Real-time Interaction and Collaboration

A successful unified communications implementation can offer streamlined processes, enhanced productivity and better customer service

Once telephony was the only way to initiate and conduct a spontaneous, real-time interaction with a remote person. Now it has become just one method among many for initiating and conducting a dialog. And, when compared to the other, mostly data and web-based methods, it is not always the best, and certainly not the most manageable.

As use of e-mail, instant messaging, text messaging, web conferencing and collaborative portals expands, many companies are bringing the phone up to date by unifying communications across the enterprise. But, like anything worth doing right, it takes work to realize the promise of Unified Communications (UC).

In fact, according to CDW's 2009 Unified Communications Tracking Poll, top concerns among organizations planning for UC implementations are network security (45 percent of responders), equipment and capital costs (44 percent) and operating costs (42 percent).

IP-based platforms can be just as reliable as circuit-switched networks. However, the right implementation and architectural foundation are critical and depend on a well-conceived implementation plan. The best solutions address the people and technical readiness of the organization.

Integrated Communications

The bedrock people principle underlying unified communication is the idea that “work” crosses traditional boundaries. Therefore, unified communication is the most reliable way to manage an entire suite of technologies and practices that aim at seamless functional integration of voice, video and other data regardless of device or media used.

The good technical news is that existing IP networks already form the backbone of protocols and practices that underlie web-based technologies. Consider websites, instant-messaging, streaming video, point-casting, multicasting, etc. Now unified communications adds the various aspects of telephony into that mix.

So what is unified communications? Depending on who you ask, there are a number of definitions. UC combines IP-based platforms with web, audio and video conferencing as well as instant messaging and other presence applications under a single control panel so that end users can manage preferences for their mobile and desktop “presence.”

Research firm Gartner Inc., takes it a step further and defines UC as “a direct result of the convergence of communications and applications through the integration of products that facilitate the use of multiple enterprise communication methods, including equipment, software and services.” The firm identifies 16 features that define UC:

1. Telephony
2. Unified Messaging
3. Desktop Client
4. E-mail
5. Instant Messaging (IM)
6. Audio Conferencing
7. Video Conferencing
8. Web Conferencing
9. Converged Conferencing
10. Notification Service
11. Personal Assistant
12. Rich Presence Service
13. Communications-Enabled Business Processes
14. Contact Center
15. Mobile Solutions
16. Collaboration

The key word in Gartner's definition is “enterprise.” Because UC adoptions are enterprise wide and usually involve stakeholders from networking, messaging, data and telecom, UC requires careful pre-rollout analysis and a clear understanding that not all networks are created equal, says Sarwar Raza, 3Com's product line manager for IP telephony.

Keep in mind, not all networks are created equal. This is because some networks grow organically while others grow through mergers and acquisitions.

The landscape is further complicated by the network itself as some networks evolve from traditional Private Branch Exchange (PBX) platforms, others evolve from traditional data-switch platforms and a third group is designed from the ground up for IP-based communications. No matter what scenario, the complexity of the deployment and the architecture that supports the implementation should be carefully evaluated.

Look Before You Leap

"Before you do anything, identify network bottlenecks," Raza says. "A successful migration to unified communications requires a comprehensive evaluation of the amount and type of voice traffic carried over the network.

"Conduct detailed network assessments (the more granular — by floor or department for example — the better) and end-user surveys that capture current pain points as well as determine what currently available features users can’t live without," he adds. "You never know where your traffic is coming from unless you look."

Raza advises organizations to conduct traffic simulations. These should be based on applications they plan to deploy.

"Factor in the nature of your business and how critical your new solutions are to accomplishing your mission, how your users will accomplish their missions, the age of your infrastructure and applications, and the availability of talent (in-house or external) and funding needed to ensure your business keeps ticking," Raza says.

The planning and discussion is worth it," he adds. "Unified communications represent a big IT win, simply due to operating cost reductions and consolidation of infrastructure.

"The ROI story is even stronger when the additional benefits of improved reliability, better utilization and support for remote workers, reduced travel expenses, improved communications reliability and better collaboration among distributed workgroups are factored in.

"Making life easy for someone in the executive suite should not translate to adding several steps to a commonly performed task elsewhere in the organization," Raza says. "Account for everyone’s needs before making a decision. Coordinate rollout timing with slow times and anticipate and plan for a little downtime and end-user training/ramp-up."
In addition, user demand drives “rogue” adoption of IP-based tools such as instant messaging and personal mobile devices. UC minimizes the arrival of “rogue” services on the corporate network and the exposure of confidential corporate information to “after hours” work on unauthorized platforms, further reducing corporate liability in the event of breach.

Although the benefits are easy to see, these are recessionary times. Therefore, making UC a priority and getting executive buy-in requires a compelling ROI argument.

**Reduce Latency**

Irwin Lazar, VP of communications research for Nemertes Research advises IT execs to focus on areas where a key performance metric is customer response time. UC naturally speeds customer response and helps departments such as sales and customer service provide answers to customers faster.

After all, the intent of UC is instant communication. This is beyond traditional phone and e-mail with voice, video, IM and wireless.

“You can’t soft sell productivity improvements in today’s economic climate,” says Lazar. “You need hard numbers.

“One area for fast ROI comes from a reduction in human latency — situations where you answer a customer faster or respond to a customer support request in less time,” he says. “UC naturally lends itself to situations where speed matters.”

Building the business case usually starts with a line of business manager. Lazar stresses the importance of building a cross-functional team represented by governance, voice, messaging, desktop and security roles.

Power users of the current and new systems should be part of the pilot program (in addition to the IT staff helping with the decision). And they should be required to present detailed use cases of key everyday tasks.

“We recommend getting all these people talking to each other early in the process,” Lazar says. “We’ve heard stories where a line of business teams get halfway through their vendor selection and only then do they bring in, for example, people from compliance.

“You don’t want to find out halfway through the project that the retention policy for e-mail may be different from the voicemail retention policy,” he adds. “The last thing you want to do is go back to the drawing board.”

**Added Security**

Getting security involved early in the process makes sense. “In fact,” adds Kevin Johnson, security product manager at Avaya, “You already have a security policy in place. If you are comfortable with your existing policy, adjust it to accommodate the specific UC functionality.

“There is no need to start from scratch because many UC products run on a standard operating system (often Red Hat), and you already have security policies in place for the common operating systems,” he says. “Leverage the existing policies and add in the UC-specific requirements.”

It is also important to factor the impact of various government regulations such as the Health Insurance Portability and Accountability Act (HIPAA), Gramm-Leach-Bliley Act (GLBA), Sarbanes Oxley (SOX), the second act of the Basel Accords (Basel II) and Payment Card Industry (PCI) when it comes to setting your UC security policy.

“Thankfully, if you look at your existing security policies, most of these regulations have already been considered,” Johnson adds. “For the UC-specific functionality, continue to use common sense.

“Just because the device exists on your network doesn’t mean you should assume that it is trusted and secure,” he adds. “Use strong authentication, lock down all ports and encrypt the signaling and media communications. This translates into minimizing opportunities for a breach to occur from outside or inside of your network.”
**Architecture Decisions**

Kevin Gavin, VP of marketing for ShoreTel, a Sunnyvale, CA-based provider of unified communications systems, says that operating environments and budgets will determine whether previous investments in technology will be incorporated in the rollout or discarded in place of more fully featured UC platforms.

“As a buyer, it makes sense to look at the architectural approach that the various vendors are using,” he says. “Different approaches can have a huge impact on reliability, scalability and total cost.

“Look hard at what it does and how it does it,” he adds. “Ask yourself what are the implications for me as a buyer? What happens if, for some reason, a piece fails? How quickly can we recover? And, make sure you ask how much it will cost you to implement, administer and operate.”

**Gavin recommends the following:**

- Bring at least three vendors to the table and evaluate their architectural approaches. Ask vendors and their customers to explain and demonstrate the associated advantages/disadvantages.

- See the real working system with your own eyes. Ask the supplier for a demonstration of capabilities so that you can see the system working firsthand.

- Conduct a thorough Total Cost of Ownership (TCO) evaluation, keeping in mind that the upfront cost is not the total cost of the solution. The upfront represents about 30 percent of the total lifetime cost.

- Get references. Make sure you ask for references that are similar to your company in terms of size and architecture. Ask the tough questions and listen hard to their responses.

For any IT organization, the promise of UC is realized when the voice silo disappears and telephony becomes a seamless part of the total technology stack.

**Anticipating Future Requirements**

It is impossible to predict the future. “But,” says Jeff Rodman, co-founder and CTO of Polycom’s voice division, “The ideal UC infrastructure has everyone playing the same game, with the same strategy and the same rules.

“Early in the evolution of UC, we saw end users and suppliers building their own ad hoc UC capabilities,” he says. “They stuck half a dozen tools together in a way that did a basic job, but none of the parts worked well with the other parts.

“Thankfully, the industry has moved toward standards and we are evolving very nicely toward a world where UC components can communicate across functions and across companies. Many of the major vendors are playing by the same rules now.”

For companies concerned about the cost of major infrastructure upgrades to support major UC rollouts, this is good news because most UC systems now openly communicate. Rodman advises IT buyers to make sure any new investment decisions keep an eye to the future.

“Keep your options open,” he adds. “Every IT manager should look for systems that use common standards for interchange. Your current vendor may not be the vendor that provides the best functionality for a given function. When your systems communicate with open standards, you get the most flexibility in evaluating future vendors.”

**Avoiding UC Pitfalls**

It is important to understand the following implementation pitfalls upfront to avoid making costly mistakes, 3Com’s Raza cecomsents:

- Don’t make the assumption that all equipment and applications can be “ported” as is from existing systems.

- Make sure any new investment decisions keep an eye to the future: Pick UC vendors that support industry standards, and can interoperate with other vendors’ products.
Avoid rushing the discovery phase to avoid surprises during rollout.

Ensure that all aspects of the rollout have been planned and budgeted for.

Conduct detailed network assessments and end-user surveys that capture current pain points as well as determine what available features are essential.

Involve business stakeholders in all phases: discovery, planning and implementation.

Coordinate rollout timing with known slow times for the business and anticipate and plan for a little downtime and end-user training/ramp-up.

Buying decisions should account for realistic and likely growth in various forms. Not all organizations will grow in the same location or at a predictable pace.

Pick platforms and vendors that are proven to play well with other systems and vendors, and insist on open standards instead of vendor-specific protocols and technologies.

Web based does not equal trivial: Just because it's web based doesn’t always mean it's trivial to configure and manage.

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