HPE aruba networking

Data sheet

HPE Aruba Networking Mobility Controller Virtual Appliance

The functionality of a hardware controller in a cost-effective virtualized environment

HPE

Key features

— Support for Wi-Fi 6 (802.11ax), Wi-Fi 6E, Wi-Fi 7, WPA3, and Enhanced Open—and existing standards

— Patented HPE Aruba Networking ClientMatch technology can now group together 802.11ax-capable devices

— HPE Aruba Networking dynamic segmentation enforces wired and wireless access policies to simplify and secure the network

— Application awareness for 3000+ applications without additional hardware

— Built-in AI-powered wireless/RF optimization

— Unifies policy enforcement for WLAN, LAN and WAN traffic

Overview

HPE Aruba Networking Mobility Controller Virtual Appliances (VMCs) offer the option to leverage your existing virtualization infrastructure. VMCs offer the same functionality as the physical Mobility Controllers and can be managed by HPE Aruba Networking Mobility Conductor for higher scale and full HPE Aruba Networking Wireless Operating System features. The VMC can be deployed using zero touch provisioning (ZTP) to simplify deployment.

Simple and secure access

The VMC serves a key role in HPE Aruba Networking dynamic segmentation, providing HPE Aruba Networking Controller Policy Enforcement Firewall to enforce policies based on user role, device type, application, and network location — and simplifying and securing wired and wireless network access. Traffic is encapsulated in GRE tunnels for complete encryption all the way from an AP or switch. This feature can be enabled with the HPE Aruba Networking Controller Policy Enforcement Firewall License and eliminates the need to manually configure SSIDs, VLANs, or ACLs for each new client on the network.

The VMC can manage up to 16,000 concurrent users and 1000 access points, and can be installed on VMware ESXi™, Microsoft Hyper-V, and open-source KVM instances. As campus and branch requirements change, additional VMCs, memory and compute resources can be added.

24x7 mission-critical networking

HPE Aruba Networking Operating System includes unique, and patented AI-powered machine learning HPE Aruba Networking Adaptive Radio Management features, such as HPE Aruba Networking AirMatch and HPE Aruba Networking ClientMatch (enhanced with 802.11ax grouping) for automatic RF optimization. These features improve the network's performance based on changing environmental conditions, noisy or congested RF and resolve sticky client issues during user roaming. HPE Aruba Networking RFProtect (RFP) provides advanced spectrum analysis and wireless intrusion protection (WIPS/WIDS) to help identify and mitigate Wi-Fi and non-Wi-Fi sources of interference to contain potential security risks.

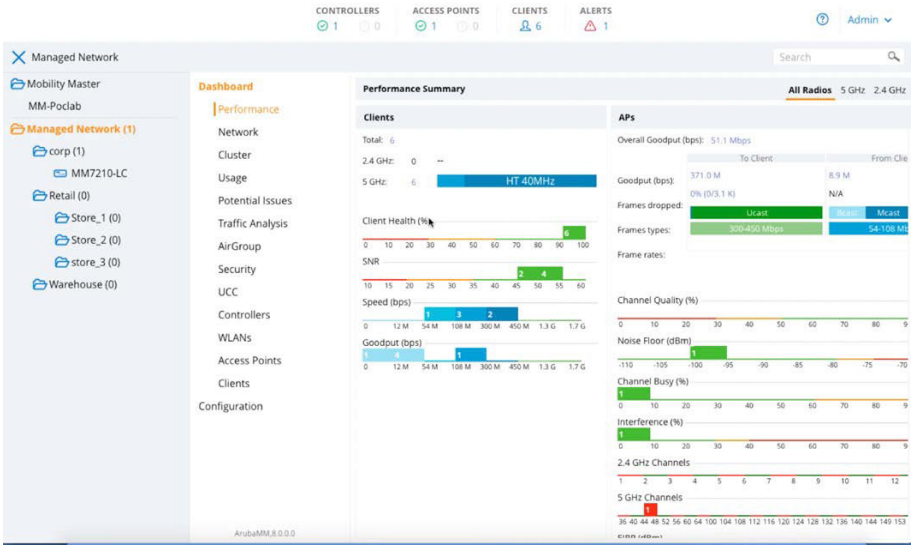

Figure 1. HPE Aruba Networking Mobility Controller running HPE Aruba Networking Wireless Operating System

As part of a controller cluster managed by the HPE Aruba Networking Mobility Conductor, the VMC helps enhance scale, improves reliability using enhanced High Availability (HA), adopts configurations seamlessly based on hierarchy, enables live upgrades to reduce maintenance windows, and shares licenses from a global licensing pool.

Enhanced capabilities

Wi-Fi 6 (802.11ax) enhanced with HPE Aruba Networking ClientMatch

The latest Wi-Fi standard brings enhanced performance, speed, and efficiency with key features such as OFDMA, 1024-QAM, and bi-directional MU-MIMO. Combined with HPE Aruba Networking's patented ClientMatch technology, 802.11ax clients will now be grouped together to optimize the multi-user experience.

Strong security: WPA3 and Enhanced Open

Support for WPA3 brings improved encryption and authentication methods, while Enhanced Open delivers automatic encryption to open networks. The WPA2-MPSK feature enables simpler passkey management for WPA2 devices—should the Wi-Fi password on one device need to be changed; no additional key changes are needed for other devices on the network.

HPE Aruba Networking dynamic segmentation

To simplify and better secure wired and wireless network access, the VMC can enforce per-user and device roles across wired and wireless networks by integrating with HPE Aruba Networking NAC. This ensures consistent policy regardless of user role and device type, and eliminates the need to configure unnecessary SSIDs, ACLs, VLANs and subnets at every node in the network.

HPE Aruba Networking Controller Policy Enforcement Firewall

Enabled by the PEF license, wired and wireless user and application traffic can be tunneled to a stateful firewall on the VMC through GRE tunnels for inspection. Policies are then enforced based on user role, device type, application and location—as described in HPE Aruba Networking dynamic segmentation.

Application visibility and control

Enabled by the PEF license, application visibility with Deep Packet Inspection (DPI) technology evaluates and optimizes performance and quality of service policies for over 3000 applications—even for encrypted or hidden traffic.

Web classification (WebCC)

HPE Aruba Networking Wireless Operating System provides a cloud-based web content classification, policy, and reputation service for URL filtering, IP reputation and geolocation filtering, which helps enforce network acceptable use policies to block and rate-limit connections based on HPE Aruba Networking identity-based controls.

Unified communications and collaboration (UCC)

See real-time data and troubleshoot networks based on call quality metrics for latency, jitter, and packet loss are available for a wide variety of applications including Microsoft Teams, Cisco Skinny Call Control Protocol (SCCP), Spectralink Voice Priority (SVP), SIP, Vocera, and more.

Mobility controller virtual appliance technical specifications

Model	MC-VA-10	MC-VA-50	MC-VA-250	MC-VA-1K
Maximum AP count	10	50	250	1000
Maximum client count	256	800	4000	16,000

Note: The Mobility Controller VA can be scaled by installing multiple instances of MC-VA-1K.

4x instances of MC-VA-1K install can scale up to 4000 APs and 64,000 clients

6x instances of MC-VA-1K install can scale up to 6000 APs and 96,000 clients

Hypervisor	Supported Hypervisor version
VMware®	ESXi 7.0
Microsoft Hyper-V	Windows Server 2019 Hyper-V
KVM	CentOS 7.9, Ubuntu 20.04 and 22.04

Service and warranty information

Software: 90 days, can be extended with support contract

Ordering information

Part number	Description
Q9B91AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (EG) with support for up to 10 AP E-LTU
Q9B92AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (IL) with support for up to 10 AP E-LTU
Q9B93AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (JP) with support for up to 10 AP E-LTU
Q9B94AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (RW) with support for up to 10 AP E-LTU
Q9B95AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (US) with support for up to 10 AP E-LTU
Q9B54AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (WW) with support for up to 10 AP E-LTU
Q9B55AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (EGF1) FIPS/TAA with support for up to 10 AP E-LTU
Q9B56AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (ILF1) FIPS/TAA with support for up to 10 AP E-LTU
Q9B57AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (JPF1) FIPS/TAA with support for up to 10 AP E-LTU
Q9B58AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (RWF1) FIPS/TAA with support for up to 10 AP E-LTU
Q9B59AAE	HPE Aruba Networking MC-VA-10 Virtual Mobility Controller License (USF1) FIPS/TAA with support for up to 10 AP E-LTU
JY911AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (EG) with support for up to 50 AP E-LTU
JY905AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (IL) with support for up to 50 AP E-LTU
JY908AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (JP) with support for up to 50 AP E-LTU
JY899AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (RW) with support for up to 50 AP E-LTU
JY902AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (US) with support for up to 50 AP E-LTU
JZ380AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (EGF1) with support for up to 50 AP E-LTU

Ordering information (continued)

Part number	Description
JZ383AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (ILF1) with support for up to 50 AP E-LTU
JZ386AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (JPF1) with support for up to 50 AP E-LTU
JZ389AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (RWF1) with support for up to 50 AP E-LTU
JZ392AAE	HPE Aruba Networking MC-VA-50 Virtual Mobility Controller License (USF1) with support for up to 50 AP E-LTU
JY912AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (EG) with support for up to 250 AP E-LTU
JY906AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (IL) with support for up to 250 AP E-LTU
JY909AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (JP) with support for up to 250 AP E-LTU
JY900AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (RW) with support for up to 250 AP E-LTU
JY903AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (US) with support for up to 250 AP E-LTU
JZ381AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (EGF1) with support for up to 250 AP E-LTU
JZ384AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (ILF1) with support for up to 250 AP E-LTU
JZ387AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (JPF1) with support for up to 250 AP E-LTU
JZ390AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (RWF1) with support for up to 250 AP E-LTU
JZ393AAE	HPE Aruba Networking MC-VA-250 Virtual Mobility Controller License (USF1) with support for up to 250 AP E-LTU
JY913AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (EG) with support for up to 1000 APE-LTU
JY907AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (IL) with support for up to 1000 AP E-LTU
JY910AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (JP) with support for up to 1000 AP E-LTU
JY901AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (RW) with support for up to 1000 AP E-LTU
JY904AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (US) with support for up to 1000 AP E-LTU
JZ382AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (EGF1) with support for up to 1000 AP E-LTU
JZ385AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (ILF1) with support for up to 1000 AP E-LTU
JZ388AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (JPF1) with support for up to 1000 AP E-LTU
JZ391AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (RWF1) with support for up to 1000 AP E-LTU
JZ394AAE	HPE Aruba Networking MC-VA-1K Virtual Mobility Controller License (USF1) with support for up to 1000 AP E-LTU

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