



Universal Collaboration

The Future of Unified Communications and Collaboration

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Executive Summary

The trend toward enterprise globalization, the infiltration of consumer technology into the workplace, and the growing complexity of networking with suppliers and partners is creating a dramatically increased need for collaboration and communication across lines of business, distributed operations and their external communities. Despite the challenges, Microsoft® and its community of customers and partners have the opportunity to take advantage of the untapped business value associated with unified communications and collaboration. This white paper explores how organizations can respond to these trends and challenges and take advantage of the opportunities they create.

Who Should Read this White Paper

This white paper is intended for Line of Business executives, Information Technology (IT) executives, and managers who are concerned with planning for IT, managing IT, or delivering IT value. Other business decision makers and managers who influence or are directly accountable for IT investments can also benefit from reading this white paper.

Topics Covered in this White Paper

In this white paper, you will find an analysis of the trends shaping the future of enterprise communications. Additionally, it provides insight into how you can respond to these trends by leveraging the opportunities created by unified communications and collaboration. Sections in this white paper include:

- **Trends, Challenges, and Opportunities** This section presents a broad overview of the trends, challenges, and opportunities enterprise communications face as organizations struggle to realize measurable and sustainable business value from their investments.
- **Universal Collaboration: The Evolution of Unified Communications** This section uncovers the opportunity to create new business value by combining two strategic technology groups: Unified Communications and Web 2.0.
- **The Rise of Consumer-Driven IT** This section evaluates the impact that consumer-driven technologies are having on enterprise IT and how organizations can embrace this trend to drive innovation by harnessing the collective intelligence of “the consumer as the employee” model.
- **Customer Service as an Enterprise Process** This section provides an informative business scenario that illustrates the benefits and stages of transforming core processes such as customer service.
- **Microsoft Unified Communications as a Web 2.0 Platform** This section discusses positioning Microsoft Unified Communications as a Web 2.0 platform that provides horizontal value as a productivity workspace, a platform for creating enterprise mash ups, and a development platform for transforming processes and workflows.

- **Cloud Computing: Beyond SaaS to Software+Services** This section discusses the flexibility of incorporating cloud computing delivery models, Software as a Service and Software+Services, to maximize investment return and accelerate time to value.

Conclusion

With the Microsoft Unified Communications platform, organizations can easily create a foundation that serves multiple business needs efficiently and cost effectively. By leveraging integrated unified communications and collaboration capabilities, the platform can be utilized to create competitive advantage and improve operational efficiency.

Trends, Challenges, and Opportunities

To take advantage of the opportunities for growth, organizations must understand the trends and challenges facing unified communications.

Economic Climate

The current economic slowdown will strain IT spending for the foreseeable future, forcing many decision makers to either delay or cancel projects not deemed essential. Under such circumstances, organizations may overlook the opportunity to apply technology to create competitive advantage and operational efficiency. A horizontally integrated unified communications and collaboration (UC+C) platform can create opportunities for cross functional business value and streamline business processes.

Unified Communications as a Commodity

In an effort to grow market share, many vendors are commoditizing unified communications by bundling applications and cutting prices. Advanced capabilities that were once positioned as value-added applications are now included at no additional cost. Though some customers may view this as positive, it is diluting the business value that unified communications can bring as a strategic enabler. For instance, if unified messaging is free, it is difficult to understand how to position it in support of an ediscovery or Sarbanes Oxley compliance initiative that can potentially help to save millions of dollars.

Consumer Driven IT

The continued infiltration of Web 2.0 tools and technologies into the enterprise has presented IT with new challenges. Instead of resisting these challenges, a growing number of IT and business leaders are trying to find effective ways to embrace them to drive enterprise collaboration and employee productivity.

Customer Service as an Enterprise Process

Traditional approaches to customer service are preventing many enterprises from realizing successful customer-centric initiatives. The contact center has always been a focus of customer frustration driven by long hold times, poor service, and a seemingly endless loop of transfers. By evolving beyond a traditional contact center model to customer service as an enterprise business process, companies can leverage their community of partners and suppliers to engage in meaningful interactions resulting in more profitable customer relationships.

Communications Enablement

Much of the current focus on cost cutting involves workforce reductions, travel restrictions, and depleted spending. Though the impact of such actions is immediate, few are sustainable. Short term relief can be balanced with long term efficiencies by examining and reshaping existing processes. By embedding unified

communications and collaboration capabilities into core workflows latent processes can be transformed while recognizing measurable, sustainable return.

Evolving Deployment Models

The availability of cloud computing is challenging traditional IT models. Cloud computing uses a hosted model for delivering Software as a Service (SaaS), where an application is accessed by users over the Internet. SaaS applications can be deployed very rapidly and use a subscription model as opposed to the capital outlay associated with acquiring and deploying traditional IT software. The challenge for many enterprises is what to do with investments in existing software. A hybrid approach known as Software+Services combines hosted services with on-premise applications. By bringing together the best of both worlds, you can maximize choice, flexibility, and capabilities to enable competitive advantage and drive innovation.

Universal Collaboration: The Evolution of Unified Communications

The next step in the evolution of enterprise communications is merging two strategic technology groups—unified communications and Web 2.0—to create universal collaboration: the embedding of communications capabilities into business process combined with the collaborative principles of Web 2.0. Both technology groups made Gartner's top ten list of strategic technologies for 2009. Unified communications and business process modeling are increasingly aligning with each other and impacting change outside of IT, and Web 2.0 is gaining traction in the enterprise.

Web 2.0 and Unified Communications

Harnessing the social networking capabilities of Web 2.0 is crucial to the corporate world because it allows employees to participate in the innovation process by creating collaborative workspaces across geographic, economic, and corporate boundaries.

Unified communications shares a number of core principals and concepts with Web 2.0, including user-driven capabilities, collaboration, mobility, video, software above the level of a single service device, rich user experience, IM/presence and more. Therefore, unified communications could be described as harnessing the collective intelligence of the enterprise ecosystem by leveraging a horizontally integrated platform. Together unified communications and Web 2.0 can link and empower all of an organization's employees and partners to transform processes and streamline productivity.

The Rise of Consumer-Driven IT

The collaborative tools, technologies, and trends popularized by Web 2.0 are infiltrating the enterprise and leading to the rise of consumer-driven IT. Employees are increasingly adopting rogue consumer tools and personal applications, such as Facebook and YouTube, to communicate and collaborate with friends and colleagues. The line between employee and user/consumer is blurring, giving birth to the "consumer as the employee" model, driving the future direction of enterprise IT. Web 2.0 will continue to infiltrate the enterprise—with or without IT.

These rogue activities are not limited to individual employees. Entire teams and lines of business are acquiring Web 2.0-based tools without IT involvement. A growing number of executives outside of IT have been directly selecting vendor tools entirely on their own because IT is often too busy working on major projects to assist employees while SaaS is widely available and easy to use.

SaaS in the Workplace

The availability of SaaS plays an important role in the workplace. For example, a VP of sales may want to implement better sales tools for forecasting and reporting. Instead of going through formal processes to request IT to research solutions, create an RFP, and implement the solution over a number of months or years, the VP can turn to a SaaS provider like Salesforce.com to provide access to a hosted, Web-based service that could be up and running in a matter of days. The SaaS solution can be positioned as an operational expense and the ROI can be realized in weeks.

Embracing Web 2.0 to Create Business Transformation

If organizations embrace Web 2.0 in the workplace instead of resisting it, they can use it to create business transformation, making IT strategic and solidifying the CIOs place in the boardroom. IT executives can respond to consumer-driven IT in the following ways:

- **Try to regain control** This can lead to a counterproductive standoff between departments and IT Business leadership and in some cases can lead to the ousting of the CIO.
- **Anticipate business needs** This allows companies to get ahead of the curve by proactively taking solutions to the business users, talking to the users, and finding out what tools they need to be successful.

Incorporating Web 2.0 into Core IT Strategy

Anticipating user needs and leveraging the "consumer as the employee" model is not an easy proposition and creates fear because of technical concerns (maintaining security and control, preserving information integrity, and providing training) and cultural challenges (monitoring, avoiding legal dangers, measuring productivity, and increasing ROI).

To overcome these types of fears, enterprises should incorporate Web 2.0 into core IT strategy by following four best practices:

1. Satisfy user demand for collaboration and participation
2. Allow IT to maintain control

3. Remain secure across trust boundaries
4. Demonstrate a measurable ROI

Satisfying user demand for collaboration and participation (implementing blogs and wikis) alone is not enough to ensure success—all four best practices are crucial for success.

Using Universal Collaboration to Deliver Business Value

To realize the full collaborative benefits of Web 2.0 in the enterprise, organizations need to look beyond blogs and wikis and focus on building a strategy around the set of principles and concepts that both unified communications and Web 2.0 represent. Universal collaboration delivers in all four best practice areas and represents a unique, emerging opportunity. Consider the scenario in the next section on how to leverage unified communications and core Web 2.0 principles to deliver value while keeping the four best practices in mind.

Customer Service as an Enterprise Process

Innovative organizations are moving away from treating the contact center as a separate entity from the enterprise and are beginning to embrace the idea of customer service as a strategic business process. As a result, unified communications vendors are moving toward the trend of providing federation of contact center and enterprise functions by creating greater ties between contact center applications and unified communications. As a foundation, Microsoft is working with Aspect to extend the customer service functions via unified communications and allowing contact center agents to connect more easily with a resident expert sitting in a branch office or telework environment. Convincing customers of the value of fully transforming customer service into an enterprise business process will require a highly coordinated, collaborative effort and cultural shift. Think of it as applying the Web 2.0 concept of grid computing to people—applying the knowledge and skill sets of many people throughout the supply chain to a single problem at the same time—usually to a situation that requires the collaboration of a number of resources.

Innovating core processes such as customer service will most likely occur in several stages, leveraging concepts core to universal collaboration:

1. Creating a unified communications folksonomy
2. Incorporating next generation search
3. Enabling collaboration across trust boundaries
4. Building enterprise workspaces

Stage 1: Creating a Unified Communications Folksonomy

By leveraging unified communications folksonomies within a universal collaboration strategy, organizations can deliver a more dynamic customer service experience associated with measurable business value. To do this, an organization must enable its employees to create a unified communications folksonomy, an

organizational scheme created collectively through collaboration among subject matter experts (SMEs) and other employees throughout an organization. Unlike a taxonomy, a folksonomy is not a rigid structure with a predefined set of rules and inefficient reporting processes.

A unified communications folksonomy is intended to provide better access to SME resources. A contact center agent (or any resource), for example, could use a unified communications folksonomy to incorporate experts across the business to deliver enhanced value to the customer. Contrast this to a traditional customer service strategy that is based on a legacy contact center model. Treated as a separate entity from the rest of the organization, the contact center can be inflexible in its ability to respond to the dynamic nature of customer interaction, often leaving customers feeling frustrated. Today, customers are demanding personalized service and faster resolution of issues, creating the opportunity for competitive differentiation and deeper customer loyalty.

How Folksonomies are Created

To create a folksonomy, users must collect employee data using ad hoc buddy lists for example, and store this information in a centralized place such as Microsoft® Office Communicator for easy access.

Improving Customer Service with Unified Communications Folksonomies

Universal collaboration encourages the creation of these ad hoc teams that self organize with the common goal of serving customers without having to rely on the rigid structure and rules of a formal contact center. The value delivered is concise and measurable:

- Reduced hold times, abandons, and call transfers
- Improved service through collaboration
- Increased first contact resolutions

Stage 2: Incorporating Enterprise Search

Enterprise search plays a very important role in facilitating a unified communications folksonomy and work-based social networking. It creates the ability to identify specific information across the organization and enables it to be indexed, searched, and displayed by users. Search capabilities are not limited to locating and accessing documents and files but can include employees and SME resources. This can be accomplished by introducing enterprise bookmarking and tagging as search services.

For example, if the ability existed to tag an employee as an expert in a certain field (for example, competitive, product XYZ, class action law suits, Six Sigma), then you can publish and share that tag via a corporate directory or Microsoft® Office SharePoint® site, making it easier for others to find key resources in real time. Any employee could search on the field of expertise needed and sort results by variables such as location, language, experience, or social distance (placing someone you know at the top of the list). Users could use this information to create individual, “expert” buddy lists of their favorite go-to resources in an enterprise UC client like Office Communicator.

Companies can add further value by combining the search results with a Web-based mapping application to create an “Expert Locator” mash up. The search results would show the location, availability, and communication preference of identified resources. By encouraging employee creativity in finding new ways to serve customers with speed, flexibility, and precision, companies can build deeper and more profitable customer relationships.

Stage 3: Collaborating across Trust Boundaries

The customer service process can be expanded to include employees and SME resources from a broader ecosystem of partners and suppliers. To expand beyond the formal enterprise to include the entire supply chain, companies need to collaborate across trust boundaries, traversing corporate networks, security policies, and firewalls. The traditional view that a company’s trust boundaries are limited to the four walls of its building is evolving into a more open and permeable model:

- IP and its ability to create location transparency are leading to increased mobility and dispersal of trusted employees.
- Economic forces are increasing the need to collaborate globally with business partners, consultants, and suppliers.
- The outsourcing of business processes is extending the resource pool to include contractors and external developers in emerging countries.
- Mergers and acquisitions are expanding trust boundaries.

The ability to traverse trust boundaries (which vary by company, project, and interaction) is a key component to a successful universal collaboration strategy. An organization must be able to traverse trust boundaries to effectively leverage all the resources in its ecosystem.

Stage 4: Building Enterprise Workspaces

Organizations can gain a competitive advantage by building enterprise workspaces—single, integrated locations where employees can consolidate access to a variety of business functions and tools, including communication and collaboration capabilities, directory information, and documents. They can be built around an individual employee or team, offering organizations the opportunity to harness the collective intelligence that emerges from these workspaces.

Integrating Social Networking into Enterprise Workspaces

The popularity of social networking tools like Facebook is helping drive the growth of workspaces within the enterprise. As mentioned at the beginning of this paper, business leaders are searching for ways to leverage social networks in their own organizations. This can be accomplished through the creation of personal-and team-based workspaces that are built on a software platform with characteristics similar to social networking:

- **Usability** Provide an easy-to-use graphical interface that can be customized for a user or group based on context.

- **Accessibility** Allow users to access their personal and group spaces from multiple devices and operating systems, wired or wireless.
- **Participation/Collaboration** Grant users full read/write access to the capabilities, promoting discussion, debate, and a sense of community.
- **Communication** Build a platform that supports multi-modal interactions via one-to-one, one-to-many, or many-to-many communications and leverages a full range of integrated unified communications capabilities.
- **Rich Application Development** Support a large independent development community that can actively build applications that integrate with the platform.

Microsoft Unified Communications as a Web 2.0 Platform

Personal workspaces are an essential collaborative capability necessary for creating a unified communications platform. For the personal workspace to gain wide adoption, the five social networking characteristics above need to be present, providing a user experience that follows the employee across devices, locations, and networks.

The Microsoft Unified Communications platform is ideally suited to create the personal workspace environment as a key component to realizing the business transforming value of universal collaboration in the enterprise. Like Facebook, the Microsoft platform is highly accessible and easy to use, and it enables collaborative participation and unified communications while offering the benefits of a powerful development environment. With advanced encryption and federation capabilities, Microsoft Unified Communications can also traverse trust boundaries to involve supply chain partners. This enables any member of a given ecosystem to have full access to all capabilities and functions of the personal workspace, including desktop sharing, the federation of presences and availability information, application integration, persistent group chat, and media-rich conferencing.

Microsoft Unified Communications can be positioned as a Web 2.0 platform that provides unique enterprise value in three ways:

1. **Workspace/Social Networking Platform for Personal Productivity** This approach addresses the personal workspace concept and leverages the comfortable and familiar Microsoft interface at the core of the user's experience.
2. **Platform for Creating Enterprise Mash Ups** This approach focuses on integration. Microsoft Unified Communications capabilities can be mashed up (or combined) with line of business applications and other communication systems using open APIs and Web-oriented architecture to create new value. Federation of presence with partners and suppliers can also be positioned as an ecosystem mash up that enhances the value chain by leveraging human capital.

3. **Development Platform** This approach positions the platform for communication enabling business processes and workflows through concepts like presence-enabled routing, response triggers, and notifications based on events and escalations that are driven by a familiar set of Microsoft tools like Microsoft® .NET, BizTalk® Server, Visual Studio®, and Office SharePoint® Designer.

Communication Enabling Microsoft Office SharePoint Server

Universal collaboration can bridge the gap between unified communications and collaboration silos to create a more integrated story. Many of the Web 2.0 concepts discussed in this paper also apply to Microsoft® Office SharePoint® Server. Office SharePoint Server is recognized for providing team-based workspaces as a single, integrated location where employees can efficiently collaborate with team members, find organizational resources, search for experts and corporate information, and manage content and workflow. Office SharePoint Server incorporates traditional Web 2.0 tools like blogs, wikis, RSS feeds, and some aspects of social networking.

Universal collaboration enhances the value of SharePoint by:

- Extending social networking to the individual user by incorporating the concept of personal workspaces via Microsoft® Office Communications Server.
- Supporting the Microsoft Business Search vision to “Connect people to information and experts.”
- Allowing users to find and then contact people and experts in real time so that they can leverage the knowledge within their organization to better serve customers.
- Extending search to the enterprise ecosystem across trust boundaries.

Furthermore, Universal collaboration communication enables a SharePoint environment and its associated capabilities by:

- Enabling users to take action based on search results with searchable tags created by Office SharePoint Server and Microsoft Business Search.
- Escalating a document sharing or collaboration session to real-time communication based on presence information.
- Reducing latency associated with human interaction within business process and workflows.

Embedding Unified Communications Capabilities into Business Process

Communication-enabled business processes (CEBP) can help organizations realize sustained operational efficiency and build a competitive advantage as part of business process modeling. In Web 2.0 terms, CEBP can be best described as a unified communications-business process mash up that combines two distinct business elements to create a communication-enabled super-process.

The Goal of Communication-Enabled Business Processes

The goal of CEBP is to optimize business process by reducing the human latency that exists within any given process flow. For example, human latency may impede an approval process if the employee assigned

to providing the approval is on vacation or busy working on something else. To reduce this latency, CEBP leverages unified communications capabilities by embedding them into the business process flow. The result is a more efficient, automated closed-loop process that translates into significant ROI.

If the employee in the above example does not provide the necessary approval within a designated period of time, then the communication-enabled business process would invoke a unified communications capability or service such as “notify and respond” from the unified communications platform. These embedded unified communications services would notify the employee that they need to do something. If there is still no response the notification can be automatically escalated to a manager in the same manner.

In fact, there are a number of unified communications capabilities that can be embedded within a business process to reduce human latency and create measurable business value, including on-demand conferencing, alerting, escalating, contacting resident experts, presence-based routing and more.

Many unified communications vendors claim to have adopted CEBP today due to an unclear but crucial distinction: the difference between communications *integrated* with business process and a communications-*enabled* business processes. Integration with business process is person triggered as illustrated in examples like adding a Click-to-Dial function to an ERP or CRM application. Using CEBP is a more sophisticated way to automate business processes and workflows from machine-to-machine, or machine-to-person. CEBP is usually triggered by some sort of event linked to a key performance indicator (KPI), providing a much stronger ROI across many lines of business and vertical industries.

Cloud Computing: Beyond SaaS to Software+ Services

Emerging Web 2.0 software such workspaces, instant messaging and presence, and collaboration tools are challenging traditional IT delivery models. These applications represent Web-speed innovation and commonly have several software updates/revisions a year. This is in stark contrast to the typical software update cycles of 12-18 months that IT is used to managing. Imagine the challenge this presents to an IT organization if delivered in a traditional on-premise model.

SaaS is a model of software delivery where an application is hosted as a service that users consume or access on the Internet. By eliminating the need to install and run applications on an enterprise's on-premise network, SaaS alleviates the burden of related maintenance, ongoing operation, and support. However, many enterprises have large investments in on-premise software applications or they may not want to convert all their applications to a SaaS model.

Applications like call control, voice mail, desktop operating systems and back-end software like Enterprise Resource Planning (ERP) are examples of the types of applications that an organization may want to deploy and manage on-premise. These are the types of applications that IT would consider core services with a focus on the availability, survivability, scalability and reliability. Ideally, to reap the best of both worlds, SaaS should be able to be combined with on-premise software to provide flexibility and maximize

customer investments.

Software+services combines SaaS and on-premise software to provide organizations with the best of both worlds. The true value of software+services goes beyond simply utilizing SaaS and on-premise delivery models side-by-side. The goal is to seamlessly integrate these two paradigms, where a set of unified communications and collaboration services are delivered through a seamless mix of on-premise and SaaS based applications. Software+services makes it much easier to strike a balance between the collaborative Web 2.0 applications that are built to take advantage of Web-speed innovation and the foundational applications designed as core services to deliver reliability, availability, and scalability.

Microsoft offers choice and flexibility in the delivery of its unified communications and collaboration software solutions. The Microsoft applications discussed in this white paper can all be delivered utilizing an on-premise, SaaS or software+services model, creating the ideal opportunity to link universal collaboration to sustainable business value.

Conclusion

In today's business environment, investments in unified communications technology need to do more than simply converge disparate communication systems, improve employee productivity, or show the availability of a subject matter expert. In order to gain traction, unified communications needs to support transformation initiatives horizontally across lines of business and enable the re-engineering of enterprise processes and workflows. That means evolving the the unified communications value proposition to include collaboration with the entire supply chain. The Microsoft platform is an ideal foundation for building a next generation universal collaboration strategy.