer models with internal antennas or models with flexible, non-permanent external antenna connectivity making these APs a great fit for a variety of verticals and physical environments.
- 3. Enhanced wireless security: Building on an extensive list of wireless security features, we are bringing MACsec¹, an Ethernet industry security protocol to wireless with new link level encryption capabilities, extending wired data protection to the AP. We are also highlighting Personal Wireless Networks in HPE Aruba Networking Central to provide personalized, secure, self-service onboarding of user devices most applicable for students in residence halls on college campuses, apartment buildings, or in hospitality use cases.

¹ Coming in the next software release.

- 4. Double support for IoT and 2x the AP processing power: The new Wi-Fi 7 APs double the IoT capabilities to reinforce the use of the AP as an IoT platform compared to the HPE Aruba Networking 6xx Series APs. These APs have dual IoT radios for BLE/Zigbee and dual USB ports for IoT protocols that require a dongle — enabling organizations who are adopting IoT to support the IoT devices they need, without having to make a protocol choice. These APs also have 2x as much SDRAM and flash memory than previous models, enabling pre-processing of IoT data using containers running on the APs themselves rather than requiring a VM running on an appliance. This means that IoT traffic can be captured, transformed, routed, and acted on via applications that run on the AP, reducing the need for external servers to perform this function (for example, opening a door lock based on a decision made not in the cloud, but on the AP).
- **5. Precision location services:** Building upon the 6xx Series APs' embedded GNSS (GPS), we added a new barometric sensor that provides the third dimension of height to location information — enabling the 730 and 750 Series APs to determine floor level and automatically display AP location within the new HPE Aruba Networking Central Floor Plan map in 3D. These APs are the only enterprise AP that use the latest Wi-Fi location standard (802.11az) to deliver sub-1 meter precision and support BLE 5.4 for bi-directional IoT location data, which can boost user engagement and track high-value assets. This level of precision is unique in the industry and makes location-based applications richer and more effective. For example, if there is an emergency, the precise location information can be made readily available to the device for timely first-responder action.

- 6. Sustainability and energy savings: With sustainability top of mind for many organizations, a new Al-powered, dynamic power save mode identifies the AP duty cycle to recommend which APs can be powered down, without compromising the required connectivity. This capability replaces manual calendar scheduling in Central and helps to lower energy footprint and costs for enterprises.
- 7. APs are integral to Al infrastructure: Leveraging loT to enable business use cases is growing, and additionally, loT devices are now an important source of both Al training and inference data. The bigger and more diverse the Al data lake, the more effective the Al solutions will be. With expanding loT connectivity and local processing options, the 730 Series APs become an integral part of an organization's Al infrastructure.

And if you need another reason, HPE Aruba Networking Central and HPE GreenLake for Networking make it easier to manage our Wi-Fi 7 APs from day 0 to day N. As the software to complement our hardware, HPE Aruba Networking Central manages your wireless network from IoT operations to Personal Wireless Network capabilities to AP floor plans. Power profiles can be displayed in the Central dashboard as well as in the Sustainability Information Center accessible through HPE GreenLake cloud — enabling control over resource consumption through real-time measurement and providing in-depth and ongoing carbon footprint measurement, data analysis, and recommendations.



Figure 2. HPE Aruba Networking 750 Series Access Points

Seven vertical use cases

Verticals	Benefits of HPE Aruba Networking Wi-Fi 7 APs
Education	Optimizes Wi-Fi access to enhance student experiences and provides reliable coverage across the entire network regardless of location. Designed with security built-in for simple and secure access with easier IT management while streamlining IoT operations and protecting sensitive student and research data.
Healthcare	Provides reliable Wi-Fi access throughout the healthcare setting to improve clinical and non-clinical user experiences, while prioritizing critical devices and applications for seamless operations. They also bolster the organization's cybersecurity posture by adding new network security controls that help safeguard sensitive data, thereby protecting the organization's reputation.
Hospitality	Offers unparalleled performance and coverage, ensuring seamless connectivity for guests and staff throughout the hospitality property. With advanced security features and high-density handling capabilities, these APs deliver a reliable and secure network experience, enhancing guest satisfaction and operational efficiency.
Manufacturing	Supports an increasing density of IIoT devices in the wireless network, provide better connectivity to mobile assets such as AGVs, AMRs and cranes. Allows higher throughput and built-in security controls to add production and analytics workloads required for the smart factory.
Retail	Provides customers and associates improved wireless performance and enhanced security to keep critical applications running, minimizing downtime and brownouts. With ML-based client insights for additional device context, retailers gain simplified IoT integrations and management, greater resiliency, and full visibility of IT and OT infrastructure.
Sports and entertainment	Delivers robust and consistent Wi-Fi coverage, specifically for the most crowded areas. With high performance, advanced security, and easy scalability, these APs enhance fan engagement and operational efficiency, delivering a superior event experience.
Transportation	Enhances connectivity in high-density environments such as airports, train stations, and bus terminals. With higher throughput and low latency, they enable robust support advanced applications like real-time tracking of vehicles and cargo, video surveillance, and enhanced passenger Wi-Fi services, ensuring more efficient and secure transportation services.

Seven ways our Wi-Fi 7 APs deliver business value

The 730 and 750 Series APs go beyond the standard to deliver value today and in the future. Organizations can:

- 1. Maximize their investment by leveraging the AP for more than wireless connectivity.
- 2. Deliver great Wi-Fi experiences and reliability for demanding applications and IoT use cases.
- 3. Realize cost savings by using the AP as an IoT platform, reducing the need for IoT overlay networks.
- 4. Create new location-aware use cases and experiences to support the business.
- 5. Support sustainability efforts with an AP that intelligently powers off when not being used.
- 6. Integrate and enrich AI training and workflows by processing IoT data at the point of capture in real time.
- 7. Enhance security by delivering additional encryption security features to the wireless edge.

Seven places to learn more

Learn more about the HPE Aruba Networking Wi-Fi 7 solution with the links below.

- Press release
- Announcement blog
- Wi-Fi 7 access points
- AP as an IoT Platform Solution Overview
- What is Wi-Fi 7?
- AOS-10 At A Glance





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