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Are You Ready For Unified Communications?

by Elizabeth Herrell
for Infrastructure & Operations Professionals



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Creating An IT Organization To Support Unified Communications

by **Elizabeth Herrell**

with Simon Yates, Rachel Batiancila, and Rachel Dines

EXECUTIVE SUMMARY

On top of the new business communication capabilities that are possible with unified communications (UC), new challenges await the IT department in how to deploy and manage this integrated platform. UC — technology that connects communication and collaboration applications on a common platform — requires you to understand how to support existing applications in this converged environment. Like most IT organizations, you probably segment IT teams into networking, telecom, and application management functions. Once you start to deploy UC solutions, you'll find that they need to share skill sets and collaborate much more than they have ever needed to in the past. While existing IT skills provide a foundation, you will need to cross-train specialists across several applications for successful deployments and provide common ground for resolving issues. Are you ready?

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Forrester interviewed three vendors and four end user companies, including Bell Canada, Dimension Data, and Verizon.

Related Research Documents

"The Unified Communication Paradox"
May 8, 2007

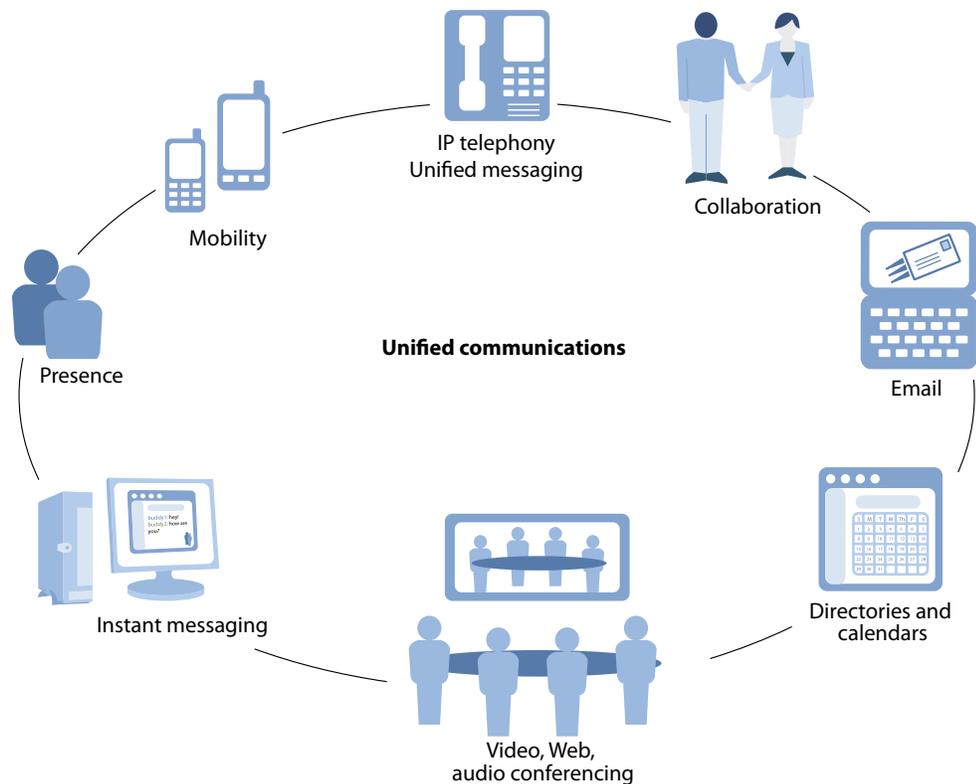
"Unified Communications Merges With IP Telephony In 2007"
February 2, 2007

"Unified Communications: What You Need To Know"
November 9, 2006

UC LEVERAGES EXISTING IP INFRASTRUCTURE

UC is a transformative technology that adds real-time capabilities to existing communication applications and collaboration software, allowing your organization to accelerate business processes and deliver a common user experience across all modes of communication. UC leverages IP-based infrastructure and existing applications — such as IP telephony; audio, Web, and videoconferencing; email; unified instant messaging; calendars; and directories — to provide access to these applications from any device (see Figure 1). UC also adds presence capability, which informs workers of the status and availability of co-workers and connects them to their co-workers over the most appropriate device.

Figure 1 Unified Communications Supports Multiple Networks And Applications



UC Support Requires A Cultural Shift

You probably manage a structured IT organization with staff members designated to specific technology areas, such as networking, telecom, and application management.¹ Departmental silos within the IT organization limit knowledge sharing among groups and usually lead to networking personnel who have little understanding of desktop application maintenance and vice versa.

If you have implemented IP telephony, your organization has already made some progress in integrating your telecom team with your data networking team. However, real skill and knowledge transfer remains small for the most part. Mobility and security also have an important role in UC deployments and must be considered as you put together your UC team (see Figure 2).

If you are considering UC, your organization needs to share views on how to meet end user requirements and best manage and maintain UC solutions. This may require some changes to how IT traditionally supports applications. Prior to considering deploying UC, consider the following steps:

- **Set up new communication channels.** Organizations need to communicate with other departments in ways not previously considered. Although each group has skills to support its applications, they may not understand support requirements on a common platform. Some organizations designate a special person to head the effort to ensure that cross-training needs are met.
- **Identify organization gaps.** Most IT organizations lack the ability to integrate multiple applications, and your organization is probably no different. These skills need to be acquired either through hiring or from an external service provider. Linking redirect servers to voice communication systems or managing point-and-click desktop features are some examples of where gaps may exist.
- **Create cross-functional subteams.** The subteams collaborate on critical steps and plan on how to best manage UC deployments within an organization. Examples include doing a predeployment network assessment and identifying security requirements for UC. Subteams need to meet regularly with weekly meetings or conference calls to discuss project process.
- **Consider training needs.** UC deployments will fail if end users fail to adopt the new applications and take advantage of their features. Changing traditional habits requires that both IT and end users have an understanding of UC features and benefits, and how they can boost their productivity.

UC Support Requires New Skills And Training

Most of the IT skills that you will need for UC are already in place, and you may need only moderate organizational realignment and cross-training for UC support. There are a number of UC capabilities that will require your IT staff to develop an understanding that is outside their normal range of operation. They include:

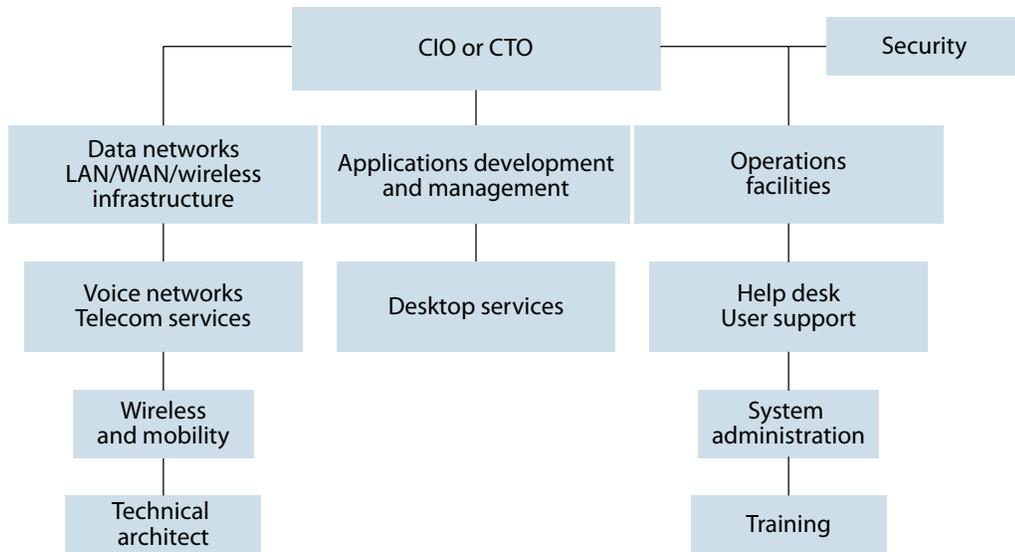
- **Third-party call control from the PC.** Users can activate basic telephone features by pointing and clicking on the names of other colleagues on their PC. The colleague will immediately receive the call on whatever device is most convenient at that time. This requires integration with a SIP server and knowledge of telecom features, such as class of service and dialing plans.
- **Presence indicators across all devices.** With presence, employees can see their team members' status on their PC screen, business telephone, or mobile device. Each person's status is automatically updated based on predefined business rules. This feature requires the integration of presence software for desktop displays and directory preparation to ensure that directories are correctly synchronized with each user's identity such as email address, telephone number, and mobile number.
- **Support for voice applications and services.** UC requires telecom expertise for fixed and mobile telephones and voice applications such as interactive voice response (IVR), automatic call distribution (ACD), and voice messaging. UC deployments also require IT staff support configuration changes and the interface to the underlying telephone server.
- **Understanding of desktop collaboration software.** UC involves additional software on the PC and potentially additional software and hardware to support UC capabilities from the desktop. The integration of these capabilities across users' desktops requires knowledge of how to identify and manage these features across multiple protocols and networks.
- **Preparation for a single identity.** One of the key benefits of UC is having a single number or address where a party can be reached across multiple devices. You will need to create a single identity for subscribers. This can be either an email address or telephone number but requires you to normalize multiple identities across different systems.
- **Communication platform integration.** UC needs expertise in managing disparate systems to ensure that application servers talk to each other and share information. This requires an understanding of how applications connect with each other on a UC platform and steps needed to integrate applications to share information.

Your organization will need to develop a deep understanding of how UC intersects with these core technology areas in order to reduce deployment problems, such as the inability to share features across multiple end points, which fosters a nondisruptive adoption of UC within your organization (see Figure 3).

UC Support Requires Several Critical Roles And Specific Responsibilities

There are several critical roles within your IT organization required to support UC deployments. Although each role has specific responsibilities within its own application area, it is also important for the IT teams to have an overall knowledge of the total support requirements. As each IT organization is unique, the titles and responsibilities will vary based on a company's size and its organizational structure (see Figure 4).

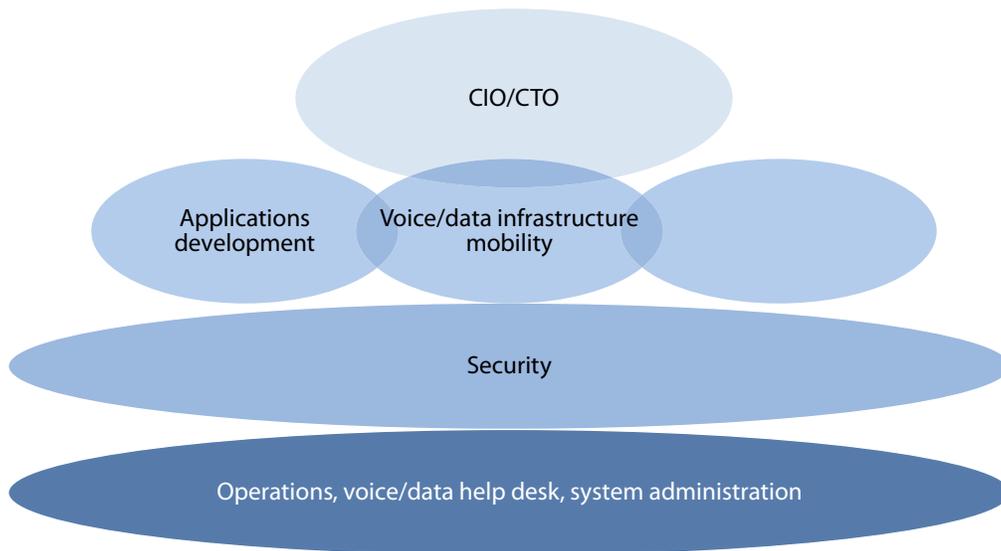
Figure 2 Traditional IT Organizational Structure Segments — Voice, Data, And Desktops



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Source: Forrester Research, Inc.

Figure 3 Unified Communications Requires Converged Organization Structure



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Source: Forrester Research, Inc.

Figure 4 Key Roles And Responsibilities For UC Deployments

Title	Description	Core responsibilities
Project manager	Protects the business goals and coordinates the activities of the technical teams. Responsible for project start to finish and manages all activities and changes. Facilitates communications between teams.	Monitors and updates the project plan, develops critical path, assigns tasks, estimates hours, and gains commitment from team on task completion.
Technical architect	Responsible for designing solution platform and for configuring UC framework and applications. Directs integration efforts with applications' and systems' teams.	Manages desktop and server configuration and protocols for UC. Provides network requirements and coordinates integration.
Data networking manager	Manages switched network environment, network infrastructure, bandwidth requirements, VLAN, QoS, WAN/LAN connectivity, and network management and monitoring.	Ensures UC compatibility with existing data devices and sets networking policies, system availability, and WAN/LAN engineering.
Application development and application manager	Plans, coordinates, and supervises development and maintenance for software applications, sets application software strategy, and selects and implements software applications.	Coordinates desktop and server upgrades for UC. Supports directories, collaboration servers, and desktop applications for UC.
Voice application specialist and communication server integration specialist	Manages the IP telephony servers, voicemail, ACD, IVR video, telephones, and configurations. Supports VoIP gateways and mobility extensions.	Supports integration with IP telephone servers and voice applications, desktop call control, carrier interface, and device configurations.
Communication integration specialist	Understands requirements to integrate disparate voice, data, and application servers on an open standard platform.	Manages integration tasks for converged interfaces and coordinates efforts with individual application specialists.
Security specialist	Identifies and provides security for servers, switches, desktops, gateways, and end user devices. Secures all aspects of the network and sets security policies and compliance.	Understands security issues with UC and upgrades network as needed to secure operations. Responsible for real-time security reporting and monitoring.
Telecom manager	Manages contracts and services from carriers including mobile services. Responsible for voice security and regulatory compliance.	Coordinates carriers' contracts and service to support WAN, MPLS, and mobile network services.
Training manager	Identifies employee training needs and develops training material to support implementation of new products and services.	Develops internal training to familiarize users with UC benefits and monitors usage to determine acceptance.

GETTING READY FOR UC DEPLOYMENT

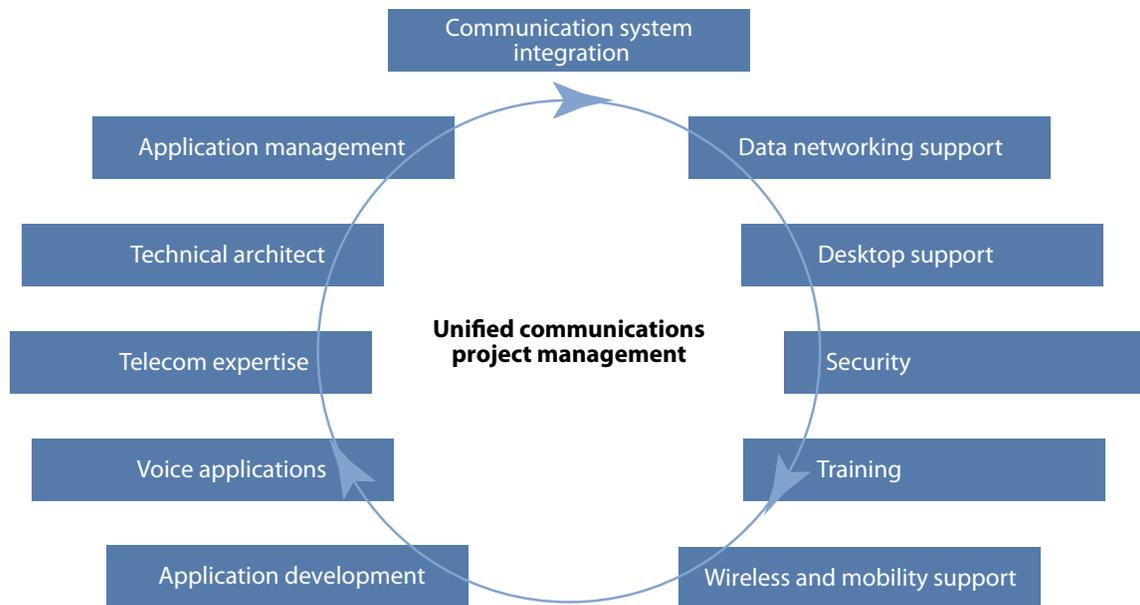
Once you decide to go forward with UC, preparing the IT organization is a major first step. You should first consider how application and desktop groups can be converged with networking and telecom groups to support UC. Key activities to launch once a decision is made include:

- **Get the CIO and CFO onboard.** The executive sponsor facilitates internal communications. This is especially important if UC requires some organizational realignment within the IT organization. The executive sponsor has the ability to communicate the importance of these changes to IT managers.
- **Align with business users.** You will need to clearly identify user groups within your organization that have a compelling business need to communicate with co-workers in real-time situations and target these user groups for initial deployments. User groups may cross all lines of business but typically are knowledge workers with a need to communicate with others within the organization regularly.
- **Identify the project manager.** The project manager plays a critical role in communicating requirements to IT staff members, meeting the organizational end goals, and identifying resources needed. The project manager needs to understand key responsibilities within the IT organization and promote collaboration among teams. The project manager needs good managerial skills with a basic understanding of UC but does not necessarily need to have a technical background in UC.
- **Evaluate site requirements.** Many sites do not require any additional upgrades if they are wired for IP and have upgraded network infrastructure. It is important to look at electricity, cabling, alternate call routing, QoS, and bandwidth requirements to support UC. You should follow vendors' recommendations for site requirements to ensure reliability.
- **Engage service partners.** Most organizations select system integrators and service partners, such as those listed below, with experience in UC deployments or work with a vendor's direct professional services organization when deploying UC. A cooperative partnership with an experienced service provider minimizes disruptions and brings in the right set of skills for successful deployments.

UC Support Requires Teamwork

UC requires that your IT teams communicate regularly and align internally to support your implementation. Although each job category is distinct, it is critical that everyone involved has an overall understanding of how UC links desktop applications and networks to support integrated communications. UC combines skills and knowledge from multiple disciplines for an effective rollout (see Figure 5).

Figure 5 UC Support Requirements



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Source: Forrester Research, Inc.

SYSTEM INTEGRATORS ADD VALUE TO UC DEPLOYMENTS

External system integrators (SIs) and service providers offer a valuable resource for companies implementing UC solutions. Forrester interviewed three service providers currently deploying UC solutions to gain insight on what they considered key organizational requirements.

Bell Canada Offers An Extensive Range Of Professional Services For UC Projects

Bell Canada supports multiple vendor solutions and has dedicated practices for collaboration and IP telephony upgrades. Josée Perron, general manager, converged communications practice, Bell Professional Services and Odette Boivin, leader, collaboration practice at Bell Canada, suggest the following steps for deploying UC:

- **Clearly identify user requirements and conduct a readiness assessment.** UC is more than just a technology upgrade, and companies should initiate projects by clearly identifying their business objectives and results that they hope to achieve with UC. It is important for customers to have full knowledge of their ability to support UC and the costs to upgrade as needed prior to starting a project.
- **Set clear objectives, develop a road map, and launch a pilot with ROI metrics.** You will need a long-term vision for how you plan to deploy UC, and then you should identify the interim steps required for reaching your longer-term goals. Many organizations begin their UC

deployments with information workers across various lines of business. Working with smaller pilots initially helps companies better identify specific needs and adoption rates prior to more extensive deployments.

Dimension Data Provides Global Coverage For Its Services

Dimension Data is a large global system integrator with extensive UC experience in networking, telephony, and collaboration software. Gavin Hill, global business development manager for Dimension Data, offers the following suggestions to companies planning to implement UC:

- **Partner with SIs that have strong partnerships with your collaboration and voice vendors.** Consider vendors with a thorough understanding of the real-time implications of supporting voice and video solutions due to the specialized treatment required for these applications.
- **Consider the entire network — including PBX.** Implementing UC involves more than the desktop and network, and it is important to also evaluate vendor support for the PBX or IPT vendors in a UC solution.

Verizon Offers Go-To-Market Relationships With Key UC Vendors

Verizon supports its account teams with overlay teams for professional services that can help you identify the solution that best meets your business requirements, including extensive managed service support for the applications you deploy. Bill Versen, director of product management for Verizon, offers the following suggestions for organizations deploying UC:

- **Create a collaboration team within IT for UC deployments.** Verizon believes that a cross-functional team opens the lines of communication within an organization and provides a structure for deciding on the solution that best meets its business goals. A good idea is to assign team accountability to one single director for cross-functional collaboration with a dotted-line reporting structure to the VP.
- **Clearly define goals prior to the start of the project.** Cross-functional teams must sit down at requirement stages to define what they want and identify areas that can save money and add value to the business. It is also a time to determine where skills are lacking and consider external professional services for all stages of deployment to fill this gap.

RECOMMENDATIONS

ALIGN YOUR IT ORGANIZATION SOON AFTER YOUR UC DECISION

When you make the decision to go forward with a UC deployment, the IT organization needs to put plans in place to ensure a successful upgrade.

- **Expect UC to take hold during the next few years.** Most UC deployments will be implemented in phases, and the maturity of the IT organization in supporting UC is a critical step in making a smooth transition.
- **Support business case efforts by identifying areas of savings.** UC is more of a business decision for improving internal business processes than a technology upgrade, and measuring its benefits is a critical success factor.
- **Take action today.** Vendor products will continue to evolve, but most companies already have the core technologies in place to begin deploying UC. Companies that take advantage of UC can benefit from communication improvements with current products while still anticipating more features to be added during the next few years.
- **Allocate adequate time for training and skill development.** Organizations need to consider that it takes time to prepare support staff. Don't try to roll out UC without the right skills or external partners in place.

ENDNOTES

- ¹ Although there are other departments within your IT organization — such as data center management — these functional groups are less directly affected by UC deployments and are not included in this report.

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Headquarters

Forrester Research, Inc.
400 Technology Square
Cambridge, MA 02139 USA
Tel: +1 617.613.6000
Fax: +1 617.613.5000
Email: forrester@forrester.com
Nasdaq symbol: FORR
www.forrester.com

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