

ALCATEL-LUCENT ENTERPRISE DATA CENTER SWITCHING SOLUTION

CREATING THE FOUNDATION FOR THE
NEXT-GENERATION DATA CENTER



A NEW NETWORK PARADIGM

What do the following trends have in common?

- Virtualization
- Real-time applications
- Mobile devices

They all contribute to the tremendous pressure on today's existing network infrastructure — a pressure not alleviated by simply throwing more bandwidth at the problem.

What's needed is a new network paradigm: the Application Fluent Network. An Application Fluent Network understands the unique requirements of each application, user, device and conversational context to automatically adapt the network to ensure optimal performance.

Introducing the Alcatel-Lucent Enterprise Data Center Switching Solution — delivering on Alcatel-Lucent's vision of the Application Fluent Network.



WINNER BEST OF INTEROP 2011

The Alcatel-Lucent Enterprise Data Center Switching Solution won the 2011 Best of Interop award in the data center and storage category presented by InformationWeek Analytics.

“The ever-expanding IT environment found in today’s increasingly virtualized data centers is truly in need of forward-thinking concepts like Alcatel-Lucent’s new Data Center Switching Solution.”

– Steven Hill, Lead Judge, Best of Interop 2011

The Alcatel-Lucent Enterprise Data Center Switching Solution

Alcatel-Lucent helps enterprises address the challenges facing today’s data center network while delivering a high-quality user experience for new real-time applications, greater agility in deploying new applications, seamless integration of public cloud services, and reduced data center costs.

Alcatel-Lucent’s breakthrough solution starts with a unique blueprint for application fluent data center switching. This blueprint brings together three core innovations that together enable extremely scalable, high-performance and resilient data center fabric:

The Alcatel-Lucent Virtual Network Profile (vNP)

The Alcatel-Lucent Virtual Network Profile (vNP) enables applications to be managed as services, letting the network fluently understand and dynamically control what is needed for quality application delivery, including automating virtual machine movement.

vNP:

- Eases the IT effort for server virtualization, letting organizations reap greater virtualization benefits
- Understands the unique requirements of each application (application prioritization, switching provisioning, quality of service [QoS], security)
- Automatically adapts the network to optimize performance

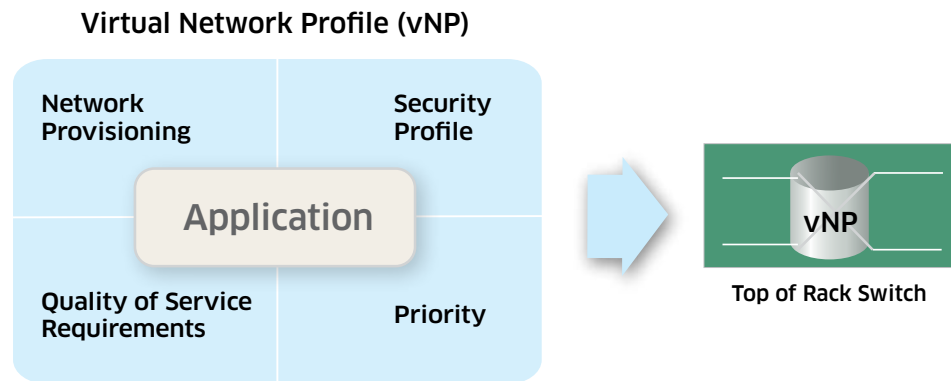


Figure 1: Virtual Network Profile (vNP)

The Alcatel-Lucent Pod

The Pod ensures low latency and high performance by providing server-to-server connectivity through a unique direct-connect architecture without relying on a core switch to carry traffic. With this architecture, servers to server traffic is kept under 2µs latency.

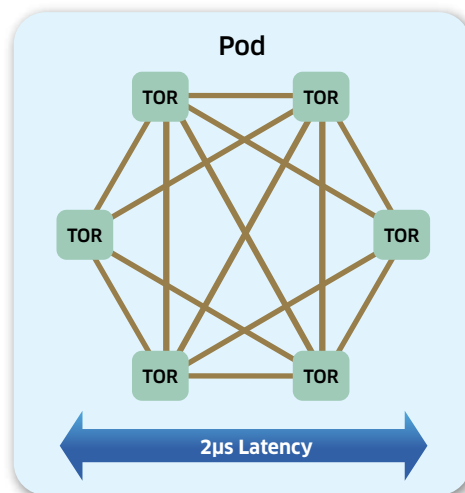


Figure 2: Alcatel-Lucent Pod

Enjoy the Advantages of an Application Fluent Network

Deliver a high-quality user experience

Alcatel-Lucent's application fluent switching fabric provides any-to-any connectivity with market-leading low latency, density, low power consumption and overall switching capacity needed to deliver optimal performance for real-time, mission-critical applications. Plus, the Alcatel-Lucent Pod and Mesh improve application availability by localizing failures with the direct-connect architecture. End-to-end application monitoring gives IT complete application visibility.

Grow your business faster and more efficiently

The Alcatel-Lucent Enterprise Data Center Switching Solution helps you increase agility and speed in deploying new services and applications. With an application-fluent approach to server virtualization, IT teams enjoy automated virtual machine movement. The data center fabric can be partitioned to create specific virtual departmental data centers reducing complexity and increasing security. Looking ahead, enterprises can achieve seamless co-existence with cloud-based services, helping to simplify cloud service delivery to corporate networks.

Reduce data center costs

Alcatel-Lucent's market-leading, low power consumption means lower energy costs for the enterprise. Alcatel-Lucent also helps lower operational costs by treating applications as complete services to simplify data center management. Finally, a virtualized network infrastructure helps reduce equipment and space costs.

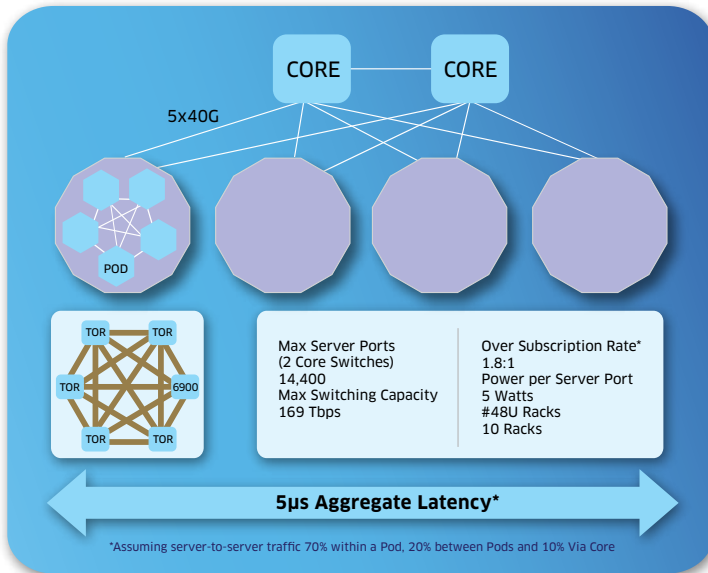


Figure 3: The Alcatel-Lucent Mesh

The Alcatel-Lucent Mesh

The Alcatel-Lucent Mesh is created by connecting Pods to each other and to core switches scaling to more than 14,000 server-facing ports with aggregate end-to-end latency of less than five microseconds. End users across the enterprise benefit from a high-performance experience thanks to this direct-connect architecture.

A Complete Solution for the Data Center Network

The Alcatel-Lucent Enterprise Data Center Switching Solution combines Alcatel-Lucent's market-leading OmniSwitch 10K Modular LAN Chassis, the OmniSwitch 6900 and the OmniSwitch 6850E to deliver:

- Low-latency, any-to-any 10 GigE connectivity, helping enterprises meet the growing and evolving needs of the data center
- Network virtualization, using the IEEE Multi-Chassis Link Aggregation (MC-LAG) specification and Virtual Chassis
- Applications managed as services with vNP, and with automated virtual machine mobility that is uniquely agnostic to the server virtualization platform in use

The management stack includes Alcatel-Lucent's VitalSuite for end-to-end application performance visibility with OmniVista 2500 Network Management System and OmniVista 2500 Virtual Machine Manager for switch fabric management.

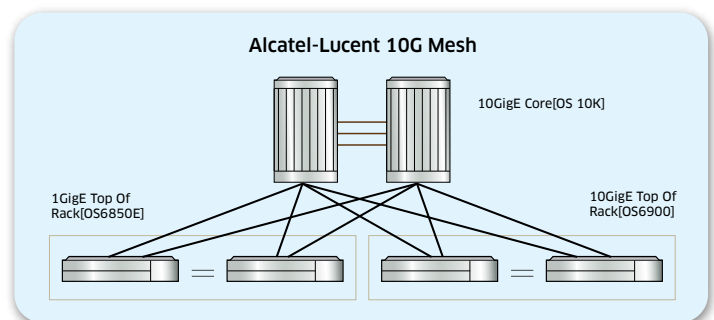


Figure 4: Alcatel-Lucent 10G Mesh

READY FOR CURRENT AND FUTURE DEMANDS

The Alcatel-Lucent Enterprise Data Center Switching Solution lets enterprises meet current needs while preparing for the future with no costly hardware change-outs. With the Alcatel-Lucent Enterprise solution, your enterprise is ready for:

- 40/100GigE and MPLS
- Fibre Channel over Ethernet (FCoE)*
- Ethernet Virtual Bridging (EVB)*
- Shortest Path Bridging (SPB)*

* Requires a software upgrade

Choose Alcatel-Lucent Enterprise for Your Next-Generation Network

With its unique application fluent approach and visionary data center switching blueprint, Alcatel-Lucent Enterprise delivers a complete solution for modernizing the data center network. Alcatel-Lucent Enterprise's Data Center Switching Solution lets your enterprise:

- **Manage applications as services** with the network understanding each application and automatically adapting to follow virtual machine movement
- **Take advantage of a hybrid cloud model** by converting the corporate data center into a multi-site private cloud with seamless coexistence of service provider-delivered cloud services
- **Prepare for the future** with Alcatel-Lucent's innovative data center fabric blueprint. The Alcatel-Lucent Pod and Mesh with a direct-connect architecture delivers low latency and high density as well as a long-term sustainable design. Plus our standards-based approach means no lock-in to a specific vendor

No other vendor offers the depth of experience and expertise Alcatel-Lucent has in delivering large-scale switching solutions for service-provider data-center clouds.

Turn to a partner with the vision and innovation to help your organization take its data center network into the future — from network virtualization to a hybrid cloud model. Turn to Alcatel-Lucent Enterprise.

To find out more about how the Alcatel-Lucent Enterprise Data Center Switching Solution can help your enterprise transform its data center network, [click here](#) or contact your Alcatel-Lucent Enterprise account manager.

ABOUT ALCATEL-LUCENT ENTERPRISE

Alcatel-Lucent Enterprise serves more than 250,000 customers worldwide with solutions that transform communications into meaningful conversations among customers, employees and partners. Alcatel-Lucent Enterprise comprises three business streams: Genesys, for customer service software; Communications, for communications platforms, unified communications and collaboration applications; Networks, for network infrastructure and security solutions for LAN, WLAN, WAN and data center. Alcatel-Lucent Enterprise offers an unmatched commitment to openness and delivers solutions for all business sizes. These solutions drive improved employee and customer engagement by interconnecting networks, people, and processes to harness an organization's knowledge. With operations in more than 130 countries, an experienced global services organization, and an eco-system of more than 2200 resellers, systems integrators and application developers, Alcatel-Lucent Enterprise is a local partner with global reach. www.alcatel-lucent.com/enterprise.



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