Unified Communications, Diverse Benefits
Adopting a unified communications platform increases productivity, reduces costs and improves end-user service.

Your staff may sit in cubicles or telecommute. Your end users may be down the block or nationwide. No matter what your organization’s situation, it has something to gain from adopting a unified communications (UC) environment.

UC provides a comprehensive, streamlined communications infrastructure. With a UC deployment, an organization’s numerous communication tools including voice, data, video conferencing and instant messaging (through e-mail and text messaging) are fully integrated in real time.

All of this integration can lead to some valuable communications features: voice calls to desk phones can be automatically routed to a cell phone when required; e-mail intended for a desktop mailbox can be sent to the user’s PDA; and text messages can be converted into speech for a phone message.

Such applications provide staff with increased mobility communications options. These UC benefits also improve and measure end-user support and service, present a professional image to end users, manage communications more efficiently and connect all sites or branches (giving staff across the organization the same sophisticated communications capabilities).

Increasing Communication and Collaboration
UC deployments are becoming more popular with organizations of all sizes. In fact, a recent survey conducted by Market Tools for Siemens Enterprise Communications reveals that more than half of the organizations surveyed are actively installing UC applications to increase productivity and end-user responsiveness.

Nemertes Research’s recent “Unified Communications and Collaboration Research Benchmark” study found that more than 47 percent of IT executives are deploying or planning to deploy UC. This represents an increase of 17 percent from 2007.

The study also found that nearly 90 percent of organizations identified themselves as “virtual,” defined as possessing some staff that work remotely in a separate location from their supervisors and workgroups.

According to the Nemertes study, “The rise of the virtual workforce requires that organizations provide their staff with tools to collaborate and communicate, regardless of location, via a variety of means including text, audio and video.”

UC solutions can help reduce communication problems, improve operations processes and enable a truly mobile workforce, says Irwin Lazar, principal research analyst and program director for Unified Communications and Collaboration at Nemertes.

“In a non-UC environment, all communication services, like cell phones, instant messaging and video conferencing, are deployed piecemeal,” Lazar says. “Those applications require a different learning curve and, in many cases, offer very little opportunity to communicate between applications.”

In a true UC environment, all voice, data and video along with e-mail, instant messaging and calendaring applications are fully integrated with desktop and mobile devices. So instead of sending out e-mail, leaving voicemail messages and trying to track down the right person, UC enables staffers to find the right contact straight away.

“Now you can use something like a single buddy list to track whether or not somebody is on the phone or online and initiate a voice call, web conference or video conference,” Lazar adds. “UC improves any operations process that relies on human interaction.”
**End-user Benefits from UC**

UC leads to tangible benefits regarding improved end-user service. For example, if an end user dials in, that person receives an automated message detailing where the customer service rep can be located (if you want to provide that information) and whether the call can be taken. If the call can be taken, it is routed to a cell phone or other specified number.

UC also offers organizations better throughput through contact centers. “We see the use of UC as an operations process improvement tool as really being the key driver,” Lazar says.

“We’ve also seen organizations demonstrate reduced phone bills as a result of using instant messaging,” he continues. “So when you drill down into the specific components, you see additional business cases.”

“Today, one out of every two dollars spent on communications is spent on UC solutions,” says Chris Thompson, senior director of solutions marketing for Cisco Unified Communications.

“Organizations have quickly moved away from the standardized world of the 1990s and more toward a world where people use different tools to work,” Thompson says. “This has been accelerated by the new workforce that is naturally collaborative and used to being continuously connected.”

In many organizations, the efficiency of unified communications is quickly pushing e-mail down the list of reliable communication tools. This decreased reliance on e-mail is due, in part, to the rising popularity of smartphones, which “are blurring the lines between e-mail, short message service and instant messaging. All are now used to send short text communications,” Thompson says.

The growing popularity of UC solutions is being further accelerated as more organizations embrace video conferencing and Web 2.0 applications. “As people accelerate the shift away from traditional communications towards UC, they gain immediate ROI as well as the opportunity to extend new applications into the workspace,” he adds.

At the heart of this growth are video conferencing applications. These increasingly popular applications add more context to communications and Web 2.0 applications embedded in operations processes, Thompson explains. “Organizations are rushing to embrace unified communications as a foundation for collaboration to accelerate decisions, gain productivity and strengthen competitive advantage.”

**Strong ROI**

The ROI value of UC can be found in numerous benefits. UC reduces travel costs for executives (as mentioned earlier) and for staff traveling to and from the office. These savings come about from staff having the option to telecommute from home or another location. This also leads to reduced real estate costs for organizations, as less office space is needed for fewer onsite workers.

A UC solution will also reduce cabling and facilities management costs. This reduction comes about by leveraging the common IP network for all voice and data traffic, thereby reducing the total cost of ownership (TCO) in the process.

ShoreTel has created a TCO tool to help organizations evaluate the financial aspects of unified communications. The tool focuses on capturing data detailing the costs of deploying and managing a UC solution and also the cost savings that organizations can enjoy.

The productivity benefits of UC for organizations are “clear and compelling,” says Kevin Gavin, vice president of marketing at ShoreTel. “This includes more effective and timely collaboration among staff, greater responsiveness to end users and significantly reduced time wasted on telephone tag. We have found that, for many organizations, the ROI is less than six months.”

And for some organizations, the ROI could be instant if their monthly operating cost savings are greater than their lease payments.

Organizations considering a UC solution should begin by looking for the operations benefits. Then they need to make sure their vendors are deeply involved in the process, Nemertes’ Lazar says.

“Start by documenting the operations value that you can derive from UC,” he says. Then approach your vendor partners. “UC implementation challenges vary greatly depending on the current installed environment. It’s important that you understand the products available, their roadmaps and the level of integration they support.”
**UC Development Stages**

Most organizations will use one of several different strategies to deploy unified communications, says Cisco’s Thompson.

“There is no real standard laundry list of components,” he continues. “The equipment required is largely dependent on the types of workspaces that exist within the organization and the needs of the users. However, there are some common components.”

These include a router for Internet access, a switched IP network, Wi-Fi for mobility and finally, any application-specific services such as video and conferencing servers.

Organizations typically go through three different developmental stages when it comes to a UC deployment, with each level offering more features and capabilities.

1. **The converged network stage:** This stage involves creating a converged network wherein you integrate your telephone system and your IP-based data networks into one single network.

   To do this, your organization will need Quality of Service (QoS) switches and routers along with voice- and data-capable hardware. Applying QoS to both your routers and switches becomes more important as more and more traffic flows through the network.

   QoS switches prioritize traffic on the network so that more important traffic can pass first, resulting in significant performance improvements. Make sure to choose a QoS switch that can handle the amount of traffic you expect to run across the network.

   Next, choose a router that enables a converged network. You’ll need one that will be able to support the more demanding requirements of a fully developed UC solution.

   For example, Cisco’s 2800 series routers will support converged networks. And they can also deliver the power needed to add applications, such as video conferencing, without requiring an equipment upgrade.

2. **The telephony and Voice over IP (VoIP) stage:** This stage involves implementing a VoIP solution on your converged network. At this point, you will select the IP phone hardware and software that will run on your converged network infrastructure.

   You’ll also need to incorporate an IP private branch exchange (IP-PBX). This is a telephone system designed to switch calls between VoIP users on local lines, as well as between VoIP users and traditional telephone users.

   IP-PBX switches enable Internet access, VoIP communications and traditional telephone communications to run on a single line to each user. This provides incremental flexibility as the organization grows and reduces long-term operation and maintenance costs.

   For example, D-Link’s SIP IP-PBX switch can support up to 25 users. Incoming calls are directed by the integrated auto-attendant to assist callers to their destinations. One unit can support up to 25 extensions.

   The extension can be located anywhere with Internet access. And multiple units can be used to increase the number of extensions or unite an organization that has many locations under a single PBX system.

   This is also a good time to consider Power over Ethernet (PoE) technology. It allows you to power devices, such as VoIP phones and wireless access points, using your Ethernet cable without any interruption to the data traffic traveling along the same copper wires.

3. **The unified communications stage:** At this stage, you can finally bring your UC solution to life by integrating converged network and VoIP solutions with instant messaging software, video conferencing software and other mobility tools such as cell phones, PDAs, e-mail, presence and more.

   Depending on the size of your organization’s rollout, you may need dedicated UC servers to support the UC strategy. Cisco’s UC solutions, for example, support IP telephony, unified client software, presence, instant messaging, unified messaging, rich-media conferencing, mobility solutions and application development.
This integration is enabled and managed by Cisco’s RSVP Agent. The software allows Cisco routers to intelligently exchange information with Cisco’s UC Manager software, to improve quality of service and increase network flexibility.

**Future Trends**

Important UC trends to keep an eye on include increased integration of UC solutions with other applications, more powerful and intuitive call routing, and screening tools that allow people to receive the calls that they want and avoid interruptions from noncritical calls, ShoreTel’s Gavin says.

Experts also suggest that the demand for more effective communication tools and the increased use of video conferencing will drive up the rate of UC adoption among organizations.

“The impact of these trends is that the ability to deliver these leading features and capabilities is increasingly a requirement for organizations when selecting a communications solution,” Gavin explains.

“With the emergence of mobility, we now see an increased need to take the collaborative experience that happens on premises, behind the firewall and beyond the firewall,” Cisco’s Thompson says.

No crystal ball is needed to see that the future is bright for UC — and for organizations that turn to this technology to improve their communications processes.

**Building the Case for UC**

Today, organizations understand that Internet Protocol-based (IP-based) solutions, operating over a converged voice and data network, are the best choice to replace aging telephone systems.

Because the expense of fully implementing Voice over IP (VoIP) and unified communications also impacts the data network, you want your investment to deliver a rapid and adequate return, with both strategic and financial value.

Cost savings are an important part of the decision. But any IT department looking to win over stakeholders within an organization needs to also outline the broader range of resulting financial and strategic improvements, including:

- More effective communications
- Increased user and IT productivity
- Greater operational resilience
- Better end-user service

Source: Cisco

**Other UC Benefits**

A UC solution can help reduce travel expenses and your organization’s carbon footprint.

Budgetary challenges have made travel prohibitive for many travelers. Even ground travel can now prove unreasonably expensive. Organizations and their work staff have begun to seek more cost-effective ways of meeting.
In conjunction with financial initiatives to limit travel, many organizations are taking on a social responsibility to decrease their carbon footprints. Peer-to-peer video conferencing can support the dual benefit of travel savings and green IT compliance.

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