Bringing it all together

Getting Started on Unified Communications and Collaboration

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Introduction

Unified Communications and Collaboration (UCC) is an industry term that has come to mean different things to different people. It is not a repackaging or renaming of existing technologies—even though existing technologies play into it. Rather, UCC is a new way of thinking about combining existing technologies to help organizations achieve their business goals through improved communications.

In BT's view, UCC can be looked at from two primary perspectives. The first is a business perspective, in which UCC is a new way of thinking about business processes, aligning communications tools and efforts and providing those new communications paths to existing business processes. It enables new or existing technologies to work in different ways in order to support those business processes.

The second viewpoint is from a technical perspective, in which UCC encompasses a number of different technical solutions, including presence, enterprise-class instant messaging, unified messaging, voice mail and audio/video/data conferencing.

- **Presence** is the way of indicating to other people within your organization what your relative availability is.
- **Enterprise instant messaging** takes the consumer form of instant messaging and makes it much more enterprise-friendly by implementing security and compliance, and enforcing business policy.
- **Unified messaging** enables users to take voice, email and fax messages and deliver them to a single inbox, which can be accessed in a number of ways. For instance, I could have my emails read to me via my voice access.
- **Conferencing**, whether audio, video or data, is managed from the user's internal plant so they can leverage the existing infrastructure within the organization to reduce communications costs.

From a holistic perspective, the real value of UCC is that it allows the creation of solutions that enhance communications and business processes. This white paper will provide guidance on the business issues driving the adoption of UCC and how to get started on the journey toward a UCC future.

Business Issues Driving the Adoption of UCC

There are three main business areas that drive the adoption of unified communications: improved business processes, IT and communications rationalization and improved work style and communication ergonomics.

Today, communications are often completely disconnected from business processes, with the possible exception of a call center. Other than that, the general business population is not served very well by the communications infrastructure, which acts like simple plumbing—it's available for general use, but not really aligned with the needs of business processes. Through the use of UCC, communications-enabled business processes can occur. An example is an ERP application that integrates UCC presence capabilities to complete a particular process by allowing immediate access to available people. Another example is quicker design issue resolution through the use of web conferencing as part of a product life cycle.

Communications in many enterprises can be very disjointed. Often communications products and/or services are provided by multiple vendors whose solutions don't integrate well and may, in fact, be incompatible. Some enterprises have implemented IP telephony as a solution, and in doing so found they've had to rip out their existing telecom plant. Other enterprises are having good success with Internet-based telephony, but not as an integrated experience. And still others have a myriad of conferencing services, long distance and mobile providers. Through the use of UCC, this communications infrastructure, telecom expense management and support infrastructure can be consolidated and focused.

Finally, there is the concept of work style communication "ergonomics." A common example is the multiple contacts listed on a business card. For each and every one there is a unique identity, and it can often be daunting from a directory services perspective to delineate how people should be communicating. Communication and collaboration tools are a means by which UCC allows better and more rational communication approaches for individuals. But, these ergonomics do not stop at personal productivity. Indeed, significant business transformational value comes into view when UCC allows for the creation of a "Work Anywhere" business environment. This approach allows for significant travel rationalization both from a cost perspective as well as from an employee quality of life perspective. New work styles can also allow for real estate and facility lease consolidation, improved employee retention, improved pools of talent accessible for the organization and better sustainability.

Key UCC Components

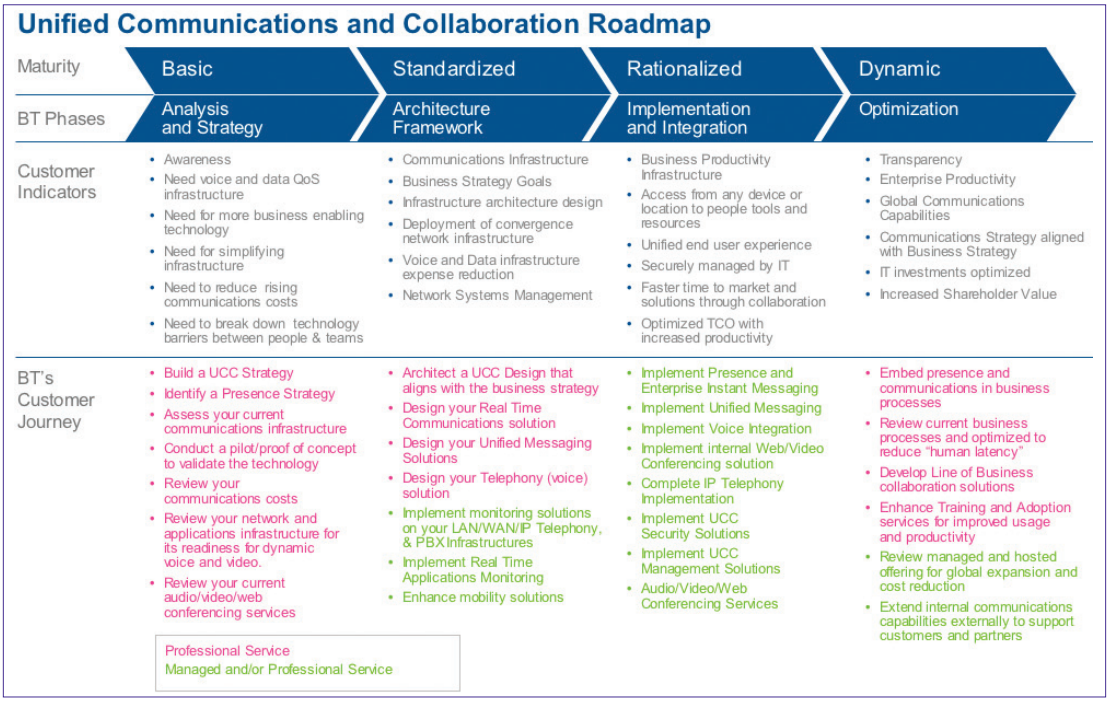
There are several components of UCC that need to be addressed in order to have an effective UCC strategy, including the following:

- **Communications infrastructure** – Some organizations have a very well-established communications infrastructure, including both the network and the telephony plant within the organization, and are very well suited to a unified communications solution. Other organizations may have to enhance their infrastructure in order to support unified communications. They may need to provide better network support. In some cases organizations will have to completely replace some of their infrastructure or provide better support for branch offices. The infrastructure piece of the puzzle, however, must be well-established for UCC to succeed.
- **Real-time communications** – The hallmark of UCC is a real-time communications system. Providing presence indicators and an instant-messaging capability is really the next evolution of communications, and this is where a lot of effort goes in to providing the infrastructure to support UCC.
- **Unified messaging** – Perhaps this is the most advanced capability of an existing enterprise messaging system, but it's one that provides a lot of significant value to the organization.
- **Telephony integration** – Integrating with telephony and the telephony systems that are in place within an organization is an important UCC characteristic. Leveraging an existing PBX system, or possibly IP telephony system, is important to getting the most value out of it rather than ripping it out and replacing it.
- **Security and management** – Some organizations have very stringent compliance requirements in order for them to be able to communicate within their organization and with customers and business partners. Being able to ensure that the environment supports their business needs and their requirements is an important aspect. Also important is managing the environment, providing the correct level of capabilities and experience to the end-user base.
- **LOB integration** – Probably the highest level of business value from UCC comes through the integration of line of business (LOB) systems. Integrating business data into UCC solutions and making them actionable is really the nirvana for the business operations.

Starting on the UCC Journey

It's important to understand that UCC is not a black-box exercise where a solution is dropped into the infrastructure. Rather, UCC is a journey. An effective way to look at this journey is by using a roadmap such as a maturity model. BT has developed a UCC maturity model to help our clients understand where they are on the UCC journey (Figure 1).

Figure 1: BT UCC Maturity Model



The BT roadmap has four stages: Basic, Standardized, Rationalized and Dynamic. By comparing their current infrastructure against the model, organizations can assess where they are on the UCC journey. If, for example, your infrastructure places you in the Standardized stage, then you can plot the steps necessary to move to a fully Rationalized state.

This model can aid organizations to chart an effective path to organizational acceptance while adhering to what their infrastructure is capable of. Where you fall within this maturity model defines the starting point of your UCC journey, articulates what the future state will look like and what it will take to get there.

UCC Strategy and Roadmap

A UCC strategy planning effort develops a UCC strategy that provides strategic alignment between corporate or business unit strategy and UCC plans and roadmaps. BT recently conducted a study that showed lack of understanding of potential benefits, lack of ROI and organizational cultural issues as major impediments to UCC projects (Figure 2).

A UCC strategy provides strategic alignment and the bridging of technical and business drivers that allows clear business cases and organizational buy-in.

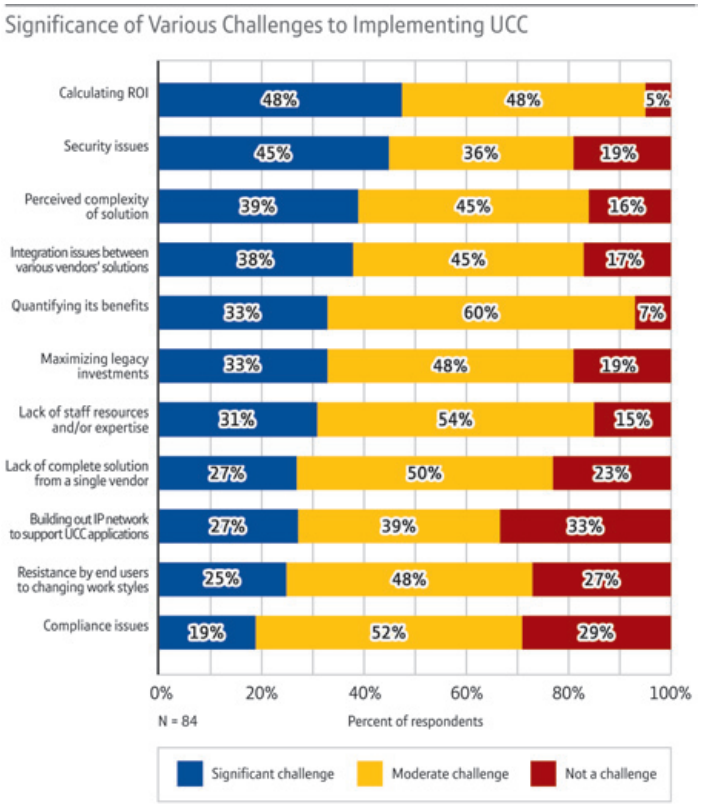
Internal Assessment

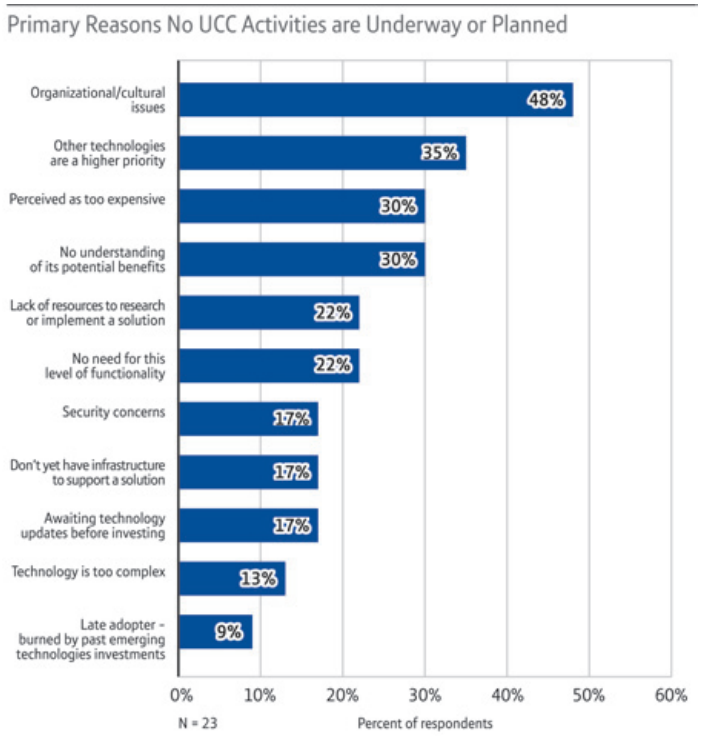
An assessment defines the starting point and unique needs and environment of each organization. It establishes what needs to be accomplished, where the starting point is and how to move forward toward the desired state of the collaboration infrastructure. The assessment begins with a close examination of the current communications environment. But it is also necessary to focus on what the strategy and business goals (defined as part of strategy) are so that the integration of communications with collaboration will tie to those goals. Typical business goals are:

- Increase competitiveness
- Improve customer satisfaction
- Reduce costs
- Support mobile workers
- Reduce the need for office space by providing a flexible working environment
- Support a globalization effort
- More effectively connect teams across geographies

The business requirements identify each department's or business unit's specific communications needs. You can then use UCC capabilities to provide core productivity benefits. Organizations can have a list of ten, twenty or more projects that are in line for the coming year. The challenge of the assessment is to determine how UCC can be interwoven into those projects to support business drivers.

Figure 2: Challenges to UCC Projects





Pilot

The next key component is a pilot or a proof of concept, which can be run in parallel, because different classes of users—whether executives, sales reps or others—simply don't know what it's like to be using UCC technology. For instance, they don't recognize that they can use their computer as a phone in a hotel room or even at their office desk. And they won't see the benefits until you put this technology into their hands and ask them to apply it to solve some of their own business challenges, for instance in a Human Resources or Accounting department.

The key value of a pilot is to really understand what will and won't work in your environment, as well as how the technologies will fit in your business. There are also major cultural and adoption impact issues that must be understood before you jump into a full UCC rollout.

Cost Justification

A next key component is cost justification. One of the goals of UCC, of course, is to reduce costs by raising business efficiency. BT identified some very real savings by reducing our LiveMeeting conferencing costs externally and providing internal collaboration capabilities that covered a large portion of our video conferencing. That doesn't mean you eliminate these external capabilities, but you balance them out. We also found significant savings by using UCC for a majority of voice communications instead of cell phones. This type of shift will require a habit change in order to move forward, but the potential savings can be enormous.

Technical Challenges

Major UCC opportunities will usually be associated with technical challenges and will vary per the specifics associated with a project. An example is unifying your messaging systems. The goal may be to eliminate four different voicemail solutions and consolidate those into a single platform to get a consistent use of unified messaging. You would then need to consider what communication issues are going to come into play and how remote survivability, branch capabilities and technical training issues will be addressed. And of course, how these challenges are addressed will contribute to the overall approach, therefore all need to be addressed upfront.

Telecom can be another interesting area where you can consolidate, manage and integrate various solutions. If you are fully on IP telephony (IPT), you will want to determine how to integrate and leverage that capability to get more out of the IPT infrastructure. If you are only 50 percent of the way to IPT, you need to determine how to provide these capabilities and integrate a unified messaging overlay against four or five different PBXs, which might be depreciated and costly to abandon. Perhaps these PBXs are supporting other business critical functions very effectively so that you don't want to replace that infrastructure. How you can leverage this current infrastructure to get the most out of it will then become an important question.

Collaboration is a fundamental component of integrating communications. It requires knowing who and what teams are available when collaborating. From a collaboration standpoint, you need to determine if your network has the bandwidth and other capabilities to support working in real-time and to what level you are going to scale that capability.

Mobility requires support of external users, providing them the ability to do instant messaging and email from wherever they are using their cell phone. You may also need to maintain a fax capability, but now in this new modality. The challenge is identifying both the management support and security issues to provide these capabilities and to make sure it doesn't become another standalone silo.

You may also want to focus on making your video/web conferencing capabilities more dynamic. To do so, you wouldn't just consider the two or three conference room and board rooms that are used once a week or month, but rather how to make these capabilities pervasive and available to be used by everyone. The goal would be to support the business needs as defined in the UCC Strategy/Roadmap and Internal Assessment sections described previously. The challenge would again be to determine what bandwidth and other issues need to be addressed to support video/web capabilities.

Enhancing your video conferencing capabilities will probably require a balance between insourcing and outsourcing. Internal capabilities can only scale so far. Maybe it's only up to a 100-user or 500-user environment. And because we're not going to do a 1000-user meeting every day, it's probably economical in this case to use external resources for this scale of video and web conferencing.

Network Infrastructure

The primary technical challenge along the UCC journey is determining if your network can support voice and video capabilities. Most networks can support presence and instant messaging. However, important concerns arise when you start to provide IP telephony that is being used dynamically by everybody, which is what UCC aims for.

The first step is to assess your current network infrastructure. That assessment should include all of your network components as well as your internal and external bandwidth and facilities (i.e., local area networks, virtual private networks and Internet access). This infrastructure needs to be mapped to how it supports current users, applications and current network traffic patterns including business priority traffic. Next, you must understand the packet flow and quality of service implemented so that you can manage traffic. You don't want to cut off mainframe traffic that's critical to your business and processing orders by providing additional capability. The key is to handle the support of a UCC solution that grows dynamically as more and more users become comfortable with it and adopt it.

You want to understand the network traffic and then measure network utilization. When providing real-time communications, you truly need to be able to monitor your network in real-time. You have to have processes in place so that you can see traffic and how it's dynamically changing in order to support business-critical applications with a specific level of quality for voice calls, web conferencing. If supporting video, you must support any conference rooms critical to the business, making sure that the expected service level is provided. If the quality is below expectations, especially when initially introduced, users aren't going to change their habits. Instead, they will roll back to their cell phones or whatever other mode they are comfortable with. They will keep pushing things through email, which eats up bandwidth as well.

Once you've really taken a good, solid look at your network and what's traveling over it, you can make recommendations of what changes need to be made to the network, whether evolving it to another MPLS network, moving more traffic over the Internet, implementing quality of service or a range of other items. It gives you the ability to make those decisions and put them on a timeline so the business knows when they're going to get these new capabilities.

Conclusion

Beginning the UCC journey starts with business goals, not technology capabilities. Virtually all business processes can benefit from enhanced communications. Every process touches multiple people, and UCC can improve workflow and communications all along the way.

The first and most important task when considering UCC is to identify your organization's priorities, that is, which business objectives are most critical to the success of the business. After the business goals have been identified and prioritized, you will need to tie technology decisions back to these goals. Your infrastructure will place some constraints on how quickly you can implement various UCC components. You must recognize these constraints before implementation, and either upgrade the infrastructure or modify your plans to fit within the existing environment. But don't let these constraints stop you from beginning the UCC journey now. Start with high-value, bite-sized chunks, and evolve your strategy and timing as you move further along the path.

About BT

For more than 20 years, BT has provided solutions in U.S. and Canada that help enterprises effectively use technology to drive business growth. The expertise of our employees enables us to help customers globalize their businesses in innovative and sustainable ways. Through strategic development, strong alliances and a diverse collection of best practices and methodologies, BT has emerged as a leader in networked IT services providing professional services and consultancy, managed services, and full outsourcing for business and IT transformation.

BT has the experience and knowledge to design, manage and operate solutions that overcome business challenges and create sustainable value in the areas of:

- **Secure Networking** – drive cost efficiency and risk reduction across security operations while enabling greater support for compliance and productivity.
- **Mobility** - reduce cost and increase productivity through information access and collaboration regardless of location, by simplifying the complexity attributed to the control and management of mobile assets and expenses.
- **Contact Center** - deliver improved customer service while reducing costs and increasing operational flexibility and agent productivity.
- **Infrastructure Optimization** – fully integrate business communications and IT infrastructures onto a single, cost-effective platform to reduce infrastructure complexity while enabling streamlined centralized management, more comprehensive security monitoring and enhanced business applications performance.
- **Unified Communications** – unify complex network environments to connect the people, applications and devices needed to achieve business goals.
- **Audio and Visual Conferencing** – enables users to meet with colleagues—anywhere, anytime—using an electronic communications system such as a phone, personal computer or specialized video conferencing equipment.

At BT we also know it is important to work with a provider who understands the nature of your business. We have built an eco-system of collaborative relationships with companies such as Microsoft, Cisco, EMC and HP enabling us to deliver integrated solutions that are flexible and focused on the things that will make your business succeed. In tailoring our global networked IT services to the needs of our customers, we offer a unique combination of global reach with local experience and knowledge, global account management and excellent customer service.

We provide solutions to more than 1,000 customers in the U.S. and Canada in all major industries, and have been selected as a trusted partner by many large enterprises including Unilever, Reuters, Cadbury and Procter & Gamble.

Contact Us

For additional information, please visit http://bt.ins.com or contact us at 1-888-767-2988 in the U.S., 44 (0) 1628 503000 in Europe, 65 6549 7188 Asia, or 1-408-330-2700 worldwide.

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