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SWOT: Hewlett Packard Enterprise (Aruba Networks), Wired and Wireless LAN Access Infrastructure, Worldwide

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Summary

The acquisition of Aruba Networks has strengthened Hewlett Packard Enterprise's market position, but strategic planners need to understand that the high level of opportunities will require proper execution. Competitors can refine their go-to-market strategies based on this SWOT analysis.

Analysis

SWOT Analysis

This strength, weakness, opportunity and threat (SWOT) analysis evaluates the Hewlett Packard Enterprise (Aruba Network) strategy for developing, marketing and delivering wired and wireless local-area network (LAN) access infrastructure solutions. This market consists of vendors that supply wired and wireless LAN (WLAN) hardware and software components that provide device connectivity to the enterprise infrastructure access layer. These components include:

- Hardware — wireless access points (APs) and wired switches.
- Software network applications — including network management, guest access, onboarding, authentication, authorization and accounting (AAA) security, policy enforcement, intrusion detection system (IDS)/wireless IDS (WIDS), location services, network performance monitoring (NPM), and application profiling and analytics.

The writing of this research comes at a time of major changes within the larger Hewlett Packard organization. Effective since the start of its fiscal year, 1 November 2015, Hewlett-Packard Company (HP) has separated into two independent publicly traded companies "HP Inc." and "Hewlett Packard Enterprise." Hewlett Packard Enterprise will comprise networking, servers, storage, cloud computing, unified communications and enterprise services and software, whereas HP Inc. will manage the PC and printer business.

In the networking marketplace, Hewlett Packard's acquisition of Aruba Networks (Aruba) (completed in May 2015) offers a strong access layer solution portfolio, but execution is paramount — given the size of the acquisition. Aruba had approximately 1,800 employees and, according to our estimates in 2014, the company generated \$650 million in product revenue from sales of LAN access layer products, predominantly WLAN. The combination of the No. 2 WLAN vendor with the No. 2 Ethernet switch vendor (in terms of revenue share, and according to Gartner's published market share reports, for the enterprise network equipment market) establishes HPE (Aruba) well in the global access layer market against the market leader Cisco Systems (Cisco).

Strategic planners can use our analysis to strengthen HPE (Aruba)'s positioning in the access layer market as the company capitalizes on market opportunities. Strategic planners from competitors can use our analysis to better understand HPE (Aruba)'s weaknesses and threats, to refine their go-to-market approaches.

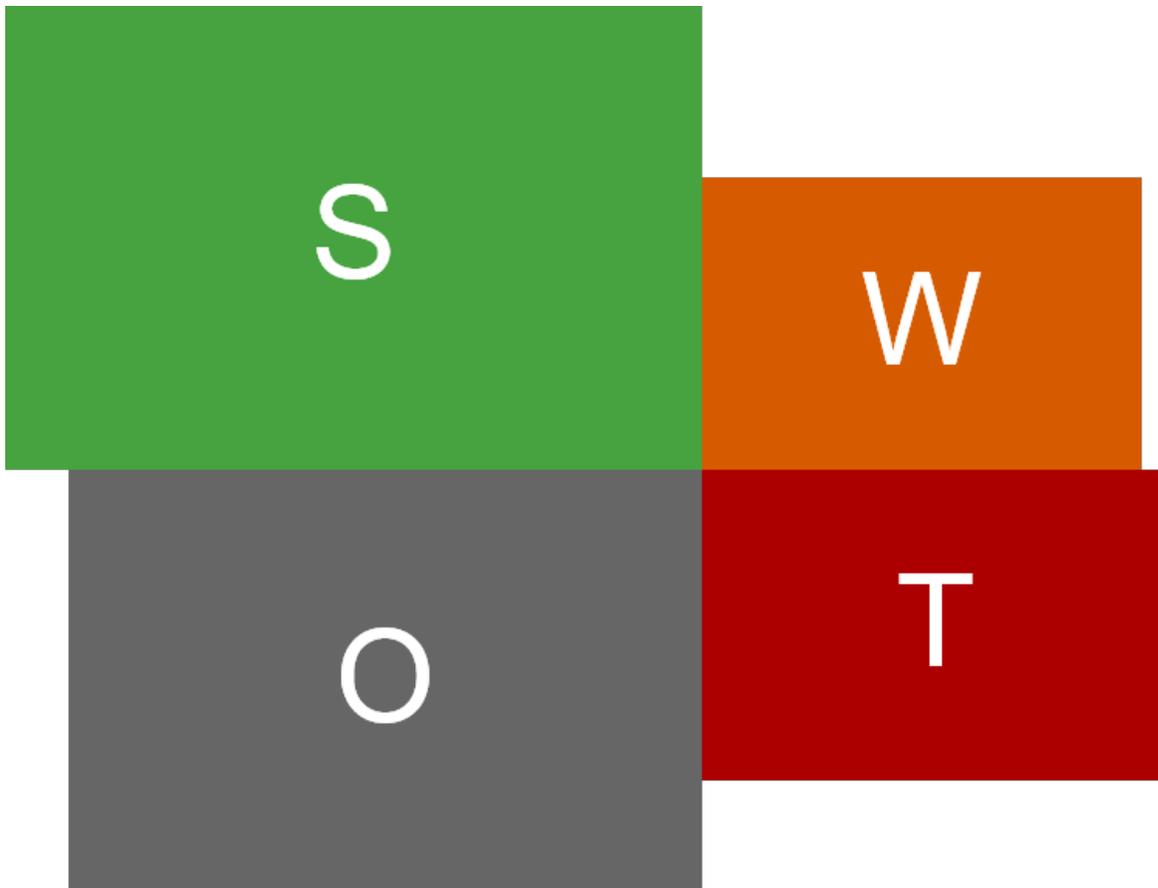
Nomenclature Used in This SWOT

Since Hewlett Packard and Aruba Networks were very different companies prior to the acquisition, in this research we have used the following nomenclature:

- "HP" for legacy Hewlett Packard (HP) Networking WLAN products
- "Aruba" for legacy Aruba Networks
- "HPE" for references to the new entity (Hewlett Packard Enterprise, which includes Aruba Networks)

Figure 1 provides a graphical proportionate representation of the strengths, weaknesses, opportunities and threats of HPE wired and wireless access infrastructure business, based on Gartner's SWOT rating model. This comparative representation of the SWOT analysis for HPE adds relative weightings to each of the SWOT elements as part of producing the graphical results. The size of each box reflects the relative significance of HPE's SWOT.

Figure 1. Graphical Representation of SWOT: Hewlett Packard Enterprise, Wired and Wireless LAN Access Infrastructure, Worldwide



LAN = local-area network; SWOT = strength, weakness, opportunity and threat

Source: Gartner (December 2015)

Figure 2 lists the contributing factors, providing a list of HPE's key strengths, weaknesses, opportunities and threats in the market. Figure 2 summarizes the individual SWOT findings.

Figure 2. SWOT: Hewlett Packard Enterprise, Wired and Wireless LAN Access Infrastructure, Worldwide

Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ Strong access layer solution through Aruba acquisition ▪ Strong network management and guest access solution ▪ Large networking portfolio ▪ Lifetime warranty ▪ Global sales coverage and support ▪ Footprint and ability to penetrate the SMB market 	<ul style="list-style-type: none"> ▪ Broad WLAN portfolio needs simplifying ▪ Access layer solution needs better "stickiness" ▪ Lacks a strong networking brand within large enterprises ▪ Aruba Central has some functionality gaps
Opportunities	Threats
<ul style="list-style-type: none"> ▪ Multivendor deployments due to commoditization of access layer switches ▪ Increasing demand of network application services ▪ Location assets via Meridian acquisition ▪ Cloud-managed WLANs ▪ Geographical expansion ▪ Public venue/service provider WLAN opportunity ▪ SDN implementation in wired/wireless LAN access infrastructure ▪ Innovative commercial solutions ▪ Sale of majority stake in H3C 	<ul style="list-style-type: none"> ▪ Need to rationalize product support warranty ▪ Cisco's advantage — selling to enterprises that want to buy their access layer solution from a single vendor ▪ HPE ownership hampers Aruba's aggressive approach to innovation ▪ Competition from Cisco in the SMB and cloud-solution market ▪ Reduced control of R&D and plant assets in China

H3C = H3C Technologies; HPE = Hewlett Packard Enterprise; LAN = local-area network; R&D = research and development; SDN = software-defined network; SMB = small or midsize business; SWOT = strength, weakness, opportunity and threat; WLAN = wireless LAN

Source: Gartner (December 2015)

Strengths

Strong Access Layer Solution Through Aruba Acquisition

HP began to enhance its portfolio of WLAN offerings via the acquisition of Colubris Networks (Colubris) (4Q08) and, later, through the acquisition of 3Com (2Q10). Colubris was predominantly a small or midsize business (SMB) solution with a strong security focus, and 3Com was a well-established vendor in China through its H3C Technologies (H3C) subsidiary. While these acquisitions helped HP to become a top-five WLAN vendor (in revenue ranking, according to Gartner's published market share reports), HP has struggled throughout the years to keep pace with the market, losing revenue share during 2013 and 2014, with channel partners growing more frustrated. The issues were a lack of market focus and

differentiation, as well as a broad, disjointed portfolio, based on acquisitions that were not rationalized to meet HP's target markets or offer a clear continuum of products across HP's customer targets. The acquisition of Aruba Networks was a bold move by HPE, in order to strengthen a WLAN offering that had lost its competitive edge. This was predominantly due to a lack of a cost-effective controllerless offering as well as its gaps in its network application services portfolio (for example, device onboarding and guest access). Aruba had been the No. 2 player since 2007 (in terms of revenue share, according to our enterprise WLAN market share statistics). This is because of its broad offering — driven by innovation, increasingly software-driven and based on a strong unified access enforcement policy — appealing to nearly all network design types and price points. Aruba's executive management team was notable for its remarkable job of recognizing which segments were growing and then moving the company to maximize its revenue potential.

Strong, unified wired/wireless integration and innovative network applications are increasingly required by enterprises; Aruba provides a strong solution with its ClearPass access management product suite and AirWave network management. These include multivendor support, which blends well with HPE switches as well as enterprises that have deployed other vendors' access components — including Cisco.

Strong Network Management and Guest Access Solution

Aruba has blended its Avenda Systems and Amigopod acquisitions into the ClearPass suite, one of the leading guest access, policy enforcement and onboarding solutions in the market. HPE is now in possession of a robust solution that can implement granular access privileges based on users' roles, device type, device health and location. This allows the application to control the access policy of end users connecting to a wired or wireless network based on their login credentials. The key enabler for the ClearPass suite of applications has been the ability to provide enterprises with functionality across different price points to address a broad mix of markets and customer types. For example, in the small and medium enterprise market, organizations may need guest access, in addition to the physical wired and/or wireless connectivity. ClearPass Guest offers this capability, whereas most competitors have this functionality bundled into single monolithic security, policy enforcement, configuration management, intrusion detection, Remote Authentication Dial-In User Service (RADIUS) server application.

Aruba's ClearPass suite of applications was included in Gartner's 2014 "Magic Quadrant for Network Access Control," in the "Leaders" quadrant (together with Cisco and ForeScout Technologies). A RADIUS-based solution, ClearPass' strengths include integration with third-party security solutions (security information and event management [SIEM], enterprise mobility management [EMM] and next-generation firewalls), a strong bring your own device (BYOD) EMM strategy through its integration with AirWatch, MobileIron and several other EMM solutions, as well as granular guest network application functionality. While ClearPass sales have historically been primarily driven by wireless rollouts (and rarely seen in wired LAN environments), HPE's acquisition will broaden the opportunity.

HPE has not yet merged Aruba's AirWave and its Intelligent Management Center (IMC) network management application, but steps will be taken to do so. Gartner expects any surviving functionality of the monolithic and often cumbersome IMC, as well as a separate IMC Smart Connect application, to be woven into the AirWave access layer platform. The IMC brand and capabilities needed for data center (DC) management may also be spun off into a DC-centric solution, with the ability for AirWave and a new IMC to provide an enterprise solution where the specific application can focus on the enterprise needs of each network segment.

Large Networking Portfolio

HPE has a broad networking portfolio that includes switches, WLAN and routers, unmatched in breadth and functionality in the access layer market (excepting Cisco), but at a more competitive price point. In an increasingly commoditized market of access layer hardware, HPE has been able to capitalize based on its lower-priced access layer switches (in comparison with Cisco).

Following on from the 2009 launch of ProCurve Open Network Ecosystem (ONE) Alliance, HPE combined this alliance program with the programs from 3Com/H3C and TippingPoint in early 2010 to create a new program called HP AllianceOne Partner Program. This program aims for partnerships with vendor products developed to work with HP



Networking. Vendors that are part of this program include AeroScout, AirTight Networks, Avaya, F5 Networks, Fortinet, Intel Security Group, Microsoft Lync and Riverbed Technology. In addition, HPE switches can be bundled as an option with other offerings from its alliance partners. This enables HPE to offer an end-to-end portfolio to compete with Cisco for those enterprises that prefer a simple "one-stop-shop," while maintaining a "best-of-breed" approach to infrastructure design.

Lifetime Warranty

A very important selling point for HPE continues to be the providing of a lifetime warranty on many of its products, with next business day advanced shipment in most countries. HPE has been a pioneer here, and even though other networking vendors offer a similar warranty on part of their product lines, today, HPE continues to be a leader, covering all critical components, such as power supplies and fans. In 3Q13, HPE launched its Lifetime Warranty 2.0 program, which offers customers free 24/7 technical support for three years on any HP FlexCampus, FlexBranch or small business product. This program applies to a wide selection of switches — including 5500 HI, 5500 EI, 5120 EI, 3800, 3600 EI, 3500/3500 yl, 2915, 2910 al, 2620, 2615, 2530, 2520 and 2510 switch series for access layer and branch networks. For WLAN, free support applies to the MSM Controller Series, 830/870 Unified Wired-WLAN Appliance series and the MSM-802.11n Access Point series.

Global Sales Coverage and Support

HPE has a broad network of distribution channels and is able to reach out and address network market demand on a wider scale than its competitors (with the exception of Cisco). It has the ability to offer a competitively priced access layer offering with equivalent functionality across all geographies, so HPE is well positioned to seize market share from Cisco (although proper focused execution will be required). Additionally, this has opened up cross-selling opportunities as well as access to new customers within the various markets HPE business addresses, particularly large enterprise accounts, where the new access layer solution can be deployed globally.

Footprint and Ability to Penetrate the SMB Market

Aruba Instant has enjoyed strong customer adoption through the integration of mesh networking within the access points. This eliminates the need to deploy a WLAN hardware controller, appealing to the price-conscious market of SMBs. HPE has achieved good penetration among SMBs in the switch market and the Aruba acquisition has broadened this opportunity to WLAN. HPE needs to continue to invest in Aruba Central, its cloud management offering, so that it can provide equivalent functionality to the ClearPass suite of applications and AirWave. Failure to create this parity will leave the growing cloud managed network and infrastructure-as-a-service (IaaS) markets wide open to Cisco's Meraki solution, as well as offerings that continue to be launched by other competitors. HPE's wired switches have a strong footprint in the SMB market, particularly in EMEA and Asia/Pacific, which needs to be aggressively leveraged. We expect HPE to make parts of its switching portfolio cloud-manageable within the next nine months. This is an area where HPE can enjoy a better experience than Cisco. With Aruba, the same hardware can be migrated from cloud to on-premises management, but with Meraki this is not possible.

Weaknesses

Broad WLAN Portfolio Needs Simplifying

Following the acquisition of Aruba, we expect HPE to begin rationalizing certain product lines in the near future, to simplify selection for customers. This is a necessary measure, particularly for WLAN, to eliminate product functionality overlap in its broad portfolio, and is the reason why this has been flagged as a weakness. Aruba switches and legacy "HP" APs represent product redundancies — and thus are not the long-term strategic platforms for HPE. While eventual discontinuation of these product lines has the potential for disruption to existing customers, we believe there is a greater benefit to be realized by the rationalization of HPE's WLAN portfolio.

Product overlap will potentially confuse customers, particularly when little product differentiation exists. In response to the "unified wired/wireless" product announcements made by Cisco early in 2013 with its Catalyst 3850 Series switches, HP introduced its 830 Unified Wired-WLAN Switch Series that same year, but competing controllerless solutions such as Aruba Instant have enjoyed higher customer adoption. The HP unified wired-WLAN module for the 10500 and 7500 series switch is expensive to deploy since it requires a chassis switch. Moreover, access switches have vastly moved away from chassis designs to fixed configuration. Customer adoption of Cisco's Wireless Services Module 2 (WiSM2) has been limited, as has HP's 10500/7500 unified wired-WLAN module. In late 2014, HP released its M220 802.11n AP series, which uses a clustering technology that enables SMBs to deploy and manage up to 16 APs as a single entity. The M220 overlaps with Aruba Instant, but has less functionality, justifying an eventual need to retire this product. HPE has a cloud-managed WLAN product, based on a management interface called Cloud Network Manager (CNM) and the 350, 355 and 365 cloud-managed APs, which overlaps in functionality with Aruba Central.

Access Layer Solution Needs Better "Stickiness"

The issue of product functionality overlap within HPE's access layer portfolio creates a hole in the "stickiness" between its WLAN and switch offerings. We have given a low weighting to this weakness, since solutions such as AirWave and ClearPass offer differentiation, but we believe there is room for improvement to deliver more advanced wired/wireless integration capabilities. The ability to build on this stickiness will provide HPE with the means to gain a competitive advantage against Cisco. Access layer switches represent a mature market that has not perceived much innovation in the past few years. Network applications can provide the "glue" required in order to establish a premium for functionality, as well as eliminate an access layer price war.

Lacks a Strong Networking Brand Within Large Enterprises

While the access layer has become a commoditized space, many vendors have historically struggled in their ability to displace Cisco based on pricing. One of the reasons is that many network administrators, in their vendor selection, continue to view the entire network (access, aggregation and core layers) as one entity. This hugely benefits Cisco, because of the perceived safety of a "one stop shop" from a strong global brand along with the recognizable value of Cisco training and certifications. HPE needs to adopt a stronger approach toward leveraging its brand in the enterprise market, to be able to achieve success when competing against the brand "pull" that Cisco enjoys. The HPE company spinoff should help in this aspect, even though short-term marketing investments will likely be limited due to the planned cost cutting.

Aruba Central Has Some Functionality Gaps

HPE's recent addition of ClearPass guest access functionality has contributed to making Aruba Central a more complete cloud WLAN solution. For connectivity redundancy, in the event of losing the WAN connection to the cloud, Aruba Instant APs can revert to cluster (on-premises) mode. However, Cisco's Meraki continues to boast several strengths in functionality, including industry-leading device profiling, as well as subscription-based cloud applications that include basic traffic shaping, WAN optimization and content filtering. This means that Aruba Central is lacking in some functionality in comparison with Cisco Meraki.

Cloud-managed WLANs are becoming a required element among enterprise buyers, and the subscription model of software-as-a-service blends well with the increasing availability of managed WLAN services. Enterprises are looking for vendors to provide an equivalent functionality solution that can be deployed on-premises as well as in a public or private cloud, but often examine a single implementation capability for a single use case.

Opportunities

Multivendor Deployments Due to Commoditization of Access Layer Switches

While we had classified this as a threat in "SWOT: Cisco, Wired and Wireless LAN Access Infrastructure, Worldwide," we see commoditization as an opportunity for HPE. Increased commoditization of access layer switches probes Cisco's ability to charge higher price premiums, and in return, favors cheaper products that offer similar levels of functionality. While fear of interoperability between Cisco and other vendors' equipment often compels customers to avoid looking at other vendors for replacements, multivendor networks will continue to grow as a result of increased commoditization. Access layer switches represent a mature market that has not seen much innovation in the past few years. Technologies such as Power over Ethernet Plus (PoE+), virtual stacking in fixed configuration switches, and improved power consumption no longer offer differentiation. Therefore, lower price points increasingly play an important role. Refresh project timing also affects the procurement process, which when coupled with increased commoditization, stimulates adoption of multivendor networks. This is because the purchasing decision for the access layer components (wired and wireless) is often made at different times and sometimes by different parts of the enterprise.

Increasing Demand of Network Application Services

Physical technologies, such as 802.11n and 802.11ac Wave 1, have become commoditized at the access layer, and this commoditization has increased the useful life of equipment. This makes selling overlay network services (such as context-aware and location-based services, security, and BYOD support) across the entire network for wired and wireless connectivity more important. Deployment of network application services, such as network management, security authentication and authorization, and policy enforcement, will continue to be driven by enterprises seeking efficient, secure and predictable behavior from their network. Gartner is already hearing clients ask for the next step in the access layer market — SLAs for wired and wireless communications.

HPE is well positioned in the access layer market to take advantage of the growing buyer demand for performance around client bandwidth requirements along with end-to-end monitoring of the network, as well as proactive and dynamic changes to the network to maintain SLAs. The ability to enforce these SLAs across data, voice and video means monitoring tools must provide feedback on bandwidth and latency across the end-to-end network.

Products such as ClearPass and AirWave offer differentiation and are easier to use over legacy HP equivalents. The Aruba acquisition makes HPE a leading provider in a part of the market that is growing fast, and where demand will continue to be strong. There is also a need in the market for managed services; however, without monitoring tools and the ability to proactively address issues, managed service providers' partners will be unable to meet the market requirements.

Location Assets via Meridian Acquisition

We have classified HPE's position in the WLAN location services space as an opportunity because implementation of location-based WLAN solutions — while niche in the carpeted enterprise space — is growing in verticals such as retail and healthcare, it will be driven further as the uptake of Internet of Things (IoT) continues. Today, WLAN locationing is filling a gap where GPS-based or cellular solutions don't function as well, which is indoors and in complex urban environments. It allows enterprises to analyze movement and deliver higher levels of business value by using this data for context. GPS satellite and mobile network signal triangulation offer less ubiquity and precision, rendering their use suboptimal when compared with WLAN location services to enrich mobile apps and other workflows. Wi-Fi signals can triangulate the position of a wireless device indoors rather accurately. In a similar vein to the acquisitions of ThinkSmart Technologies by Cisco and of YFind Technologies by Ruckus Wireless, Aruba acquired Meridian Apps in 2013, aimed at integrating Meridian's WLAN locationing solution for smartphones and tablets. Meridian's software targets public-facing verticals, such as casinos, malls, stores, transport hubs, convention centers and museums, to help customers navigate large indoor facilities with custom mobile applications that provide directions and points of interest. For the enterprise, information can be gathered about users' travel patterns and preferences, as well as asset locations, which can be used to deliver context-awareness advertising, for instance.

Cloud-Managed WLANs

The combination of HPE's presence among SMBs in the Ethernet switch market with Aruba's acquisition has widened the opportunity for cloud-managed WLANs, which are gaining market traction. We estimate that cloud-managed WLANs are

growing three times faster than traditional offerings. Cloud is appropriate for organizations with limited IT staff and budgetary constraints as it presents an option for rapid activation of remote branches, particularly for SMBs. Cloud can offer more flexible deployment and management options, especially in multisite or multitenant deployments. Service providers have embraced the idea of being able to customize wireless hotspots and related services via a single Web-based interface for multiple sites — without having to build data centers, deploy on-site WLAN controllers and so forth. Cloud WLANs are flexible in scalability, an element of particular importance to managed services providers. Venue owners who deliver public wireless access welcome the idea of no additional capital expenditure (capex) beyond the installation of the APs, freeing up investment for other value-added applications like analytics and location-based services.

Geographical Expansion

HPE's acquisition of Aruba presents an opportunity for geographical expansion, from the benefit of a more robust wired/wireless LAN access layer offering. According to our estimates, switch revenue from North America for HPE's key competitors continues to constitute the bulk of the global number (more than 45% for Dell and more than 50% for Cisco and Juniper Networks). In comparison, North America represents 20% to 25% of HPE's worldwide switch revenue. Historically, the bulk of Aruba's revenue originated from North America, presenting an opportunity for HPE to grow its business in this region. Similarly, given Asia/Pacific and EMEA have each represented more than 30% of HPE's global switch revenue, historically, this opens up an opportunity for an increased WLAN footprint in these regions.

Public Venue/Service Provider WLAN Opportunity

This is an area where Aruba, historically, lacked traction, and when this market was growing strongly, Aruba missed out on revenue growth. We have classified this as an opportunity because HPE has the right products to become a leading player in this market, especially with the move to more software-oriented products and the Meridian acquisition. In order to succeed, HPE needs to simplify Aruba's pricing structure that has, to date, been heavily based on software licenses, making its solution too expensive in comparison with Ruckus Wireless and Huawei Technologies. Aruba's HybridControl architecture was a comprehensive move, but ultimately the lack of strong partnerships with communications service providers (CSPs) meant traction was missing. HybridControl targets service providers to offer private Wi-Fi for managed services and public Wi-Fi for cellular offload. This architecture is partly based on using the Aruba controllerless Instant access points to offload traffic locally, while centralizing more important traffic — such as billing — to the 7200 Series Mobility Controllers, deployed in the core. Aruba claims that this architecture can scale to more than 100,000 access points.

Software Defined Network Implementation in Wired/Wireless LAN Access Infrastructure

Aruba has completed interoperability testing with partners Alcatel-Lucent Enterprise, Arista Networks, Brocade and Juniper Networks, aimed at implementing software-defined network (SDN) support across wired and wireless products. These tests included the integration of Aruba edge products with other vendors' SDN aggregation/core switches, or with other vendors' network management solutions embedded with SDN support. In campus environments, SDN presents an opportunity to simplify network designs, increase end-to-end application performance and visibility, and eliminate manual intervention. SDN support permits network administrators to craft wired and wireless traffic forwarding policies to optimize network paths, maximize available bandwidth, lower latency and eliminate spanning trees. Dynamic SDN topologies imply physical and logical Level 2/Level 3 topologies are less relevant. Unified management makes it easier for IT to support a common policy framework across the entire network.

While SDN implementation at the edge of the network remains very embryonic, as organizations begin to embrace the architectural advantages that SDN can offer, this window of opportunity will become more tangible. The breadth of the HPE AllianceOne Partner Program continues to provide opportunities for further testing and product development.

Innovative Commercial Solutions

We classify this as an opportunity because in the switch market, some vendors have started to explore ways of offering more flexible and innovative commercial solutions, which adds differentiation as an alternative to Cisco. Launched in

4Q12, HP's FlexNetwork Utility Advantage Program is an Ethernet switch rental model based on equipment usage, which for organizations can offer the advantage of aligning networking costs with actual consumption. Enterprises are billed on a monthly basis, commencing once they receive the equipment, with HPE retaining ownership. HPE's offering is predominantly targeted at delivery through partnerships with CSPs. Customers can use ports (activate/deactivate) based on specific terms and agreements with their CSP. For the targeted large enterprises and government organizations, the key will be savings on capital expenditure, as well as greater flexibility in aligning network capacity with changing business needs.

Sale of Majority Stake in H3C

In 2Q15, HPE announced that a Tsinghua Holdings subsidiary, Unisplendour, agreed to acquire 51% stake in a new business called "H3C," comprising H3C Technologies and HP's China-based server, storage and technology service businesses. The deal is expected to be finalized in the next three months. Majority ownership by a Chinese entity will help HPE soften the nationalist influence that can negatively affect non-Chinese vendors. We are already witnessing foreign vendors being sidelined in critical national infrastructure procurements, including government, healthcare, education, manufacturing, transportation and utility industries. For more information, see "Geopolitical Issues Push HP to Forgo Control of Data Center Networking Portfolio."

Threats

Need to Rationalize Product Support Warranty

HPE's acquisition of Aruba creates a collision between HPE's lifetime warranty and Aruba's higher-priced maintenance offering. Historically, Aruba has supported a feature-licensed sales model for its APs, which can "undermine" its aggressive hardware prices against competitors that have a simpler pricing model structure. Aruba's pricing model in regard to network management includes paying for an AP management license for the controller, as well as a license for AirWave. Value-added security functionality (such as policy enforcement firewall and wireless intrusion protection) is also charged through module licenses based on the number of supported APs.

HPE has yet to reveal specific details to Gartner about the possibility of implementing a warranty policy across the former Aruba portfolio — to mirror the lifetime warranty available across most of HPE access layer switches. We expect HPE to begin implementing a rationalized warranty policy for Aruba over the next three to six months, but remain cautious about the extent of this change, as we recognize that HPE will sacrifice a major revenue stream by doing this. Failure to maintain this important selling feature will lead to the danger of buyers pulling the pieces apart (wired and wireless components) and seeking the lowest price, potentially shifting to a different vendor that can provide part of the solution.

Cisco's Advantage — Selling to Enterprises That Want to Buy Their Access Layer Solution From a Single Vendor

We have given a low weighting to this threat as we have recognized the strength of HPE's end-to-end network portfolio. The caveat here is that buying from the same vendor will eventually favor Cisco more than any other company, simply due to Cisco's strong local presence, control of distribution channels and loyal customer base. There is also an erroneous perception that buying from the same vendor delivers better integrated wired and wireless network management. This is not true, as the technical capabilities of access layer tools today allow enterprises to manage the network components of multiple vendors. In Gartner's latest Magic Quadrant survey regarding enterprises' access layer solution, 75% of enterprises reported that they preferred buying their entire access layer solution from a single vendor. Nevertheless, multivendor rollouts are diminishing this advantage for Cisco. The same survey also indicated that less than 50% of those organizations were able to buy from the same vendor, either because their preferred switching vendor lacked the WLAN functionality needed, or because their preferred WLAN vendor did not offer access layer switching or one that suited their needs.

HPE Ownership Hampers Aruba's Aggressive Approach to Innovation

It is important that HPE's ownership does not hinder Aruba's aggressive approach to product innovation and its ability to seek new market opportunities. We recognize that Aruba has historically produced many industry "firsts," and for this reason, we have given a low weighting to this threat. We perceive a potential pitfall based on the outcomes of recent market consolidation (HPE-Aruba, Allied Telesis-Extricom, Fortinet-Meru Networks) that has resulted in WLAN vendors becoming subsumed into predominantly wired vendors. This consolidation has led to control of the WLAN market having largely shifted to two vendors, Cisco and HPE. Both will arguably continue to protect their respective Ethernet switch businesses against cannibalization by WLAN, one of the reasons why the concept of the "all-wireless office," while a trend in "greenfield" deployments, has not accelerated as aggressively as one would have assumed a few years ago.

Competition From Cisco in the SMB and Cloud-Solution Market

Cisco's acquisition of Meraki has been successful so far, even though the split between Aironet and Cisco Meraki products continue to create market confusion. Meraki's revenue grew from approximately \$15 million per quarter in 2012 (as per our market share estimates), to \$75 million to \$100 million per quarter by 2015. This estimate includes recurring revenue from cloud subscriptions and switches in addition to new WLAN opportunities. Cisco Meraki resonates well with SMB mobility needs, even though some of the current growth comes from replacements of Hybrid Remote Edge Access Point (H-REAP), OfficeExtend and other weak attempts at addressing the home teleworking and SMB environments by Cisco.

Aruba Instant has been well received in the SMB space, but recently (in September 2015), Cisco launched an AP that offers similar functionality, a Wave 2 802.11ac AP, that delivers a total aggregate dual-radio data rate of up to 1 Gbps (theoretically). Targeted at SMBs, with the Cisco Aironet 1830 Series, an AP can act as a controller in a group of 25 APs. Cisco Meraki also eliminates the need to deploy a controller, but instead requires the purchase of a cloud-management software license. The Cisco Aironet 1830 AP Series launch broadens the SMB-relevant products offered across product lines.

Reduced Control of R&D and Plant Assets in China

We have given a low weighting to this threat, since the H3C acquisition by Unisplendour will affect the data center switch business more heavily than campus switching and WLAN. However, we believe it is necessary to note that the 51% ownership sale of H3C means that in China, HPE will have less influence over the day-to-day operations and R&D of H3C. HPE could historically count on strong R&D and plant assets in China, but will no longer be the majority stakeholder, potentially missing out on the ability to drive product development for the company. The move to exert ownership over the Chinese vendor is believed by Gartner to have been partly focused on lowering product development costs.

Recommendations for Partners and/or Competitors

- Competitors need to continue developing multivendor support for campus/access layer network management, guest access and policy enforcement tools in order to remain relevant in buyer conversations. Strong product integration provides a migration path for existing installed components and means to displace competitors.
- Cloud-managed networks provides an opportunity for emerging technology providers to accost and surpass established ones by leveraging new models to better align with SMB requirements. The key will be to shift from lowest price to total cost of ownership (TCO) and provide high-quality support.
- WLAN resellers and implementers should not promote projects based on legacy HP WLAN products, and instead, move toward the Aruba product family. Installed WLANs continue to suffer due to a lack of understanding of the end-user experience needed to optimize business application productivity. It is important that WLAN resellers and implementers continue to look beyond vendor installation practices and prioritize end-users' desired performance level.
- Partners need to confirm how HPE plans to leverage cross-selling HPE and Aruba wired/wireless opportunities with existing accounts. It is important to clearly articulate differentiation between HPE and Aruba's products and services with those of leading competitors.

Implication for Company Being Profiled

Historically, the lack of continuity between HPE's access layer switches and the WLAN offering (derived from the Colubris acquisition) resulted in HPE falling behind the market in terms of functionality and vision required for its target markets. The Aruba acquisition was needed to keep HPE competitive in the access layer market. As a result, HPE needs to ensure appropriate investments are made to keep Aruba competitive, by understanding the segmentation of the access layer and the network service applications that will continue to differentiate as well as unify the combined Aruba/HPE solution. The new entity will need to rationalize its products, services and tools to successfully execute the integration of Aruba within its end-to-end access layer vision. The management team needs to continue to recognize that the access layer revenue opportunity is in ClearPass (guest access, policy, onboarding), AirWave (network management), Meridian (location services) RFProtect (wireless intrusion protection) and multivendor support, along with other applications that extend across the entire product line, allowing them to gain market share from fragmented or smaller competitors.

Even with the best product line, channel training is one of the highest priorities. The HPE channel will allow the Aruba product line to reach geographical locations that Aruba, as a separate company, would not have had access to — but are easily accessible by Cisco. This will help channels to switch from a box-pushing mentality to delivering entire solutions, composed of hardware, software and services. The empowerment of the channel will potentially allow the new HPE to gain market share in these geographies.

In order to expand its target available market, architecturally HPE needs to invest in a better cloud-based solution to specifically address the part of the market (typically SMBs) that continues to move to the cloud. The Aruba Central solution does not have the functionality of Aruba's existing on-premises solutions and this continues to leave this part of the market available for competitive solutions.

Company Overview

Table 1. Hewlett Packard Enterprise (Aruba): Key Facts	
Company	Hewlett Packard Enterprise (Aruba)
Headquarters	3,000 Hanover Street, Palo Alto, California, 94304-1112 U.S.A.
President and CEO	Meg Whitman
Company Divisions	<ul style="list-style-type: none"> • Enterprise Group (servers, storage, networking, consulting and support) • Enterprise Services • Software and Financial Services
Executive Vice President and General Manager of Enterprise Group	Antonio Neri
Total Number of Employees	252,000
Website	www.hp.com www.hp.com/hpnext

Source: Gartner (December 2015)

Dominic Orr is president at Aruba. In his role, Mr. Orr oversees the combined HPE Networking and Aruba Networks businesses across data center, enterprise and SMB divisions.

Methodology

The vendor analyzed in this SWOT was selected because, following its acquisition of Aruba Networks in May 2015, Hewlett Packard Enterprise is the largest global provider of enterprise wired and wireless LAN access infrastructure — after Cisco. Gartner leveraged a variety of materials to develop this SWOT analysis, including:

- Analyst expertise
- Gartner data on enterprise WLAN equipment and campus Ethernet switches
- Existing Gartner research on the WLAN, switching and networking market, including end-user surveys and case studies
- Secondary sources, such as media and financial reports
- Ongoing dialogue with the vendor

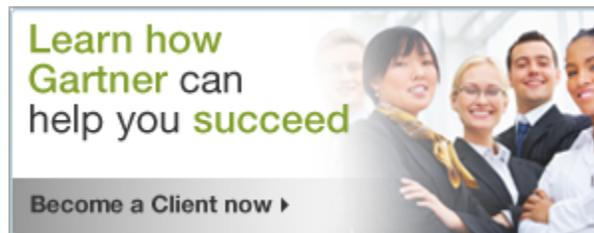
The Gartner Vendor SWOT analysis is designed for the use of providers as well as individuals in strategic planning, marketing and competitive analysis roles as a supplement to their planning processes. Its primary value is as an independent analysis of the provider's competitive situation.

The SWOT analysis provides a unique independent view of the strengths, weaknesses, opportunities and threats for a specific part of a provider's business in a specific market and geography.

Acronym Key and Glossary Terms

AAA	authentication, authorization and accounting
AP	access point
Aruba	legacy Aruba Networks
BYOD	bring your own device
capex	capital expenditure
CEO	chief executive officer
CNM	Cloud Network Manager (HP)
CSP	communications service provider
DC	data center
EMEA	Europe, the Middle East and Africa
EMM	enterprise mobility management
Gbps	gigabits per second
GPS	Global Positioning System
H3C	H3C Technologies
HP	legacy Hewlett Packard
HPE	Hewlett Packard Enterprise, for references to the new entity (Hewlett Packard Enterprise, which includes Aruba Networks)
H-REAP	Hybrid Remote Edge Access Point (Cisco)
IaaS	infrastructure-as-a-service
IDS	intrusion detection system
IMC	Intelligent Management Center (HP)
IoT	Internet of Things
LAN	local-area network
NPM	network performance monitoring
ONE	Open Network Ecosystem (HP)
PoE+	Power over Ethernet Plus
R&D	research and development
RADIUS	Remote Authentication Dial-In User Service

SDN	software-defined network
SIEM	security information and event management
SLA	service-level agreement
SMB	small or midsize business
SWOT	strength, weakness, opportunity and threat
TCO	total cost of ownership
WIDS	wireless intrusion detection system
Wi-Fi	Wireless Fidelity
WIPS	wireless intrusion protection system
WLAN	wireless LAN



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