

## DATA SHEET

# ARUBA 9000 SERIES GATEWAYS

Versatile, cost-effective branch networking, SD-WAN, and security

Aruba 9000 Series Gateways provide high-performance networking, SD-WAN and security functionality in compact and cost-effective form factors. Ideally suited for branch and small campus networks, the 9000 Series Gateways serve a key role within Aruba's **SD-Branch** solution, which unifies WLAN, LAN, SD-WAN and security for distributed enterprises.

The 9000 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.

### HIGH PERFORMANCE AND RELIABILITY

For distributed enterprises with increasing performance and bandwidth needs, the 9000 Series is designed with scale and flexibility, and equipped with plenty of horsepower at a competitive price-point.

The 9000 Series provides connectivity for up to 2,048 users or client devices at up to 6 Gbps of firewall throughput. These capabilities are up to 80 times the client density and 10 times the maximum throughput of typical SD-WAN appliances.

For enhanced resiliency and high availability, the multiple 9000 Series can be clustered together at each branch.

### IOT AND INTEGRATION READY

The 9000 Series includes flexible connectivity options:

- 4xGbE – 9004
- 12xGbE (6xPoE+) – 9012
- USB 3.0 ports
- IoT Radio that supports BLE technologies
- Integrated LTE connectivity – 9004-LTE

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



### KEY FEATURES

- Cloud-managed and purpose-built for branch SDWAN requirements
- Up to 10 times the performance and 80 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
- Integrated LTE option available

### SD-WAN DEPLOYMENT

For organizations that are now managing multiple WAN connections, 9000 Series Gateways can be connected to Aruba's 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. Role-based intrusion detection and prevention (IDS/IPS), Dynamic Segmentation, and stateful firewall deliver integrated security requirements. Please refer to the [SD-WAN datasheet](#) for more information.

### BRANCH AND CAMPUS DEPLOYMENT

9000 Series Gateways can also be re-purposed as Mobility Controllers to provide WLAN and LAN services such as Dynamic Segmentation, stateful firewall and Live Upgrades. In this mode, the 9000 Series cannot simultaneously be used for SD-WAN. For more information, refer to the [ArubaOS datasheet](#).

## INTEGRATED LTE

The 9004-LTE is a Gateway with an integrated LTE module that can use high speed LTE as a dedicated or redundant WAN uplink. The LTE operations are managed via Aruba Central.

## UNIFIED POLICY ENFORCEMENT

To simplify and secure wired and wireless network access, the 9000 Series Gateways are a pivotal component of Aruba Dynamic Segmentation. Wired and wireless traffic can be tunneled to a Gateway, which then consistently provides policy enforcement based on user role (e.g. guest, contractor, employee), device type, application and network location. Learn about Dynamic Segmentation [in this guide](#).

## MICROSOFT FEATURES

Aruba's integration with Microsoft enables unique application intelligence that detects Microsoft 365 (Office 365), Teams, and Skype for Business traffic and then prioritizes them over less critical applications. Through management interfaces on Aruba Central, ArubaOS, and Aruba AirWave, IT can visualize call quality metrics such as MOS, latency, jitter, and packet loss for additional insights.

## ENHANCED CAPABILITIES

### Policy Enforcement Firewall

The 9000 Series 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.

### Threat Defense with IDS/IPS

To improve security against a growing attack surface, gateways deployed in SD-WAN mode add role and identity-based intrusion detection and prevention capabilities (IDS/IPS) on top of existing security features. The threat defense function is further augmented with one-click integration with third-party cloud-based security solutions. This feature requires the appropriate Aruba Central subscription license.

## 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 Availability

The 9000 Series 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 Conductor. 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.

## Unified Communications and Collaboration (UCC)

Visualize and troubleshoot networks based on call quality metrics such as MOS, latency jitter and packet loss. Supported applications include: Teams, Skype for Business, Wi-Fi Calling, FaceTime, SIP, Jabber, Spark and more.



9004 Gateway



9004-LTE Gateway



9012 Gateway

## TECHNICAL SPECIFICATIONS

| PERFORMANCE AND CAPACITY                |               |              |
|---|---------------|--------------|
| SD-WAN Deployment Mode*                 | 9004/9004-LTE | 9012         |
| Sizing                                  | Small site    | Medium site  |
| Maximum clients                         | Up to 2,048*  | Up to 2,048* |
| Firewall throughput (Gbps)              | 4             | 6            |
| Encrypted throughput AES-CCM (Gbps)     | 2             | 2            |
| Encrypted throughput AES-CBC-256 (Gbps) | 4             | 4            |
| Active firewall sessions                | 64K           | 64K          |
| Mobility Controller Deployment Mode*    |               |              |
| Maximum campus or remote Access Points  | 32            | 32           |
| Maximum concurrent users/devices        | 2,048         | 2,048        |
| Maximum VLANs                           | 4,096         | 4,096        |
| Active firewall sessions                | 64K           | 64K          |
| Concurrent GRE tunnels                  | 544           | 544          |
| Concurrent IPsec sessions               | 2,048         | 2,048        |
| Concurrent SSL sessions                 | 2,048         | 2,048        |
| Concurrent tunneled ports               | 2,048         | 2,048        |
| Firewall throughput (Gbps)              | 4             | 6            |
| Wired bridged throughput (Gbps)         | 4             | 6            |
| Encrypted throughput 3DES (Gbps)        | 4             | 4            |
| Encrypted throughput AES-CBC-256 (Gbps) | 4             | 4            |
| Encrypted throughput AES-CCM (Gbps)     | 2             | 2            |
| Encrypted throughput AES-GCM-256 (Gbps) | 4             | 6            |

\*These modes are only enabled when the appropriate minimum licenses and ArubaOS firmware are deployed:

- SD-WAN Mode – Aruba Central Foundation, Foundation Base, or Advanced Licenses
- Controller Mode – ArubaOS Licenses

## INTERFACES AND INDICATORS

| Features                                     | 9004/9004-LTE  | 9012               |
|--|--|--------------------|
| Form factor/footprint                        | Desktop/Fanless <sup>2</sup><br>Optional Mount Rack Tray | Rack mount         |
| 100/1000BASE-T                               | 4  | 12 (6x PoE+ ports) |
| 10G SFP+ Ports (SFP also supported)          | -  | -                  |
| Bluetooth 5                                  | Yes  | Yes                |
| USB 3.0 Type-A                               | 1  | 2                  |
| System status LED                            | Yes  | Yes                |
| WAN ports status LED                         | Yes  | Yes                |
| LAN ports status LED                         | Yes  | Yes                |
| Gateway mode LED                             | Yes  | Yes                |
| Central connectivity status LED <sup>1</sup> | Yes  | Yes                |
| Cellular (LTE) status LED                    | Yes  | Yes                |
| Console port                                 | micro USB, RJ45  | micro USB, RJ45    |

<sup>1</sup> LED utilized by the SD-WAN solution

<sup>2</sup> 1RU can support two 9004 gateways side-by-side using an optional mount kit.

## INTEGRATED LTE

### Available on the 9004-LTE only

|                          |   |
|--------------------------|---|
| Downlink/Uplink Speed    | 600/150 Mbps  |
| LTE Category             | 12  |
| Connectors               | 2xSMA connectors for Main and Diversity Antenna<br>1xSMA connector for GPS Antenna  |
| <b>Bands Supported</b>   |   |
| Regions Supported        | Global  |
| LTE-FDD                  | B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21/B25/B26/B28/B29/B30/B32/B66 |
| LTE-TDD                  | B38/39/B40/B41  |
| <b>LTE Certification</b> |   |
| Certification            | PTCRB   |

## PHYSICAL

|                           | <b>9004/9004-LTE</b>                                     | <b>9012</b>   |
|---------------------------|--|---|
| Dimensions<br>(H x W x D) | 3.82 cm x 19.85 cm x 15.31 cm<br>(1.5" x 7.815" x 6.03") | 4.37 cm x 39.5 cm x 26.00 cm<br>(1.72" x 15.55" x 10.24") |
| Weight                    | 1.143 kg (2.519 lbs)                                     | 3.42 kg (7.54 lbs)  |

## ENVIRONMENTAL RANGE

| <b>Specification</b>      | <b>9004/9004-LTE</b>                   | <b>9012</b>   |
|---------------------------|--|---|
| Operating Temperature     | 0° C to 40° C (32° C to 104° F)        | 0° C to 40° C (32° C to 104° F)                               |
| Storage Temperature       | -40° C to 70° C (-40° F to 158° F)     | -40° C to 70° C (-40° F to 158° F)                            |
| Operating Humidity        | 10% to 90% (RH), non-condensing        | 10% to 90% (RH), non-condensing                               |
| Storage Humidity          | 10% to 95% (RH), non-condensing        | 10% to 95% (RH), non-condensing                               |
| Operating Altitude        | 10,000 feet                            | 10,000 feet   |
| Acoustic Noise            | 0 dBA (fan less)                       | 29.1 – 63.5 dBA   |
| Cooling                   | Conduction cooling                     | Forced cooling  |
| Maximum Power Consumption | 25W (with USB)                         | 160W (with 120W of PoE)                                       |
| Power Source              | 12v DC, 2.5A AC-to-DC<br>power adapter | Internal Power Supply 90VAC –<br>264VAC 47-63Hz 3A at 100Vrms |

## POWER ADAPTER SPECIFICATIONS

| <b>Features</b>                      | <b>9004/9004-LTE</b> |
|--------------------------------------|----------------------|
| 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                | -0° to +40° C        |
| Cooling                              | -                    |
| Weight                               | 0.28 kg (.61 lbs)    |

| <b>REGULATORY AND SAFETY COMPLIANCE</b>  |  |   |
|--|--|---|
| <b>Description</b>                       | <b>9004/9004-LTE</b>   | <b>9012</b>   |
| Regulatory SKU information               | ARCN9004 / ARCN9004LTE   | ARCN9012  |
| Minimum Software Versions                | 9004: SD-WAN R1.7 (default) and Aruba Central 2.5.x in SD-WAN mode, or support started with 8.5.0.5 in Mobility Controller mode.<br><br>9004-LTE: SD-WAN R2.1 (default) and Aruba Central 2.5.1 in SD-WAN mode | SD-WAN R2.0 (default) and Aruba Central 2.5.x in SD-WAN mode, ArubaOS (Future) in Mobility Controller mode. |
| Safety certifications                    | UL 60950-1 Second Edition  | UL 60950-1 Second Edition   |
|  | CAN/CSA-C22.2 No. 60950-1 Second Edition   | CAN/CSA-C22.2 No. 60950-1 Second Edition  |
|  | EN 60950-1 Second Edition  | EN 60950-1 Second Edition   |
|  | EN 60950:2005  | EN 60950:2005   |
|  | IEC 60950-1 Second Edition   | IEC 60950-1 Second Edition  |
|  | EN/IEC 62368-1 2nd Edition   | EN/IEC 62368-1 2nd Edition  |
|  | NOM (obtained by partners and distributors)  | NOM (obtained by partners and distributors)   |
| Electromagnetic emissions certifications | FCC Part 15 Class B  | FCC Part 15 Class A   |
|  | CISPR32 Class B  | CISPR32 Class A   |
|  | EN55032 Class B  | EN55032 Class A   |
|  | ICES-003 Class B   | ICES-003 Class A  |
|  | VCCI Class B   | VCCI Class A  |
|  | EN61000-3-2  | EN61000-3-2   |
|  | EN61000-3-3  | EN61000-3-3   |
|  | EN55024, EN301 489-1/-17, EN301 489-52 (9004-LTE)  | EN55024, EN301 489-1/-17  |
|  | KN32 Class B , KN35, KN301 489-1/-17, KN301 489-52 (9004-LTE)  | KN32 Class A, KN35, KN301 489-1/-17   |
| CNS13438 Class B                         | CNS13438 Class A   |   |
| Telco                                    | Common Language Equipment Identifier (CLEI) Code   | Common Language Equipment Identifier (CLEI) Code  |
| Wireless certifications                  | FCC/ISED   | FCC/ISED  |
|  | RED Directive 2014/53/EU   | RED Directive 2014/53/EU  |
|  | Others: MIC, NCC, ANATEL, COFTEL, CCC  | Others: MIC, NCC, ANATEL, COFTEL, CCC   |

## 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

## ORDERING INFORMATION

| Part Number                          | Description   |
|--------------------------------------|---|
| <b>Aruba 9004 Gateway</b>            |   |
| R1B20A                               | Aruba 9004 (US) Gateway – 4xGbE, 2K Clients, 32 APs           |
| R1B21A                               | Aruba 9004 (RW) Gateway – 4xGbE, 2K Clients, 32 APs           |
| R1B22A                               | Aruba 9004 (JP) Gateway – 4xGbE, 2K Clients, 32 APs           |
| R1B23A                               | Aruba 9004 (IL) Gateway – 4xGbE, 2K Clients, 32 APs           |
| R1B24A                               | Aruba 9004 (EG) Gateway – 4xGbE, 2K Clients, 32 APs           |
| R6M38A                               | Aruba 9004 (RU) Gateway - 4xGbE, 2K Clients, 32 APs           |
| R1B25A                               | Aruba 9004 (US) TAA Gateway – 4xGbE, 2K Clients, 32 APs       |
| R1B26A                               | Aruba 9004 (RW) TAA Gateway – 4xGbE, 2K Clients, 32 APs       |
| R1B27A                               | Aruba 9004 (JP) TAA Gateway – 4xGbE, 2K Clients, 32 APs       |
| R1B28A                               | Aruba 9004 (IL) TAA Gateway – 4xGbE, 2K Clients, 32 APs       |
| R1B29A                               | Aruba 9004 (EG) TAA Gateway – 4xGbE, 2K Clients, 32 APs       |
| <b>Aruba 9004-LTE Series Gateway</b> |   |
| R3V91A                               | Aruba 9004 (US) Gateway with LTE – 4xGbE, 2K Clients, 32 APs  |
| R3V90A                               | Aruba 9004 (RW) Gateway with LTE – 4xGbE, 2K Clients, 32 APs  |
| R3V89A                               | Aruba 9004 (JP) Gateway with LTE – 4xGbE, 2K Clients, 32 APs  |
| R3V88A                               | Aruba 9004 (IL) Gateway with LTE – 4xGbE, 2K Clients, 32 APs  |
| R3V87A                               | Aruba 9004 (EG) Gateway with LTE – 4xGbE, 2K Clients, 32 APs  |
| <b>Aruba 9012 Gateway</b>            |   |
| R1B35A                               | Aruba 9012 (EG) Gateway – 12xGbE (6xPoE+), 2K Clients, 32 APs |
| R1B34A                               | Aruba 9012 (IL) Gateway – 12xGbE (6xPoE+), 2K Clients, 32 APs |
| R1B33A                               | Aruba 9012 (JP) Gateway – 12xGbE (6xPoE+), 2K Clients, 32 APs |
| R1B32A                               | Aruba 9012 (RW) Gateway – 12xGbE (6xPoE+), 2K Clients, 32 APs |
| R1B31A                               | Aruba 9012 (US) Gateway – 12xGbE (6xPoE+), 2K Clients, 32 APs |
| R6M39A                               | Aruba 9012 (RU) Gateway – 12xGbE (6xPoE+), 2k Clients, 32 APs |

| ACCESSORIES                   |  |
|-------------------------------|--|
| Part Number                   | Description                              |
| <b>Aruba 9004 Gateway</b>     |  |
| R1B30A <sup>3</sup>           | Aruba 9004-MNT-19 Rack Mount Kit         |
| R3K00A                        | 12V/36W AC/DC spare power adapter type B |
| <b>Aruba 9004-LTE Gateway</b> |  |
| R3W17A                        | Aruba 9004-LTE-MNT-19 Rack Mount Kit     |
| R4Y91A                        | Aruba 90xx-LTE Indoor Ant Ext Kit-20ft   |
| R4Y92A                        | Aruba 90xx-LTE Indoor Ant Ext Kit-40ft   |
| R4Y93A                        | Aruba 90xx-LTE Outdoor Ant Ext Kit-35ft  |
| R4Y94A                        | Aruba 90xx-LTE Spare Indoor Antenna      |
| R4Y95A                        | Aruba 90xx-LTE Spare SIM Tray Kit        |
| R6M37A                        | Aruba 90xx-LTE Spare Outdoor Antenna     |
| R3K00A                        | 12V/36W AC/DC spare power adapter type B |
| <b>Aruba 9012 Gateway</b>     |  |
| R4X13A                        | Aruba 9012-MNT-19 Spare Rack Mount Kit   |

<sup>3</sup> 1RU can support two 9004 gateways side-by-side using an optional mount kit.

For additional information on the Aruba 9004 Series Gateways, please refer to:

- [9000 Series Ordering Guide](#)
- [SD-WAN Datasheet](#)
- [ArubaOS Datasheet](#)