ARUBA SWITCHING

Security, Performance and Operational Simplicity for the Edge

The growth of IoT networking, demand for cloud-based services and business critical mobility are crushing legacy networks. Today's enterprise network must be able to quickly and safely connect new devices, scale to handle new traffic loads and provide smart, automated insights to help IT more efficiently operate, manage and secure the network.

Because switches create the foundation of the network, their role has now moved beyond purely providing high performance connectivity. The role of switches is to now offer wireless aggregation and act as an IoT gatekeeper for everything from surveillance cameras to point of sales (PoS) systems.

Aruba's modern switching portfolio satisfies demanding use cases from the access layer, to the core, and to the data center. Customers gain the performance they need, with enhanced security, high availability, and intelligent automation that simplifies the complexities of managing today's network.

IT AND BUSINESS CHALLENGES

Network traffic is increasing

The shift to digital has disrupted every portion of the network from the edge to the core. As mobile users demand for high performance video, voice, and cloud applications to better collaborate, conduct business and learn, the amount of data crossing enterprise and branch networks and being aggregated at the core is increasing exponentially.

IoT means more device types and new security concerns

The increase in the number of IoT/headless devices connecting to the network has resulted in an avalanche of data pouring through the core of the network. The limited or lack of security built into IoT devices brings new security risks, which has led to IT needing greater visibility into what's on the network and a way to easily segment traffic, for a greater number of device types.

The network is business critical

From the LOB or CIO's standpoint, it's not an option for the network to go down, or for it to not be running optimally. User experience – whether for employees, guests, shoppers, or students – impacts business success.

KEY BENEFITS

- **Simple, unified wired and wireless** – Aruba's wired and wireless solutions are designed to integrate seamlessly for simple deployment, provisioning and management. Save time with Zero Touch Provisioning and switch autoconfig for VLAN, PoE priority, and CoS with Aruba APs.
- **Secure Access for Users and IoT** – To protect your network and devices, Aruba Dynamic Segmentation offers secure traffic policy enforcement, authentication and L4-7 services for role-based access control.
- **Orchestrated switch configuration** – Aruba NetEdit enables IT teams to smoothly and safely coordinate end-to-end service rollouts with orchestrated switch configuration changes using intelligent capabilities that include search, edit, validation, deployment and audit.
- **Scale and performance for campus and data center** – Industry leading performance, scalability and resiliency create the network foundation your business can rely on. Better throughput and wire speed of 25GbE/40GbE/100GbE means no traffic bottlenecks. Industry standard high power PoE and HPE Smart Rate multi-gigabit Ethernet provide plenty of speed and power for access points and IoT devices.
- **Flexible management** – Choice of on-prem Aruba AirWave and cloud-based Aruba Central streamline support of Aruba wired access and WLAN devices, whether it's a large campus or small remote branch, with no change in hardware required.

This leaves no windows for upgrades as 24x7 access is critical. Limited IT resources also requires that networks be easy to deploy, provision and manage with a way to unify roles and privileges across wired and wireless.

ARUBA'S SWITCHING SOLUTION

Aruba simplifies the complexities of managing today's networks with policy-driven segmentation and AI-powered automation features. Aruba's switching portfolio spans the access and the core and aggregation layers, as well as the data center.

This comprehensive portfolio ranges from entry level compact access switches to resilient and scalable campus core and aggregation and data center switches that deliver 19.2Tbps switching capacity. Carrier-class high availability and visibility help simplify network operations, reduce network complexity, and enable faster response times.

The portfolio seamlessly integrates with Aruba's industry leading network management solutions, either cloud-based Aruba Central or on-premise Aruba AirWave. Built-in security features designed for mobile and IoT are also included. Integration with optional Aruba software solutions such as Aruba ClearPass for advanced policy management, Aruba IntroSpect for network traffic analysis, and other software tools to monitor and improve the user experience are available via API.

No software licensing is required for Aruba switches. This means there is no need to track licenses for software enhancements or features such as stacking. Aruba also provides and industry-leading warranty and global support services.

Aruba core and data center switches

The core has seen very little innovation in the past few decades and the disruptive storm of mobility and IoT is necessitating a change in status quo. Aruba's innovative solution combines a modern, fully programmable OS with carrier-class hardware, leading performance, and incorporates the Aruba Network Analytics Engine to monitor and troubleshoot network, system, application and security related issues easily.

By delivering automation, network-wide visibility and analytics, the ArubaOS-CX operating system simplifies IT operations by reducing the time spent on manual tasks, and addresses current and future demands driven by mobility and IoT.

Aruba NetEdit empowers IT teams to orchestrate switch configuration changes using intelligent capabilities including search, edit, validation, deployment and audit, enabling a smooth, safe and coordinated end-to-end service rollouts.

Aruba Virtual Switching Extension (VSX) provides a redundant architecture in both hardware and software. VSX uniquely ensures control plane synchronization for multi-chassis high availability.
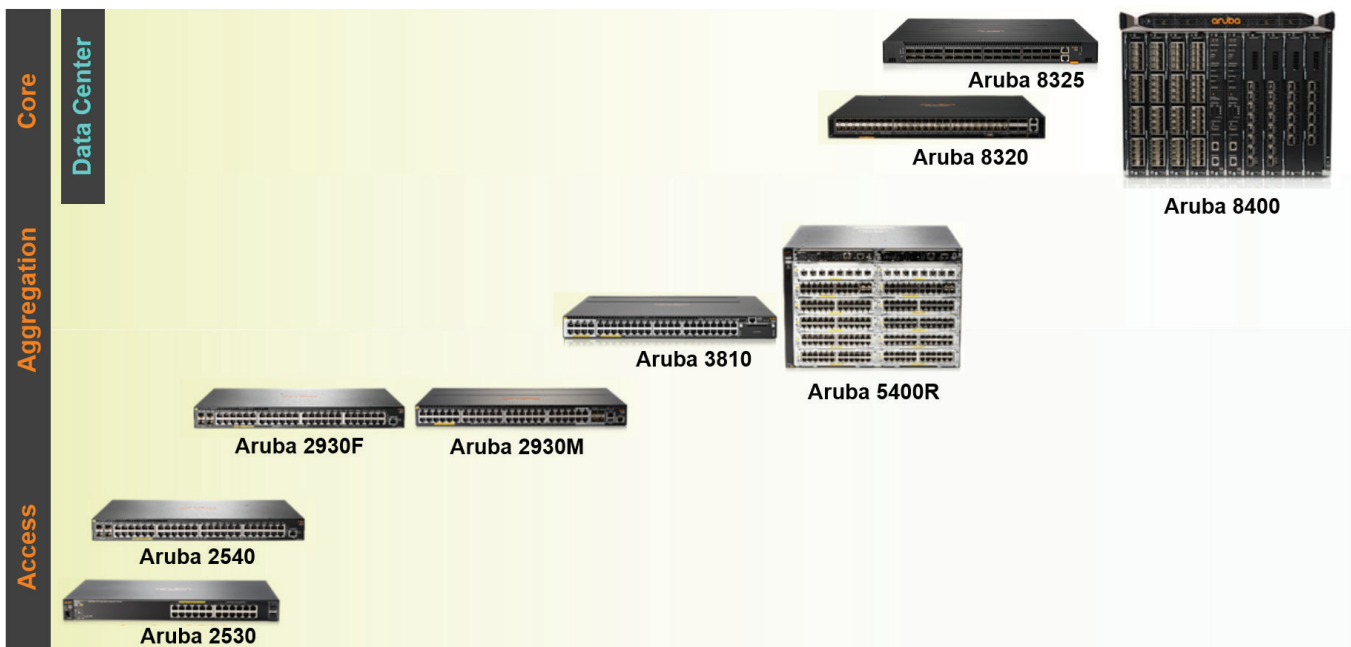

Figure 1: Aruba's campus and branch switching portfolio, from access to core to data center

Aruba 8400 Switch Series

An award winning high density modular Layer 3 core and data center chassis with up to 19.2 Tbps of switching capacity and carrier grade resilient hardware, includes hot swappable fabric, management, fans, and power supplies. The 8400 series ensures high performance and availability with line rate 10/40/100GbE for plenty of back haul capacity. The advanced Layer 3 feature set includes IPv4, IPV6, BGP, and VRF.

Aruba 8325 Switch Series

Powerful and versatile 8325 Switch Series is ideal for campus core and aggregation, and meets emerging data center requirements with reversible airflow for Top of Rack (ToR) and End of Row (EoR) deployments. The 8325 provides over 6.4Tbps of capacity, with line-rate Gigabit Ethernet interfaces including 10Gbps, 25Gbps, 40Gbps, and 100Gbps. Key data center software features include Dynamic VXLAN with EVPN, and Data Center Bridging (DCB).

Aruba 8320 Switch Series

High performance Layer 3 core and data center switching with a modern, fully programmable OS and 2.5Tbps switching capacity. This series ensures high performance and availability with line rate 10/40GbE for plenty of back haul capacity. The advanced Layer 3 feature set includes IPv4, IPV6, BGP, and VRF.

Aruba access switches

Aruba's access switches provide an integrated wireless-wired foundation with scalability, security and high performance for campus and branch networks. Programmable Aruba ProVision ASICs and ArubaOS-Switch software enable fast wireless aggregation and simplicity with unified role-based access across wireless and wired networks using the ability to identify and assign roles to users and IoT devices to prioritize business critical applications while securing the network.

With advanced security and network management tools — Aruba access switches are simple to deploy, secure and centrally manage. Zero Touch Provisioning helps customers with remote branch sites with little or no IT support to quickly deploy with assurance of valid configurations.

Aruba Dynamic Segmentation support on Aruba's Layer 3 switches (2930F, 2930M, 3810, 5400R) simplifies security by eliminating the manual configuration of VLANs and access lists. This ensures that appropriate access and security policies are seamlessly distributed, automatically applied and independently enforced for all wireless and wired users and IoT devices.

Aruba 5400R Switch Series

A scalable and versatile modular advanced Layer 3 aggregation and access 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, Rest APIs support and line rate 40GbE for plenty of back haul capacity. The advanced Layer 2 and 3 feature set includes OSPF, IPv6, IPv4 BGP, Dynamic Segmentation, robust QoS and policy-based routing.

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, REST APIs and line rate 40GbE for plenty of back haul capacity. The advanced Layer 2 and 3 feature set includes OSPF, IPv6, IPv4 BGP, Dynamic Segmentation, robust QoS and policy-based routing.

Aruba 2930M Switch Series

High performance and scalable Layer 3 access switching solution with modular power (up to 1440W), modular uplinks (10GbE, 40GbE) and modular stacking for high performance and resiliency. Future proof models support up to 28 ports of HPE Smart Rate multi-gigabit Ethernet and industry standard IEEE 802.3bt High Power PoE for connecting the latest 802.11ax APs. The series offers Access OSPF, static and RIP routing, Dynamic Segmentation, IPv6, ACLs, sFlow and ready for the software defined network with REST APIs.

Aruba 2930F Switch Series

High performance and cost-effective 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, PoE+, Access OSPF, static and RIP routing, Dynamic Segmentation, IPv6, ACLs, sFlow and ready for software defined networks with Rest APIs.

Aruba 2540 Switch Series

A robust and easy to deploy Layer 2+ access switching solution that offers enhanced security and 10GbE uplinks, RIP and static routing, and flexible management.

Aruba 2530 Switch Series

A cost-effective, reliable and secure Layer 2 access switching solution that delivers entry-level features for small-to-midsize businesses.

TO LEARN MORE

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

SO_CampusSwitching_SK_050919   a00047746enw

a Hewlett Packard
Enterprise company

Contact Us   Share