IDC MarketScape

IDC MarketScape: Worldwide Enterprise WLAN 2015–2016 Vendor Assessment

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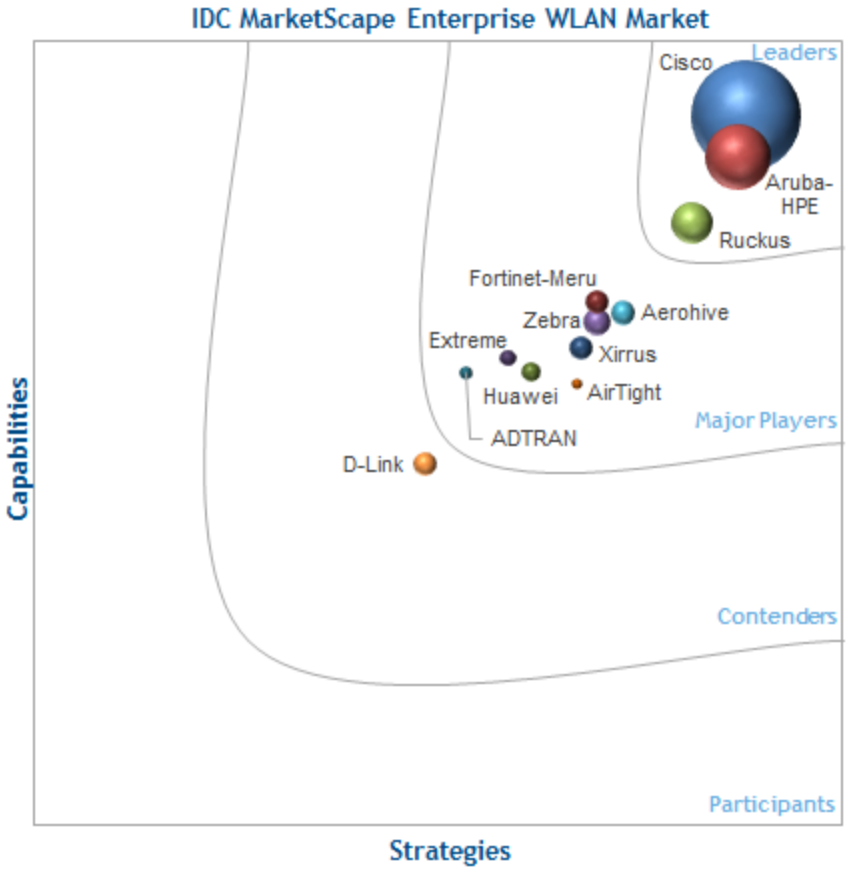
THIS IDC MARKETSCAPE EXCERPT FEATURES: RUCKUS

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Enterprise WLAN Vendor Assessment



Source: IDC, 2015

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

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IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Enterprise WLAN 2015–2016 Vendor Assessment (Doc #US40653915). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

This IDC study represents the vendor assessment model called the IDC MarketScape. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the marketplace and help anticipate the vendor's ascendancy. The study assesses the capability and business strategy of 12 of the top enterprise wireless LAN (WLAN) vendors. This evaluation is based on a comprehensive framework and a set of parameters expected to be most conducive to success in providing enterprise WLAN solutions, during both the short term and the long term. As the enterprise WLAN market is highly competitive and relatively mature, all vendors performed relatively well in the study. Key findings include:

- The enterprise WLAN market continues to see consistent growth and compelling innovation. These overarching trends overlap with unprecedented developments in wireless speeds, RF innovation, and wired and wireless interoperability, as well as a greater level of choice for end users in terms of delivery model.
- Organizations of all sizes, across segments and verticals, are increasingly shifting wired network workloads onto wireless as well as leveraging wireless and mobility to improve customer engagement and bring new products and services to market.
- Although the enterprise WLAN market is inching toward maturity, there are still opportunities for growth including greenfield deployments in areas such as retail and large public venues, where WiFi is increasingly used to engage customers, as well as modernizing back-office operations. Verticals such as education and healthcare still command a major share of the overall market, with some regional and country-level variances. There are still tremendous growth opportunities in emerging markets as well.
- As small to midsize businesses realize greater need for enterprise-grade WLAN solutions, vendors are targeting the midmarket and SMB space unlike never before, primarily through cloud-managed and integrated control models.
- Across all segments and verticals, enterprise IT is evaluating the role of the cloud in networking. Cloud-managed WLAN models can help reduce physical infrastructure and improve operational agility. In distributed enterprises with centralized IT operations, cloud-managed models can be what makes enterprise-grade WLAN possible.
- Enterprise WLAN vendors are beginning to realize and evangelize the potential of IoT as a growth opportunity, along with SDN and open standards, to bring more efficiency to the campus network.
- The momentum behind unified wired and wireless networking incrementally grows. Pure-play WLAN vendors are increasingly joining forces with wired networking vendors to offer best-of-breed solutions with varying degrees of management integration, joint R&D, and channel synergies.

- M&A activity has been rife in this industry, with four deals (Extreme Networks–Enterasys Networks, Zebra Technologies–Motorola Solutions' Enterprise business, Aruba Networks–Hewlett Packard Enterprise (HPE), and Fortinet–Meru Networks) having closed since the publication of the preceding *IDC MarketScape: Worldwide Enterprise WLAN 2013–2014 Vendor Analysis* (IDC #243354, September 2013).

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

This research includes analysis of 12 of the largest enterprise WLAN vendors spanning IDC's research coverage and with global or regional importance. This assessment is designed to evaluate the characteristics of each firm – as opposed to its size or the breadth of its services. It is conceivable, and in fact the case, that specialty firms can compete with multidisciplinary firms on an equal footing. As such, this evaluation should not be considered a "final judgment" on the firms to consider for a particular project. An enterprise's specific objectives and requirements will play a significant role in determining which firms should be considered as potential candidates for an engagement.

In total, 12 firms were evaluated in this IDC MarketScape. They are (in alphabetical order): ADTRAN, Aerohive Networks, AirTight Networks, Cisco (including Cisco Meraki), D-Link, Extreme, Fortinet-Meru, Aruba-HPE, Huawei, Ruckus Wireless, Xirrus, and Zebra. For inclusion in this IDC MarketScape, vendors had to demonstrate two years of general worldwide availability of a standards-based WLAN portfolio and should have reached a critical mass of shipments and/or revenue.

Explanation of Changes from IDC's 2013–2014 Enterprise WLAN MarketScape

The networking industry has seen a steady flow of M&A activity, and the enterprise WLAN space is no exception. Since our previous study (see *IDC MarketScape: Worldwide Enterprise WLAN 2013–2014 Vendor Analysis,* IDC #243354, September 2013), four major enterprise WLAN vendor acquisitions were completed, leading to two consolidations and two name changes. To this end, HP Networking and Aruba Networks are now combined and renamed as Aruba-HPE in this study. Similarly, Fortinet (not included in previous IDC Enterprise WLAN MarketScapes) purchased Meru, and their combined portfolio will be assessed under the name Fortinet-Meru. Extreme Networks completed its acquisition of Enterasys in November 2013. Zebra Technologies purchased the enterprise WLAN portfolio of Motorola Solutions in 2014 and quickly rebranded the existing products. Finally, Extricom folded and its assets were acquired by Allied Telesis, which is not included in this study.

ESSENTIAL BUYER GUIDANCE

- Organizations must consider near- and long-term needs for the 802.11ac standard. Some vendors have announced their plans to release Wave 2 802.11ac access points (APs), with a few shipping. Other vendors have yet to announce availability of Wave 2-capable APs. IDC recommends that organizations evaluating new WLAN infrastructure should consider their needs for 802.11ac. Organizations for which their current 802.11n deployments are not meeting business needs should consider an immediate upgrade to 802.11ac. For organizations with WLAN infrastructures that are meeting today's needs, IDC recommends waiting until a broader set of Wave 2-capable platforms are available. This time frame will vary according to vendor but will happen in 2016. In addition, when upgrading to Wave 2, organizations may need to upgrade their cabling and switching infrastructure; a good reseller or integrator can guide this process.

- Cloud-managed network models continue to become more common and have grown in capability. Small to midsize organizations and "distributed enterprise" (organizations with a centralized IT and dispersed remote locations) often find that cloud-managed WLAN allows for an accessible, enterprise-grade delivery model. Cloud-managed WiFi is generally more opex oriented than capex oriented and can be a viable option for organizations seeking greater operational agility and centralized policy controls.
- There are a number of architectural options for enterprise WLAN. These include physical controller based, virtual controller, cloud managed, and APs with integrated control. There are strong cases to be made for all of these, and final decisions should be made based on individual business needs. In any case, it may be worthwhile to consider vendors with flexible architectural models as business needs change.
- In choosing an enterprise WLAN solution, organizations must consider the possibilities for creating additional business value from the technology. New WLAN applications for customer-facing location-based services (LBS), network analytics, and in-venue WiFi-enabled tools are leading to new monetization opportunities in retail, hospitality, healthcare, education, and other verticals.
- It is important to consider the security capabilities of any WLAN solution. While all solutions profiled in this document will meet the minimum security requirements of most organizations, IT decision makers should look at advanced security needs, support for vertical-specific protocols and compliance needs, and level of integration offered with non-WLAN security tools.
- Support and services from vendors, resellers, integrators, and managed service providers (where applicable) cannot be overlooked in the vendor selection process. Good vendors, resellers, integrators, and managed service providers will provide competent guidance through the RFP, installation, and training processes while being accessible for ongoing support throughout the infrastructure's life cycle. This is especially important for organizations with lean internal network staff.
- The networking industry's move to greater support for open source and multivendor initiatives like SDN will begin to have impact in enterprise WLAN in the medium term. Organizations should determine their strategies around SDN and open networking and choose a WLAN vendor with an aligned strategy.
- To assist in the vendor selection process, organizations, IT, and end users are encouraged to utilize the visual graphic in this IDC MarketScape research (refer back to Figure 1), along with the vendor text profiles, to help in developing a short list of potential enterprise WLAN vendors to consider for their WLAN deployment project(s).

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

Ruckus

Ruckus is rated as a Leader in this IDC MarketScape. Founded in 2004, Ruckus has seen a meteoric rise to become the third-largest enterprise WLAN vendor by revenue. Initially focusing its best-in-class RF innovation on the carrier market, Ruckus is now regarded as a widely applicable enterprise solution. Ruckus' sweet spot is in the midmarket, although Ruckus continues to expand its footprint to

SMBs and large, carpeted enterprises. Verticals where Ruckus has had success include hospitality and education. More recently, Ruckus has sought to gain more foothold in retail and get increased traction in the burgeoning area of Smart City deployments.

The greatest area of differentiation for Ruckus has historically been around its RF capabilities, built upon its pioneering BeamFlex adaptive antenna (beamforming) technology. Despite being among the later entrants to the Wave 1 802.11ac market, Ruckus was the first enterprise vendor to announce Wave 2 802.11ac. Having increased its market share consistently since IDC's first Enterprise WLAN MarketScape, Ruckus has been making portfolio enhancements to expand both upmarket and downmarket. Recently introduced offerings include Ruckus Unleashed, a solution with control integrated into the AP for single-site SMBs; the SmartZone platform for wireless infrastructure management and flexible upward scalability; and Xclaim, a simplified entry-level enterprise WLAN solution. Ruckus has also recently announced partnerships with Brocade and Juniper to develop open-standards wired and wireless interoperability and unified management. In addition, Ruckus continues to strengthen its value-added service offering by refreshing its WiFi location-based services platform SPoT, adding partners for BLE and analytics capabilities.

These introductions are necessary for Ruckus to be a viable option in verticals such as retail. Ruckus has been making other portfolio enhancements to expand both upmarket and downmarket, which include the SmartZone platform and Xclaim. Historically, Ruckus has been considered weaker with regard to embedded security and BYOD management relative to its largest competitors. To this end, Ruckus acquired Cloudpath Networks in October 2015 in an effort to bolster its ongoing BYOD and security strategies.

Strengths

- Ruckus is generally regarded as one of the most innovative companies with regard to RF functionality. Ruckus has reasserted this with its speed to market with Wave 2 802.11ac.
- The channel infrastructure for Ruckus is well developed and supported across the world, with over 11,000 channel partners and distributors as well as strong relationships with carriers. Ruckus is one of the most ubiquitously available enterprise WLAN portfolios globally.
- Ruckus offers great choice in deployment options, with traditional controller-based, integrated, and cloud-managed access points. Ruckus also offers flexibility for organizations to change architectures as needs evolve.
- Ruckus is the first enterprise WLAN vendor to achieve Hotspot 2.0 certification.

Challenges

- Ruckus' BYOD onboarding and management capabilities are less advanced compared with the company's closest direct competitors.
- Ruckus does not offer a native unified network access management platform, although newly announced partnerships with Brocade and Juniper are aimed at making this less of a potential roadblock.
- As of today, Ruckus has fewer advanced security tools for the larger players in its target markets.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of a review board of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

Enterprise WLAN

IDC breaks wireless LAN (WLAN) infrastructure into three segments: WLAN equipment, WLAN connectivity, and WLAN IT services. This IDC MarketScape competitive analysis is primarily focused on the WLAN equipment category but looks at other segments to deliver complete enterprise wireless solutions.

Product Class

The WLAN equipment category is segmented into enterprise and consumer infrastructure:

- **Enterprise:** Enterprise-grade access devices are WLAN access devices designed for use in multiaccess point systems or for standalone deployments and typically have a rich and upgradeable feature set. There are two types of enterprise-class access point (AP) devices: independent (traditional) and dependent. Deployments are in building or outdoor.
- **Consumer:** Consumer-grade access devices are products designed for small-office/home office (SOHO) and consumer (residential) deployments. Access points and gateways/routers with WLAN functionality that sell for under $200 are typically included in this category.

Product Category

- **Controller/switch:** Access point controllers typically manage access to the network, load balance users, enforce security policies, and provide a number of higher-level network services. This functionality is typically packaged in a Layer 2 or 3 edge or core controller, integrated in an Ethernet LAN switch, or an appliance. These are products designed to integrate a WLAN infrastructure with a wired Ethernet network through automating WLAN access point configuration and RF management.
- **Access points:** This category includes equipment that acts as an intermediary between the wired and wireless part of the network by receiving and transmitting 802.11 packets. The packets are sent over a set of predefined bands in the 2.4GHz and 5GHz radio spectrums to and from associated wireless client devices. Access devices are connected to the wired network either directly through Ethernet cables or via wireless connections to other access devices. WLAN may also be used for establishing LAN-to-LAN bridges that usually involve providing connectivity between buildings without the use of cabling. The current generation of APs have one or more (typically two) radios with the 802.11n standard but are backward compatible to support legacy 802.11a/b/g protocols. Increasingly, WLAN vendors are introducing APs that support the emerging 802.11ac standard.
- **Independent (traditional) AP:** Independent (in-building, standalone) access points, or traditional access points, include network processing hardware, are set up and configured with standalone configuration tools, and have a full feature set that allows them to operate as independent endpoints on the wired network.
- **Dependent AP:** Dependent access points ("thin" or "light" or "managed" or "in-building-thin" access points) rely on a centralized controller or alternate management and control platform (integrated, cloud based, or virtualized) for operation and management. They may be lighter in terms of onboard network processing hardware, although that difference has started to erode recently as controller-based architectures are also being deployed using alternate centralized or decentralized solutions for provisioning and managing network parameters and policies.
- **Gateways/routers:** Gateway/routers are networking devices that connect local area networks (LANs) at home or SOHO environments to wide area networks (WANs) or other LANs. The WAN connectivity can be provided through cable modems, DSL modems, or a cellular/mobile network.

LEARN MORE

Related Research

- *IDC MaturityScape: Enterprise WLAN* (IDC #US40211115, December 2015)
- *IT's 3rd Platform Drives Need for Network Innovation* (IDC #259317, September 2015)
- *Market Analysis Perspective: Worldwide Enterprise Communications Infrastructure, 2015* (IDC #259364, September 2015)
- *Worldwide WLAN 2Q15 Market Share Update* (IDC #259193, September 2015)
- *The Next Wave of 802.11ac WiFi Is Coming: What Enterprise IT Needs to Know* (IDC #256787, June 2015)
- *Worldwide Enterprise WLAN 2014-2018 Forecast* (IDC #252694, December 2014)

Synopsis

This IDC study provides an assessment of the capabilities and business strategies of 12 vendors in the worldwide enterprise WLAN market for 2015–2016.

"There is a vast range of enterprise WLAN options speaking to the many needs of the market," says Nolan Greene, research analyst, Enterprise Network Infrastructure. "The 802.11ac standard, cloud-based delivery models, network analytics and value-added services, and technology partnerships are bringing about new possibilities for organizations to fulfill business objectives through the WiFi network. This IDC MarketScape can be helpful to organizations that are considering a move to a new enterprise WLAN solution, including new deployment options."

About IDC

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