

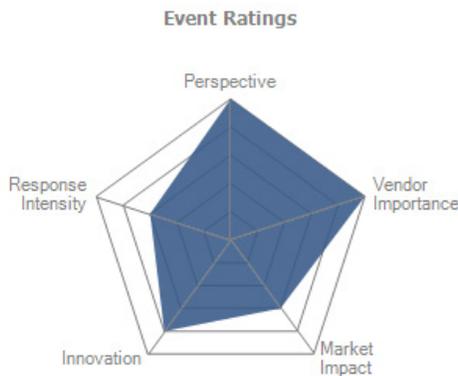
Alcatel-Lucent Enterprise Steps Up to SDN with Intelligent Fabric

Mike Fratto | March 31, 2015
Intelligence Report

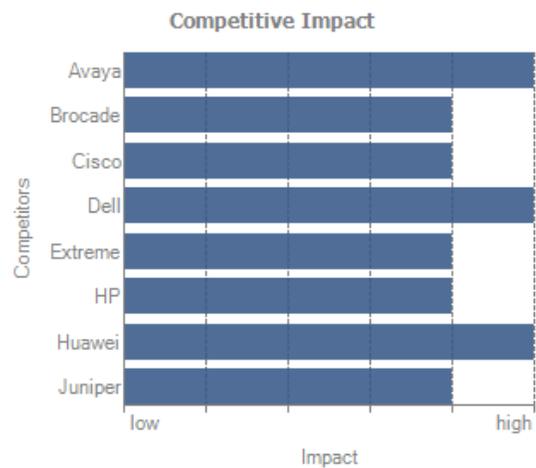


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Quick Take



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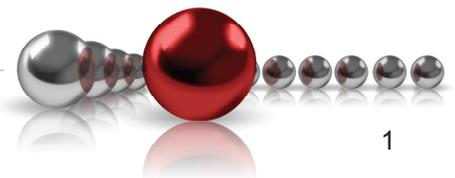
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Competitive Positives

- Intelligent Fabric adds a number of new features that ease the networking lifecycle.
- Intelligent Fabric adds self-configuration capabilities for OmniSwitch 6900 and 10K switches.
- Intelligent Fabric can passively detect a new VM and apply the appropriate virtual network profiles.
- The new OmniSwitch 6900-Q32 doubles the capacity to 32x40G Ethernet ports or 104x10G Ethernet ports.
- ALE has enhanced the OmniVista 2500 management software, adding predictive network analytics and key performance indicator reporting.
- ALE is adding new services for both end-user support and customer on-boarding.

Competitive Concerns

- ALE still does not have support for VMware's NSX.
- ALE's VxLAN can be used for inter-data center connections; the product currently does not perform any special processing.
- Many of the new features are initially only available on the latest switches.



Event Summary

March 31, 2015 -- The new Alcatel-Lucent Enterprise (ALE) OmniSwitch 6900-Q32 platform brings higher performance and scalability to the enterprise network with innovative Intelligent Fabric technology. As part of Alcatel-Lucent Enterprise's out-of-the-box solution, Intelligent Fabric technology brings network agility while reducing the overhead to deploy and maintain the network.

Analytical Summary

Perspective



- Very positive on ALE's Intelligent Fabric, because it addresses the increasingly complex nature of networking and provides a way for the company either to operate a multi-vendor network using device discovery and auto-configuration or to use those capabilities to transition them to an all-ALE network. ALE is also building a foundation from which to participate in the data center SDN market, provided it can eventually bring support for VMware's NSX.

Vendor Importance



- Very high to ALE, as it continues to forge its identity independently from Alcatel-Lucent. ALE is addressing gaps it has in its SDN, campus, and data center product strategies as well as providing capabilities such as predictive network analysis and customer on-boarding services for its channel partners both to add value with professional services and to overcome objections when trying to win customers from a competitor.

Market Impact

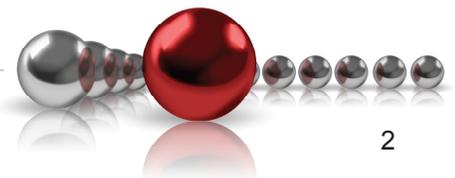


- Moderate on the enterprise campus LAN and data center switching markets. ALE is not first to market with similar technologies, and the company will have to put some effort behind its marketing to raise brand awareness. However, ALE has a comparatively simpler product line and it is adding new software features that bring its products' capabilities more in line with the rest of the industry.

Competitive Strengths

Competitive Positives

- Intelligent Fabric adds a number of new features that ease the networking lifecycle from initial deployment through capacity planning for both the data center and the campus LAN. Intelligent Fabric is initially a firmware upgrade on the OmniSwitch 10K and 6900 product lines with plans to move downstream in the future.
- Intelligent Fabric adds self-configuration capabilities for OmniSwitch 6900 and 10K switches as well as other switches. The level of self-configuration can be defined by network administrators and uses a combination of discovery and learning to determine what is attached to a port and configure itself accordingly. Self-configuration eases initial installation and supports third-party products.
- The Intelligent Fabric can detect when a new VM is enabled by passively analyzing the LAN or VxLAN traffic and applying the appropriate virtual network profiles (VNP) defining quality of service and access controls. Virtual machine discovery occurs independently of the hypervisor and hypervisor management system.



- The new OmniSwitch 6900-Q32 doubles the capacity to 32x40G Ethernet ports or 104x10G Ethernet ports using a 4:1 QSFP+ breakout cable and sub one-microsecond of latency port to port. When the 6900-Q32 is used in ALE's pod architecture, a total of 480 ports can be managed in a single pod. The OmniSwitch 6900 and 10K will also support on-switch python scripting.
- ALE has enhanced the OmniVista 2500 management software, adding predictive network analytics and key performance indicator reporting. The predictive analytics monitors traffic loads and predicts future capacity requirements, helping IT better plan for network upgrades or implement traffic management measures. It also provides an avenue for partners to offer additional services for consulting.
- ALE is adding new services for both end-user support and customer on-boarding. The two services are designed to help resellers overcome objections in moving from their existing networking products to ALE by offering services designed to get new customers up to speed and to help them bridge the knowledge gap to ALE's products.

Competitive Weaknesses

Competitive Concerns

- ALE still does not have support for VMware's NSX, which is table stakes in most enterprise data centers. While passive VM detection will work in many situations, if the traffic between hypervisors is encrypted, ALE's VM detection will not function.
- While ALE's VxLAN can be used for inter-data center connections, the product currently does not perform any special processing such as MAC learning or broadcast and multicast control, which can negatively impact LAN functions over the WAN.
- As is typical with feature enhancements, many of the new features are initially only available on the latest switches, the OmniSwitch 9600 and 10K families, which leaves existing customers with other switch models with only hardware replacement as an upgrade path.

Response & Recommendations

- ALE needs to generate some proof points and customer case studies showing the benefits of these new enhancements in the field. Case studies, particularly high-profile case studies, show potential customers that the technology works and how it can be put to use and are a good way to generate interest.
- Avaya should compare Intelligent Fabric against its Fabric Connect and Fabric Attach, which is the closest competitive technology to ALE's Intelligent Fabric. Both companies also compete in the networking and UC&C and call center spaces, making for little differentiation across the board.
- Cisco should watch for ALE in markets outside North America, particularly in emerging markets, because the simplified architecture of Intelligent Fabric is attractive compared to Cisco's more varied offerings and the pricing is more cost-effective.
- While Dell is more focused on the SMB/SME markets, ALE also competes well in the SME with Intelligent Fabric and can scale to the large enterprise and data center. Dell does not have an end-to-end SDN product line stretching from the data center to the campus edge and should develop a strategy to remain competitive.



■ Buyer Actions

- Current ALE customers looking to add capacity or capabilities should evaluate the new OmniSwitch 6900-Q32 and new capabilities in Intelligent Fabric for both the data center and the campus LAN. The improvements in IT operations and new deployment scenarios can be time savers and provide a more reliable network with less operational burden.
- Customers using both VMware NSX and ALE's networking should carefully evaluate the passive VM detection capabilities in Intelligent Fabric for reliability and consistent performance. Passive analysis should work in most cases, but direct integration between NSX and the Intelligent Fabric will offer more peace of mind.
- Customers planning new network deployments or migrating to new models should evaluate ALE's offerings. The Intelligent Fabric is a very capable solution and ALE has targeted services to ease with migration from the customer's current networking vendor.

■ Analytical Perspective

Intelligent Fabric is Alcatel-Lucent Enterprise's first big initiative in networking since splitting from Alcatel-Lucent and the company is setting its direction in next-generation networking. There are many routes to an agile network and not all of them lead to or from a controller. ALE's Intelligent Fabric brings a number of important operational features to the OmniSwitch 10K and 6900 that should simplify IT tasks such as adding new switches to an existing network and integrating third-party products. ALE is also targeting Intelligent Fabric at the entire enterprise network, providing an end-to-end network that has many operations automated without relying on a controller-based infrastructure. Intelligent Fabric fits well with ALE's technology track and is non-disruptive, unlike migrating an enterprise to a controller-based SDN. ALE is also enhancing OmniVista 2500, its network management station, with new reporting and predictive analysis.

The OmniSwitch 6900 and 10Ks use a combination of device discovery and passive traffic snooping to determine what management and routing protocols neighbors are using and to configure themselves automatically. For example, if a new switch determines that its neighbor is using link aggregation and a VLAN trunk, it will automatically configure the appropriate ports for link aggregation and VLAN trunking. The same process works for routing protocols as well. The level of automatic configuration can be defined by administrators who want more control over the initial switch configuration. The switches in the Intelligent Fabric can also detect VMs on hypervisors by snooping network traffic and applying the appropriate virtual network policy even if the VM traffic is contained in unencrypted VxLAN traffic.

The automation features will be helpful for companies that want to simplify management, but ALE is also launching new services to get new customers up to speed on ALE's technology as well as help them transition from another vendor's products. Customer on-boarding services include professional services, dedicated technical support, and boot camp-style training at ALE's training centers, all designed with the goal to ramp up new customers quickly and painlessly.

ALE is not alone in developing and enhancing products to ease network operations. Avaya's Fabric Attach and Fabric Connect are most similar in terms of technologies, but others such as Dell and Extreme are also targeting similar-sized companies with products and features that offer rich networking capabilities without the additional operational overhead. The increased use of automation on limited use cases and the increased use of centrally managed policy management and reporting are trends that will benefit customers and raise the bar overall for vendors to keep up.

