

Unified communications and collaboration solutions

White paper

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Lotus software

Extending the value of unified communications with Lotus Sametime software.

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Executive summary

To be competitive, enterprises need to deliver products and services faster, enhance customer service, and speed decision making. Companies are finding that unifying telephone communications with realtime collaboration tools and integrating these new communications capabilities into business processes can shorten cycle times and time to market. Because these new communications capabilities need to be part of a comprehensive, enterprise-wide strategy, IT and telecommunications managers are working together to identify and implement the right unified communications solutions that will both leverage and extend their existing IT and telephone systems as well as support their longer-term strategies.

The IBM Unified Communications and Collaboration (IBM UC²[™]) vision is to help enterprises become more innovative, responsive and agile by making it easy for people to find and reach each other and collaborate through a unified user experience. IBM provides the essential software, services, hardware and strategic alliances enterprises need to connect people to applications, data and one another virtually anytime, anywhere. IBM Lotus[®] Sametime[®] software includes many communications and collaboration capabilities out of the box – instant messaging (IM), presence and location awareness, VoIP voice chat and conference calls, point-to-point video, and Web conferencing capabilities. The software integrates with major office productivity suites from IBM and Microsoft as well as with enterprise applications. And it provides an open software platform that IBM Business Partners have used to develop a wide variety of telephony, videoconferencing and business application extensions to enhance the value of the Lotus Sametime software.

Highlights

IBM can help enterprises integrate telecommunications—including heterogeneous PBX environments—as part of their UC strategy to improve collaboration and business processes.

While Lotus Sametime software is designed to unify a wide variety of capabilities, this paper highlights how companies can integrate telecommunications into their existing unified communications (UC) strategy to improve collaboration and decision making and to help improve the speed and effectiveness of their business processes. The business value of unified communications is explored, and the capabilities delivered with Lotus Sametime software and IBM Business Partner extensions are described. The paper previews IBM Lotus Sametime Unified Telephony software, which is designed to streamline telephony integration for enterprises with heterogeneous PBX environments. Finally the paper describes how IBM's deep industry business process expertise and systems integration experience can help reduce risk and speed time to value for unified communications and collaboration deployments. Use this white paper to help plan your next steps in developing and implementing a UC strategy.

The goal: leveraging IT and telephony assets to improve collaboration and business processes

The convergence of voice, video and data on IP networks is fundamentally transforming the way people work. Companies of all sizes and in many industries are finding that the key to improving productivity and business responsiveness is delivering communication and collaboration tools in a consistent and meaningful way—from within a specific business application or from within the context of the business problem or opportunity. Here are some examples in a variety of industries and applications.

“The great promise of UC is that it will enable communication with experts and decision-makers in order to facilitate the resolution of business issues when, where, and by whatever means is best suited to achieving the task at hand.”

—Source: Forrester Research, *Top Unified Communications Predictions for 2008*, Henry Dewing, Ellen Daley and April Lawson, February 20, 2008.

Having access to experts fast can help a bank teller—or just about any other customer-facing employee—provide better and faster customer service, which can lead to greater customer loyalty and increased sales in the branch offices. In a branch bank scenario, a teller has the opportunity to talk to a customer about specialized banking products or services—such as a mortgage or a certificate of deposit. Because the teller is not a specialist on all the bank offerings, she needs to identify the experts on the product and determine who is available for a consultation. With unified communications and collaboration, the experts’ availability is displayed right in the teller’s workspace, and the teller consults them either via a text chat (with IM) or a voice chat initiated with a simple click-to-call or click-to-conference. Call management software can then direct the call to the preferred communication device of each expert. With these capabilities, the teller can collaborate easily with the right expert at the right time to help improve customer service and to sell more banking products. And these capabilities also have the potential to provide savings in long-distance telephony costs from the branch office to the specialists.

In an insurance scenario, a property and casualty insurance company can realize significant business benefits from integrating underwriting and claims business processes more tightly with its network of independent agents. Unified communications and collaboration technologies can help improve the quality of the work performed, streamline and speed the processes, and make the company easier to do business with—which can give the company a competitive edge with agents and with customers. In underwriting, when presence awareness is added to an extranet portal application, agents can see which underwriters are online and available to respond to specific customer policy questions—in realtime. An agent can use text chat or VoIP voice chat with the underwriter to ask questions and clarify outstanding issues to speed the underwriting process. In claims processing, linking audio and video communications from field agents to claims specialists can help reduce the time to process the claim, which can contribute to both agent and customer satisfaction and an accurate, lower settlement paid. In both cases, there may also be cost savings from avoiding phone calls and from being able to support the same volume of business with fewer staff.

Highlights

Unified communications and collaboration capabilities can help speed business processes by enabling personal interaction in the context of business applications.

In a healthcare scenario, medical professionals can use unified communications and collaboration solutions to quickly find experts based on location and topic and to collaboratively review the digital results of an X-ray, magnetic resonance imaging (MRI) or other radiological procedure. This can help speed a diagnosis to provide the best possible patient care. When urgent care is required, a radiologist can immediately find and call the referring physician by clicking on the referring physician's name within the medical application and initiate a remote consultation whether the physician is in the hospital, in a medical office or on a cell phone. Users can share computer screens in realtime, highlighting key parts of an image to collaborate on a diagnosis.

Unified communications and collaboration capabilities, when applied across industries, can be used to improve virtually all types of business processes, including product development, sales execution, emergency response and customer support. They can help speed standard business processes by handling the process exceptions that require personal interaction.

And beyond improvements to your business processes, a UC strategy can also help reduce IT, operating and support costs. In fact, through its own unified communications and collaboration strategy, IBM has realized significant savings in phone costs (through the use of IM) and in travel costs (through the use of Web conferencing).

Highlights

Lotus Sametime software is platform-agnostic and can integrate with business applications and office productivity suites from IBM and Microsoft.

Unified communications support with IBM Lotus Sametime software and IBM services

IBM has the software, services, hardware and strategic alliances that can help enterprises build effective business communications systems using UC capabilities that deliver a common, familiar user interface and that leverage existing IT and telephony systems.

The IBM UC² vision is to help clients become much more innovative, responsive and agile by making it easy for people to find, reach and collaborate through a unified user experience. IBM helps enable unified communications and collaboration scenarios by providing an open software platform and communications services and by teaming with industry leaders in networking and communications. IBM is exceptional in providing both the software and services that help integrate presence; IM; e-mail; unified messaging; telephony; and Web conferencing, audio conferencing and videoconferencing with business processes and applications across multivendor environments.

The Lotus Sametime family of products—the core software platform of the IBM UC² strategy—provides award-winning enterprise IM and Web conferencing capabilities as well as built-in VoIP and video. Lotus Sametime Standard software provides out-of-the-box capabilities for voice chat for up to five users and point-to-point video for two people when visual communication is essential. In addition, Lotus Sametime software provides access to a variety of mobile devices and is designed to connect to external public IM systems securely. The software is platform-agnostic and allows enterprises to choose Microsoft® Windows®, Linux® or Apple Macintosh operating systems for their desktops, and either Windows, Linux, IBM AIX®, Sun Solaris or IBM System i™ software for their servers. And it is designed to integrate with business applications built by other vendors and within major office productivity suites, including Microsoft Office, Microsoft Outlook, Microsoft Exchange and IBM Lotus Notes® software. In fact, IBM estimates that in 2007, nearly one-third of new Lotus Sametime clients were Microsoft Outlook users. In addition, Lotus Sametime software supports multiple Lightweight Directory Access Protocol (LDAP) directories (including offerings from IBM, Microsoft and Sun), which allows an enterprise to maintain the infrastructure that makes the most sense for the business.

Highlights

Lotus Sametime software provides an open, extensible Eclipse-based platform, a toolkit and a service provider interface for developers.

Lotus Sametime software is designed to provide flexibility and choice for enterprises, IBM Business Partners and other developers to extend Lotus Sametime software's native functionality. Lotus Sametime software includes comprehensive software development toolkits (SDKs) to embed realtime capabilities, including presence, IM and telephony capabilities, into business applications such as e-commerce sites, portals, help desks, and enterprise applications such as salesforce automation. Vendors can use the Lotus Sametime Telephony Conferencing Service Provider Interface (TCSPI) toolkit to integrate with a wide variety of Session Initiation Protocol (SIP) or legacy PBXs, audio conferencing bridges and videoconferencing solutions. For example, telephony service providers can use the TCSPI toolkit to create server-side plug-ins that enable them to hook into their back-end PBX systems to provide telephone call management and audio controls. The features (e.g., click-to-call) are surfaced in the Lotus Sametime client – without the need for the deployment of additional client-side components – which helps ensure a consistent user experience, whether using integration software from IBM or from IBM Business Partners. The Lotus Sametime Standard user interface (UI) elements for telephony, such as softphone UI elements and aggregated presence, can be used by partners and developers. Developers and IBM Business Partners can also use the Lotus Sametime Standard application programming interface (API) to push telephony presence from their PBXs to the Lotus Sametime presence server, allowing telephony presence to be viewable in the client.

Developers can also build plug-ins to the IBM Lotus Sametime Connect client, which is built on an open, extensible Eclipse* architecture. The Eclipse platform is an open software framework and development platform for creating platform-independent, rich-client applications. A variety of extensions is provided in the Lotus Sametime Standard client to facilitate access to information that developers will need to readily extend the behavior of the Lotus Sametime client. As a result, developers can focus on leveraging their specific business or industry expertise to build plug-ins that, for example, allow users to access voicemail, access audio conferencing systems and initiate multiparty videoconferencing from within the Lotus Sametime client.

Highlights

A rich ecosystem of IBM Business Partners offers UC extensions to Lotus Sametime software.

IBM Business Partners offer telephony extensions for Lotus Sametime software

To support and surround the IBM product strategy, IBM plans to continue to invest extensively in building a rich ecosystem of IBM Business Partners including telephony, audio, video, integrated accessories (e.g., VoIP headsets, cameras, other SIP end points), IM compliance and management, value-added resellers (VARs) and value-added distributors (VADs), systems integrators, and a wide variety of independent software vendors (ISVs) that deliver industry, vertical and horizontal applications (e.g., workflow, enterprise resource planning [ERP], product lifecycle management, healthcare). IBM has more than 100 IBM Business Partners building solutions for Lotus Sametime software today. Many of these are free of charge in the Lotus Sametime plug-in catalog.



Figure 1. The April 2008 snapshot of the ecosystem of IBM Business Partners offering unified communications extensions to Lotus Sametime software

Highlights

Lotus Sametime software offers a variety of features through integration with leading telephony and audio/video solution providers.

Leading providers of telephony and audio/video solutions currently deliver these integrated capabilities for Lotus Sametime software:

- *Click-to-call and call management capabilities. Users can select one or multiple names from the contact list and initiate a call. Users can also receive alerts for incoming calls; take action (for example, redirect to a mobile phone); and view incoming, outgoing and missed calls—all from one desktop.*
- *Aggregated telephony presence. Users can see whether a contact is currently on the phone or available.*
- *Click-to-conference and Web conferencing integration. Users can select one or multiple names from the contact list and initiate a conference call. They can also click a button to have the audio feature call them to join a Web conference. The integration can also provide Web conference moderators with sophisticated controls.*
- *Multimedia conferencing plug-ins on the client. Users can launch an audio conferencing or videoconferencing session with one or more participants.*
- *Unified messaging plug-ins on the client. Users can receive voicemails and then replay, delete or forward them from within their Lotus Notes or Lotus Sametime client.*

IBM also delivers an integrated, single-server unified communication and collaboration solution that combines IP telephony provided by Nortel and 3Com, Lotus Sametime software and custom plug-ins for telephony integration on IBM System i and IBM Power™ Systems. Targeting small to midsize businesses (SMB) and branch offices, these solutions are available from IBM and our Business Partner channel.

“IBM’s communications tools will enable real-time discussion between medical professionals both inside and outside of the radiology department, which can lead to quicker diagnosis and communication of critical results for an overall improvement in patient care.”

*—Michael W. Jackman, President,
Healthcare Information Solutions,
Carestream Health*

Leading ISVs, such as Carestream Health, are also taking advantage of the open and extensible client and APIs available from IBM to create custom solutions that integrate UC capabilities. Carestream Health is integrating Lotus Sametime software within its radiology solutions, facilitating rapid communication, including IM and VoIP interactions between radiologists and other medical professionals.

IBM plans for Lotus Sametime Unified Telephony software

From a line-of-business perspective, integrating telephony as part of a company’s UC platform can help improve business processes by improving collaboration and speeding decision making. However, the telephony environment to be integrated may include tens or even hundreds of telephone systems as a result of decentralized decisions—in divisions, countries or branch offices or through acquired companies. Therefore, when implementing unified communications systems, IT and network managers are looking for solutions that can leverage and extend these different, mixed, multivendor communication systems.

To meet this need, IBM plans to expand the Lotus Sametime family with IBM Lotus Sametime Unified Telephony software, which is planned for availability as an add-on offering—to IBM Lotus Sametime Standard or IBM Lotus Sametime Advanced software—later in 2008. The software is being designed to deliver in two key areas. On the front end, it will help enable a unified user experience, including an integrated softphone, integrated presence awareness and call management. On the back end, it serves as a middleware layer to simplify connecting into multiple PBX systems and audio conferencing systems.

Highlights

Telephony functions—including aggregated IM and telephony presence information as well as incoming call management—can be easily accessed in the Lotus Sametime client.

The front-end user capabilities planned for Lotus Sametime Unified Telephony software are designed to be intuitive and to make it easy for users to access telephony functionality from within the Lotus Sametime client:

- ***Softphone.*** Users can initiate and manage phone calls through their PC microphone and speakers using the Lotus Sametime Unified Telephony embedded softphone.
- ***Click-to-call, click-to-conference.*** Select one or multiple names from the contact list and initiate a call or audio conference through a PBX.
- ***Availability/telephony presence.*** At a glance, users can see telephone status (e.g., on the phone, off the phone) along with online presence status (e.g., available, away, in a meeting, do not disturb), making it easy to know whether it is appropriate to initiate a realtime conversation.
- ***Incoming call management.*** Users can have a single, unified phone number that allows calls to be routed automatically to virtually any device in almost any location. Users can easily set rules and preferences for where their calls will go and take action (for example, redirect to a mobile phone). And because Lotus Sametime software has presence and location awareness, Lotus Sametime Unified Telephony software can automatically set the preferred device based on the user's availability and location status.
- ***Unified user experience.*** The same set of functionality and user experience can be delivered to users independent of what type of phone system they are connected to. In addition, Lotus Sametime and Lotus Sametime Unified Telephony software allow communication and collaboration services to be inserted into the familiar desktop applications users already work in every day—like e-mail or business applications such as SAP systems. Users can access and manage their communications from inside a Lotus Sametime or a Lotus Notes client or a Microsoft Outlook or Microsoft Office application. This reduces the need for extensive training or separate deployment. Users can see whether the person is online and available, and they can click-to-collaborate through an instant message or a live phone call.

Highlights

There are several options within the Lotus Sametime client to easily find and reach colleagues, customers, business partners and vendors.

From a user's perspective, Lotus Sametime Unified Telephony software provides a unified user experience that combines the immediacy of IM with telephone capabilities—right on the user's desktop. Essentially, a contact list has everyone on speed dial. Users can see whether colleagues are available and reach them more reliably and effectively without having to look up their numbers—from just about anywhere. And people can reach the users more effectively, even if they are on the move.

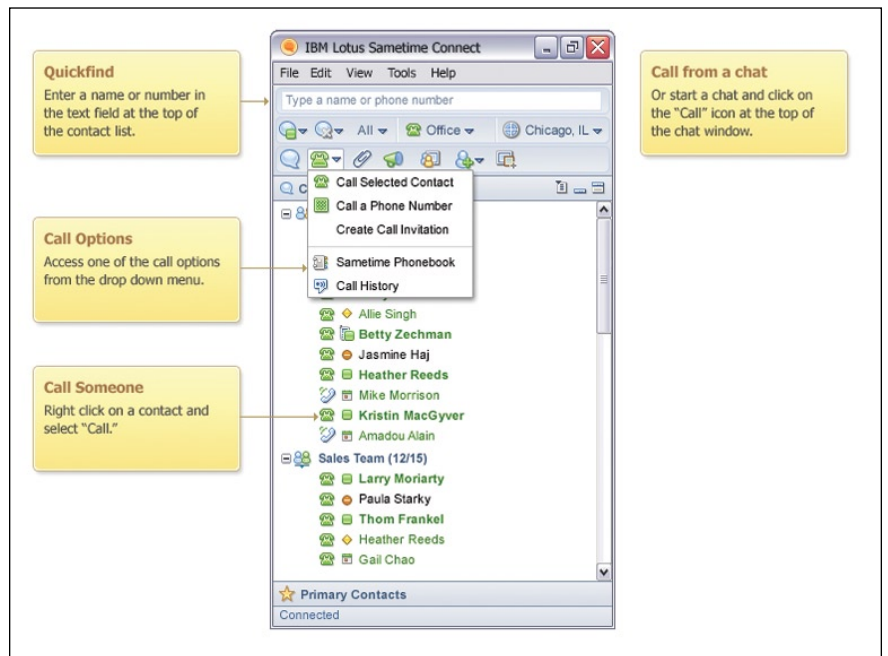


Figure 2. Whether they're inside or outside the company, people on a buddy list can be easily contacted in numerous ways.

Highlights

***Lotus Sametime Unified Telephony
middleware integrates multivendor
telephone systems—including
IP PBX systems and legacy
TDM systems.***

To support the client functionality, the back-end middleware layer in Lotus Sametime Unified Telephony software will provide connectivity to multiple telephone systems (both IP PBX and legacy time-division multiplexing [TDM] phone systems) while delivering the same rich set of capabilities for supported users through one client, independent of which telephone system users access. The middleware enables companies—even if they have not completed a migration to IP telephony—to deliver the value of unified communications to virtually all users. This is in contrast to other offerings that require multiple clients for softphones or that provide desktop access to telephone features that only work with a specific vendor's PBX or that require a full migration to IP telephony before delivering a common set of UC capabilities to users.

Implementing unified communications and collaboration solutions

The complexities of integrating multiple vendor environments that these technologies bring to an organization can present challenges for deployment. IBM's deep industry business process expertise, ROI methodologies and systems integration experience can help speed the successful planning and deployment of unified communications and collaboration. IBM Global Technology Services offers significant experience in telephony and a variety of converged communications services: converged networks, IP telephony, unified messaging, collaboration, video communication, IP contact center and IPTV. These planning, design, integration and implementation services can help speed the time to value and increase the reliability of your communications investments.

Highlights

IBM Global Technology Services has the skills, relationships, solutions and experience to help you plan and deploy unified communications and collaboration solutions.

IBM provides a suite of services that have already been proven to speed deployment of the IBM Lotus Sametime platform with other systems you may have. So you can accelerate your unified communications and collaboration project – from installation and integration to culture-change requirements.

IBM's leadership comes from extensive hands-on experience. With operations in more than 160 countries worldwide, IBM has proven competency in managing large-scale, geographically dispersed projects. IBM has helped transform business communications for hundreds of clients worldwide. In addition, IBM Global Technology Services planned and implemented a global unified communications and collaboration deployment of Lotus Notes and Lotus Sametime software and Web conferencing services within IBM. The deployment includes more than 100,000 devices running VoIP.

IBM Global Technology Services has relationships with skilled practitioners who can offer services around solutions built with the leading vendors in telephony, audio conferencing and videoconferencing, including Avaya, Avistar, Cisco, Juniper Networks, Nortel, Polycom, RADVISION, Siemens and TANDBERG. For clients who prefer working with one vendor, IBM can be a single-source provider for the IBM technology, vendor technologies and integration services. A wide range of IBM Business Partners also provide Lotus Sametime implementation services.

Regardless of the makeup of your existing environment or where you are in a migration to IP telephony, these services can help you reduce risk and speed the time to value.

Highlights

IBM software, hardware, services and strategic alliances can help enterprises leverage their telephony infrastructure and deliver business value from unified communications and collaboration solutions.

Summary

Unifying telephone communications with realtime collaboration tools and integrating these new communications and collaboration capabilities into business processes can help enterprises build more competitive business models, improve the speed and efficiency of business processes, reduce cycle times, and improve customer service.

IBM Lotus Sametime Unified Telephony software can help enterprises extract more value from existing investments in telephony infrastructure (both VoIP and legacy systems) and communications and collaboration solutions. The software is designed to provide connectivity to multiple, multivendor telephone systems and to deliver a unified user experience that includes the same rich set of capabilities—including integrated presence awareness and call management—to supported users independent of which telephone system the users access.

IBM is exceptionally positioned with its deep integration expertise, open software platform, single-server IP telephony solutions for SMBs and extensive IBM Business Partner ecosystem to help enterprises implement unified communications and collaboration solutions that help people easily find and reach each other and collaborate to deliver business value.



For more information

To learn more about the IBM UC² strategy, visit:

ibm.com/lotus/uc2

To learn more about the IBM Lotus Sametime family of products – including Lotus Sametime Unified Telephony software – contact your IBM representative or IBM Business Partner, or visit:

ibm.com/lotus/sametime

To learn more about IBM Converged Communications Services, contact your IBM representative or visit:

ibm.com/services/integrated

To learn more about System i IP telephony solutions, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/systems/i/solutions/iptelephony

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* The Eclipse foundation is an open source community committed to implementation of a universal development platform.