By taking a unified, strategic approach to messaging, companies can improve business processes, reduce costs and bolster customer service.

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Executive Summary

Today’s workers are becoming more mobile and, at the same time, more collaborative. What’s more, customers require access to information whenever and wherever they need it, and employees are demanding flexibility in applications and devices.

This creates an opportunity — and a challenge — for IT professionals to provide the tools and infrastructure that enable a variety of messaging services, including e-mail, instant messaging (IM), mobile messaging, video conferencing, voice and presence.

What are the risks of not taking a strategic approach to messaging? Users will seek their own solutions through a variety of products, most of which are consumer-focused and possibly not designed for corporate environments. Such solutions can compromise security and compliance, and potentially put a company at risk in legal proceedings. This can also create a tenuous situation where IT is not able to respond quickly and efficiently to the changing needs of the business, leading to dissatisfaction with the IT environment.

By creating a unified messaging platform, businesses can consolidate different interfaces in a single location, supporting users no matter where they are or what devices they are using. This capability can lead to significant changes and improvements in how companies conduct business and the ways in which they serve customer needs.

Messaging Overview

Unified messaging (UM) is a mix of communication services that have come together in recent years as the result of the Internet and IP — converging traditional data-oriented services with voice services, particularly Voice over Internet Protocol (VoIP).

Companies have been utilizing e-mail, voicemail, IM, unified messaging, video and web conferencing, and presence to dramatically alter their communication processes. This allows for significant improvements in communicating with customers and how employees collaborate and work together throughout the organization.

The technology is now available to bring all of these services together within a unified communications (UC) framework. Such a framework enables businesses to operate more efficiently and cost-effectively. It allows them to move away from legacy silo applications and toward next-generation, IP-based communications and messaging for data, voice, video, presence and text-based modalities.

Messaging technologies can also integrate information from customer relationship management (CRM) systems to provide a single view into customer information, which enhances customer support and service and equips customer-facing employees with valuable new tools.

By developing a strategic approach to messaging, companies can take advantage of a wide range of benefits. A messaging platform within a UC framework serves as the core repository for UC solutions.

It enables businesses to improve customer service and allows workers to be more flexible and mobile. It also creates an environment in which collaboration is encouraged, simplified and used as a strategic, competitive advantage to respond quickly and efficiently to the needs of employees, partners and customers.

UC also supports presence, which can speed business processes by enabling workers to not only collaborate more effectively, but also to find the individuals and answers they need throughout the organization far more efficiently, getting vital information in real time. By enabling and encouraging collaboration, companies can change business processes.

Indeed, a recent survey by research firm IDC showed that 33 percent of CIOs at companies in the U.S. said they are using collaboration today and 54 percent said they plan to use it in the future. IDC estimates the worldwide market for unified communications and collaboration will reach more than $17 billion by the end of 2011.1

Understanding Messaging Terminology

Messaging terminology reflects a convergence of technologies from the worlds of voice, video, data and the Internet. The following is a guide to basic terms:

- **Unified communications (UC)** — This represents the convergence of enterprise voice, video and data services to achieve greater collaboration among individuals or groups and improve business processes. The results are reduced costs, increased productivity and improved decision-making.

- **Messaging** — This capability enables the sharing of information between individuals or devices using various communication methods, including voice, e-mail, unified messaging, instant messaging (IM) and presence. By having access to multiple communication forms, users are able to connect with others immediately.

- **Unified messaging** — It consolidates e-mail, voicemail and fax into one inbox, giving users a variety of ways to access their messages, via desk phone, computer or mobile device.

Maximizing Your Collaboration Investment By Choosing the Right Services Approach, June 2010
Getting Started

A big question is how to get started: Which systems should companies begin to integrate — voice, e-mail, IM? One important point is that the enterprise does not necessarily have to do everything at once. Another is whether the infrastructure, such as storage networks and servers, is in place to support the myriad of messaging platforms. If users have corporate mailboxes with a capacity of 100MB or 200MB and they can get 3GB from a commercial service provider, they are going to expect IT to rationalize the dramatic difference.

As with any new IT initiative or upgrade, it's best to start with an assessment of the technology in place, how the organization is using that technology and how it will need to be used in the future. With messaging, the starting point is often based on the firm's current infrastructure and workflow. In doing an assessment, it is important to understand how employees communicate and collaborate with one another and with customers, partners and suppliers.

If a company tends to be e-mail centric — where e-mail is the preferred and most-often used form of communication and collaboration — its UC strategy could be an outgrowth of its e-mail system. Conversely, if the organization is voice centric — where employees and customers are accustomed to doing business on the phone and with voicemail — then it may be advantageous to leverage the voice infrastructure as the foundation of its UC solution.

Starting with a basic understanding of a firm's core assets and its way of doing business is necessary when choosing UC suppliers. This is because when it comes to delivering on UC solutions, most of the leading manufacturers tend to approach their solutions as an outgrowth of their core strengths.

Messaging, and its related group of technology solutions, characterized as unified communications and collaboration (UCC), have turned out to be a common ground where leaders from the worlds of telecommunications, data networking, desktop computing and corporate computing have converged to build competitive solutions based on their strengths as well as the needs of today's businesses.

Each supplier's solution is different, and the language they use to describe it can vary. It is important to note that the way suppliers position their solution is often skewed toward its own strengths. For this reason and others, consider bringing on an expert partner in the early stages of the process to help sift through the choices and build a plan that takes into account all of the challenges organizations face. These can include:

- Building out the infrastructure
- Assessing user and customer requirements
- Addressing compliance, regulatory and security issues
- Dealing with an increasingly mobile workforce
- Supporting a growing and diverse range of endpoint devices
- Making sure users are trained to take advantage of the features and capabilities of the messaging solution

When it comes time to select suppliers and solutions, there will be many choices. Some suppliers provide a one-stop shop for UC and messaging. However, there are also opportunities to select state-of-the-art solutions from different manufacturers based on open standards. An expert partner will be an important part of figuring out which set of solutions will be best for the business — and how to implement those solutions.

Bringing Everything Together

The key to getting communication wherever it is needed is the central messaging function. This is completed by viewing messaging as a single unified strategy and not disparate products or services.

The function itself exists as an application running on communication servers. But the important part for users is the interface that is available on their multiple devices. Providing a common entry point to multiple forms of messaging means staffers are able to ignore the specifics of the message delivery technology and concentrate on the message itself.

This unification represents a quantum change from discrete and separate connections like voicemail, instant message, fax, pager and even video messages. And the change goes further than combining multiple devices and services as a convenience.

Fully converged messaging not only removes the necessity of maintaining separate equipment and applications, but also provides additional levels of security because users are not forced to maintain multiple accounts with multiple user names and passwords. Rather, user access controls can be managed on an enterprise level, with appropriately robust oversight and controls.
A UM interface may take on different functions and appearances depending on the platform on which it is accessed. For example, a user accessing communication functions from their desktop will see the unified messaging component as a set of features that exist within the more expansive UC environment.

This is partly because of the generally more feature-rich computer being used that includes a larger display and more robust network connection that support the real-time communication functions. When that user leaves the desk, and opts to use a mobile device, the interface that supports such capabilities may not be as fully functional.

**Messaging Solutions**

Most companies approach unified messaging with some of the pieces in place. The question is how, when and why to integrate the different technologies or whether it makes sense to migrate to a whole new messaging platform. When considering messaging solutions, the basic building blocks are:

**E-MAIL:** For many firms, the e-mail platform is the starting point and backbone for creating a UM strategy. Most e-mail suppliers have an IM solution, and many are starting to incorporate voice as well. In addition, suppliers are designing their latest releases with advanced features to integrate seamlessly into unified communications strategies. However, companies need to be aware of any migration issues if moving to a new platform and make sure they migrate the underlying services as well as the message data. They should also consider migrating archived data to the new platform so it is not lost and is readily available for possible e-discovery requirements.

**IM AND PRESENCE:** Instant messaging and presence go together. Presence provides awareness to instantly communicate — by voice, video, IM or web conferencing — with individuals throughout and, in some cases, outside the organization. IM is the simplest form of text communication. It is often used to start a conversation, which can then be escalated to other modalities. In the context of a UC environment, IM is a relatively simple modality, and there is generally a minimal amount of data to migrate from one platform to the next.

Once the usage of IM is established internally, the next logical step is to open it up for communications with other organizations. IM is typically integrated with a UC client that provides users with a single efficient console for accessing voicemail, conferencing, contacts and calendar information as well. Presence can accelerate workflows and processes by enabling anyone in the system — employee or customer — to identify the individual who can solve a specific problem or answer a specific question. If a user is actively using e-mail, IM or video conferencing, for example, other users can see that individual’s status and availability.

**VOICEMAIL AND UNIFIED MESSAGING:** Voice communication has been part of business processes and collaboration for more than a century. However, the rules of the game have changed with the widespread adoption and integration of VoIP. The enterprise can now integrate voice and data messaging services and provide a variety of features that enable quicker decision-making for customers and increased collaboration for workers.

Now employees can access their voicemail from any device. Voicemail also can take on a new role within a unified messaging environment, whereby a single voice mailbox can be accessible from any number of devices. This includes consolidating voicemail and e-mail into one universal inbox. Users can also be notified of new voicemails and listen to them wherever they may be.

### Unified Communications: Features and Benefits

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<th>Top UC Features*</th>
<th>Top UC Benefits**</th>
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<td>1. Access to work e-mail and voicemails via smartphones (56%)</td>
<td>1. Increased productivity (53%)</td>
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<td>2. Ability to receive voicemail messages via e-mail (46%)</td>
<td>2. Reduction of operating costs (48%)</td>
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<td>3. Video conferencing: ability to speak face-to-face without traveling (45%)</td>
<td>3. More reliable communication of information (46%)</td>
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<td>4. Ability to send broadcast messages to a group via e-mail and telephone (40%)</td>
<td>4. Mass emergency notification (40%)</td>
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<td>5. Ability to provide integrated audio/web/video conferencing (39%)</td>
<td>5. More effective use of remote/mobile workers (39%)</td>
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<tr>
<td>6. Access to instant messaging services (36%)</td>
<td>6. Better decision-making (35%)</td>
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*Survey respondents asked to select all the UC features employees at their organization find (or expect to find) most useful

**Survey respondents asked to select all of the UC benefits that are (or would be) most important to their organization

CDW Unified Communications Tracking Pool, April 2011
A voice-to-text feature can let users read their voicemail—a plus when in quiet places like meetings or loud environments like airports. Today’s voicemail systems can enable organizations to improve productivity and cut costs while enhancing communications and customer service.

**APPLICATION DATA INTEGRATION:** In addition to the applications described, the messaging solution can be used as a repository for data generated by emerging collaboration tools such as IM conversion history, SMS messaging, fax, social networking data, RSS feeds and line-of-business data. By having their data consolidated into one box, users can access messages through any device they choose—a mobile phone, computer, telephone or PDA. In some cases, such as a conversation history or a voicemail, the data may reside in the user’s inbox. In other cases, the system provides integrated links to other data repositories; for example, a user can click on an e-mail and link to a transaction history in a CRM system.

In examining messaging solutions, there are certain factors to consider. In a rapidly changing market, it is important to know whether the supplier provides solutions based on open standards. A business may also want a system that enables it to extend the lifecycle of its current technology and infrastructure, reducing the costs of hardware, software, maintenance and training.

**Unified Communications and Messaging Benefits**

While companies have traditionally managed their different messaging platforms in silos, this approach will no longer be effective in the future, according to experts. ‘‘Business users typically treat the UCC components—voice, messaging, conferencing, instant messaging, presence, applications, clients, social networks and collaboration tools—in silos,’’ says Jeff Mann, research vice president at Gartner, speaking at the Gartner Symposium/ITxpo 2009. 3  ‘‘They can no longer work this way, as UCC represents a fusion of different communications cultures and work styles. The artificial separation they are used to will become a thing of the past.’’

Infonetics Research recently noted that the ‘‘focus of unified communications is transitioning to mobility, multimedia and collaboration.’’ Respondents to this survey of IT decision-makers said they are looking to integrate cell phones, IM, video and conferencing. 4

By taking a unified approach to messaging, organizations can improve business processes, reduce enterprise costs and improve workforce effectiveness. For the IT department, it provides increased control and the ability to manage resources and applications from a single point. For employees and customers, there are tremendous gains in productivity and access to information, including the following:

- **EMPLOYEES:** For employees, UC provides the tools to collaborate and be mobile at the same time. For organizations that provide customer support and help desks, it streamlines operations and offers the ability to respond to customers in the most appropriate format and most immediate time frame. It provides a mechanism to improve sales and support by answering customer questions quickly and accurately. UC can greatly reduce travel costs for an organization by enabling individuals to collaborate with other employees, partners and suppliers by using a wide mix of technology solutions.

In some ways, solutions that incorporate web conferencing, video chats and online meetings can be even more effective than face-to-face meetings because they can involve a larger number of people and be conducted at times when all of the necessary participants are available. Indeed, IDC notes that for many companies, meeting over video is transitioning from an option of last resort to an alternative that is preferred over traveling.

- **CUSTOMERS:** For customers, suppliers and partners, UC provides the ability to get to the right person quickly and efficiently and get answers to questions in real time. Consumers are conducting more and more of their business activities online, and the ability to get answers and place orders 24 hours a day, seven days a week, has become standard operating procedure for many companies.

**What About Social Networking?**

As businesses address their messaging requirements, one of the factors they have to consider is the growing importance of social networking services for both employees and customers. The tech analyst firm Gartner predicts that by 2014, social networking services will replace e-mail as the primary vehicle for interpersonal communications for 20 percent of business users. 5

‘‘The rigid distinction between e-mail and social networks will erode,’’ says Matt Cain, research vice president at Gartner. ‘‘E-mail will take on many social attributes, such as contact brokering, while social networks will develop richer e-mail capabilities.’’

‘‘While e-mail is already almost fully penetrated in the corporate space, we expect to see steep growth rates for sales of premises– and cloud–based social networking services.’’

Gartner recommends that companies develop a long-term strategy for provisioning and consuming a rich set of collaboration and social software services, and develop policies governing the use of consumer services for business purposes. The research firm also notes that enterprises will need to develop entirely new skill sets around designing and delivering social media solutions.

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4Gartner Symposium/ITxpo 2009, Nov. 2–5, 2009, Cannes, France
4 Gartner Reveals Five Social Software Predictions for 2010 and Beyond, Feb. 2, 2010
The other important consideration for customers is the growing use of social networking tools for business activities and communications. By offering IM, video chat and other messaging tools, businesses can deliver services in the formats and media that customers prefer, providing significant competitive advantage.

Mitigating Risks

In moving forward with a messaging strategy, it is important to understand and mitigate the risks involved. For example, many companies have retention policies for IMs and voicemails for both compliance and e-discovery requirements. And, they may have content in their systems that could expose them to liability — which they may not even know exists. Even if the organization does not have UM, policies should be in place for e-mail lifecycle management and compliance.

Some companies have liability concerns with IM and voicemail and what that might mean in terms of producing evidence in a legal proceeding. A common misconception is that if data is stored in the messaging system, the organization's liability for producing data is increased. In reality, a company's responsibility for producing data is not dependent on the location of the data. Before proceeding with a UM solution, it is advisable to consult with legal counsel to be sure of the implications based on local and state laws and regulations specific to the organization's industry.

Security is also an issue that should be addressed in mitigating the risks involved in messaging. With VoIP, for example, there could be risks of eavesdropping. There is also the risk of information leakage, particularly when individuals are allowed to install their own commercial IM software. In many organizations, distinctions between business usage and personal usage are not always clear, making it a challenge for IT to enforce policies as users take advantage of new devices, such as the Apple iPad, as well as new social networking services.

Indeed, a recent survey by Cisco Systems, in conjunction with the research firm InsightExpress, found that many employees feel their ability to collaborate is limited by corporate policies. In the survey, employees complained about frustrations with devices and applications at work. Among the issues cited were restrictions set by IT managers on the type of collaboration technologies that could be used in the workplace, a lack of integration among applications, noncompatible formats and a limited number of collaboration tools. Half of these users admitted to accessing prohibited applications once a week, and more than 25 percent said they have changed the settings on their devices.6

There are inherent security risks with employees taking matters into their own hands. When users leave a company, they take their commercial IM account and contacts with them. This is not the case, however, if the IM solution is provided and managed by the corporate IT department. Commercial IM usage also raises threats of viruses, malware and spam as well as the potential to leak information. This could be an important issue as collaboration expands and the use of social networking services grows. The Cisco survey noted that 77 percent of IT decision-makers plan to increase their spending on collaboration tools.

To help mitigate risks for all types of messaging, usage and retention policies should be in place. Given the potential risks in areas such as security, compliance and e-discovery, it is that more important to be working with a partner that has the knowledge and broad range of experience to handle these issues.

Smartphones and Unified Messaging

The move from dedicated pagers to smartphones has also helped accelerate migration to UM. Mobile UM extends capabilities of existing systems such as e-mail, voicemail and fax messaging systems to smartphones.

A wide range of industries are expected to benefit from mobile UM. The top issues that can be addressed by the addition of UM capabilities include:

1. Dramatically reducing the time needed to communicate with diverse teams of people:
   a. Healthcare — doctors, nurses, specialists
   b. Government — emergency response teams, police, firefighters, administrators

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6Collaboration Nations, March 2010
c. Business — company leaders, key contacts in different capacities
d. Hospitality — hotel or casino staff, managers, security staff
e. Education — teachers, students, administrators at schools or universities

2. Responding quickly to unexpected situations
3. Speeding response times to patient or customer requests and a myriad of other alarm- and update-driven situations
4. Reaching the right people at the right time on their preferred devices — including smartphones — for all communications
5. Tracking responses to messages that automatically escalate the communication to others according to predetermined plans
6. Automating contact center communications to provide a foundation for efficiency and improved information sharing
7. Automating everyday workflows to improve efficiency

Best Practices
What are some of the critical common characteristics among companies that are doing the best job in implementing UC and messaging solutions? Research company Aberdeen Group concluded the following in a recently released report analyzing the driving forces in the market.

The business pressures that have been the biggest driving factors are:
- The need to be more responsive to customer needs
- Competing in markets that demand real-time decision-making

The following technologies have enabled these leading companies to successfully provide more timely services to customers as well as increase workforce collaboration and improve the quality of communications:
- Voicemail/e-mail unified inbox
- Company-hosted IM
- Unified number for mobile and desk phones
- Presence
- Random-access voicemail or visual voicemail
- PC-based video conferencing
- Mobile phone/desk phone simultaneous ring
- “Find me, follow me” automatic call routing to mobile or office phones

Among the other approaches most commonly used by leading companies are:
- Policies for centralized management of UC solutions
- Secure authentication for end users
- Ability to identify and map business process workflow
- Staff in place to support end users
- Staff in place to manage UC systems
- Communications system training for end users
- Team-based collaborative tools, including IM, mobile wikis and microblogging
- Interactive help function

A final point from the Aberdeen study: “Although companies often think of unified communications as a technical solution, the success of unified communications deployments depends on cultural acceptance and the ease of use that employees associate with the development.”

Getting the Message Out
Today, employees expect information in all formats to be available in a common repository for immediate access. While at the office or on the move, staffers seek pertinent information including proposals, presentations and reports for business meetings. UM can help facilitate availability of this data.

According to a 2010 survey sponsored by Plantronics®, 98 percent of Fortune 1000 companies are in active pilot, have deployed or are considering unified communications implementation. Respondents also noted they were using audio and web conferencing far more often. And increases in the use of IM, social media, texting and video conference shows we stay in touch via a range of tools.

According to the experts, the UM component of the larger UC suite is likely to grow even faster. This is because as users leave their desktops, they expect to do business whenever and wherever they like.

This increasing mobility means there are likely to be more times when real-time communication is unavailable, and delayed messaging is more realistic, or even more desirable. Fortunately, the technology exists to offer employees peace of mind and unparalleled mobility knowing they can receive messages anytime and anywhere.

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1. Unified Communications: Improve Customer Satisfaction and Workforce Productivity, May 2010, Aberdeen Group
2. Plantronics Unified Communications (UC) Gatekeeper Study, April 2010
CDW: A Unified Communications and Messaging Partner that Gets IT

To develop a strategic approach to unified messaging and mitigate the inherent risks, it is important to work with an expert partner that has knowledge and experience in integrating UC and messaging technologies. CDW provides a single point of contact for all messaging solutions throughout the project lifecycle, starting with an assessment of the organization’s current environment, needs and goals.

Our services can include vendor-specific unified communications assessment with our services team reviewing your current UC environment. We will then recommend how to increase the efficiency and value of the UC technology. In addition, CDW can provide a variety of options not tied to a specific supplier. Plus, we have the expertise to integrate all aspects of an IT solution, including hardware, software, networks and service.

The CDW approach includes:

- An initial discovery session to understand goals, requirements and budget
- An assessment review of your existing environment and definition of project requirements
- Detailed supplier evaluations and recommendations
- Procurement, configuration and deployment of the final solution
- Ongoing product lifecycle support

To learn more about CDW’s Unified Communications and Messaging solutions, contact your CDW account manager, call 800.972.3922 or visit CDW.ca/UC

For highly mobile staff, success depends on their ability to communicate with colleagues and clients, quickly, reliably, and costeffectively. Avaya provides the tools employees need to stay available and productive, no matter where they go. Many organizations have key personnel who are rarely found working at a desk. But these facility-roaming workers still need to be reachable — sometimes on a moment’s notice. By delivering voice and data services over a wireless LAN, to PDAs and dedicated IP phones, Avaya keeps employees continuously available, even as they move within a building or across an office campus. The solution gives roaming workers access to a full range of productivity-enhancing telephony features, such as directory dialing, conference calling, and group page.

Unified Communications solutions within the Microsoft productivity platform will help streamline communications and collaboration. With Microsoft Lync, you’ll be able to integrate your existing messaging and voice infrastructure and adapt to changing business needs. And, users will enjoy a familiar interface along with built-in enterprise-grade protection.

- Find and communicate with the right person — anytime, anywhere, on any device
- Increase IT control and visibility to meet changing business requirements
- Simplify management and scalability while maximizing IT resources and budgets
- Extend investments and adapt to changing business needs

Cisco’s Unified Communications offerings are designed to provide users with access to the people and information they need — anytime, anywhere and on any device. It is a scalable, distributed, highly available enterprise-class system that delivers voice, video, presence and mobility services, connecting as many as 30,000 or more users of IP phones, media processing devices, VoIP gateways, mobile devices and multimedia gateways. CDW Canada can provide the systems, software and services to address customers’ collaboration goals and expectations.