



Unified Communications: Conferencing and Collaboration

Cornerstone UC communication capabilities increase productivity, reduce costs and improve work relationships.

TABLE OF CONTENTS

- 1** Executive Summary
- 2** Unified Communications Overview
- 2** UC Subsets
- 4** Conferencing and Collaboration:
Advantages in the UC Environment
 - Audio Conferencing
 - Web Conferencing
 - Video Conferencing
- 8** Conferencing and Collaboration Bonus
- 8** CDW Services and Approach

Executive Summary

Businesses of all sizes are looking for ways to cut costs, streamline processes and eliminate redundancies. Internet-based technology has helped companies achieve these strategic and financial goals in several ways, especially through converged networks and unified communications (UC).

UC can deliver significant cost and operational efficiencies. The technology also opens up a wave of communication tools like telephony; conferencing and collaboration; messaging; and call center solutions. Each can pay big dividends and boost corporate productivity — even in tough times.

Conferencing and collaboration removes physical barriers by providing users with a more effective means of interacting with each other, partners and customers. By integrating these tools into a UC system — via web, audio and video technologies — firms can effectively make the technology a business enabler and revenue generator.

.....

Unified Communications Overview

The global supply chain has been flattened and its pace accelerated.

What's more, it's becoming more complex and creating a need to communicate and collaborate on a larger scale.

To make the most of the opportunities presented by the global economy, enterprises need a comprehensive, streamlined communications infrastructure. This is one that integrates all of their communication devices and software. Enter unified communications.

In the UC environment, all communication tools — from voice, data, video conferencing (VC) and instant messaging (IM) through e-mail and text messaging — are fully integrated in real time. UC allows companies to access data on demand and collaborate with virtual teams anywhere in the world.

Unfortunately, the economic downturn has forced many organizations to cut back on IT spending, or at least make more judicious investments with quantifiable cost benefits. For many firms, that leaves UC out of the picture.

The irony is that when implemented properly, UC delivers significant economic benefits. These can include dramatically reduced travel expenses and increased productivity.

For the IT department, UC means simpler, more efficient management of network resources. For end users, it means a whole new world of communications, in which there's no distinction between the office, mobile and even home phone lines.

UC offers significant value in terms of:

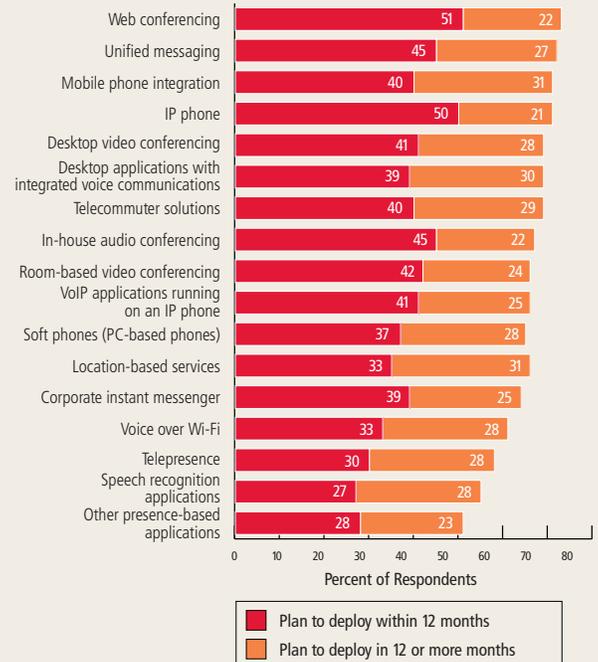
- Increasing productivity
- Lowering costs (through reduced IT and telephony infrastructure maintenance, fewer travel requirements)
- Business continuity
- Revenue growth
- Environmental sustainability (through reduced travel costs and network equipment efficiencies)
- Lowering real estate and facility investments
- Resolving customer issues more quickly at less cost

To improve business outcomes while reducing costs and encouraging environmental sustainability, UC integrates various communication applications. These include:

- Telephony
- Conferencing and collaboration
- Messaging
- Call center solutions

While all important, new software-based conferencing and collaboration solutions for audio and web conferencing, face-to-face conferencing via video and other collaboration tools are allowing companies to report achieving measurable improvements in corporate performance. These include increased efficiencies, total cost savings and environmental carbon footprint reductions.

Unified Communications Is a Priority for Enterprises



Source: "The Total Cost of Unified Communications," Yankee Group, 2008

UC Subsets

IP Telephony

Voice over Internet Protocol (VoIP) represents the foundation of a UC platform. Most organizations begin the transformation to a converged network by deploying an IP-based network to handle voice traffic. As the technology has evolved, the business case for implementing VoIP has become obvious.

VoIP is less expensive and easier to manage than traditional public switched telephone network (PSTN)-based phone systems. It provides smarter and more efficient ways to initiate and receive calls, including the ability to route calls to a person or device regardless of location.

It also provides advanced computer-telephony integration. When a user receives a call, for example, the caller's contact information and notes can automatically be set to pop up on-screen. Or an individual can click on a phone number included in an e-mail and dial directly from the message.

By integrating voice traffic over the network, businesses can save costs on their carrier service charges. They can also sharply reduce the costs typically associated with deploying or relocating employee phone systems.

Research shows that the total cost of ownership (TCO) of telephony over an IP network can be one-third to one-quarter less than that of a traditional time-division multiplexing (TDM) network. This is when ongoing maintenance, upgrades and moves/adds/changes (MACs) are factored in.

In addition, VoIP implementation ultimately results in a more effective way to communicate by integrating with existing communication systems such as e-mail or IM. The integration of other communication applications can provide a seamless communication experience.

IP telephony can be far more efficient than conventional telephony. By extending the UC network to devices outside the formal network (such as mobile phones, home office phones or two-way devices), users can establish connectivity methods based on personal convenience and preference.

This makes it possible to communicate via a user's preferred method, whether at home, at work or on the road. This is an especially important consideration as fewer and fewer workers are deskbound.

Telephony Features in a UC Environment Include:

- Find me/follow me — It allows an individual to retrieve e-mail, voicemail and faxes from a single inbox on a PC
- Call transfer — Here calls are quickly and seamlessly transferred across offices and geographic distances, helping a small firm look like a large company
- Visual voicemail — It allows workers to view messages by preference rather than the order in which they were received

Conferencing and Collaboration

Conferencing and collaboration applications in a UC environment provide a more effective and productive means of interacting with others. This is done through a combination of methods including audio, video and web applications.

In a UC world, dialog becomes less about phone calls and more about communication sessions. Here, establishing multiparty conference calls requires only a few mouse clicks.

In addition to being multiparticipant, the sessions are also multimodal. This multimodal nature also opens up new avenues of collaboration.

For example, during a call, if both users have video-enabled cameras, a single click can initiate a video chat. Instant messaging and other collaboration tools like wikis, blogs, team spaces and more are also available. These richer forms of communication can provide a more natural environment, building trust and empathy to further facilitate efficient business processes.

In addition, when used properly, conferencing and collaboration can deliver a compelling return on investment (ROI). With mobility services, people are available regardless of location, which translates to more billable hours.

Salespeople can locate subject matter experts quickly to help close a sale. Better collaboration through tools such as real-time document sharing can lead to shorter project lifecycles. And eliminating the downtime associated with playing phone tag can amount to huge savings over the course of a year.

Positive ROI requires an IT investment to deliver either lower costs or increased revenue. In an ideal world, UC can provide both. With UC, conferencing and collaboration applications provide advanced capabilities that enrich an organization's operations.

Messaging

Messaging technology removes the physical barriers to effective communication. It enables the sharing of information between individuals and devices using various communication methods, including voice, e-mail, unified messaging and instant messaging.

UC offers the added advantage of providing "presence," which allows network users to see others currently on the same network or system. If a user is actively using e-mail, instant messaging or video conferencing capabilities, then a "buddy list" can notify other users regarding this person's status and availability.

Unified messaging has become a key advantage of converged networks because of the cost savings in productivity hours and corresponding increase in ROI. Employees and others are able to connect with colleagues on the first try because they can see their availability in advance, thereby reducing missed phone calls and voicemail messages.

Industry studies show that the ability to view the availability status and the preferred communication methods of coworkers trims "wasted time" by one-third or more. With the addition of presence, UC makes it easy for people to collaborate with others within the context of the work they're doing at the moment.

Messaging technologies can also integrate information, such as customer relationship management (CRM) databases and purchase histories. This provides a single view into customer information and presents public-facing employees with crucial tools for improving customer service.

Call Center Management

UC is also changing the contact center and ushering in a new era of productivity for the enterprise. Call center management leverages telephony applications, messaging technology and customer databases into an efficient, unified system.

Finding the appropriate contact quickly can enhance case resolution rates and customer satisfaction. That's why the concept of presence can result in significant cost savings and productivity increases when it comes to call center management.

Call center management leverages telephony applications, messaging technology and customer databases into an efficient, unified system. Call center management solutions can instantly provide employees with resources to deliver a higher level of customer service.

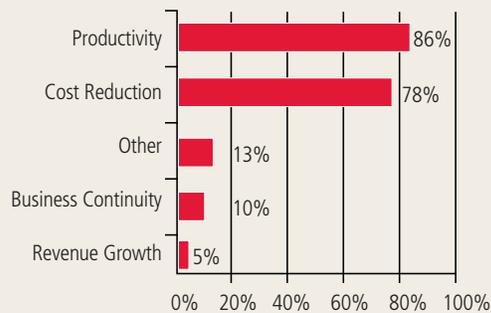
Staffers can quickly find answers to inquiries and connect with subject matter experts. And they can do this without having to put customers on hold or transfer them to another department.

When a contact center agent fields a request from a customer, for example, she needs to find the right person to answer that query as fast as possible.

In a non-UC environment, the agent would either take a message or put the customer through to voicemail.

In a UC environment, the agent can view a buddy list, find a person who's available, and connect the customer to the appropriate contact immediately. With UC, call center management productivity can be measured in terms of enhanced close rates and higher customer satisfaction.

Top Reasons Enterprises Use Unified Communications and Collaboration Solutions



Source: "The Compelling Case for Conferencing," Wainhouse Research, July 2008

Conferencing and Collaboration: Advantages in the UC Environment

Organizations of all sizes are looking for ways to cut costs, streamline processes and eliminate redundancies. Converged networks in and of themselves can deliver significant cost and operational efficiencies.

However, it's the conferencing and collaboration applications, running on these converged networks, which are providing businesses with the most bang for their buck. The new infrastructure opens up a whole new world of productivity, particularly when it comes to audio, web and video conferencing.

Of the three conferencing technologies, audio conferencing is the most basic way of enabling staff to conduct meetings more conveniently and efficiently. It offers one of the easiest ways to communicate with three or more participants, in different locations, at the same time.

A step up from audio conferencing is web conferencing. This solution is designed to conduct presentations or meetings over the web, also known as webinars. Participants typically sit at their own computers and are connected with other participants. Web conferences can include various multimedia components, including audio, document sharing and IM connectivity.

Video conferencing provides businesses with the most powerful means of communication. Whether it's a desktop video chat through a webcam or a high-level board meeting conducted with a dedicated telepresence system, video conferencing can help organizations improve productivity, extend

company reach, reduce travel expenses, shorten sales cycles and enhance working relationships.

Historically, the three types of conferencing have been deployed in separate infrastructure silos. This required users to decide in advance which conferencing method (or combination of methods) to use.

The user interfaces were different and confusing for each method, and they usually required separate access IDs and passwords. Also complicating matters, separate, often specialized, equipment was needed for video conferencing. This environment restricted the use of the most appropriate format and also added significant staff and administration cost.

UC has effectively eliminated this siloed approach. Depending on the firm's needs, each of these conferencing solutions can be employed to great advantage over a UC network.

Audio Conferencing

Audio conferencing is the most widespread conferencing solution, requiring only an audio bridge to facilitate calls among three or more parties. And IP networks have greatly simplified the deployment of an audio conferencing solution.

Pros and cons

On the plus side, audio conferencing is the easiest of the conferencing solutions for IT to roll out and for end users to use. It's convenient — everyone has access to a phone — and it works well in situations where information needs to be delivered quickly.

On the downside, the lack of a visual component — whether video or desktop presentations — makes it difficult to work with documents. It also makes for a more challenging learning environment since most people are visually oriented when it comes to retaining information.

Hosted vs. premise-based solutions

Traditionally, a business would need to add an audio bridge and use a third-party provider to host its audio conferencing system. UC has allowed organizations to reduce their dependency on costly third-party hosted solutions. Usage will determine whether some companies may find that hosted solutions are a better fit for their needs.

For organizations that are moderate-to-heavy audio conferencing users, an on-premises solution is financially more attractive than a hosted solution. After the initial capital expenditure of the appropriate equipment, the system pays for itself usually within 12 to 18 months.

Organizations with an IP private branch exchange (PBX) on premises can take advantage of its built-in features. Many modern IP PBXs include audio conferencing facilities so that the audio conference can be directed, conducted and hosted in-house.

In the case of on-premises IP PBX, a separate audio conferencing hardware attachment is connected to the IP PBX to enable the audio conference. Internally, audio conferences with members of the same exchange can be easily facilitated just by dialing them in. External participants can also be

patched in assuming that the IP PBX is connected to the public switched telephone network.

Although an on-premises audio conferencing solution eliminates the ongoing operational costs associated with a hosted solution, it does require IT personnel to support it. Keep in mind, maintenance and upgrades will also be required.

Hosted solutions can be expensive, charging both per minute and per participant. Also, some hosted services require advance reservations to schedule a conference. But for organizations with occasional conferencing needs, a hosted solution can be more financially attractive than deploying and maintaining their own.

Also, providers of hosted solutions deliver automatic upgrades. That can be an option for organizations with limited IT resources.

Hosted solutions also provide other options. They can include the ability to offer a single call-in number for all participants, an auto-announcement to tell the group who has just joined or left the conversation, and the ability to classify certain participants as listen only.

For organizations considering a premise-based audio conferencing solution, it's essential to conduct a thorough network assessment, including expected usage for allocating the proper port requirements and appropriate bandwidth allocation. Both considerations will make the audio conferencing experience a positive one for the end users.

When considering a hosted solution, firms need to make sure the vendor offers a service-level agreement (SLA). It should meet the demands of the network including uptime requirements, storage capacity (if audio conferencing sessions are being recorded) and security.

If audio recordings are being stored offsite, for example, make sure the vendor offers a level of security. Be sure that it matches up with the requirements of the organization's security policy.

Web Conferencing

Web conferencing involves presenting content over the Internet, such as PowerPoint presentations. These presentations can also include full voice and video integration.

Users can view the presentation by logging into a web conference and communicating with the moderator either by telephone or web-based chat. During the meeting, the moderator can interact with participants, view attendee lists and manage communications.

Through document and presentation sharing and editing, participants can collaborate in real time. Done in a secure environment, this offers the potential for increased productivity and cost savings for companies — regardless of location.

Pros and cons

The real-time information sharing component of web conferencing is its major advantage over audio conferencing. With a virtual whiteboard, for example, the moderator can illustrate ideas to conference attendees.

In addition to interactive tutorials, web conferencing is used within organizations for live, on-demand, interactive meetings. Here documents can be shared and edited in real time among multiple participants.

Participants are able to visualize, contribute to and document topics that are being discussed. Additionally, moderators have the ability to interact with their audiences, which can easily be recorded — a handy feature for users who may not be able to attend the conference in real time.

Web conferences are similar to personal meetings. They are ideal for large meetings, training programs, product demonstrations and much more. Additionally, conference leaders can plan their presentations far more effectively because of this kind of call.

But that extra planning is also a disadvantage of conducting a web conference. For tutorial-type sessions, rehearsal time is critical for the moderator. Otherwise, participants will quickly lose interest and, worse, won't come away with the necessary information.

In group meetings, all participants need to be well-trained in the use of the web conferencing system. Also, in order for web conferences to work effectively, microphones and external applications must be used and integrated into a cohesive communication tool.

Hosted vs. premise-based solutions

As with audio conferencing, organizations have a choice between hosted and premise-based web conferencing solutions. The criteria for determining which is right for a particular company are similar, although in some cases the arguments for choosing a hosted solution may be slightly more compelling.

Like audio conferencing, an on-premise web conferencing solution delivers a lower cost for heavy users. Additionally, organizations maintain more control over their own solution, including customization options.

With a premise-based solution, businesses can develop branded portals for individual departments, enabling users to customize the interface and settings to fit their needs. It also allows for integrating web conferencing with other company applications, such as e-mail, IM and productivity applications.

In addition, vertical markets required to follow strict privacy or data security regulations — such as large financial services, healthcare and public-sector organizations — may be required to implement an entirely premise-based solution.

Because a premise-based solution resides behind the corporate firewall, IT managers have better control over security policies. It also allows remote employees, partners and customers to access the system securely as if they were onsite.

On the downside, a premise-based solution requires internal IT support. And unlike audio conferencing, maintaining a web conferencing solution grows more complex as more functionality is added, such as integration with corporate applications.

That increased complexity is why a hosted web conferencing solution is attractive for many companies. With a hosted service, an organization can get all the functionality it needs while avoiding the upfront capital outlay and internal IT support.

But hosted solutions may not provide the security and flexibility some firms require. And depending on usage and the host's pricing structure, a hosted solution can become expensive.

As with audio conferencing, implementing a premise-based web conferencing solution requires an assessment of the network's capabilities and the organizations expected usage. Furthermore, users need to be well trained in the different tools that web conferencing offers.

Rather than dialing an 800 number or a toll access number to join a conference, for example, users should always join a conference via the web and have the conference bridge dial out to them. This method offers significant cost savings compared with directly dialing in.

Video Conferencing

Although video conferencing technology has existed for decades, it is only now becoming a viable business solution as IP convergence has made the technology more affordable and reliable. Additionally, the economic downturn has put organizations under increased pressure to cut travel costs for their sales meetings or quarterly business reviews.

But video conferencing isn't a one-size-fits-all solution. In fact, organizations have a choice of three types of video conferencing solutions:

- Desktop Video (or peer-to-peer)
- Multisite Meeting Rooms (enhanced displays, cameras and microphones)
- Immersive Telepresence

Many companies may find it appropriate to use a combination of the three.

Desktop video conferencing is the most basic level. With no more than a computer equipped with a webcam and the appropriate software, users can conduct low-cost, face-to-face meetings directly from their desks.

Desktop video conferencing is commonly used in telecommuting. Other UC tools, such as VoIP and web conferencing, can easily be used in conjunction with desktop video conferencing.

Desktop video conferencing has also become familiar in the consumer realm. This is as webcams become a standard feature on notebook PCs and with all the popular consumer IM applications offering video chat features.

Multisite video conferencing enables participants from various geographic locations to conduct meetings in rooms equipped with cameras, high-definition monitors and microphones. This technology has been widely adopted by business organizations to discuss, market, and sell their products and services.

Businesses utilize multisite video conferencing to conduct seminars, research studies and group teaching. Because it brings together

geographically dispersed groups, multisite video conferencing helps reduce travel expenditures.

At the high end of the spectrum are immersive telepresence solutions. Telepresence systems typically feature three large high-definition video screens (and often an additional screen for shared content) that deliver a more lifelike experience — a major advantage for high-level, multiple-hour conferences.

Video conferencing participants often appear life-size. Further enhancing the realistic experience, telepresence hides many of the elements involved in traditional video conferencing (cameras, microphones, self-view images on the monitor).

Basic Video Conference System Components

- Video Conferencing Codec Unit
- Camera
- Microphone
- Video Display
- Network Connection
- Stands and Equipment Carts
- Conference Room Lighting
- Chicken Feet (echo cancellers)

Source: TANDBERG

Determining the Right Video Conferencing Solution

What objectives do the organization, business unit or even a particular individual need to address. The main factors to consider include:

- Who will be using video (headquarters staff, branch offices, remote workers, partners, customers)?
- How will video be used (group interactions, one-on-one conversations, training sessions)?
- What environments will video be used in (large conference rooms, small meeting rooms, lecture halls, user desktops, home offices, on notebook PCs)?
- What quality of experience do users expect (high-definition video and audio, traditional conference style, webcams)?
- Will content be shared, and if so, what type (spreadsheets, detailed schematics, full-motion graphics)?

Desktop video conferencing is considered most appropriate for one-to-one rather than multiparticipant sessions. Desktop video conferencing requires little or no technical knowledge from the end user, and it's by far the least expensive video solution.

At the basic level, users can simply click the video chat option within an IM application and immediately initiate a video conference. Several vendors

offer dedicated desktop video conferencing software for use with a PC and webcam and include features such as IM and document sharing.

Desktop video conferences can add value to brief one-on-one meetings. The ability to view the other person makes communication more intimate and compelling. But as additional participants join in, each individual appears in a smaller window, quickly degrading the experience.

For more frequent collaboration with multiple participants, organizations should consider a multisite system. These systems typically include a flat-screen video display, camera and microphone.

Vendors are increasingly offering multisite solutions that offer high-definition video, surround audio, embedded four-way multipoint for connecting multiple sites and content sharing capabilities.

For a truly lifelike conferencing experience, immersive telepresence is rapidly gaining traction, especially among enterprise-size organizations. Telepresence conference rooms use state-of-the-art room designs, video cameras, displays, sound systems and processors, along with high-capacity bandwidth transmissions.

By providing full high-definition (HD) images (at 1920x1080 resolution) on large (typically 65-inch) plasma screens, telepresence is able to provide a realistic conferencing experience that is superior to a standard video conferencing solution.

Telepresence is most appropriate for high-level conferences that last several hours. Telepresence also allows for collaboration in highly dispersed organizations. Some systems can support up to 48 locations on a single call.

Most telepresence systems come at a premium — costs typically begin around \$50,000 and can run well into six figures. However, some vendors are now offering HD video conferencing solutions that provide a near-telepresence experience at a much more affordable cost. Regardless, for some businesses, the savings in travel alone are worth the initial capital outlay.

Compare the cost of implementing a telepresence system with paying for 100 sales reps to spend three nights at a hotel, plus airfare and other expenses. Now it's easy to see how ROI is quickly evident.

Additionally, vendors are improving their telepresence systems' interoperability with other standard- and high-definition multisite video conferencing systems. This makes collaboration possible with external organizations.

VC Deployment

Deploying desktop video conferencing is mostly a matter of making sure PCs are equipped with webcams, microphones and the proper conferencing software. Most desktop video conferencing software adheres to the ITU H.323 video coding standard.

Although desktop video conferencing isn't as bandwidth-intensive as multisite or telepresence systems, IT departments still need to make sure their network infrastructure is set up to handle real-time video traffic. That means establishing quality of service (QoS) policies and priorities.

For multisite video conferencing, organizations need to conduct a thorough network assessment and work closely with the vendor or reseller providing the solution. Among the issues to be considered are:

- Bandwidth requirements
- Network design configuration
- QoS

Deploying a telepresence solution is the most labor intensive. Along with the considerations applicable to multisite video conferencing, every telepresence room should be audited by the vendor or reseller to ensure that it complies with the system's standards.

Companies also need to obtain a broad understanding of the business requirements of the telepresence system to establish parameters such as locations, types of users, type of meetings, number of users in each location, number of locations in each meeting and so on. This will provide the framework for network, endpoint type, infrastructure requirements, scheduling and ongoing management and maintenance methodologies.

It's also important to select a room that is well-suited for telepresence, as each endpoint has its own set of requirements and considerations, including ambient noise levels, heating, ventilation and air conditioning (HVAC) location, power, room acoustics plus lighting and wall, ceiling and floor materials. Maintaining a consistent theme across all telepresence rooms will provide businesses with an optimal virtual meeting room experience.

Once the proposed locations for each endpoint are in place, the next step is to audit the network path that will connect them. Parameters to audit

Video Conferencing Boosts Collaboration at Dow Chemical

Staying connected with 46,000 employees spread across the globe is a tall order. But with close to 100 video conferencing systems installed in 36 countries, Dow Chemical has found a way to make distance irrelevant.

Dow began using video conferencing about 20 years ago, mostly so its executives around the world could communicate. But as the company expanded, it became important to allow various business units to collaborate through video.

Dow's multisite video conferencing system enables collaboration among internal business units as well as interaction with customers and partners.

"We stopped counting travel savings many years ago," says Chris Duncan, Dow's global leader for e-communications technology. "In our mind, that's a given. The biggest benefits are speed of collaboration, speed to market on many products and providing solutions to customers."

Moving forward, Duncan says Dow is looking at ways to enhance integration with the company's various business applications, along with solutions that will enable the firm to expand its communication and collaboration capabilities.

"We continue to integrate with a lot of other tools," Duncan says. "We're testing telepresence, we're looking at desktop video conferencing — all the ways that visual communication continues moving forward."

include end-to-end packet loss, jitter and latency, so it's a good idea to benchmark the network against the vendor's recommended guidelines.

Finally, make sure the vendor or reseller conducts a thorough test of the telepresence system before the official rollout and holds training sessions with the end users. This way, any kinks that need to be worked out of the system will be completed before conducting the first conference.

Conferencing and Collaboration Bonus

Companies that use conferencing and collaboration tools report achieving measurable improvements in their corporate performance. This includes increased business efficiencies, total cost savings and environmental carbon footprint reductions through reduced travel.

By integrating conferencing and collaboration tools into a unified communications system — via web, audio and video technologies — organizations can achieve instant access to people, documents and resources, regardless of location. It also allows staffers to manage these interactions in real time — as if they were in all places at once.

CDW Services and Approach

When it comes to optimizing the performance of a unified communications investment, you need to work with a knowledgeable IT partner who is innovative and experienced. You need a trusted resource — a single point of contact — to help identify and implement scalable solutions that

cost-effectively enhance communication, improve productivity and increase organizational agility.

For this, you can count on CDW. Whether you want to update and expand network infrastructure, integrate new telephony devices or implement more communication and collaboration applications — from VoIP to video conferencing — CDW is always at your service.

We deliver much more than just products. Our comprehensive approach enables your business to reap the benefits of the best technology, expertise and ongoing support services.

Your dedicated CDW account manager and certified unified communications specialists are ready to assist with every phase of choosing and leveraging the right conferencing and collaboration solution for your IT environment. Our approach includes:

- An initial discovery session to understand your goals, requirements and budget
- Detailed vendor evaluations and recommendations
- An assessment review of your existing environment, future environment design and proof of concept
- Procurement, configuration and deployment of the final solution

When you partner with CDW, you partner with the best in the business:



CDW is a Cisco Gold Certified Partner and holds specializations in Advanced Routing and Switching, Advanced Data Center Storage Networking and Advanced Wireless. CDW also holds Master Specializations in Security and Unified Communications.

CDW and Cisco work together to help your company succeed by providing a professional services organization with numerous Cisco certifications, over 50 cross-vendor certifications and regional sales coordination. Together, we're positioned to bring a wealth of knowledge to our customers.

CDW.com/cisco »



Polycom's conferencing and IP telephony solutions and products enable service providers to offer innovative, compelling and profitable solutions to enterprises as well as specific industry segments. Polycom's legacy of creating value-add solutions offers customers new innovations such as UltimateHD, telepresence, immersive telepresence and carrier-grade, next-generation audio conferencing and voice applications. Polycom prides itself on being a trusted partner, understanding and supporting business objectives that are critical to service providers.

CDW.com/polycom »



As the pioneer of high-definition video communications, LifeSize understands how companies connect. Interaction is the lifeblood of all businesses. But for any large enterprise with teams, clients and products in multiple locations, it's impossible to be everywhere you need to be.

LifeSize continues to revolutionize HD video communication with high-quality products. LifeSize products are also unparalleled in such important features as ease of use, flexibility, price performance and security.

CDW.com/lifesize »



With Microsoft Online Services from CDW you get the benefit of streamlined communications, which increases productivity, allowing employees to stay in touch from any device. Additionally, this service offering makes it easy for you to leverage and rapidly deploy familiar Microsoft products as flexible services. Our technical specialists can help you best utilize Microsoft Online Services so you can improve communication and collaboration throughout your organization

CDW.com/microsoft »