



# Why upgrade to HPE Aruba Networking access points?

Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7 APs



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#### **Key benefits**

- Greater speed, wider channels:
  Wi-Fi 6 increases throughput by
  up to 3x. Wi-Fi 6E is even faster
  with up to 1200 MHz of additional
  capacity and more 80/160 MHz
  channels for video, imaging, and
  other high bandwidth apps. Wi-Fi
  7 adds wider channels, improved
  reliability, and even higher
  performance.
- Ultimate efficiency: Uses
   ClientMatch, OFDMA, MU-MIMO, and Target Wake Time to maximize network capabilities and allow multiple high-bandwidth connections.
- IoT and location ready: provides support for Zigbee, Bluetooth 5 or 6, and third-party USB devices to simplify the deployment and management of IoT services and provide location-aware visualization in HPE Aruba Networking Central.
- Simple and secure access: Protect the network with stronger encryption and authentication, secure credentials/keys storage, and user and IoT access policy enforcement firewalls.
- No channel interference: Ultra tri-band filtering in select Wi-Fi 6E and 7 APs eliminates channel interference between the 5 GHz and 6 GHz bands to maximize available spectrum.

Does your wireless network support hybrid workplaces, growing numbers of IoT devices, and rising user expectations without compromising security, reliability, or performance? Be prepared for increasing demands for bandwidth and high-performance with HPE Aruba Networking Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7 access points. Discover how Al-powered RF optimization, rich intelligence, and smart management will boost IT, user, and IoT experiences with enterprise Wi-Fi that's intelligent, fast, and secure.

By combining IoT radios with a zero trust network framework, HPE Aruba Networking access points can serve as secure <u>IoT platforms</u> that bolster network security, provide coverage for a broad range of IoT devices, and eliminate the need for network overlays just for IoT devices.

The HPE Aruba Networking portfolio of indoor, outdoor, ruggedized, and remote Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7 access points cover all sorts of enterprise use cases and price points and are Wi-Fi CERTIFIED and backed by a limited lifetime warranty.

#### Wi-Fi 6 advancements

Tremendous wireless advancements have delivered benefits of performance, efficiency, and security capabilities. Wi-Fi 6 capabilities increase throughput capacity of the HPE Aruba Networking 5xx Series by up to three times that of 3xx Series Access Points (802.11ac Wave 2). They also deliver greater multi-user efficiencies with enhanced MU-MIMO and OFDMA and stronger security with WPA3 and Enhanced Open for improved cryptographic strength and simpler deployment. Organizations can take full advantage of IoT with longer battery life for IoT devices using the Target Wake Time (TWT) capability and a 20 MHz, low-power, low-bandwidth operating mode for devices.

Unique to HPE Aruba Networking, the 5xx Series APs include AI-powered RF optimization, reduced downtime, and live software upgrades for uninterrupted, reliable performance. In addition, Bluetooth 5 and integrated 802.15.4/Zigbee protocols and extensible USB port support provide a secure, powerful platform to harness the power of IoT.

#### Wi-Fi 6E extends Wi-Fi 6 capabilities to the 6 GHz band

By leveraging the 6 GHz band, HPE Aruba Networking Wi-Fi 6E 6xx Series APs deliver peak performance and greater capacity with less interference than previous generations of Wi-Fi. With up to 1200 MHz of brand-new spectrum and ultra-wide channels, capacity is increased by up to 3x—so you can meet growing demand due to bandwidth-hungry video, increasing numbers of client and IoT devices, and growth in cloud. Unique to HPE Aruba Networking, patented ultra tri-band filtering takes full advantage of the high end of the 5 GHz band and the lower end of the 6 GHz band without interference or sacrificing channels. Dual ethernet ports eliminate coverage gaps, provide greater resiliency, and deliver fast, secure connectivity. Select HPE Aruba Networking APs use a unique dual-radio, tri-band architecture to provide full Wi-Fi 6E coverage in a multi-AP environment by featuring two radios that can be automatically tuned to any two of the three available spectrum bands for Wi-Fi (2.4 GHz, 5 GHz, 6 GHz) for full Wi-Fi 6E coverage in a multi-AP environment.

# Wi-Fi 7 supports 6 GHz band and delivers more

Wi-Fi 7 (IEEE 802.11be) is the newest Wi-Fi standard that delivers the highest performance Wi-Fi available using 320 MHz channels, Multi-link operations (MLO) for greater reliability, and 4096 QAM (4k QAM) for higher peak data rates, making it ideal for organizations who are leveraging the network to innovate business operations. Like Wi-Fi 6E, Wi-Fi 7 also takes advantage of the 6 GHz band, and with patented ultra tri-band (UTB) filtering support on the HPE Aruba Networking 7xx Series, organizations can maximize the use of 5 GHz and 6 GHz bands, eliminating the need to sacrifice channels due to interference. To further optimize coverage and performance, the 7xx Series APs provide customizable tri-band radio configuration for 2.4 GHz, 5 GHz, and 6 GHz bands by using the 2.4 GHz for dual 5 GHz or dual 6 GHz support. Powerful IoT support includes dual IoT radios (BLE and Zigbee) and two USB connectors. Dual 5 or 10GbE wired ports, one with MACsec support, provide secure, high-speed, and redundant wired connectivity. Precision locationing with sub 1 meter accuracy supports a wide range of applications with floor level mapping.

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### 6 GHz global readiness

While the need for more Wi-Fi capacity is recognized across the globe, countries are approaching the 6 GHz band regulatory considerations, country certifications, and timelines differently. HPE Aruba Networking access points are set up to automatically update regulatory rules once regulations have been approved and certified. Contact your local HPE Aruba Networking representative to confirm availability for the country where the AP will be deployed.

### Wi-Fi 6 AP portfolio

- 500 Series Indoor AP: medium-density offices, schools, or retail spaces
- 500H Series Hospitality AP: in-office environment for hospitality, branch, and remote workers
- 500R Series Remote AP: cost-effective desktop AP for remote workers, small branch
- 503 Series Indoor AP: cost-effective coverage for low-to-medium density environments
- 510 Series Indoor AP: midrange solution for campus deployments
- 530 Series Indoor AP: high density mobile and IoT environments
- 550 Series Indoor AP: extreme-density mobile and IoT environments
- 560/560EX Series Outdoor AP: small form for midrange outdoor and hazardous locations
- 570/570EX Series Outdoor AP: extreme-density outdoor and hazardous locations
- 580/580EX Series Outdoor AP: ultimate outdoor performance, plus high-power Bluetooth and Zigbee, and AC support

### Wi-Fi 6E AP portfolio

- **600R Series Remote AP:** high-performance desktop AP with optional high-speed LTE connectivity for remote power users, small branch
- **600H Series Hospitality AP:** high performance wall mount or desktop Wi-Fi 6E AP featuring dual radio/tri-band architecture, multi-gigabit port, and PoE support
- 610 Series Indoor AP: compact, affordable Wi-Fi 6E access point featuring a dual radio/tri-band architecture
- **630 Series Indoor AP:** tri-band radio support with up to 1200 MHz additional capacity for enterprises that need more wireless capacity and wider channels to grow.
- **650 Series Indoor AP:** our most powerful AP designed with 7.8 Gbps maximum throughput across 2.4 GHz, 5 GHz, and 6 GHz bands to support business needs and future growth
- 670/670EX Series Outdoor AP: high-performance Wi-Fi 6E plus high-power Bluetooth and Zigbee support for extreme outdoor locations

## Wi-Fi 7 AP portfolio

- **730 Series Indoor AP:** high-performance Wi-Fi 7 with dual IoT radios, precision locationing, MACsec support, and UTB
- **750 Series Indoor AP:** flagship Wi-Fi 7 AP with dual 10GbE ports, dual IoT radios, precision locationing, MACsec support, and UTB



**Table 1.** Access point comparisons

|                               | AP-3xx                    | AP-5xx               | AP-6xx                   | АР-7хх                              |
|-------------------------------|---------------------------|----------------------|--------------------------|-------------------------------------|
| Wi-Fi generation              | Wi-Fi 5 (802.11ac wave 2) | Wi-Fi 6 (802.11ax)   | Wi-Fi 6E (802.11ax)      | Wi-Fi 7 (802.11be)                  |
| Bands supported               | 2.4 GHz, 5 GHz            | 2.4 GHz, 5 GHz       | 2.4 GHz, 5 GHz, 6 GHz    | 2.4 GHz, 5 GHz, 6 GHz               |
| Combined peak data rate (max) | 2.0 Gbps (dual band)      | 5.4 Gbps (dual band) | 7.8 Gbps (tri-band)      | 28.7 Gbps (tri-band, dual<br>6 GHz) |
| Ultra tri-band filtering      | No                        | No                   | Yes (630 and 650 Series) | Yes (730 and 750 Series)            |
| Integrated BLE                | Yes (4.1)                 | Yes (5.0)            | Yes (5.0)                | Yes (6.0) (dual)                    |
| Integrated Zigbee             | No                        | Yes                  | Yes                      | Yes                                 |
| USB port                      | Yes (except AP-303)       | Yes                  | Yes                      | Yes (dual)                          |
| GNSS radio                    | No                        | No                   | Yes                      | Yes                                 |
| Barometric sensor             | No                        | No                   | No                       | Yes                                 |
| Limited Lifetime Warranty     | Yes                       | Yes                  | Yes                      | Yes                                 |

# Manage on-premises or in the cloud

Available management solutions include HPE Aruba Networking Central and for large installations across multiple sites, APs can be factory shipped and activated with zero-touch provisioning using either solution — reducing deployment time, centralizing configuration, and simplifying inventory management. In addition, HPE Aruba Networking Central delivers several cloud-native services that further streamline network operations. Among these capabilities are built-in, Al-driven analytics and intelligent alerts, which provide network operators the actionable insights required to proactively monitor, troubleshoot, and optimize wireless network performance.

## **Customer first, customer last support**

Partner with our product experts to increase your team's productivity, keep pace with technology advances and software releases, and obtain break-fix support. We offer flexible options to meet your needs based on your wireless architecture. Our HPE Foundation Care services include priority access to Technical Assistance Center (TAC) engineers 24x7x365, flexible hardware and on-site support options, and total coverage for HPE Aruba Networking products. Add HPE Aruba Networking Pro Care for fast access to Senior TAC Engineers, assigned as your single point of contact for your case, and reduce the time you spend on issues.

### Why choose HPE Aruba Networking Wi-Fi?

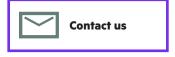
With proven Wi-Fi leadership and innovation for 18 years, HPE Aruba Networking's Wi-Fi solution delivers greater efficiency and higher performance and better user and IoT experience across indoor and outdoor campus, branch, and remote work sites. Benefits include:

- Operational efficiencies with HPE Aruba Networking Central's Al-powered management for Day 0, Day 1, and Day 2 operations.
- Seamless coverage with HPE Aruba Networking ClientMatch and HPE Aruba Networking AirMatch to optimize the Wi-Fi experience plus live upgrades to eliminate downtime.
- Greater protection by HPE Aruba Networking Central's Client Insights detecting IoT devices and dynamic segmentation of traffic based on user, application, and device policies.
- Fast multi-gigabit speeds with a broad portfolio of Wi-Fi 7, Wi-Fi 6E, and Wi-Fi 6 certified APs with ultra tri-band filtering and optional gateways to support broad range of indoor, remote, and outdoor environments.

## Learn more

Learn more about HPE Aruba Networking wireless access points.

Make the right purchase decision.
Contact our presales specialists.







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