



_experience the commitment™

Unified Communications

THE POWER TO TRANSFORM

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Embrace the new

wave of

communications.

Don't just replace

your current

technology with

the next version.

Unify your

communications

infrastructure from

the ground up.

1 The communications landscape

The communications industry is in the midst of a comprehensive technological and economic evolution. The landscape of enterprise communications has evolved significantly over the past few years. IP-based integrated communications systems have replaced the once dominant TDM PBX. Purpose built hardware platforms are giving way to well-structured software applications, leveraging commercial, off-the-shelf servers to provide highly scalable, distributed infrastructures. In addition, IP technology has completely changed the communications paradigm by moving telephony from an on-premise, hard-wired solution to an integrated suite of software applications, generating significant cost savings and increasing productivity.

Unified Communications (UC) is also driving a significant paradigm shift in communications in terms of both technology and economics. The integration of new architectures and communication tools enables businesses and individuals to manage all of their communications through a common entity. Enterprises are also seeking options to integrate multiple communication channels, including traditional desktop platforms, laptops and mobile devices through sophisticated, secure unified service backbones. A perceived benefit to users from this unification is the ability to access services at any time in any place on any device and to have services tightly linked to the user, providing unprecedented levels of personalization and control over the communications experience. An example is the ability to access voice mail, email, text and instant messages, as well as social networking feeds from a single interface. The benefits to the corporation come from the unification of the backend infrastructures to deliver these services, reducing costs and freeing up space and resources to deliver more advanced services.

For the most part, few organizations have evolved their communication infrastructures in a coordinated fashion. Instead, years of silo-oriented, technology-driven acquisitions have resulted in a patchwork model of systems and external suppliers providing telecommunications services. UC changes this paradigm by putting the power and choice of communications back in the hands of the user in an integrated model.

When we look at organizations and survey their environments, we typically observe a common theme; separate systems and devices for voice, data, mobile, conferencing and telecommunications (PSTN) infrastructures. Over time, this model leads to high costs and administration, a lack of control, a constituent base that has less flexibility in its choice of communication methods and higher human latency with every interaction.

2 Unified Communications overview

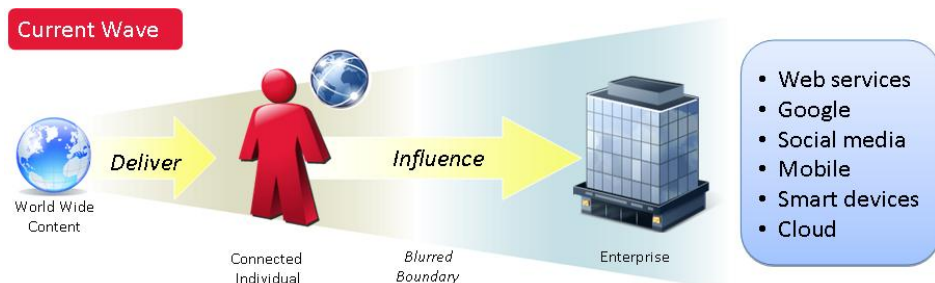
The field of enterprise communications is changing in a big way. If we look back as recently as 5 to 10 years ago, enterprise communications was dominated by systems designed for large enterprises. Large enterprises had the financial clout to set the direction and influence suppliers. They defined and supplied communications for their employees based primarily on the needs and agenda of the IT organization, and to a lesser extent, the business itself. This, in turn, influenced small business

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and residential purchases. An example of this would be the availability of residential voicemail and email services. Both types of services were available first in large organizations. Once proven and entrenched within the enterprise world, these technologies became commoditized and trickled down to the small business and residential/consumer markets. After some time, consumers finally had access to applications and services like email, voicemail (or answering machines), Internet, fax and desktop applications.

The current communications wave is dramatically different. Today, the Internet delivers instant communication and information to the **connected individual**. This individual has the freedom to connect using his or her choice of access channel (e.g., laptop, smartphone, tablet, kiosk and desktop computer) and at any place and time. The connected individual has access to new and efficient cloud services, and social media drives most of his or her interactions. The boundaries between the individual and enterprise are becoming blurred, and it's now the connected individual who is driving new supplier services and adoption, not the enterprise.

This couldn't be more evident than in the example of video conferencing. As recently as five years ago, video conferencing in the enterprise was very expensive, difficult to use and tucked away in corporate boardrooms. Today, with the proliferation of the Internet and new consumer oriented communications software such as Skype, the economic model for deploying video conferencing and its extremely easy user interface has accelerated adoption at the consumer level. Increasingly, individuals are using Internet-oriented services to carry out all of their communications – whether at home, on the road, or at work – introducing personal productivity into the workplace to replace the often restrictive and ineffective systems previously available to them. In this apparent paradox, individuals are now influencing the enterprise. Consumers are empowered to drive change in how they work, using more relevant and simpler Internet driven technologies at no cost.



Unified Communications can improve how individuals, groups and companies interact and collaborate. It merges telephony, email, conferencing, presence and instant messaging into a single suite of applications that becomes the standard communications platform for the office or mobile worker.

UC offers the ability to significantly improve how individuals, groups and companies interact and collaborate. UC merges telephony, email, conferencing, presence and instant messaging functions into a single suite of applications that serves as the standard communications platform for the office or mobile worker. For the sake of simplicity and clarity, we have divided UC into eight communication service areas:

- **Voice and telephony:** Includes all infrastructures, owned or external, that support traditional voice communications. It typically includes hardware and software, voice IP-PBX for call control, handsets, voice gateways, interconnections to SIP or PSTN providers, private line circuitry, long-distance and toll agreements.
- **Presence:** Conveys information about an individual's whereabouts, availability and personal choice of communications, integrated across all applications and automatically updated on user devices.
- **Unified Conferencing and Collaboration (UCC):** Includes audio and web conferencing servers, hardware/software, and integration into unified client software on a computing platform of choice.
- **Video conferencing:** Typically can involve a significant amount of infrastructure in the data center and on premise to handle internal and external multi-way conferencing. It also includes room systems, cameras, LCDs, desktop executive systems, end user client software, management and scheduling tools, and even enterprise video portals for streaming and sharing.
- **Messaging and end user client integration:** Includes a common UC interface that unifies many different message stores from email, handset and mobility voicemail stores.
- **Mobility:** Where the mobile device for the first time becomes part of the enterprise communications ecosystem. Many features become available that enable efficient communications like single number reach (SNR), least cost routing (LCR) and fixed mobile convergence (FMC).



The adoption of Unified Communications remains steady in the market space, and we believe most organizations continue to take a pragmatic and "stepped" approach, only implementing features that demonstrate clear ROI.

- **Contact centers:** Allow your contact center software to be integrated with the enterprise to offer many new modes of communication to customers or suppliers.
- **Communications Enabled Business Process (CEBP):** Drives advanced optimizations for conducting business activities with integrated communication capabilities, significantly reducing human latency and improving overall effectiveness.

3 Unified Communications adoption

UC adoption has been increasing over the past number of years as products and services continue to mature. In 2010, Forrester Research conducted a survey and contacted more than 2,200 IT decision makers trying to gauge the appetite for UC among North American and European companies. The research was encouraging as they found nearly 50% of respondents and decision makers were planning, piloting, implementing or expanding UC in 2010. On the reverse side, 33% were not interested or had no plans to proceed with UC.

There are many components and decisions to make around UC. Defining the starting point that provides the greatest impact to your business can be a confusing and challenging task. As well, the need to define the deployment model is of paramount importance. Do you go with best-of-breed point products or do you overlay on top of existing products? Do you extend existing products or do you adopt a new end-to-end integrated platform? There are merits with any of these directions and decisions; the trick is to define the one that best suits the business needs of the enterprise.

We firmly believe that your communications infrastructure is more than just an asset and ongoing cost – it is a vital part of growing your business. In some cases, it has taken decades of effort, investment and integration to develop today's communications system. Implementing UC to deliver enhanced business benefits will require focus and extensive planning on a large scale, with skilled artisans to guide the project and to drive the required transformations.

Many of the communication pillars that exist today carry significant costs in a standalone mode. UC can replace or integrate these single purpose infrastructures into a framework of business-critical applications that improve the bottom line and enhance communications in the enterprise. To get the most out of a UC system, a few typical starting points have emerged based on business case development and return on investment (ROI) analysis from past deployments, including the following:

- **IPT base system.** Replace existing analog or TDM-based systems with an IP-based system delivering VoIP. While the ROI on this is limited, it does start the enterprise down the path of IP-based communications. The danger is in selecting a standalone IP-PBX that doesn't integrate well with the rest of the UC components or in stopping after the deployment of the VoIP service. This should at best be seen as a starting point, with additional services from the intended UC platform to be implemented within a reasonable ensuing timeframe.

Establishing an internal conferencing capability is a very common first step that provides a significant ROI, including increased on-net calling, better control of features, reduced trunk costs and reduced costs for external "rental" systems.

- **Integrated messaging and presence as the first UC application.** Numerous organizations are opting to begin their UC odyssey with an integrated messaging platform. This is a logical first step following the lead of instant messaging platforms from outside the enterprise that are being used internally to drive instantaneous communication between workers. These take the form of familiar platforms that deliver good functionality and provide indications of the availability of coworkers, therefore decreasing the time required to connect. By implementing an internal system, you provide a secure system that supports the need to connect with coworkers quickly. The ROI on this as a starting point is usually quite good and the system itself, usually integrated into a full UC platform, establishes a good base to take the next step towards full UC.
- **Conferencing (audio, Web and even video pilot).** Conferencing drives business as management, administrative and knowledge workers within the enterprise are continually asked to participate in virtual meetings to manage projects and other business activities. Establishing an internal conferencing capability is a very common first step that provides a significant ROI, including increased on-net calling, better control of features, reduced trunk costs and reduced costs for external "rental" systems. Video conferencing, while much maligned in the past, has improved. It is now a true alternative to ongoing travel for meetings and delivers exceptional business value when connected with full UC systems.
- **Strategic mobility.** Today's world is increasingly mobile for the road warrior, the mobile worker or even the nomadic worker traversing between meeting rooms and their home offices. With the diversity of access modes – tablets, smartphones and laptops – becoming pervasive in enterprises, an increasingly common starting point is to define the mobility strategy for the organization and deliver business benefits through improved, continuous access to business functions, along with reduced dependence on standard mobile communication packages.

Any of the above represents a reasonable starting point. Certainly there are as many as there are businesses. It bears repeating that any of these can be considered a starting point on the path toward UC implementation. Implementing the full program from a defined strategy or path is the next challenge.

The benefits of UC
are not in just
unifying your
communications
architecture, but
also in optimizing
inefficient business
processes or human
interactions.

4 Unified Communications benefits

For an organization to flourish, it needs to move from legacy based communication, which is characterized by distinct, non-integrated systems, to **intelligent communication**, which embraces end-to-end service integration, places a high value on minimizing human latency and increases real-time collaboration. Siemens Enterprise Communications commissioned a study with Insignia Research of Toronto¹ with the objective of gaining a full understanding of communication disabilities and, for the first time, quantifying the impact human latency can have on process alignment and collaboration before a UC system is implemented. This research resulted in defining the five major pain points with communication systems, which are listed in the table below.

Point	Definition	Incident Rate (%)	Time Lost (hrs/wk)
Waiting for information	Attempting to get in touch with and/or get information from an individual using multiple forms of communication in order to make progress on a particular project	94	5.3
Unwanted communications	Communications that disrupt the flow of work	91	3.5
Inefficient team coordination	Inability to fully direct a team or interact with it in order to help advance its goals.	80	3.5
Planning to plan	Time spent making arrangements for the purpose of initiating a plan for completing work	79	3.1
Barriers to collaboration	Inaccessibility of individuals and/or lack of collaboration tools	78	3.6

As noted in the white paper:

“The most common and costly pain point (experienced by 94% of participants) was found to be the latency resulting in ‘waiting for information’ from colleagues who were not available when needed. The average length of this delay, which is directly attributable to the use of disjointed systems, is 5.3 hours per week, resulting in an average annual cost of over \$9000 per user. Considering the majority of survey respondents are in customer-facing roles, this 5.3 hour delay per week (per person) in any business process is indeed troubling”²

The overriding goal of UC is to minimize or eliminate the every day communications latency we see defined above. We understand different industries and organizations value the time spent planning to communicate differently and thus not all of the benefits accrue at the same rate or level.

Regardless of where organizations start, the key thing is to start. When enterprises begin the transition to UC, the importance of their communications strategy in achieving business objectives takes on greater significance.

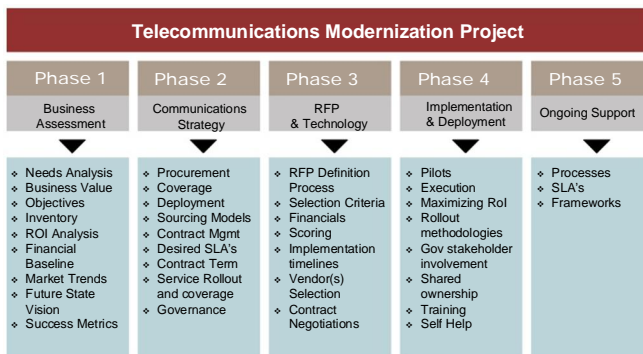
¹ & ² “Measuring the Pain: What Is Fragmented Communication Costing Your Enterprise,” July 2007, [Siemens Enterprise Communications](#).

UC roadmap
consulting
experience is
essential to address
the impact and
complexity UC will
have on your
organization.

Organizations that drive business success by deploying the best communication tools ultimately start to address real business challenges such as improving customer service, reducing service issues and outages, improving revenue generation, reducing operating costs, and enhancing corporate excellence through greener initiatives. A focused, well-structured transition program has the ability to deliver substantial ROI to the enterprise and to deliver in many cases in-year returns that drive the self-funded evolution of the infrastructure. CGI can assist and lead organizations to choose the most appropriate starting point so that an ROI and operational benefits can be realized the fastest.

5 Unified Communications roadmap

Most organizations find it impossible or impractical to allocate internal resources to an initiative of this size and scope. This is often problematic since these resources are typically performing day-to-day duties and can't be freed up. We believe enterprises are better off to look to a system integrator that has a proven track record and extensive experience in this particular domain. This is where CGI can assist. CGI has developed a five-phase approach to tackling this kind of undertaking:



1. **Business assessment:** Starts with defining the business value UC will bring to the organization, making sure the business is engaged and supporting this initiative. This cannot be an IT push initiative – the business must be engaged due to the high user impact and acceptance with this technology.

UC ultimately must address one of the following: productivity improvements, increased revenue or cost containment. Setting objectives and defining a measure of success is important in this phase. Another important step in this phase is the full understanding and cataloguing of a communications inventory and baselining the current financials. You will in one way or another want to measure the financial success of this transformation, so this step is critical in the later process.

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2. **Communications strategy:** Looks at understanding and formulating (if not already in place) various critical elements of your strategy. One element is deciding your preferred and alternate procurement strategy. Selecting more than one strategy allows flexibility and adaptability in the RFP phase, as you may like the technology from a certain supplier, but not its procurement model. Another important element to understand is what UC features and the technology your organization should deploy to your user base. Not all users will have the same features or functionality. Software licensing and hardware are large cost items, so getting this right is key. You want the right mix of features deployed to users who will use the technology. Your strategy will also define a contract management framework, internal governance, SLAs and future support models.

A very important emerging consideration in your strategy is the degree of integration across the enterprise infrastructure that is required to evolve the business operations. Under the banner of Communications Enabled Business Process (CEBP), organizations are finding new ways to drive efficiencies and effectiveness in service delivery by tying together communications with enterprise applications. The openness and standards compliance of the new UC system will play an important role as customers look beyond simply adopting UC as an integrated communications platform. UC can play a much larger role in providing advanced services, such as integration with facilities management (alarm systems), building automation and mechanical systems. The more integration that is desired, the more open the system should be, with significant emphasis on open standards and a development toolkit based architecture, web services foundations, as well as extensions and flexible adaptors to promote easy integration into required enterprise applications.

3. **RFP and technology:** After you have carefully completed Phases 1 and 2 you are ready to take the next step and survey the marketplace to determine the best technology supplier to work with your company to achieve the desired business objectives. Depending on the organization, all technical, financial and operational requirements will need to be loaded into the RFI or RFP. As part of that process, scoring models will need to be developed across all applicable areas. Key future-looking models will also need to be developed as suppliers typically give you total cost of ownership, but assume no changes or upgrades in the environment over the life of the infrastructure. Most organizations miss this important analysis.
4. **Implementation and deployment:** This phase explores not only the act of deployment, but goes further by analyzing the first critical steps to deployment. Does a pilot make sense? Is "rip and replace" the right strategy? Do gradual upgrades with an incumbent supplier make more sense? What about open systems versus closed, proprietary ones? What are the ways to maximize ROI, training logistics and preferences around geography or business unit priorities? These are only a few of the primary questions that must be addressed in this phase for a successful outcome.
5. **Ongoing support:** This phase is put into motion and tested following the first user implementation. Since you have defined this in Phase 2, this is simply engaging the internal or external support team, developing system linkages as necessary, implementing the operational framework you defined earlier and

refining the day-to-day working processes.

We've developed an approach to assist our clients in delivering next generation communication services that meets the demands of today's consumers and businesses and establish an adaptable roadmap to future success.

6 Conclusion: Getting on the right path

Organizations do not have to take on this challenge alone. You understand your business, drivers for change and the ongoing financial burden of continuing to manage disparate communication systems.

CGI's strength is strong thought leadership in this market space. We work closely with the largest UC suppliers that are leaders in the marketplace and understand their products and how they can help enterprises successfully select, deploy and operate a UC architecture. We can assist you in formulating your business and technology strategy and then tie it all together with a successful RFP, systems integration and deployment effort.

Through supplier engagements, we've developed an approach to assist our clients in delivering next generation communication services that meets the demands of today's consumers and businesses and establish adaptable roadmaps to future success.

Increasingly customers are turning to CGI for thought leadership and architectural vision for service enablement. Attempting to transition your legacy communications environment to a UC architecture is a task most companies cannot contemplate. The inherent complexity detracts organizations from beginning this process. For some there is also a fear that they might be adding one more "system" to their already fragmented infrastructure and making the problem worse.

Don't let the complexity of a UC system stop you from moving forward. Learn how CGI can help today.

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About CGI

At CGI, we're in the business of satisfying clients by helping them win and grow. For more than 35 years, we've operated upon the principles of sharing in clients' challenges and delivering quality services to address them.

A leading IT and BPS provider, CGI has a strong base of 31,000 professionals operating in 125 offices worldwide. Through these offices, we offer local partnerships and a balanced blend of global delivery options to ensure clients receive the optimal combination of value and expertise required for their success.

We define success by helping our clients achieve superior performance and gain competitive advantage.