

# Managed Unified Communications Empowering Dynamic Enterprises

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A few short years ago, the concept of Unified Communications (UC) was more hype than reality. That's not so anymore. Technology advancements and the arrival of communications and networking standards have spurred the evolution of UC. Businesses are starting to deploy UC across their enterprises. Managed UC integrates and automates a variety of communications means – including telephony, e-mail, messaging, conferencing and collaboration services – into a single, managed architecture that provides a consistent user experience. Its purpose is to improve efficiency and productivity, enable awareness of a colleague's availability and ease communication with a variety of options.

The concept of UC has gradually evolved over the past decade. What started with few services such as contact lists, presence and telephony available from the desktop, has expanded to include enhanced services such as rich business telephony, any messaging and any conferencing, available on any device, including fixed phone, PC, mobile phone or dual-mode phone.

Ultimately, however, UC must extend beyond users' PCs, fixed or mobile phones communicating over a corporate or cellular network. It must deliver communications and web communication capabilities in real time whatever the user is doing and wherever an employee needs communication – in a colleague's office, on a train, at a hotel or customer site in another country – using the devices and applications that are convenient to the end user.

This demand for mobility as well as the proliferation of services is prompting a shift from an enterprise ad hoc “do-it-yourself” communications environment, to a service provider “managed” environment. Outsourcing Unified Communications to a service provider allows enterprises to focus on their core business, improve productivity and reduce costs while enjoying enhanced mobility capability.

A recent study conducted by In-Stat and Wainhouse Research<sup>1</sup>, concluded that the market for Unified Communications products is forecasted to be \$24.6 billion USD by 2012 with a compound annual growth rate of 7.2% over the period. Additionally worldwide UC services expenditures will exceed \$24.1 billion USD by 2012, with 25% CAGR.

Driving the accelerated adoption of UC are the wide availability of IP broadband access, more capable mobile devices and the technological advancement of Session Initiation Protocol (SIP), an application-layer control protocol that can establish, modify and terminate multimedia sessions such as Internet telephony calls and IP Multimedia Subsystem (IMS), an architectural framework for delivering IP multimedia to any fixed or mobile user.

## Understanding Managed Unified Communications

Unified Communications is most often offered via a convenient user environment – client- and increasingly web-browser-based – gathering all communication means and information. For example, it enables the user to check last call, play voice mail, search a contact in the enterprise directory, add the result in a contact list as well as click-to-start an IM or audio/video session, or web conference with a colleague.

1 ©2007, *Worldwide Unified Communications Product Forecast*, In-Stat and Wainhouse Research, November 2007

Managed UC tools allow end users to choose the most appropriate device for establishing a communication or collaboration session. For example, PC-embedded soft phones, as well as mobile or PBX phones and personal digital assistants, can all be equipped to support this capability.

Beyond dedicated clients, UC enables communication capabilities wherever communication is needed. Installing Outlook or Lotus Notes plug-ins that let users simply click on an icon to initiate a call or check e-mail and perform directory look-ups are just a couple of examples. Other forms of UC are integrated as web communication capabilities into traditional applications so that a user can simply click on a number or name found in a spreadsheet, word processing document or web page to initiate a call, instant message or e-mail.

Managed UC exemplifies the “One Number” concept where a user is identified and known by a single number or ID and is able to select the most appropriate device on which to make or receive a call. An example of this is the combination of a mobile phone, PBX phone and a PC operating in a fully managed UC environment where the user selects the most appropriate device.

When managed UC systems are properly designed and implemented, each communication vehicle follows the rules of the enterprise and benefits from the business services usually available on legacy terminals: thus, screening rules, call forwarding, short private number dialing, closed user groups, call retrieve and parallel ringing that are being used on legacy systems today can be leveraged by UC systems tomorrow (Table 1).

Table 1: Value - CIO/IT managers

Lower total cost of ownership	Outsourcing communications services and infrastructure to a service provider offers a predictable operating cost, while allowing enterprises to streamline business processes and focus on their core business.
Simplified management, control and provisioning	With one Unified Communications infrastructure, the transition to IP multimedia communications is smooth, while enterprise ICT investments and costly maintenance are reduced.
Seamless integration	A Unified Communications solution can leverage the existing office environment, including popular desktop applications such as Microsoft Outlook or IBM Lotus Notes and any type of TDM and IP PBX.

## Unify Employees with Knowledge and People Networking

According to industry statistics, only a small portion of corporate knowledge is stored on enterprise databases. Most knowledge is stored in the minds of employees, who then share what they know with others in the enterprise through some form of collaboration. That is why employee attrition can be such a problem. If there is significant employee turnover, a reorganization or restructuring, much of that knowledge and expertise can be lost from the organization.

This opens the door to another important value proposition. Web 2.0 UC, with enterprise social networking, enables users to define their work environment. They can select communication capabilities and combine them with applications that provide ways to exchange their knowledge and experience just as they do outside of work. Companies that can efficiently leverage and capture this knowledge are better positioned to successfully transform their business.

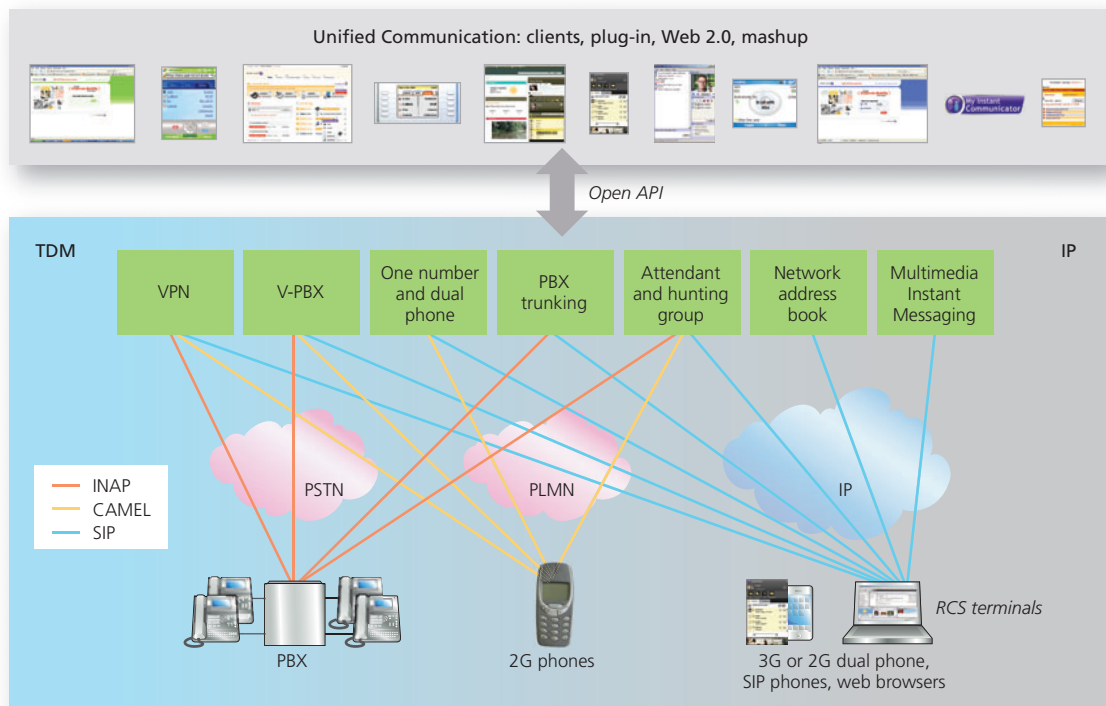
## The Role of Open Network Architecture

In order for managed UC to address the needs of the enterprise, it is important to rely on an open network architecture that supports (Figure 1):

- Fixed and mobile environments, so that end users' mobile and office devices have a consistent set of telephony services and can work with applications across both mobile and IP networks
- IP and legacy environments to ease smooth migration to an IP network
- Premises and public environments so that employees are able to communicate, regardless of whether they are inside or outside of their enterprise domain
- An access-agnostic solution to provide the right capabilities for the IP environment and to ensure interoperability inside and outside of enterprise and service provider domains. Applications and service delivery environments should be opened in order to let service providers, third-party developers and enterprises introduce new services without impacting the underlying infrastructures.
- Independent network applications offering separate services, with the openness to support communication capabilities available on any UC and web communication client applications.

These requirements are met by leveraging IMS as a standardized IP-based, SIP-centric, network-agnostic technology integrated with a traditional IN application environment. The hybrid application environment combines the best of traditional IN technologies and state-of-the-art Java-based application server technology into an unmatched application experience.

Figure 1: Open architecture to unify IP and legacy networks



Enterprises and service providers must develop an approach to managed unified communications that supports a hybrid environment, including TDM-IP, fixed-mobile and premises-network services. This will help as service providers and enterprises work together to implement a smooth transition path leveraging their existing assets and services.

It is important to ensure that applications support open and secure communication Application Programming Interfaces (APIs). This flexible approach will make it possible for service providers and enterprises to deploy different UC models that best meet their needs. This openness is also key to facilitating the integration of enterprise IT tools across the managed UC environment, including Microsoft Outlook and LCS/OCS, IBM Lotus Notes and Sametime.

## Conclusion

The promise of UC is finally about to be fulfilled. Alcatel-Lucent offers a breadth of Managed Unified Communications solutions that provide opportunities for both service providers and enterprises to benefit from this business environment. These solutions allow users to personalize, control and manage calls, messages, directories, collaborative work tools and information from any location using any device and any software interface. With maturing IP and SIP/IMS-enabling technologies, service providers and enterprises can begin deploying UC. Solution options must be evaluated, and the key to successful deployment and management will be leveraging and unifying existing assets, communications tools and applications – as well as the wealth of corporate and employee knowledge – while preparing for additional UC services in the future.

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