

ALCATEL-LUCENT ENTERPRISE AND ARUBA NETWORKS

SOLUTION BRIEF

The Unified Access Network for the Mobile Enterprise Enables User Choice, Mobility and Security

MAJOR MARKET TRENDS CHALLENGING ENTERPRISE IT

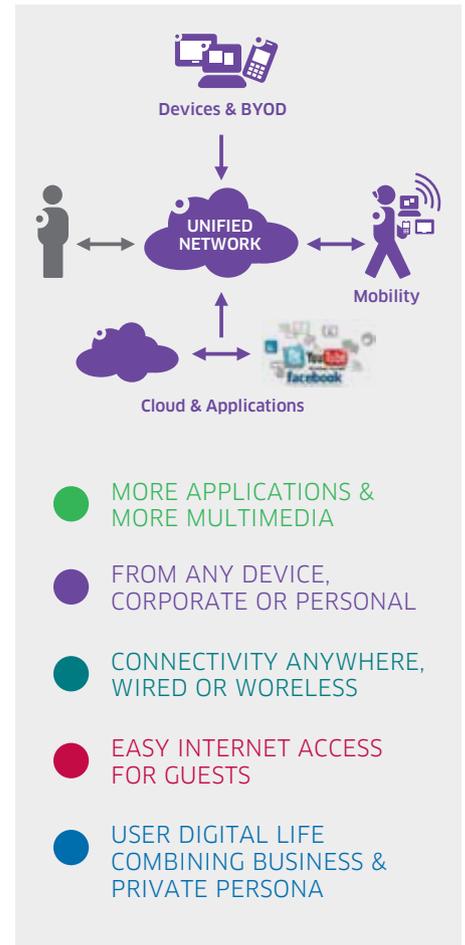
Major market trends are challenging existing IT infrastructure and enterprises need to be able to react in order to remain competitive, secure, and user-friendly. The top challenges IT departments are facing today include: 1. the increase in devices such as laptops, smart phones, and tablets, along with the Bring Your Own Device (BYOD) phenomenon, 2. the move to the cloud and the tremendous rise in adoption of new applications, many of which make intense utilization of multimedia such as unified communications (UC), video and other types of multimedia communication tools, and 3. mobility - the need to be always connected whether in a wired or wireless environment, since applications, the web and cloud services, are the key usage drivers which should be accessible from anywhere, anytime, with any device. This new era is not centered on a device, as it was with the rise of the personal computer, but on multiple devices, platforms and applications.

The Challenging Needs of Modern Organizations

Personal and corporate devices will continue to be connected via wired and/or wireless LAN - the importance is to provide connectivity anywhere, anytime and to the applications that matter to an organization. Enterprises also want to provide easy internet access for guests, ensuring the corporate network is secure from prying eyes and hackers, while maintaining privacy for both corporate and personal information - now mandatory in many organizations and in some countries.

Top Needs for Today's Enterprises

Looking at these market trends, coupled with organizations' restricted IT budgets, the increased operational complexity and the threat of security exposure, it becomes clear that most networks are not prepared to support the flexibility that the new technologies demand. Today's organizations need a solution that can withstand the demands of a business today, with the ability to grow as the business evolves, and without incurring major capital expenditures (CAPEX), operating expenditures (OPEX), or equipment upgrades.



Enterprises must find a way to not only embrace these trends, they must also leverage the paradigm shift to improve employee productivity and secure their networks from unwanted access. Gartner states that enterprise programs designed to leverage BYOD are becoming more commonplace and by 2016, 38% of companies expect to stop providing hardware devices to employees ¹. In Q1 2013, Forrester indicated that 71% of enterprises are considering providing more mobile support for employees both outside the office and within the facility as their top priority ². Alcatel-Lucent Enterprise and Aruba Networks have partnered since 2005, delivering industry-leading wired and wireless solutions for enterprises and now are partnering to deliver the unified access network for the mobile enterprise. This solution supports mobility and security with open standards and interfaces to ensure interoperability and future expandability of the network, including Software Defined Networks (SDN), while lowering the Total Cost of Ownership (TCO).

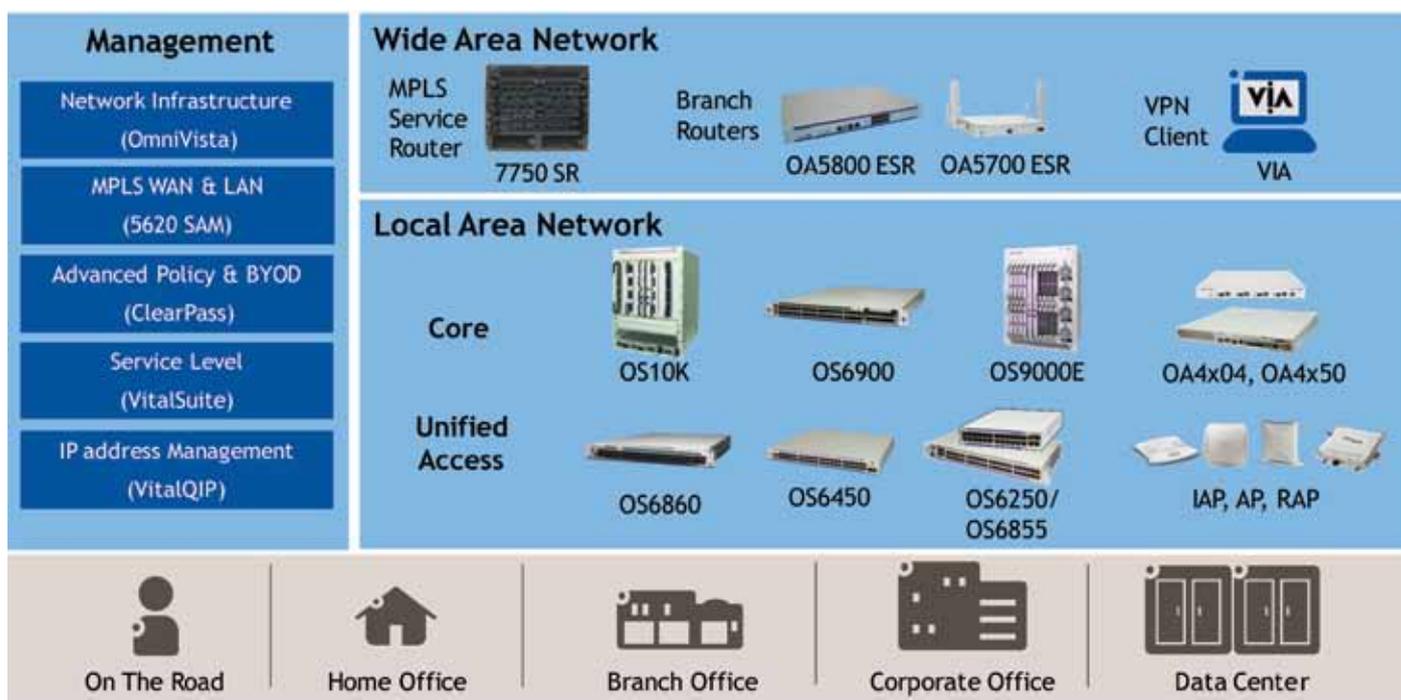
DELIVERING UNIFIED ACCESS

To answer these challenges, Alcatel-Lucent Enterprise has brought its unified access approach to the network. The premise of a unified access network is based on the ability to offer the same network services across wired and wireless networks, seamlessly, with cohesive network and policy management. Combined with advanced policy services, the unified access network possesses contextual knowledge of the users, connected devices and the operating systems being utilized. This ensures a secure, flexible and high-quality user experience, across the enterprise.

A Complete Solution for Unified Access Networks

The unified access network starts with a wire-rate 10GbE/40GbE network core. The core includes the market-leading Alcatel-Lucent OmniSwitch™ 6900 Stackable LAN Switch, and the OmniSwitch 10K Modular LAN Chassis. The unified access network provides a common set of network services, policy framework, authentication scheme and a single authorization database that applies to users accessing the network with either wired or wireless devices. Wire line access is provided by stackable LAN switches like the state-of-the-art Alcatel-Lucent OmniSwitch 6860 and the value OmniSwitch 6450; wireless access is provided by a variety of OmniAccess™ Wi-Fi access points; while BYOD, guest access, onboarding and policy management services are provided by Aruba Networks ClearPass Policy Management System. A software-based VPN client for laptops provides the solution for secure connectivity to employees on the road. Furthermore the unified access solution offers network analytics via integrated DPI capabilities in the access equipment, offering the application visibility and control to enable prioritization of business critical applications while allowing space for employees to explore new applications for business or personal purpose. SDN support is provided via OpenFlow and/or RESTful API's on the wired and wireless access portfolio, providing the peace of mind that this equipment will continue to be used as the future campus architecture evolves to SDN.

The management suite, comprised of the OmniVista™ 2500, includes all tools needed to provision, monitor and troubleshoot the network and provides end-to-end analytics and application visibility.



The Unified Access Network Difference:

- Network services that apply seamlessly to wired and wireless connected devices
- Embedded security for protecting users and keeping the network running
- Advanced BYOD services to simplify BYOD adoption and keep the network secure
- User Profiling/Roles for a quality user experience on a highly mobile environment
- Authentication/Authorization via one or multiple databases e.g. AD, LDAP, Local User Repository
- Deep Packet Inspection (DPI) to provide application-aware networks and policies
- Software Defined Network (SDN) support provides investment protection
- Multimedia Fluency for enhanced quality delivery of voice and video
- AirGroup™ support to enable simple connectivity and personalization of consumer devices
- Citrix® Virtual Desktop Infrastructure (VDI) fluency for differentiated QoS on VDI clients
- Network virtualization for reduced equipment, network simplification and streamlined operations
- A resilient network that does not impact real-time application performance in case of failure
- Automated provisioning of access switches and endpoints
- Wireless LAN with superior performance and flexible deployment options
- Low power consumption

Alcatel-Lucent Enterprise and Aruba have worked to ensure that applications and network services apply seamlessly to wired and wireless connected devices, while policy management and user profile/role assignments deliver a quality user experience for the mobile enterprise.

A BETTER NETWORK SOLUTION

Alcatel-Lucent Enterprise offers a unified access network for the mobile enterprise that is able to deliver applications and services to create new operational efficiencies, cost savings and a consistent, high-quality user experience across wired and wireless environments.

The unified access network not only offers innovation to meet organizations' immediate needs, but also prepares their network for the future, with capabilities to gradually increase mobility, support BYOD and the move to the cloud. Most importantly, this transformation can be achieved while maintaining the same Alcatel-Lucent Enterprise hardware, therefore protecting your investments.

Alcatel-Lucent Enterprise offers an outstanding ROI (return on investment) coupled with a sustainable solution for years to come. An organization can enjoy the benefits of the unified access network today and grow when it is ready to do so to meet the challenges of the future.

For more information: <http://enterprise.alcatel-lucent.com>

¹ "Bring Your Own Device: The Facts and the Future", Gartner, <http://www.gartner.com/newsroom/id/2466615.a>

² "Forrsights Networks And Telecommunications Survey", Forrester, January 2013, <http://www.forrester.com/Forrsights+Networks+And+Telecommunications+Survey+Q1+2013/-/E-SUS2171>

