



# TRANSFORMING TO A CLOUD-READY INFRASTRUCTURE

Directions for optimizing enterprise communications

In today's mobile and distributed workforce, an increasing number of enterprise users expect a true unified communications and collaboration (UC&C) experience. IT teams are therefore transforming their business communications to deliver advanced applications over simplified, cloud-ready infrastructures.



## **CLOUD-READY INFRASTRUCTURE**

Alcatel-Lucent can help optimize your IP telephony network by taking the following transformative steps toward a cloud-ready infrastructure:

1. Centralize IP telephony servers in data centers.
2. Transform networked PBX platforms into centrally managed media gateways.
3. Centralize external communications toward cost-effective SIP providers.
4. Keep local sites always connected with local survivability equipment and devices that support multiple homing.

## **SOFTWARE AND OPERATIONS TRANSFORMATIONS**

Software transformations toward virtualization and a shared SIP infrastructure provide increased flexibility and agility for your enterprise. These transformations enable your employees who engage in cloud-based collaboration and bring your own device (BYOD) to benefit from a seamless collaboration experience using one interface across devices, media and participants. The automation of IP and operations management and new security capabilities enable you to deliver the highest value to business lines, along with lower OPEX.



UC&C is a compelling, game changing technology. It can also leverage savings and cost avoidance through ROI and many times can quickly pay for itself through hard dollar savings – for a major healthcare client, an annual projected ROI of 18% (\$350 million) above the lease cost.

**STEPHEN LEADEN,  
UNIFIED COMMUNICATIONS STRATEGIES,  
SEPTEMBER 30, 2013**

## SOFTWARE DIRECTIONS: VIRTUALIZATION AND SHARED SIP INFRASTRUCTURE

Alcatel-Lucent delivers modular communication applications on top of a converged IP telephony infrastructure. The Alcatel-Lucent OpenTouch™ Suite for Mid-sized and Large Enterprises (MLE) leverages cloud technology for more agility in your data center. The OpenTouch Suite provides a range of software technology enablers, including virtualization, an open SIP infrastructure and shared media applications.

### **VIRTUALIZATION**

When communication applications are deployed in standard virtual machine format, all enterprise applications can share data center servers. The hardware sourcing policy is simplified, and maintenance is easier because virtual machines can be moved to other servers. Software operations are more flexible because virtual machines can be stored and started from a storage area network (SAN).

### **SHARED SIP INFRASTRUCTURE**

Communication applications require more traffic between data center virtual machines and servers than do web applications. There is also greater complexity, with traffic flowing between virtual machines and between software components. Sharing a common SIP call control and media infrastructure across telephony, mobility and collaboration applications reduces this east-west traffic, optimizes performance, and decreases energy consumption and total cost of ownership.



### **SHARED CONVERSATION LOGIC**

Centralized cloud technology makes it easier for devices to access communication applications across LANs, WLANs, 3G/4G networks and the Internet. Building shared conversation logic on top of a common SIP infrastructure provides a unified experience across devices, regardless of their type of access network. Shared conversation logic also enables users to seamlessly switch sessions across devices, escalate from one medium to a full multimedia conversation, and move from a telephony session to a multi-party conference.

### **SHARED MEDIA SOFTWARE**

Increased computing capacity in data centers is enabling hardware-based resources such as media transcoding, inspection, broadcasting, storage and prompts to be delivered as media software. Media software increases deployment and maintenance agility.

### **MODULAR PLATFORM**

Web application clouds rely on caching technology to overcome latency and bandwidth consumption issues between devices in remote sites and servers in data centers. Real-time applications cannot use caching: you may need to deploy some components of the OpenTouch Suite – such as media gateways, software media processing or SIP routing – closer to the devices while conversation logic runs in the cloud.

Modularity also enables flexible virtual cloud deployments. Some components, such as telephony and media processing, can be deployed in on-premises private clouds while other components, such as conversation logic and any-device access, run in service providers' data centers.



## OPERATIONS DIRECTIONS: AUTOMATION AND SECURITY ENHANCEMENTS

For reduced OPEX, transformations toward cloud-based architectures must be accompanied by the automation of IP, applications and security management. The OpenTouch Suite provides a range of operations technology enablers, including automated IP address management (IPAM), unified network management and self-service provisioning, and advanced security capabilities.

### **AUTOMATED IP ADDRESS MANAGEMENT**

The exponential growth of connected devices is leading to higher OPEX for enterprises. IPAM is crucial to decreasing these additional costs. With IPAM, employees benefit from robust navigation capabilities and the centralized planning, provisioning and administration of DHCP services. IPAM also provides the central DNS to locate applications.

The major evolutions of IPAM are:

- Increased automation of DHCP/DNS provisioning and security with easy-to-use web-based GUIs and the publication of standard programming interfaces
- Support and automation of new standards for transitions from IPv4 to IPv6
- Enhanced reporting functions to help IT build performance indicators of cloud availability



### **SIMPLIFIED MANAGEMENT AND MONITORING**

The automation of IP telephony management is extending to new cloud-based collaboration applications. User databases can be converged across applications, and automated procedures can simplify the most frequent operations. In addition, role-based management is enabling the outsourcing of some management tasks. The OpenTouch Suite offers:

- Unification and simplification of management applications
- Evolution of role-based management to self-service
- New management tasks related to application
- End-to-end performance monitoring

### **PROTECTION AGAINST NEW SECURITY THREATS**

New attacks and security threats are arising with the adoption of new media, extensive mobility, and deployment in managed cloud infrastructures. To protect against these threats, the OpenTouch Suite offers embedded and dedicated security components for your enterprise:

- Securing of mobile multimedia conversations against attacks
- Protection of user information in cloud-based conversation databases
- Adoption of user-centric certificates

Close to 50% of survey respondents (1400 businesses across 18 countries) say that the potential for data leakage is the biggest concern in implementing a BYOD program.

**IDC,  
EMEA ENTERPRISE MOBILITY SURVEY,  
MAY 2012**



## THE ADVANTAGE OF ALCATEL-LUCENT OPENTOUCH

The Alcatel-Lucent OpenTouch Suite for Mid and Large Enterprises makes it easy for your employees to collaborate. And it's all provided on one easy-to-manage platform that leverages your investments in telecommunications equipment.

**Mission-critical communications:** OpenTouch enables real-time, high-quality, uninterrupted mission-critical voice communications. You don't want to compromise when leading a group conversation with a key customer!

**Smooth conversation shift:** With OpenTouch, you can shift your conversation as you change devices or media, without losing it and without your audience even noticing. You are often on the move and you will want to use the media most appropriate to your conversation!

**Flexible evolution:** OpenTouch allows a flexible evolution from your current voice and data infrastructure to a centrally managed multi-device and multimedia collaboration infrastructure, including HD video.

Alcatel-Lucent has received multiple industry awards for its OpenTouch Suite.

## ARE YOU BUILT FOR THE FUTURE?

Identify how much your organization needs UC&C technology in regard to your current infrastructure by taking the "Collaboration Delta" self-assessment.

TAKE YOUR COLLABORATION DELTA ASSESSMENT NOW →

[enterprise.alcatel-lucent.com/collaboration-delta-assessment](http://enterprise.alcatel-lucent.com/collaboration-delta-assessment)

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