

SOLUTION OVERVIEW

FUTUREPROOF YOUR WIRED INFRASTRUCTURE

Aruba switching solutions for SMB

Mobility and cloud-based applications are quickly changing the way small and midsize businesses (SMBs) operate and how employees work and engage with customers. 67% of SMBs view mobile solutions and services as critical to their businesses.¹ And in the U.S. alone, SMBs are saving more than \$67 billion USD a year using mobile applications, tablets and smart phones in day-to-day activities.²

From home office to the field office, having anywhere, anytime access to essential applications and information is an absolute necessity. New applications and services enable increased levels of customer engagement and employee productivity so you can compete more effectively and grow your business. Today's users expect reliable connectivity no matter where they are, and a bad connection is more than a mere annoyance. Poor connectivity means business disruption and lost productivity. Incomplete sales transactions equal lost revenue and dissatisfied customers that could switch to your competitor.

MOBILE AND CLOUD ARE CHANGING THE SMB NETWORK

With the explosive growth in mobility and increased adoption of cloud and unified communications applications, your network might struggle to offer the performance, scale or quality of service needed to meet these new demands. For SMBs that are experiencing network performance issues, an integrated wired and wireless solution built around 802.11ac offers an easy and affordable solution.

With wireless LAN technology hitting multi-gigabit speeds and IoT devices becoming more prevalent in the workplace, your switches need to keep up with the increased mobile traffic and the performance and security needs of new devices and applications. At the same time, you need to spend less time and money managing the network so you can focus on your business. The wired solution you choose is a critical component to how your applications are delivered and perceived by your users.

MOBILE DEVICE AND IOT GROWTH

- Mobile Traffic Growth: BYOD and unified communications (UC) adoption continue to increase WLAN bandwidth demands, forcing 802.11ac upgrades.
- Access Capacity: New 802.11ac Wave 1 and Wave 2 capable devices significantly increase access performance demands to nearly 4Gbps on supporting cabling.
- IoT Growth: There will be 24 billion IoT devices installed by 2020, and \$6 trillion invested in IoT solutions in the next five years.³

ARUBA SWITCHING SOLUTION

Aruba switches bring performance, reliability and simplicity to the mobile workplace. Based on a mobile first approach, our switches offer an integrated wired and wireless foundation that combines robust performance, security and application optimization with simple and intuitive network management.

Our switching solutions range from entry-level compact Layer 2 access switches to resilient and scalable aggregation switches with high density PoE+, 10GbE/40GbE uplinks and advanced Layer 3 features that deliver right-size network access and performance for your network. With custom designed ProVision ASICs and rich feature sets, our switches offer industry leading performance and programmability to meet the demands of tomorrow's new applications and scalable performance for a better end-user experience.

To keep up with the increased data flow, our access switches offer 1GbE connections to the client and 10GbE to the core or aggregation switch. To support the latest 802.11ac Wave 2 access points and avoid potential performance bottlenecks, some switches offer multi-gigabit HPE Smart Rate technology that support data rates of 1Gbps, 2.5Gbps, 5Gbps, and even 10Gbps over existing twisted pair cabling. With HPE Smart Rate technology you can futureproof your network as new, higher capacity wireless technologies emerge.

Advanced QoS features ensure that your users have an optimal experience, even when using time-sensitive voice, video, and other rich-media applications. Also, sFlow provides clear visibility into network metrics such as top talkers, top applications enabling higher performance and more cost-effective management of network resources.

Our switches offer:

- Easy deployment with Zero Touch Provisioning
- License-free software and free software updates
- Increased performance and redundancy with virtual or physical stacking
- Plenty of PoE+ power for devices like access points, security cameras and IoT devices
- IoT/software defined networking ready
- Advanced security with unified policy enforcement
- Choice of cloud-based Aruba Central or on-premises Aruba AirWave for network management
- Limited lifetime warranty with lifetime 8x5 phone support and next business day shipment for replacements

Easy deployment with Zero Touch Provisioning

The Aruba switches support Zero Touch Provisioning and cloud-based management, allowing you to simplify and slash network deployment and management costs. With Zero Touch Provisioning, you can directly ship your switches and Aruba Instant access points to remote sites where anyone even without technical expertise can simply power them up and connect to the network. Configuration is automatically pushed from Aruba Central – so your network is up and running in minutes. IT staff can further save time with switch auto-configuration – which automatically configures the switch for different settings such as VLAN, PoE priority, and CoS when Aruba Instant access points are detected.

No costly software licensing

Our portfolio of products provides investment protection by delivering new features with license-free software, along with industry leading warranties that include 8x5 lifetime phone support with NBD replacement shipments.

Stacking and modular functionality for increased performance, redundancy and flexibility

Aruba offers a comprehensive portfolio of modular and fixed-port, stackable switches to help meet your needs.

For high performance and management convenience some Aruba switches offer physical or virtual stacking capabilities. Stacking allows multiple switches connected to each other through Ethernet connections or dedicated modules to behave like a single switch, which means you are managing just one IP device instead of many. This reduces the number of devices you need to manage, while increasing network redundancy and better utilizing the capacity of your switches.

More advanced switches also offer redundant hardware components such as redundant power supplies and fans. These components can be “hot swapped” when they fail without affecting network traffic. Redundant fabric and management modules further provide nonstop switching/routing if one of the modules fails.

Security and policy enforcement

Our switches provide multi-layered security including comprehensive switch security such as 802.1X, Web and Mac authentication, ACLs, and virus throttling. They also support unified wired and wireless policy with the Aruba ClearPass Policy Manager.

IoT/software defined networking (SDN) ready

Aruba’s Mobile-First solution integration and feature innovation is driven by ArubaOS switch software. The latest enhancements in the ArubaOS switch operating system are designed to power and secure the network edge, and are optimized for mobile and IoT devices. These enhancements enable unified role-based access across wireless and wired networks, with the ability to identify and assign roles to connected IoT devices to prioritize business critical applications and secure the network.

Your network is also ready for innovative SDN applications with some switches supporting OpenFlow.

Flexible management options

You can manage your wired and wireless network in the cloud with Aruba Central or on-premises with Aruba AirWave. Aruba Central cloud management platform offers IT administrators a simple, secure and cost-effective way to manage their Aruba switches and Aruba Instant APs. Without additional network management hardware and software to install and maintain, you can take advantage of an OPEX-friendly cloud subscription that comes with automatic firmware updates, full technical support and PCI compliance reporting.

Aruba Central’s mobile application for iOS ensures your network is always at your fingertips. Monitoring your entire network, receiving notifications and provisioning an access point or switch with easy barcode scanning has never been easier.

Aruba Central also allows you to tap into smart network and presence analytics to better understand network usage, improve operations and generate new revenues by enhancing customer engagement and making intelligent merchandising, layout and staffing decisions.

SUMMARY

The transition to the mobile workplace requires that the SMB campus network evolves to support the demands of an increasing mobile workforce, cloud-based applications and the anticipated increase in IoT devices. These changes require SMBs to make future-proof investments in their switching infrastructure to improve the performance, availability and manageability of their network. Aruba

switches have been designed for mobility and are IoT ready, offering scalable performance, advanced security and application optimization with easy Zero Touch Provisioning. HPE Smart Rate multi-gigabit Ethernet offers increased bandwidth for constrained wired networks and gives investment protection for SMBs who want to futureproof their network infrastructure as new wireless technologies emerge.

SWITCHING FOR THE MOBILE-FIRST CAMPUS						
	Gigabit Access				Multi-Gig Access	
	 Aruba 2530	 Aruba 2540	 Aruba 2930F	 Aruba 2930M	 Aruba 3810	 Aruba 5400R
Switching	L2	L2 + RIP/static	Basic L3 + RIP, Access OSPF	Basic L3 + RIP, Access OSPF	Advanced L3	Advanced L3
Modular Power and Uplinks				✓	✓	✓
Smart Rate Multi-Gig Ports				✓	✓	✓
Stacking			✓ VSF	✓	✓	✓ VSF
SDN Optimized			✓	✓	✓	✓
Central		✓	✓	✓	✓	✓
AirWave & ClearPass	✓	✓	✓	✓	✓	✓
PoE+	✓	✓	✓	✓	✓	✓
	ArubaOS Switch 16.03 software required					

Aruba 2530 Switch Series – A cost-effective, reliable and secure Layer 2 access switching solution that delivers entry-level features for the mobile campus and centralized management with Aruba AirWave.

Aruba 2540 Switch Series – A robust and easy to deploy Layer 2+access switching solution optimized for mobile users. The series offers enhanced security and 10GbE uplinks, RIP and static routing. Flexible management options: on-premises with Aruba AirWave or cloud-based with Aruba Central.

Aruba 2930F Switch Series – High performance and cost-effective basic Layer 3 access switching solution with virtual stacking (VSF) for increased performance and redundancy to support the mobile campus. The series offers built-in 1GbE or 10GbE uplinks, Access OSPF, static and RIP routing, and OpenFlow for innovative SDN applications. Flexible management options: on-premises with Aruba AirWave or cloud-based with Aruba Central.

Aruba 2930M Switch Series – Scalable basic Layer 3 access switching solution with modular backplane stacking offering high performance and resiliency for the mobile first campus. The series offers HPE Smart Rate multi-gigabit Ethernet support, Access OSPF, static & RIP routing, IPv6, ACLs, sFlow and OpenFlow support for innovative SDN applications. Flexible management options: on-premises with Aruba AirWave or cloud-based with Aruba Central.

Aruba 3810 Switch Series – A powerful advanced Layer 3 switching solution with backplane stacking, low latency and resiliency. Supports HPE Smart Rate multi-gigabit Ethernet, virtualization with resilient backplane stacking technology, full PoE+ over 48 ports, OpenFlow and line rate 40GbE for plenty of back haul capacity. The advanced Layer 2 and 3 feature set includes OSPF, IPv6, IPv4 BGP, Tunneled Node, robust QoS and policy-based routing with no software licensing required. Flexible management options: on-premises with Aruba AirWave or cloud-based with Aruba Central.

Aruba 5400R Switch Series – A scalable and versatile modular advanced Layer 3 aggregation and core switching solution with Virtual (VSF) stacking, low latency and enterprise-class resiliency. Supports HPE Smart Rate multi-gigabit Ethernet, full PoE+ up to 288 ports, fast software upgrades, OpenFlow and line rate 40GbE for plenty of back haul capacity and centralized management with Aruba AirWave. The advanced Layer 2 and 3 feature set includes OSPF, IPv6, IPv4 BGP, Tunneled Node, robust QoS and policy-based routing with no software licensing required.

TO LEARN MORE

<http://www.arubanetworks.com/products/networking/switches/>

¹ Source: Forbes.com, "Mobile Technologies Becoming a Growth Engine for Small and Medium Business," February 2015

² Source: Huffington Post, for small business, technology is creating jobs, April 16, 2014

³ Source: BI Intelligence, Internet of Things Ecosystem Research Report, August 2016