

nified communications (UC) is at a tipping point today, thanks to the game-changing trends of mobile apps and cloud computing. Until recently, companies that deployed UC benefited mostly from integrating applications such as voice, presence, and IM. Employees loved the simplicity and the one-click transitions between media. CFOs reveled in the telecom savings from going all-IP.

Enter private and public clouds, and managing UC gets a whole lot easier for your CIO. Add mobile apps and devices in the workplace, and suddenly UC becomes radically more powerful and useful.

First, let's look at cloud. Today, 30 to 40 percent of firms host public data in the cloud, with many firms planning to transfer more proprietary data from their core transaction apps into the cloud in the coming year, according to a 2013 report by Forrester Research. Forrester states that corporations are no longer cautious in the cloud but are taking "a more aggressive posture where economics and ease of use make public cloud services broadly suitable for enterprise application architectures."

Cloud computing for UC can be offered as a public cloud service or as a private cloud. Public clouds need little introduction: They comprise services and data hosted in a location external to a business and typically delivered by an external provider. Salesforce.com is an archetypal example. Fast and inexpensive to start up, relatively easy to scale, and offering ubiquitous access to end users, public clouds may offer less configurability, control, and security than a business—especially its IT department—requires.

Private clouds typically involve software installed and managed in a company's data center using virtualization and next-generation networking technologies in order to mimic the ease of use and dynamic, self-managing scalability of public clouds. Private cloud UC infrastructures give companies more control over data while still delivering cost-efficient management and real-time distribution of applications and services. Some begin their transition away from a traditional installation using a managed services provider (MSP) arrangement in which the vendor remotely manages and monitors the on-premises UC system.

The long-standing enterprise concerns around public cloud computing—including security,

survivability, and data control—are finally being tempered with these various cloud-based options. Large companies may still struggle with porting legacy applications into a cloud-based infrastructure or service. Yet, most modern cloud options do offer lower cost of entry, higher scalability, and ease of upgrades and maintenance for IT departments when compared with traditional on-premises deployments. The same benefits hold true for cloud-based UC, but there is perhaps an even greater use case, says Zeus Kerravala, founder and Principal Analyst of ZK Research.

"With legacy PBX systems, it was still complex, but there was essentially only one box to manage," Kerravala says. "Now, UC has evolved from IP telephony to virtual servers, Wi-Fi clients, and integration with email and other applications. A very large enterprise can handle this complexity, but the cloud is a much more efficient model for delivery."

Take Danish telecommunications operator Cirque. It switched from offering on-premises to cloud-based systems and now provides every aspect of its UC solution as a hosted service to customers. Moving to the cloud has reduced TCO, simplified application and infrastructure management, and helped lower costs for Cirque customers. "An on-premises solution may have a lead time of three to nine months ... it's a big project," says Cirque COO Mads Fosselius. Using cloud, "it takes only a tenth of the implementation time."

The Mobile Connection

Knowledge workers don't care where or how applications and services are hosted. They care that they can work easily and effectively anywhere, at any time, using any devices they desire. Clouds enable that. By their nature, public clouds provide anytime, anywhere access. And both \$\circ\$

public and private clouds can be architected to adjust dynamically to surges in usage—of traditional and UC applications.

Many CIOs are making mobility and video part of their current UC planning cycle, observes Forrester. Meanwhile, 57 percent of firms eschewing UC today are planning or considering a mobile UC deployment, while 82 percent of firms using UC today plan to keep or boost their usage of mobile UC apps, according to a 2012 Frost & Sullivan report.

Mobile UC apps allow users to connect to all of their telephony and communications features from their smartphone or tablet. They can have a single number that reaches both desktop and mobile phones, enjoy mobile access to the corporate directory for availability and presence settings, switch from voice to text or IM, or even initiate a Web conference, all from the same application.

Mobile UC is still in its early stages. however. It's not exactly snappy to move information between different media on a mobile device, savs Kerravala: "By comparison, if I'm on my desktop application and get an IM from someone. I can cut and paste the information from the message into an email or a document. That's a lot harder on a mobile device." This is changing fast, with vendors developing what he calls "true mobile communications clients" that are as powerful and easy to use as UC software on a PC. Mobile UC client apps can now enable a sales manager to participate in a conference with co-workers or potential customers over high-resolution video while easily sharing documents on screen.

The future for mobile, cloud-enabled UC is up for interpretation. Kerravala believes it will be about B2B UC. For example, an automaker and its suppliers could connect through a federated UC system that

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IT Trends Enhance or extend mobile infrastructure Secure BYOD Infrastructure optimization

Server

virtualization

Workforce

87% of decisionmakers found collaboration very important for employee productivity

97.3% of office workers with a personal mobile device use it for work

~50% of employees work outside the office

IT Support

Limited IT staff

Trying to minimize exposure to risk

With less complexity in operations

"True mobile communications clients are emerging today" that are as powerful and easy to use as UC software on a PC.

-Zeus Kerravala, Founder and Principal Analyst, ZK Research

combines the UC systems of all parties for seamless intercompany communication—something that does not exist today. Business partners would be able to more effectively manage orders and handle last-minute changes. Not too far behind will be B2C connections: a real estate broker contacting a potential buyer about a hot new listing in their neighborhood by clicking a link from their mobile

UC app, or a physician using her tablet on a break to conduct a video conference with a patient and his spouse.

Cloud computing and mobile technologies are bringing UC center stage by making it easier and more affordable for companies to have advanced capabilities that weren't possible just a few years ago. It's time to bring these areas together and see what companies can do. [A]

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