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Enterprise company

THE RUCKUS ADVANTAGE VS. ARUBA (HPE)

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WHAT SETS RUCKUS APART FROM ARUBA (HPE)

PERFORMANCE APs: Every RUCKUS AP is packed with an array of patented technologies that delivers a level of performance Cisco cannot match.

Switches: RUCKUS is first to market with a 100 GbE solution for the campus and offers multigigabit speed at the entry level. Aruba fastest uplink speed is 40 Gbps and multigigabit speed support is only available at the top of the range.

SCALABILITY: RUCKUS SmartZone can manage 10K APs, 150K clients per controller, while 3+1 active clustering increases capacity to 30K APs, 450K Aruba does not get close to these numbers! Aruba supports up to 2,048 APs and 16K clients per HW controller with consolidated deployments up to 10k APs, 100k clients. This explains why RUCKUS is #1 in Service Provider Wi-Fi and #1 in Hospitality (Dell'Oro).

IT EXPERIENCE: Whether you choose Cloud Wi-Fi, SmartZone or Unleashed, you are guaranteed a great user experience... RUCKUS offers enterprise level features with consumer level ease of use! Aruba's mobility architecture is too complex for all but the largest organizations with dedicated staff to monitor and manage and a level of expertise that smaller organizations do not have. Also RUCKUS use a single OS for all switches, while Aruba relies on multiple OS platforms.

DEPLOYMENT SIMPLICITY APs: Whether you choose Cloud Wi-Fi, SmartZone or Unleashed, all your APs will call home and register themselves with the management platform. Aruba AP and switches discovery and registration processes requires more hand holding.

Switches: With advanced stacking and campus fabric, you can manage your network as if it was one logical switch. Just a single point of management. Aruba IRF fabric is complex to deploy and does not offer single point of management.

CAPEX/OPEX APs: Because RUCKUS APs are more advanced, you don't need to deploy as many (from 30 to 50% less than Aruba APs). That's fewer APs to buy and manage.

Switches: Every ICX switch is designed to be upgradable, you can simply upgrade uplink ports speed. Aruba entry level switches do not support stacking, uplink speed cannot be upgraded with a simple license.

INNOVATION: With the help of RUCKUS OpenG™ LTE portfolio, you can deploy and manage a private LTE network as easily as you deploy Wi-Fi today. Aruba does not offer products in that category.



ARUBA (HPE) WEAK POINTS

COMPLEXITY

- A large, highly trained IT staff is a requirement for most mobility controller deployments due to the overwhelming number of features and complexity beyond what most customers will use.

- Aruba's mobility expert certification requires 16 days of paid training and doesn't include products like ClearPass or AirWave. RUCKUS' focus reduces complexity without sacrificing features or performance.

- HPE FlexNetwork architecture based on IRF is complex to deploy and only supported on HPE FlexNetwork switches. In contrast RUCKUS Campus Fabric is supported on all ICX 7000 switches and is plug and play.

MIXED PERFORMANCE

- While Aruba support up to 1.7 Gbps Wi-Fi access rates with 80MHz wide channel, it is limited by its 1 Gbps Ethernet port. The RUCKUS R720 offers a built in multigigabit backhaul with 2.5 GbE connection.

- Additionally, RUCKUS R720 AP has BeamFlex + multi element directional antenna array with over 4,000 directional antenna patterns per band, which can automatically select best combination for any client location. RUCKUS APs outperforms the Aruba APs with large margin in all uplink and downlink tests.

LIMITED UPGRADABILITY

Aruba offers a plethora of switching lines inherited from prior acquisitions and yet to be consolidated (HPE, Aruba, 3Com...) with limited upgradeability and limited life prospect.

- Entry level switches cannot be upgraded to support stacking and switches with fixed uplinks ports cannot be upgraded to the next uplink speed. Entry level switches cannot be upgraded to support FlexNetwork.

- In contrast, ICX switches support license based uplink port speed upgrade, they are all stackable, and all support RUCKUS campus fabric.

PORTFOLIO GAPS

HPE portfolio is primarily targeted at large enterprises and lacks completeness.

- Limited specialty AP portfolio, no AP with built in LTE backhaul

- Limited multi tenant abilities for service providers

- Limited service provider support in offering (scalability, redundancy, performance...)

- Limited hospitality solutions

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ENTRY LEVEL SWITCH MAPPING

Aruba	RUCKUS
HPE 2530 HPE 2540 HPE 2920 (1Gb) HPE 2920F (1G)	ICX 7150
HPE 2930F - 8G	ICX 710 - C12
HPE 2920 (10Gb) HPE 2920F (10g) Aruba 5130 HI (10Gb)	ICX 7250

ENTRY LEVEL AP MAPPING

Aruba	RUCKUS
AP-203H	H320
AP-303H	H510
AP-304/305	R310
AP-304/305	R510

NETWORK MANAGEMENT AND CONTROL

Aruba Product	RUCKUS Solution
Aruba Instant HPE OfficeConnect	RUCKUS Unleashed
Aruba Central	RUCKUS Wi-Fi
Aruba Instant (multi-site) + AirWave or Aruba Central	RUCKUS Unleashed + UMM, or Cloud Wi-Fi
Aruba Mobility Controller + AirWave (centralised architecture)	RUCKUS SZ100/300 or vSZ + vDP
Aruba Mobility Controller + AirWave (distributed architecture)	RUCKUS SmartZone (all)
NetInsight	SCI

MID-RANGE SWITCH MAPPING

Aruba	RUCKUS
HPE 3810M Smartrate	ICX 7150 - 48ZP 8x10G
Aruba 3800 Aruba 3810M HPE 5400Rz HPE 5800	ICX 7450

MID-RANGE AP MAPPING

Aruba	RUCKUS
AP-224/225	R610
AP-314/315	R610

HIGH-END AP MAPPING

Aruba	RUCKUS
AP-324/325	R710
AP-334/335	R720
-	R730

HIGH-END SWITCH MAPPING

Aruba	RUCKUS
Aruba 8320	ICX 7650
HPE 5930 FlexFabric HPE 5900AF HPE 5800	ICX 7750
Catalyst 4500X Catalyst 6800	ICX 7850

OUTDOOR AP MAPPING

Aruba	RUCKUS
AP-275	T610 T310
AP-375	T710

SECURITY, ON-BOARDING, LOCATION SERVICES

Aruba Product	RUCKUS Solution
ClearPass	Cloudpath
ALE	SPoT

THE RUCKUS ADVANTAGE VS. ARUBA (HPE)

Product Positioning

RUCKUS SOLUTION

RUCKUS SmartZone is a highly scalable network controller that deploys with the ease and survivability of Aruba Instant without requiring a performance hit or expensive add-ons like AirWave.

RUCKUS Unleashed is a controller-less solution that provides a controller-level feature set and deploys in minutes. Unleashed Multi-Site Manager (UMM) scales Unleashed further with a lightweight application that doesn't require heavy resources or a dedicated master console for larger deployments.

RUCKUS Cloud combines reliability and ease of use to provide Wi-Fi you can count on in even the most challenging environments, with integrated analytics and customizable reporting.

CONTROLLER-BASED ARCHITECTURES

RUCKUS SmartZone

Focused on cost-efficient and easy to use solutions that scale from small to massive. On-site or remote controllers, standalone or clustered, user friendly, all-in-one design with built-in historical reporting, troubleshooting, multi-tenancy, and tunneling. Includes an integrated management of RUCKUS ICX switches.

CISCO PRODUCTS

A large, highly-trained IT staff is a requirement for most mobility controller deployments due to the overwhelming number of features and complexity beyond what most customers will use. HPE OfficeConnect and Aruba Instant On were launched to compete on the lower end of SMB market, against vendors like Ubiquiti. These products offer very limited feature set.

Instant is Aruba's standard leading product in deals smaller than very large enterprise or specific verticals that prefer a controller (government, finance, etc.). In effect, this gives Aruba two main WLAN product lines: mobility controllers and Instant.

- Low entry cost
- Simple deployment

- Multiple growth paths:
- AirWave for multiple sites
 - Aruba Central for cloud-based management

AirWave and ClearPass are the most common add-ons to an AP/controller sale and are touted by Aruba as multi-vendor solutions that assist their customers migration to an all-Aruba installation. WLAN.

CONTROLLER-BASED ARCHITECTURES

Aruba Mobility Controllers

Focused on niche features and a multi-tier, multi-controller mobility architecture that is too complex for all but the largest organizations with dedicated staff to monitor and manage. Requires a substantial commitment to training to use. Aruba Mobility Controllers do not include switch management.



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CONTROLLER-LESS ARCHITECTURES: RUCKUS Unleashed

Affordable, user-friendly solution with a rich feature set. Includes a free mobile app that can manage up to 10 Unleashed networks. Deploys in minutes. Unleashed is appropriate for single SMB/SME deployments up to multi-site with Unleashed Multi-site Manager (UMM), a simple, lightweight management system. RUCKUS ICX switch management from the Unleashed dashboard, Unleashed mobile app or UMM.

CLOUD-MANAGED ARCHITECTURES: RUCKUS Cloud

Simplified WLAN management with a consistently great user and IT experience. Provision, monitor and troubleshoot your entire wired and wireless network of RUCKUS APs and ICX switches through a single web dashboard.

SECURE DEVICE ACCESS SOFTWARE: RUCKUS Cloudpath

Cloudpath Enrollment System is a software/SaaS platform that delivers secure, policy-based wireless and wired network access for every user and every device on any network, including guest and BYOD. It can be installed on-premise as a VM or used as a public cloud service.

NETWORK ANALYTICS: RUCKUS Analytics

Data Flow

- RUCKUS SmartZone or RUCKUS Cloud collects data from RUCKUS APs and ICX switches
- Data is passed to the RUCKUS Analytics cloud service via secure channel
- Data is processed with ML

Data Storage

- RUCKUS Analytics holds 12 months of data for reporting
- 90 days for Insight analysis
- Data is available for wired and wireless

Analytics Functions

- Health Dashboard
- Incident Analytics with Machine Learning Insights
- Health SLA monitoring
- Client troubleshooting
- Pre-packaged reports
- Custom report dashboards
- Data exploration with Drag and Drop UI



CONTROLLER-LESS ARCHITECTURES: Aruba Instant

The most common solution proposed for all but the largest deployments. This “one size fits most” means the price point and features must stretch across a wide swath of customer types and use cases. Multi-site scalability is via Instant + AirWave or Central, although AirWave deployments have significant hardware requirements.

CLOUD-MANAGED ARCHITECTURES: Aruba Instant + Central

Cloud-based management system for Aruba Instant APs and switches. Simple interface intended for small, distributed deployments. Not a true cloud-controller solution.

SECURE DEVICE ACCESS SOFTWARE: Aruba ClearPass

Aruba's ClearPass Policy Manager, part of the Aruba 360 Secure Fabric, provides role- and device-based secure network access control. It is available as hardware or a virtual appliance, but it is not offered as a cloud service. ClearPass Policy Manager is part of the Aruba 360 Secure Fabric.

NETWORK ANALYTICS: Aruba NetInsight

Data Flow

- Aruba NetInsight uses dedicated data collector to gather data from APs, controllers, AirWave, ClearPass and DHCP servers
- The data collector passes data to a cloud service where it gets processed with ML

Data Storage

- Aruba claims 90-day storage of historical data
- 30-day interval for Insight analysis

Analytics Functions

- AP classification and real-time management
- Validation of impact from network changes
- Real-time network performance monitoring
- Client connectivity Insights

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IoT ARCHITECTURE: RUCKUS IoT Suite

RUCKUS IoT Suite is purpose built to securely transport IoT traffic from an open eco-system of IoT device and cloud service partners without overlay IoT networks.

RUCKUS IoT Controller aggregates and displays IoT sensor information and interfaces securely with 3rdparty IoT services.

RUCKUS SmartZone Controller for network configuration, control and management RUCKUS APs with integrated BLE and ZigBee or RUCKUS i100 IoT plug-in AP modules with multi-protocol support.

SWITCH PORTFOLIO: RUCKUS ICX switches

The ICX portfolio provides a broad range of stackable switches to meet the needs of even the most demanding edge networks. The ICX switch family provides the building blocks for a complete enterprise-campus network. All based on stackable 1RU switches. From entry-level to high-performance switches that can provide the performance and features previously only available from a large, expensive chassis. RUCKUS ICX switches provide customers with the ability to easily and flexibly scale-out their network by adding more switches as they're needed.

WLAN PERFORMANCE: RUCKUS access points

RUCKUS Access Points (APs) provide secure and reliable connections in challenging RF environments, indoors or outdoors. RUCKUS' patented BeamFlex+™ adaptive antenna technology selects best antenna combination for any client location, provides extended coverage and improves AP-to-client link reliability. ChannelFly, another RUCKUS' RF innovation, helps to find the least congested Wi-Fi channels for the APs based on real-use statistics, increasing overall system throughput. Whether it is an AP with 2x2, 3x3 or 4x4 MIMO technology RUCKUS products deliver industry-leading performance. High-end RUCKUS R750 Wi-Fi CERTIFIED 6™ AP supports 8 spatial streams (4x4:4 in 5GHz and 4x4:4 in 2.4 GHz) and can support up to 1024 client connections in ultra-high density environment.



IoT ARCHITECTURE: Aruba

Aruba offers a system that includes Aruba IoT products focused on BLE technology:

- APs with BLE radios
- Aruba beacons
- Aruba tags

Wayfinding mobile app utilizes Meridian platform Limited ZigBee support in APs Poor WebUI for IoT in the ArubaOS controllers No dedicated IoT controller Integration with 3rd-party IoT services is not well explained.

SWITCH PORTFOLIO: Aruba switches

HPE re-branded their campus network switches with the Aruba logo following the acquisition in 2015. Many of these switches have been refreshed since the Aruba acquisition. Aruba branded switches target the Campus LAN from access/edge to aggregation and core switches. These are generally the most comparable to the RUCKUS ICX switches. Aruba also released newer platforms with CX OS for both Campus and data-center. The access and medium aggregation switches are mostly stackable, fixed form factor. However, Aruba relies primarily on chassis for the core and aggregation.

CLOUD-MANAGED ARCHITECTURES: Aruba Access points

Designed with an overwhelming array of RF feature knobs and buttons, performance is inconsistent across Aruba APs, and real-world bakeoffs consistently prove it out. Transmit Beamforming feature provides limited benefits, and polarisation diversity is available only in high-end indoor AP models and that is for 5 GHz radios only.