QuickSpecs

Overview

Aruba 9004 Gateway

Improved network performance, visibility, and control

Aruba 9004 Series Gateways provide high-performance SD-WAN and security functionality in a compact and cost-effective form factor. Ideally suited for branch and small campus networks, the 9004 Series Gateways serve a key role within Aruba's SD-Branch solution, which unifies WLAN, LAN, SD-WAN and security for distributed enterprises.

The 9004 Series can be easily configured and managed using Aruba Central, a cloud-based network operations, assurance and security platform. Onsite deployment is accomplished with a simple mobile installer application.

Aruba 9004 Gateway

Key Features
- Cloud-managed and purpose-built for branch SDWAN requirements.
- Up to 10 times the performance and 40 times the client density of typical SD-WAN appliances.
- Unified policy enforcement for wired and wireless traffic through Aruba Dynamic Segmentation.
- Visibility into over 3,000 applications with no added hardware.

Standard Features

High Performance and Reliability
For distributed enterprises with increasing performance and bandwidth needs, the 9004 is designed with scale and flexibility, and equipped with plenty of horsepower.

The 9004 provides connectivity for up to 2,048 users or client devices at up to 2 Gbps of firewall throughput or up to 4 Gbps of wired bridged throughput. These capabilities are up to 40 times the client density and 10 times the maximum throughput of typical SD-WAN appliances.

For enhanced resiliency and high availability, the 9004 can be clustered together with multiple gateways at each branch.

Unrestricted Bandwidth
Unlike other SD-WAN vendors, Aruba SD-WAN provides unrestricted bandwidth on every gateway license. This means you have access to full hardware performance capabilities right out of the box - no upgrade purchases required.

IoT and Integration Ready
The 9004 includes flexible connectivity options, with four Ethernet ports that can be used as access/WAN uplinks,   a USB 3.0 port for cellular third-party connectivity, and an integrated IoT radio that supports Bluetooth 5, Zigbee, and Near Field Communication (NFC) wireless protocols.

The gateway also uses integrated device profiling to improve client visibility, and works with Aruba ClearPass Policy Manager or ClearPass Device Insight to provide advanced user, device and IoT policy management and insights..

SD-WAN Deployment
For organizations that are now managing multiple WAN connections, 9004 Gateways can be connected to the Aruba SD-WAN fabric right out of the box. SD-WAN is a rich WAN management solution that is used to simplify management of traffic entering and exiting branch sites. Please refer to the SD-WAN datasheet for more information.

Optional Mobility Controller Mode
9004 Gateways can also be re-purposed as Mobility Controllers with ArubaOS 8.5 software to provide wireless LAN services. In this mode, the 9004 cannot simultaneously be used for SD-WAN. For more information, refer to the ArubaOS datasheet.

Unified Policy Enforcement
To simplify and better secure wired and wireless network access, the 9004 Series Gateways are a pivotal component in the Aruba Dynamic Segmentation framework. Wired and wireless traffic can be tunneled to a gateway, which then provides consistent policy enforcement based on user role (e.g. guest, contractor, departmental employee), device type, application or network location. Learn about Dynamic Segmentation in this guide.

Standard Features

Extended Features

Policy Enforcement Firewall
The 9004 includes a Layer 4-7 stateful firewall with PEF to deliver a consistent user, device, and application awareness across WLAN, LAN, and WAN. When deployed alongside Aruba ClearPass Policy Manager, policies are automatically enforced to simplify SSID, VLAN and policy management. This is the foundation of Dynamic Segmentation, and is included within the Foundation, Foundation Base Capacity, and PEF licenses.

Application Visibility and Control
Deep Packet Inspection (DPI) technology, which is a component of PEF, consistently evaluates and optimizes performance and usage policies for over 3,000 applications. This ensures the highest possible Quality of Service (QoS) – even for encrypted traffic.

High Availablity
The 9004 can be deployed with N+1 or NxN redundancy, and can also join a controller cluster when deployed as a Mobility Controller managed by Mobility Master. This increases performance and scale for enhanced resiliency.

Simple to use, mobile provisioning
Allows on-site personnel to use a mobile app to onboard gateways. A central IT team can verify device location, licenses, and status with no additional steps required.
Available for iOS and Android..

Office365, Teams and Skype for Business
The Aruba integration with Microsoft enable unique application insight that detects Office365, Teams and Skype for Business traffic and then prioritizes them over less critical applications. Aruba Central also includes specific call quality heuristics for additional visibility.

Service and Warranty Information
- **Hardware:** 1 year parts/ labor, can be extended with support contract
- **Mobility Controller Software:** 90 days, can be extended with support contract
- **SD-WAN Gateway Software:** 1, 3, 5, 7, or 10 year subscription licenses

Configuration Information

Build To Order:
BTO is a standalone unit with no integration. BTO products ship standalone are not part of a CTO or Rack-Shippable solution.

BTO Models

Step 1:	Select the appropriate 9004 model	
Rule #	**Description**	**SKU**
	9004	
2, 6	Aruba 9004 (US) 4-Port GbE RJ45 Gateway	R1B20A
1, 6	Aruba 9004 (RW) 4-Port GbE RJ45 Gateway	R1B21A
3, 6	Aruba 9004 (JP) 4-Port GbE RJ45 Gateway	R1B22A
4, 6	Aruba 9004 (IL) 4-Port GbE RJ45 Gateway	R1B23A
5, 6	Aruba 9004 (EG) 4-Port GbE RJ45 Gateway	R1B24A
	9004 TAA	
2, 6	Aruba 9004 (US) TAA 4-Port GbE RJ45 Gateway	R1B25A
1, 6	Aruba 9004 (RW) TAA 4-Port GbE RJ45 Gateway	R1B26A
3, 6	Aruba 9004 (JP) TAA 4-Port GbE RJ45 Gateway	R1B27A
4, 6	Aruba 9004 (IL) TAA 4-Port GbE RJ45 Gateway	R1B28A
5, 6	Aruba 9004 (EG) TAA 4-Port GbE RJ45 Gateway	R1B29A

NOTE: Each 9004 model includes a JX990A power adapter supply and Power Cord included in the box.

Configuration Rules

Rule #	Description	SKU
1	Available everywhere except, US, Israel, Egypt, and Japan.	
2	Available in US only	
3	Available in Japan only	
4	Available in Israel only	
5	Available in Egypt only	
6	Bring in (Min 1 // Max 1) Localized power cord based on the Aruba Localization Menu	

Remarks: OCA Only Model Selection Form -Aruba > Wireless > Mobility Controllers > Gateway > 9000 Series

Step 2:	Power Cord for Power Supply (JX990A)	
Rule #	**Description**	**SKU**
	PC-AC-ARG Argentina 220V AC 10A 2-meter AC Power Cord	JW113A
	PC-AC-AUS Australian AC Power Cord	JW114A
	PC-AC-BR Brazil AC Power Cord	JW115A
	PC-AC-CHN China AC Power Cord	JW116A
	PC-AC-DEN Denmark 220V AC 10A 2-meter AC Power Cord	JW117A
	PC-AC-EC Continental European/Schuko AC Power Cord	JW118A
	PC-AC-IN India AC Power Cord	JW119A
	PC-AC-IL Israel 250V AC 10A 2-meter AC Power Cord	JW120A
	PC-AC-IT Italian AC Power Cord	JW121A
	PC-AC-JP Japanese AC Power Cord	JW122A
	PC-AC-KOR Korea AC Power Cord	JW123A
	PC-AC-NA North America AC Power Cord	JW124A

Configuration Information

Spares

Step 3: **Shelf Mount Kit (Optional or spare)**

Rule #	Description	SKU
	Std (Min 0 // max 99) User Selection (min 0 // max 99)	
	Aruba 9004-MNT-19 9004 Series 19-inch Rack Mount Kit	R1B30A
NOTE:	1RU can support two 9004 gateways side-by-side using an optional mount kit	
1	AP-AC-12V30B 12V/30W AC/DC Desktop Style 2.1/5.5/9.5mm Circular 90 Deg Plug DoE Level VI Adapter	JX990A
NOTE:	Two 9004 models can be mounted side-by-side using the optional rack mount kit. AP-AC-12V30B 12V/30W AC/DC Desktop Style 2.1/5.5/9.5mm Circular 90 Deg Plug DoE Level VI Adapter	

Configuration Rules

Rule #	Description	SKU
1	Bring in (Min 1 // Max 1) Localized power cord based on the Aruba Localization Menu	

OCA Display Qty 1 Power Adapter is included with Aruba Gateway
NOTE:

Cloud-Managed SD-WAN Deployment

Refer to the SD-WAN use cases guide for more information on how the gateway can be used. Each gateway requires an Aruba Central software subscription license to enable SD-WAN software features and the use of cloud-based management. The SD-WAN license also enables the use of the entire bandwidth capacity stated in the data sheet for each gateway.

- **For micro-branch deployments,** the 9004 (and 7005 or 7008) gateway can be ordered with a base capacity license that supports up to 75 client devices each.
- **In high availability deployments**, each primary and backup gateway needs to have a separate subscription license applied.

Each SD-WAN Foundation and Foundation Base Capacity subscription includes software support and TAC/phone support. For SD-WAN hardware replacement support, order hardware-only support SKUs through your Aruba value-added reseller (VAR)..

SD-WAN Gateway Licenses
Foundation Features:

- Management for each 9004 Series
- User role-based access policies
- Dynamic Segmentation: Policy Enforcement Firewall, Layer 7 DPI
- Web content filtering
- Dynamic path steering, policy-based routing
- Routing: Static, dynamic, load-balancing, BGP
- WAN Services: NAT, DHCP
- Extensive WAN visibility
- VPN overlay, hub-spoke
- VIA VPN support
- HA: Active-standby, active-active

Foundation Base Features:

- All features above, limited to 75 concurrent endpoints

Configuration Information

SD-WAN Cloud Subscription Licenses

Description	SKU
Aruba 70xx Gateway Foundation 1yr Subscription E-STU	JZ118AAE
Aruba 70xx Gateway Foundation 3yr Subscription E-STU	JZ119AAE
Aruba 70xx Gateway Foundation 5yr Subscription E-STU	JZ120AAE
Aruba 70xx Gateway Foundation 7yr Subscription E-STU	R0G52AAE
Aruba 70xx Gateway Foundation 10yr Subscription E-STU	R0G53AAE
Aruba 70xx Gateway Foundation Base Capacity 1yr Subscription E-STU	JZ124AAE
Aruba 70xx Gateway Foundation Base Capacity 3yr Subscription E-STU	JZ125AAE
Aruba 70xx Gateway Foundation Base Capacity 5yr Subscription E-STU	JZ126AAE
Aruba 70xx Gateway Foundation Base Capacity 7yr Subscription E-STU	R0G56AAE
Aruba 70xx Gateway Foundation Base Capacity 10yr Subscription E-STU	R0G57AAE

NOTE: A single 9004 Gateway cannot be simultaneously used for SD-WAN and Mobility Controller functionality. Foundation Base Capacity licenses are limited to 75 clients.

Cloud-Managed SD-WAN Deployment

The Aruba 9004 Series can alternatively be deployed using Aruba Mobility Controller software licenses, where the 9004 will perform just like a 7000 Series or 7200 Series Mobility Controller in a campus or branch access layer deployment. In this mode, the gateway cannot be simultaneously used for SD-WAN. In Mobility Controller mode, the 9004 can also participate in the Aruba Dynamic Segmentation framework, with, at minimum, an access point (AP) license and a Policy Enforcement Firewall (PEF) license for each Aruba access point and switch in the network..

Mobility Controller Licenses (Alternate)

Description	SKU
Aruba LIC-AP Controller per AP Capacity License E-LTU	JW472AAE
Aruba LIC-PEF Controller Policy Enforcement Firewall Per AP License E-LTU	JW473AAE
Aruba LIC-RFP Controller RFProtect Per AP License E-LTU	JW474AAE
Aruba LIC-ENT Enterprise (LIC-AP LIC-PEF LIC-RFP and LIC-AW) Licence Bundle E-LTU	JW471AAE
Aruba LIC-ACR Controller Advanced Cryptography 1 Session License E-LTU	Q9B90AAE
Aruba Controller Web Content Classification 1 Year Subscription E-STU	JY028AAE
Aruba Controller Web Content Classification 3 Year Subscription E-STU	JY029AAE
Aruba Controller Web Content Classification 5 Year Subscription E-STU	JY030AAE
Aruba Controller Web Content Classification 7 Year Subscription E-STU	JY031AAE
Aruba Controller Web Content Classification 10 Year Subscription E-STU	JY032AAE

NOTE: A single 9004 Gateway cannot be simultaneously used for SD-WAN and Mobility Controller functionality.
For each AP attached to the gateway, the minimal configuration is 1 x LIC-AP per AP.
LIC-AW is a device license for the AirWave network management system.
For Dynamic Segmentation, the per-AP license count must equal the sum of APs and switches that are tunneling traffic. For virtual switch stacks, one AP license will be consumed per stack.
LIC-VIA license is a per-user session license that can be transferred from one gateway/controller to another.
LIC-VIA supports centralized licensing and can be managed by Mobility Master or a master controller in an ArubaOS 8 deployment.

Technical Specifications

SD-WAN Deployment Mode[1]	9004
Sizing	Small site
Maximum clients	Up to 2,048
Firewall throughput (Gbps)	2
Encrypted throughput AES-CCM (Gbps)	2
Encrypted throughput (AES-CBC-256) (Gbps)	4
Active firewall sessions	32,426

Mobility Controller Deployment Mode[1]	9004
Maximum campus or remote Access Points	32
Maximum concurrent users/devices	2,048
Maximum VLANs	4,096
Active firewall sessions	32,426
Concurrent GRE tunnels	544
Concurrent IPsec sessions	2,048
Concurrent SSL sessions	2,048
Concurrent tunneled ports	2,048
Firewall throughput (Gbps)	2
Wired bridged throughput (Gbps)	4
Encrypted throughput 3DES (Gbps)	4
Encrypted throughput AES-CBC-256 (Gbps)	4
Encrypted throughput AES-CCM (Gbps)	2
Encrypted throughput AES-GCM-256 (Gbps)	4

NOTE:

[1]These modes are only enabled when the appropriate minimum licenses and ArubaOS firmware are deployed:
- SD-WAN Mode – Aruba Central Foundation or Foundation Base Licenses
- Controller Mode – AP License

Features	9004
Form factor/footprint	Desktop/Fanless[4] Optional Mount Rack Tray
100/1000BASE-T	4
10G SFP+ Ports (SFP also supported)	N/A
Bluetooth 5, NFC and Zigbee/15.4 integrated radio[2]	N/A
• 8dBm transmit power (class 1)	
USB 3.0 Type-A	1
System status LED	Yes
WAN ports status LED	Yes
LAN ports status LED	Yes
Gateway mode LED	Yes
Central connectivity status LED[3]	Yes
LTE status LED	Yes
Console port	micro USB/RJ-45
Dimensions (H x W x D)	3.82 cm x 19.85 cm x 15.31 cm (1.5" x 7.815" x 6.03")
Weight	1.143 Kg (2.519 lbs)

NOTE:

[1] PoE: 802.3af, 15.4W from the PSE and 12.95W at the PD

[2] PoE+: 802.3at, 30W from the PSE and 25.5W at the PD

[2] BLE enabled with the initial release, NFC and 15.4 enabled in a future release

[3] LED utilized by the SD-WAN Gateway solution

[4] 1RU can support two 9004 gateways side-by-side using an optional mount kit.

Technical Specifications

Specification	7005
Operating temperature	0° C to 40° C (32° C to 104° F)
Storage temperature	-40° C to 70° C (-40° F to 158° F)
Operating humidity	10% to 90% (RH), non-condensing
Storage humidity	10% to 95% (RH), non-condensing
Operating altitude	10,000 feet
Acoustic noise1	0 dBA (fanless)
Cooling	Conduction cooling
Maximum power consumption	25 W (with USB)
Power source	12v DC, 2.5A AC-to-DC power adapter

Features	
Input voltage range	90 VAC to 264 VAC
Output voltage	+12VDC, 2.5A
Input frequency	47-63 Hz
AC line input current (steady state)	1.0A
Operating temperature	-0o to +40o C
Cooling	-
Weight	0.28 kg (.61 lbs)

Regulatory and Safety Compliance	
Description	**Specification**
Regulatory SKU information	• ARCN9004
Minimum software versions	• SD-WAN R1.7 (default) and Aruba Central 2.5.x in SD-WAN mode, or ArubaOS 8.5.0.0 in Mobility Controller mode. • Wi-Fi 6 (802.11ax), AOS 8.5; Wi-Fi CERTIFIED WPA3™, AOS 8.5; WI-FI CERTIFIED Enhanced Open™, AOS 8.5
Safety certifications	• UL 60950-1 Second Edition • CAN/CSA-C22.2 No. 60950-1 Second Edition • EN 60950-1 Second Edition • EN 60950:2005 • IEC 60950-1 Second Edition • EN/IEC 62368-1 2nd Edition • NOM (obtained by partners and distributors)
Electromagnetic emissions certifications	• FCC Part 15 Class • CISPR32 Class B • EN55032 Class B • ICES-003 Class B • VCCI Class B • EN61000-3-2 • EN61000-3-3 • EN55024, EN301 489-1/-17 • KN32 Class B • CNS13438 Class B
Telco	• Common Language Equipment Identifier (CLEI) Code
Wireless certifications	• FCC/ISED • RED Directive 2014/53/EU • Others: MIC, NCC, ANATEL, COFTEL, CCC

Summary of Changes

Date	Version History	Action	Description of Change
03-Sep-2019	Version 1	New	New QuickSpecs

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