

## Magic Quadrant for Enterprise LAN (Global)

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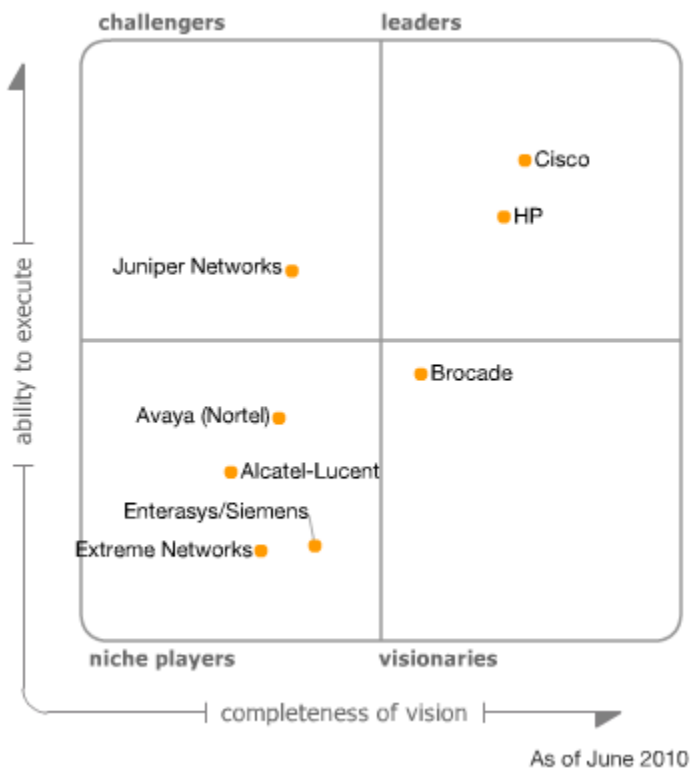
Cisco remains the leader in the enterprise LAN Magic Quadrant; however, a stratification of the alternative players is resulting in new opportunities for enterprises.

## WHAT YOU NEED TO KNOW

This is an updated version of research last published on 30 April 2009. The vendors (see Figure 1) in the 2010 Magic Quadrant for Enterprise LAN (Global) provide viable, well-supported LAN infrastructures for mainstream enterprise requirements, but are able to provide differentiation through global strategies and functionality, such as wireless LAN (WLAN), industrial Ethernet and advanced security features that may be applicable to vertical market strategies. Enterprises must balance requirements for largely standardized feature sets with new capabilities and the total cost of ownership (TCO) for the anticipated seven-year life span of new switches. Major LAN purchases and upgrades should not take place without a full competitive review, with enterprises targeting capital cost reductions for enterprise LAN infrastructures of at least 30%.

## MAGIC QUADRANT

Figure 1. Magic Quadrant for Enterprise LAN (Global)



Source: Gartner (June 2010)

## Market Overview

The LAN switching market is mature; however, it continues to evolve, as enterprises move toward a secure, collaborative workplace. Ethernet is used in more environments beyond traditional IT systems (such as process control, building automation and security), as Ethernet switching functionality is integrated into more data center infrastructures. For campus networking, most enterprises should start by looking at their business requirements and being diligent about

delivering solutions that meet these requirements with a well-standardized feature set that all the vendors can easily provide.

Gartner is seeing a shift in buying practices from one that approaches the LAN as a homogeneous mass to one that is looking at three largely independent decisions. These LAN building blocks are the campus edge (increasingly in combination with WLAN access), the campus core and the data center. Each has distinct requirements.

Beyond the technology evolution, the overarching issue in LAN switching is cost containment. Although the economic conditions of the past 18 months have induced many organizations to re-establish best practices to drive down infrastructure costs, many have not. There is a huge difference in prices among the various vendors' solutions and even among alternatives within a single vendor's product offering. In addition, there are major differences in support programs and an increasing variety of offerings in lifetime warranties that need to be considered. Organizations not following best practices for network architecture, design and procurement will find themselves at a functional and financial disadvantage.

During the past 12 months, the vendor landscape has continued to shift. Cisco is still the dominant vendor; however, in 2009, it lost roughly 2.5% of market share in revenue and port shipments. Exiting 4Q09, Cisco's port share dropped to 49.5% of the total enterprise Ethernet ports shipped. The biggest news in LAN switching during 2009 was the announcement of HP's acquisition of 3Com (which closed 12 April 2010). As of 4Q09, the combined entity achieved 37.5% port market share. Juniper also executed well during 2009 and now shows up in most of the competitive situations we see in our clients. The other significant news was Avaya acquiring all of Nortel's enterprise networking business, including its LAN switching portfolio. In our conversations with clients, we are seeing early positive signs from the Nortel installed base because of the relative stability of its new owner.

The net result of these changes is a more clearly delineated and tiered marketplace. HP (bolstered by the broad 3Com/H3C portfolio) and Juniper Networks have become established as the viable mainstream Tier 1 vendors, with the financial resources to compete directly with Cisco across nearly all fronts. This is further supported by customers increasingly evaluating HP and Juniper as alternative vendors for their enterprise networking projects and adding them to shortlists that historically may have only included Cisco. Brocade has strength in the data center; however, it is still on the fence as to competing with recognized Tier 1 players. Surprisingly, Brocade appears to be losing customer mind share in the switching market. According to Gartner client feedback and reference checks, there is a major decline in the number of customers considering Brocade as an alternate vendor. Other vendors will increasingly be squeezed by these new market dynamics, rather than major technology shortfalls; but, due to their relative size and ability to compete with large and committed vendors, they will show up on most enterprise shortlists.

## **Market Definition/Description**

LAN switching is a longstanding and mature market. LAN infrastructure is one of the largest network equipment expenditures for enterprises. In 2009, the market contracted by 20% from the previous year, reflecting the difficult market for basic infrastructure. Total revenue in 2009 was \$12.4 billion, and only three vendors increased revenue during 2009 — Juniper's revenue grew every quarter during the downturn, after entering the market in 2Q08, and Brocade and H3C also showed marginal revenue increases year over year. The other notable performance during a difficult 2009 was Alcatel-Lucent, which was roughly flat in its performance, compared with the first three quarters of 2008, according to Gartner enterprise network equipment market analysis.

The market has evolved to one in which products are expected to have a useful deployment life of seven years (see "Toolkit Tactical Guideline: New Enterprise Network Useful Life

Recommendations"). Although mature, this market is not commodity-based. Significant innovation exists in the market at a technology and economic level; however, enterprises should look at many of the requirements being standards-driven, and a significant percentage of the market should be looking for more-cost-effective, easier-to-manage solutions for their infrastructures.

Many new and emerging decision criteria must be considered when looking at the market. Internet Protocol telephony (IPT) requirements — technologies such as Link Layer Discover Protocol-Media Endpoint Discovery (LLDP-MED), Power Over Ethernet (PoE), quality of service (QoS) and resiliency have largely become standardized. The primary difference among vendors is their ability and willingness to support diverse vendor requirements across the unified communications market space. Vendors with their own telephony solutions have been less willing to provide the required level of integration support to meet their customers' requirements. 2009 saw the standardization of PoE Plus (or IEEE 802.3at), which provides up to 30W of power to connected devices. Gartner expects support for this to become widespread during 2010, along with more power supply options to give enterprises choice in available PoE power.

On the security front, network access control (NAC) is another area of interest in the market. We expect NAC to be a mainstream requirement in the next two years, especially for those end-user organizations that integrate their wired and wireless access deployments. However, a lack of standard implementations means that integrated approaches are largely proprietary. Although NAC will become an important capability, embedded security will expand to provide more-complete protection, including wireless connectivity, and will include technologies such as postadmission control, threat containment and content security. New vendors are emerging with embedded network security as their core competency, and they are adding comprehensive switching features to compete at the edge of the network.

In the core of the network, we're also observing an evolution of requirements. Large data centers increasingly depend on the network layer. Requirements for emerging data centers can involve thousands of Gigabit Ethernet server connections and an increasing use of 10G server connections when larger servers aggressively use server virtualization technologies. The core now clearly uses 10G interconnections between switches, and large data centers are anticipating the delivery of 40G and 100G Ethernet standards. Another emerging approach is to deploy a dedicated top-of-rack switch with a 10G uplink into the core. To meet either of these high-end architectures, an individual core switch must support many hundreds of gigabit connections and have dense, wire-speed, low-latency 10G capabilities. We have seen the emergence of data-center-focused vendors — the most obvious and successful is Blade Network Technologies, the leading provider of integrated blade switches, which has expanded its portfolio to include top-of-rack switches.

Core data center switches need to have enough combined port density to allow a switch interconnection without seriously reducing the number of devices connected to the switch. We are finding the high-end market stratified, with vendors such as Brocade, Cisco, Juniper Networks and 3Com (now HP) emerging as the leading players in high-capacity, scalable architectures. We are also seeing the beginning of converged data center networks using Fibre Channel over Ethernet (FCoE) and Data Center Bridging (DCB). Although in their infancy, the FCoE and DCB protocols are contributing to the shift in physical and logical network architectures in the data center.

We are also seeing growing interest in converging the access layer. Vendors are integrating WLAN controller functionality into the switching platform as the need for a separate appliance declines, as well as taking steps to ensure that they have a WLAN strategy, through acquisition or strategic partnership. In our survey of vendor references, more than 60% purchased their WLAN solutions from the same vendors as their wired LANs. Roughly half of these decisions were made

as part of a single decision process. Although our client inquiries don't reflect quite this level of convergence, we have clearly seen a trend in this direction, and we have considered a vendor's activities in this area as a part of its product capabilities and vision.

The net result is that we are seeing a new segmented market where access, enterprise core and data center are increasingly separate decisions, with clearly defined and different requirements. It is no longer valid to think of one switching market, where there is a near-total overlap between the connectivity required to support user connections and that required for connecting servers and storage in the data center. This split between aggregation and data center connectivity will become more prevalent.

The final key evaluation criterion is focused on delivering a cost-effective infrastructure solution. A significant portion of the market hasn't used the sophisticated features available in many vendors' products, and now faces upgrades as their installed bases age. In the overall market, vendors achieve a 60% to 65% gross margin in LAN switching, indicating that more-cost-effective approaches are certainly possible. Organizations should focus on the life cycle costs of their infrastructures, including capital costs, warranty terms and conditions, power utilization and available services.

Organizations that are upgrading infrastructures that are more than seven years old should focus on procuring a standard, rich feature set, but should target cost reductions for capital and maintenance costs of at least 50%. The market has options for lower-cost switches (from a range of providers), comprehensive lifetime warranties and free software upgrades to provide a more-cost-effective economic model, without giving up the required level of functionality. For the access layer, there should be no hurdles to easily achieving a seven-year life span with either 10/100 Mbps or gigabit switches.

For the broader market, cost should be an elemental consideration when looking at LAN infrastructures. Many enterprises overprovision their LANs, especially at the edge. Enterprises can procure 10/100 edge switches with PoE for most of their user populations, or can look to vendors with significant value propositions for 10/100/1,000 options. Only functions with exceptional network requirements (such as video production engineering, medical imaging, geographic information systems, high-end computer-aided design and scientific research) would justify the use of gigabit to the desktop. The adjustment to purchase 10/100 or WLAN as the standard connection would save more than 15% of overall LAN procurement and maintenance costs for the enterprise. Further fine-tuning of requirements, combined with competitive bidding, would reduce these costs by an additional 15% to 50%.

Because of the large discrepancy between Cisco's LAN revenue and the rest of the market, vendor viability comes up in many of our discussions. However, we see no risk with the other Tier 1 vendors we have identified, and only marginal medium to long-term risk with any of the players in this analysis.

## **Inclusion and Exclusion Criteria**

Vendors in this Magic Quadrant must demonstrate two clear capabilities to be included in our analysis. The first is the ability to deliver enterprise-class solutions for LAN infrastructures and to be relevant to our client base. Second, a vendor's market share needs to be at 1% revenue or port share of the broad, enterprise-focused Ethernet market, or at least 5% in a significant market segment. Vendors included in this research have the ability to provide a full campus LAN infrastructure, or have innovations in select areas to provide key and differentiated functionality.

## Added

Juniper Networks is being added to the 2010 Magic Quadrant, because it has clearly surpassed both inclusion criteria.

## Dropped

3Com was dropped from the Magic Quadrant due to the completion of its acquisition by HP. The Nortel Networks name has been replaced by Avaya (Nortel) with the December 2009 acquisition of Nortel's enterprise data business.

## Evaluation Criteria

### Ability to Execute

The following provides some insight into the criteria Gartner uses when evaluating a vendor's ability to execute. At a high level, our analysis of ability to execute attempts to capture how well a vendor is performing across primary functional units of the business — product, sales/channels, marketing, service/support and financial.

**Product:** Evaluates vendors by looking at their overall portfolios, with a particular focus on the four attributes identified: convergence, embedded security, data center scalability and life cycle attributes. More emphasis was placed on capabilities that would apply in an open, multivendor application scenario, because many of these areas cross boundaries of the IT architecture, making proprietary protocols a problem.

**Overall Viability:** Looks at a vendor's investments in the LAN switching market, its financial investments and capabilities, and its long-term viability.

**Sales Execution/Pricing:** Was weighted higher than others on the execution axis, because it combines an evaluation of the presales and go-to-market activities, as well as an analysis of the resulting pricing and solution to the enterprise. On presales activity, the evaluation focuses on the vendor and its channel's ability to deliver comprehensive LAN infrastructure solutions — especially those focused on the three technical areas of innovation: convergence, security and data center. The second aspect of this criterion includes our evaluation of the cost-effectiveness of the solutions for capital purchase and long-term maintenance.

**Market Execution:** Focuses on how the vendor is perceived in the market, and how well its marketing programs are recognized. For LAN infrastructure, the evaluation focused on how well the vendor was able to influence the market around key messages and attributes related to the four key areas in the market. An additional indicator for this criterion is how often Gartner clients consider a vendor as a possible supplier in a shortlist evaluation. The change in momentum in this indicator is particularly important.

**Customer Experience:** Looks at all aspects of the customer interaction, with a heavier weighting on postsales service and support activities (see Table 1).

**Table 1. Ability to Execute Evaluation Criteria**

Evaluation Criteria	Weighting
Product/Service	standard
Overall Viability (Business Unit, Financial, Strategy, Organization)	standard
Sales Execution/Pricing	high

Evaluation Criteria	Weighting
Market Responsiveness and Track Record	standard
Marketing Execution	standard
Customer Experience	standard
Operations	no rating

Source: Gartner (June 2010)

## Completeness of Vision

Evaluations for completeness of vision attempt to determine how well the vendor understands and is preparing for future market conditions, as well as shaping the future market.

**Market Understanding:** Looks at the vendor's ability to look into the future and drive new ideas into product road maps and offerings. In this market, leadership in driving the four key areas into the product offering is a good example, and demonstrates key abilities in this area.

**Marketing Strategy:** Evaluates the ability of the vendor to influence the market through its messaging and marketing campaigns. Vendors that have incorporated the key LAN criteria discussion points in the industry have demonstrated an ability to use their marketing strategies to their advantage. Examples are Cisco's "self-defending network" marketing campaign or Nortel's Energy Efficiency Calculator.

**Offering Strategy:** Evaluates how the vendor invests in R&D to continue to innovate in key areas and ensure that future products continue to evolve.

**Innovation:** Measures the vendor's ability to drive into new, related areas of LAN switching, and to move its own business, as well as the market.

**Geographic Strategy:** Measures how a vendor is approaching global opportunities and takes advantage of a global marketplace.

**Sales Strategy and Vertical/Industry Strategy:** Were not ranked, given the maturity and horizontal nature of the market (see Table 2).

**Table 2. Completeness of Vision Evaluation Criteria**

Evaluation Criteria	Weighting
Market Understanding	standard
Marketing Strategy	standard
Sales Strategy	no rating
Offering (Product) Strategy	standard
Business Model	standard
Vertical/Industry Strategy	no rating
Innovation	standard
Geographic Strategy	low

Source: Gartner (June 2010)

## Leaders

A leader has demonstrated a sustained ability to meet the changing needs for mainstream LAN switching architectures. A leader also has an ability to shape the market and maintain strong

relationships with its channels and customers, while offering solutions for the edge, core and data center.

## Challengers

A challenger has demonstrated sustained execution in the marketplace, and has clear, long-term viability in the market, but has not shown the ability to shape and transform the market.

## Visionaries

A visionary has demonstrated an ability to increase features in its offering, to provide a unique and differentiated approach to the market. A visionary has innovated in one or more of the key areas of campus LAN technologies, such as convergence, security, data center and operational efficiency.

## Niche Players

A niche player has a complete or near-complete product offering, but does not have strong go-to-market capabilities or innovation in its product offering. A niche player has a viable product offering, and, in some cases, will be an appropriate choice for large infrastructure deals.

## Vendor Strengths and Cautions

### Alcatel-Lucent

Alcatel-Lucent has a strong, but regionally biased, position in enterprise voice technologies, applications and services that can help Alcatel-Lucent in some markets. Alcatel-Lucent should be considered for LAN switching when customers are adding to an installed base or looking to leverage one-stop convergence with an Alcatel-Lucent voice solution.

### Strengths

- Has stayed the course with a competitive, but basic product strategy and by leveraging its strong telephony base. This has allowed Alcatel-Lucent to weather a difficult economic market, while increasing its market share.
- After a flurry of new product releases in 2009, Alcatel-Lucent started 2010 by adding functionality, including PoE Plus and 10G support, as enterprises continued their move from Fast Ethernet to GigE. Alcatel-Lucent is one of the only players with an industrial Ethernet portfolio.
- The introduction of the 6250 provides a stackable, fanless switch with connectivity to address the small or midsize business (SMB) market.
- Performance was doubled on the OmniSwitch 9000 platform with the addition of active-active support for data centers with redundancy requirements.

### Cautions

- Despite continuing to increase market share, Alcatel-Lucent is a small player with a 1% to 2% market share in the enterprise data market.
- Alcatel-Lucent's strategy to leverage integration between service provider voice and data switching solutions and enterprise is questionable and may distract resources from developing and delivering more enterprise-relevant solutions.

- Better known for its European presence, Alcatel-Lucent continues to have limited exposure in North America, but is making efforts to improve visibility.
- The OEM WLAN strategy through Aruba is strong, but Alcatel-Lucent needs to develop differentiating functionality with Aruba or acquire a WLAN company, as enterprises begin to look for a single access layer vendor.

## **Avaya (Nortel)**

Avaya re-entered the enterprise data market with the acquisition of Nortel's enterprise products and team. The company now has business units that address the global needs of enterprise infrastructure networking, unified communications and contact centers. Large enterprises and SMBs looking for a fully converged solution combining voice and data should consider Avaya.

### **Strengths**

- Avaya Data Solutions picks up where the Nortel Enterprise team left off — with a stated commitment and a product family that historically has been one of the strongest in the industry.
- Avaya continues to invest and expand the product line with the launch of the ERS 5600 stackable switch, a refresh of the ERS 8000 family, as well as the announced VSP 9000 core switch.
- Avaya can draw on the large installed base of Nortel data products, as well as the combined Nortel and Avaya voice base to increase market traction. The Data Solutions team will need to leverage the joint customer installed base and ramp up new marketing efforts to increase market share.
- Avaya (operating as Nortel in 2009) survived a difficult period that combined a major market downturn, while dealing with bankruptcy protection proceedings. Despite this turmoil, its performance, while worse than market rates, allowed Avaya to emerge as the No. 3 vendor in the LAN marketplace (after combining HP and 3Com into the new No. 2 player).

### **Cautions**

- Despite a solid overall portfolio, Avaya struggles for brand recognition in the enterprise LAN marketplace and must invest in this market for recognition outside the historical Nortel and Avaya customer base.
- After enduring a difficult and uncertain period as Nortel consolidated investments and dispersed its assets, the installed based remains cautious and skeptical about Avaya's commitment to the market.

## **Brocade**

Brocade has depth of expertise across all data center networking technologies; however, 2009 was a mixed year for the vendor. The first part of 2009 saw revenue performance exceed that of the market, though this was likely a rebound from a disappointing 2008, when Brocade's acquisition of Foundry took longer than expected. However, the last quarter of 2009 was disappointing, as revenue did not increase with the rest of the industry, and strong evidence of the integration of the classic Foundry and Brocade offerings was limited. Brocade must establish itself as a key player within the complete data center networking marketplace in 2010.

## Strengths

- A strong presence in corporate data centers and the collective assets of high-end LAN switching, Fibre Channel and FCoE technologies put Brocade in a solid technology position.
- Customer support remains a strength, and Brocade's greater geographic reach and services capabilities have enhanced its capabilities during 2009.
- Converging server and storage solutions into a unified network continues to add unique differentiation, and enhances the Brocade (Foundry) advanced data center vision.

## Cautions

- Although Brocade is in the process of combining its enterprise LAN solutions into a few powerful offerings, it still has a confusing portfolio of products that make it difficult for channels and partners to properly represent the product offering in the field.
- Brocade needs to continue its 2009 investments to drive more of its business through an engaged channel partner program.
- Its OEM WLAN strategy with Motorola is struck in late 2009 after changing its Meru Networks relationship from OEM to reseller. Brocade needs to quickly eliminate any confusion in the market by documenting its strategy and developing differentiating functionality, as enterprises begin to look for a converged services, rich access layer vendor.

## Cisco

Cisco is the market leader and a primary influence on LAN switching, offering a breadth of products and feature sets to meet a variety of requirements based on the customer's needs for resiliency, scale and depth of Borderless Network services. Cisco should be on a shortlist of vendors for all mainstream requirements, although no vendor should be considered a sole-source provider.

## Strengths

- Cisco maintains the broadest portfolio of LAN switching and WLAN solutions. With continuing changes in the market, the introduction of the Borderless Network highlights the breadth of the product family.
- StackPower (introduced on the new Catalyst 3750X series) is an innovative power pooling technology for Cisco workgroup switching platforms that enhances resiliency. It may also improve energy efficiency.
- The continued evolution of NX-OS and investment and the maturity of the Nexus product family provides Cisco with a leadership opportunity in emerging data center connectivity.
- The introduction of the 1140 series of access points in addition to enriching its MediaNet and TrustSec network application services, enables Cisco to compete with any WLAN vendor, regardless of its point of differentiation.

## Cautions

- Although Cisco appears to understand the need for wired and wireless integration, its execution is lagging behind the competitors. ClientLink and now CleanAir address customer needs, but the functionality was launched after competitive offerings were in the market.
- Despite the marketing success and the potential for continued innovation of EnergyWise, little progress has been made on third-party integration, which provides differentiation from other competitive programs.
- The breadth of Cisco's product family, the introduction of different levels of service for different product families and limited lifetime warranty for some switching products is confusing to customers and requires them to fully understand the warranty options before they can select an appropriate service offering.
- Cisco needs to better articulate how networking services and existing Catalyst-based data centers will be integrated into their new Nexus architecture.
- Reference checks, while still strong, show that some Cisco customers are increasingly critical of Cisco's efforts in sales, engineering and support relationships.

## Enterasys/Siemens

Enterasys needs to find a compelling position in the marketplace as it continues to tread water in a market that continues to consolidate around it. Consider Enterasys when its flow-based policy-driven integrated security features offer key differentiation.

## Strengths

- Enterasys continues to enhance its portfolio, with refreshed solutions expected from edge to core in 2010. We also see a growing understanding of emerging data center requirements.
- Enterasys has developed a strong wired and internally developed wireless networking solution that has focused on TCO. Integrated controller functionality into its switching platform, converged wired and wireless network management, security and additional network application services positions Enterasys well as the market continues to move toward a converged access layer.
- A tightly integrated security message and solution makes this vendor a good candidate in its target markets where security is a priority buying point.
- Customer feedback continues to highlight customer support and service as a differentiator.

## Cautions

- Enterasys continues to have a small market footprint, with 1% to 2% market share and somewhat limited geographically to North America and Western Europe coverage
- As part of Siemens' enterprise communications organization, there is potential for longer-term leverage; however, we've seen no benefits from the combined company to date.

- Continued delays with corporate rebranding efforts continue to limit Enterasys' ability to create visible and compelling messages in the broader market.

## Extreme Networks

Extreme Networks provides converged Ethernet network infrastructure that supports data, voice and video for enterprises and service providers. The company's network solutions focus on high-performance, high-availability and scalable switching solutions. Like Enterasys, it needs to carve out a differentiated position in this rapidly consolidating market. Consider Extreme when its XOS solutions bring specific value to campus or data center deployments.

### Strengths

- Extreme Networks continued to broaden its XOS-based product family with the release of the BlackDiamond high-performance 8900 series modules for the 8000 series platform and enhancements to the X650.
- A focus on autohealing and provisioning within XOS makes Extreme components resilient and easy to deploy.
- Key investments in security with McAfee and wireless with Motorola address functionality that is increasingly important in the enterprise.

### Cautions

- Extreme continued to struggle in 2009 to increase its brand recognition and differentiation, resulting in further market share loss to competitors.
- Extreme has not been able to leverage capabilities within XOS to provide a compelling value proposition that is sufficiently differentiated from others in the market, although recent investments are hoping to reverse this.
- Although there is increased investment in security and wireless, these features are delivered via partnership relationships that are subject to change and do not allow Extreme to control the direction of this critical functionality. Enterprises need to think about longer-term support issues in these cases.
- Extreme's OEM WLAN strategy with Motorola was struck in late 2009. Extreme needs to quickly identify and develop differentiating functionality with Motorola or acquire a WLAN company as enterprises begin to look for a converged services, rich access layer vendor.

## HP

On its own, HP had another solid year in 2009. However, the recent completion of the 3Com acquisition completely changes the face of the enterprise networking market. Combining the clear No. 2 and No. 3 players in the market results in a new network powerhouse that collectively shipped more than 36% of the medium and large enterprise LAN ports during 2009, compared with 51% for Cisco and only 2.9% for the No. 3 player Avaya (Nortel).

Consider HP for all LAN switching opportunities in the LAN edge, LAN core and data center. Every organization should at least consider and competitively include HP on its network evaluations.

## Strengths

- HP now has a complete, end-to-end LAN switching portfolio that can address the needs of all organizations from small to large enterprises, from the LAN edge to the network core and into the data center.
- The continued integration of HP Networking into the HP Enterprise Servers Storage and Networking (ESSN) organization provides HP with a extremely large sales force and complete global reach.
- The combination of a large, productive R&D organization based in China and HP's supply chain and design expertise offers a potentially disruptive force that can change the economics of the enterprise networking marketplace.
- Lifetime hardware warranties, software upgrades and business-day telephone support across much of the portfolio ensure that HP's longer-term maintenance costs are the lowest in the industry.
- HP offers the most complete integration of wired and wireless solutions in the market. The WLAN portfolio includes the integration of controller functionality into its switches, as well as a converged network management and security functionality for single pane of glass management. They are well-positioned to continue their growth at the edge of the network.
- HP Networking has the ability to leverage the global capabilities and experience provided by Technology Services and Enterprise Services (previously EDS), both of which have been large partners for other major vendors.

## Cautions

- Integration of the two product offerings will take some time and, to date, it is not clear how they will serve the respective installed bases and ultimately provide an integrated enterprise solution. Some products will have to be de-emphasized during the transition.
- The combined portfolio is large, and even with the positioning of the A- E- and V- series offerings, there can be too much choice and potential confusion between similar offerings in the A- and E- series. HP must ensure that it provides appropriate guidance and accelerates its solutions focus to maximize clarity to customers and partners.
- HP's enterprise sales force has not been as conversant about enterprise networking solutions and must provide a seamless extension to the HP Networking dedicated field experts.
- HP's channel strategy is limiting its ability to expand, especially when dealing with the breadth of the HP product line and the ability to deal with larger enterprise networking opportunities. The past two years have seen organic improvement using HP Enterprise Services; however, HP must develop other global-class alternatives for its customers.

## Juniper Networks

Juniper is a new entrant in this year's Magic Quadrant that has demonstrated strong execution on the product and go-to-market fronts. From the introduction of its EX product offering in 2Q08 to 4Q09, Juniper is now the fifth-largest LAN switching vendor, surpassing longtime players such as Extreme, Entarasys and Alcatel-Lucent. Based on client inquiry and recent reference checks, Juniper has emerged in the top three for enterprise mind share.

Consider this vendor for all campus and data center upgrade and refresh requirements.

## Strengths

- Juniper has a strong history of technology execution, especially with Layer 3 technologies. Organizations can expect products to deliver as specified and to have robust and well-tested feature sets.
- Juniper has introduced a streamlined portfolio of products with largely single product groups targeted at LAN edge, LAN core and data center switching requirements.
- Juniper demonstrated a surprisingly aggressive pricing approach to the market in competitive situations. This shows that, despite being a new entrant in the market, Juniper was well-prepared for the increasingly competitive nature of the LAN switching market.
- A strong partnership with IBM has helped the business ramp up and provide additional credibility with large accounts and complex data center opportunities.

## Cautions

- Channels and account coverage continue to limit Juniper's opportunities, and many channels are still ramping up their expertise in LAN switching. With Juniper's enterprise heritage being largely security-based, work needs to be done to focus on and understand networking solutions.
- Part of the data center portfolio — notably the EX2500 from Blade Network Technologies — is an OEM product; although Blade is becoming the showcase partner for its commitment to Junos, delivering important products through partnerships always increases risk.
- Juniper must continue to expand its portfolio, move quickly to keep up with market requirements and fill various holes to deliver a more complete product.
- Juniper has not articulated its approach to next-generation data centers in enough detail to demonstrate how it will approach emerging fabric architecture requirements.
- Although Juniper has made aggressive strides in the edge and data center switch parts of its portfolio, it is the only vendor without a clear WLAN strategy. Its incomplete vision at the edge will limit its growth at the edge of the network, as enterprises begin to look for a converged services, rich access layer vendor.

## RECOMMENDED READING

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"Magic Quadrants and MarketScopes: How Gartner Evaluates Vendors Within a Market"

"Toolkit Tactical Guideline: New Enterprise Network Useful Life Recommendations"

## Vendors Added or Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor appearing in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that

vendor. This may be a reflection of a change in the market and, therefore, changed evaluation criteria, or a change of focus by a vendor.

## Evaluation Criteria Definitions

### Ability to Execute

**Product/Service:** Core goods and services offered by the vendor that compete in/serve the defined market. This includes current product/service capabilities, quality, feature sets, skills, etc., whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

**Overall Viability (Business Unit, Financial, Strategy, Organization):** Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood of the individual business unit to continue investing in the product, to continue offering the product and to advance the state of the art within the organization's portfolio of products.

**Sales Execution/Pricing:** The vendor's capabilities in all pre-sales activities and the structure that supports them. This includes deal management, pricing and negotiation, pre-sales support and the overall effectiveness of the sales channel.

**Market Responsiveness and Track Record:** Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

**Marketing Execution:** The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message in order to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional, thought leadership, word-of-mouth and sales activities.

**Customer Experience:** Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements, etc.

**Operations:** The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

### Completeness of Vision

**Market Understanding:** Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen and understand buyers' wants and needs, and can shape or enhance those with their added vision.

**Marketing Strategy:** A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

**Sales Strategy:** The strategy for selling product that uses the appropriate network of direct and indirect sales, marketing, service and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

**Offering (Product) Strategy:** The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature set as they map to current and future requirements.

**Business Model:** The soundness and logic of the vendor's underlying business proposition.

**Vertical/Industry Strategy:** The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including verticals.

**Innovation:** Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

**Geographic Strategy:** The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

## REGIONAL HEADQUARTERS

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