



Microsoft Office Real-Time Collaboration: Instant Communication for Your Organization

Microsoft Corporation

Abstract

Innovative organizations continually look for ways to streamline communication and collaboration while maximizing resources. From instant messaging and rich presence to online meetings, real-time communication and collaboration is becoming a required part of corporate life. However, conducting such communications easily, securely, and reliably has, until recently, been a challenge. Some companies incorporated instant messaging solutions intended for consumer use, and many of the available Web conferencing solutions were cumbersome, making it difficult for people to attend. Microsoft provides robust real-time collaboration solutions built for the enterprise. Microsoft® Office Live Communications Server 2005 with the Microsoft® Office Communicator client provides organizations with encrypted, authenticated instant messaging while supporting the logging and archiving required by policy or regulations. Microsoft® Office Live Meeting offers a scalable, easy-to-use, Web conferencing solution for presentations or working meetings. Together, Microsoft Office real-time collaboration solutions provide the foundation that enable a company to meet today's communication and collaboration needs.

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1. What Is Real-Time Collaboration?

Real-time collaboration (RTC) consists of communication modes such as instant messaging (IM), Web conferencing, Voice over Internet Protocol (VoIP), and presence functionality that enable people to communicate instantly through the computer. Instant messaging is the ability to transfer text messages in real time over an Internet Protocol (IP) network such as the Internet or a corporate network, and presence awareness enables an employee to detect another user's availability on one or more devices. These capabilities enhance productivity across an organization, providing immediate access to information and people, integrated communications, and collaborative work spaces.

Instant messaging has spread from the consumer arena to the workplace. It now is gaining in importance as a means of communication and collaboration not only within the enterprise but also among the enterprise's suppliers, customers, outsourcing vendors, and other partners.

Web conferencing enables organizations to meet, present, train, and collaborate in real time and at a moment's notice. It helps businesses communicate with more people, more often, and more effectively without the time and cost of travel.

Communication and Collaboration Challenges

Today's information workers are not necessarily across the hall or around the corner from each other. Instead, companies have offices, partners, and customers around the world. Conducting meetings and efficiently communicating within this global marketplace often represents a logistical and financial burden, yet organizations increasingly want to reach new audiences or take advantage of expertise beyond geographical boundaries. Many organizations are expected to deliver comprehensive products or services that require them to rely on a global network of partners and suppliers with whom they must work closely in order to meet business demands.

The inability to communicate effectively can result in project delays, increased travel and communications costs, uninformed decision-making, and a loss of productivity for individuals and teams.

The Need for Speed as a Competitive Differentiator

Time has become one of our most precious commodities. There's a growing expectation that business will take place quickly, regardless of different locations, time zones, and organizational boundaries. Companies are under pressure to solve problems quickly in order to reduce time-to-market for new products and services, thereby gaining a competitive edge and increasing profits. An organization will stand out if customers, vendors, and partners can reach the people they need and receive answers to their questions in a timely manner. Opening new lines of communication and conveying important information to coworkers, customers, and partners in a low-hassle, time-efficient manner has become critical to success in the marketplace.

Lack of Workforce Productivity

Training, negotiations, and project collaboration are often challenging. It may be ideal to assemble all stakeholders in a room, but what if they are in different cities, or even on different continents? Participating in person requires employees to spend time getting to and from a meeting, which can diminish the time they have to accomplish their work. Sharing documents

through e-mail is an option, but it can lead to version control issues and delays as a document is passed through e-mail from one reviewer to the next.

Particularly for large organizations, finding the right person to answer questions can be extremely time-consuming. Making a phone call might resolve the issue, but the right contact may be away from the office or involved in a critical task, making a phone call an unwanted interruption. Voice mail and e-mail messages do work, but they do not necessarily indicate the message was received, and it is difficult to know when to expect a response.

To foster efficient collaboration within the workforce, organizations need a way to streamline both one-to-one and one-to-many communications, giving employees access to the information they need, when they need it. Employees can be more effective when they can see instantly who is available to answer questions or to work together on projects and issues, and they can make the most of their time when they have a way to share information with many people at once. Companies can enhance overall productivity levels by providing new means of communication that facilitate rich interactions, faster achievement of project goals, and better decision-making.

Difficulty Reaching Customers, Partners, and Suppliers

It is hard to connect with people outside a corporation—be they customers, prospects, partners, or suppliers—as frequently, deeply, and quickly as most companies would like. A lack of interaction can result in reduced sales, less customer loyalty, and, ultimately, lower profitability for the organization.

Whether it is a quick product-pricing update or a global sales presentation, effective communication with those outside the company is essential. It is hard for a company to encourage strong relationships if it lacks the ability to exchange vital information and share ideas immediately. Yet how does one go about reaching contacts instantly and securely across both firewalls and time zones?

Inefficient Use of Company Resources

Time is money. Business travel not only can waste valuable work hours, it also can consume financial resources that might be better spent in a more strategic way. Traveling to demonstrate a product or service to a single potential customer or leaving at the last minute to help a colleague deal with an unexpected problem can be expensive in terms of opportunity cost and actual dollars spent.

More and more companies are recognizing the benefits of virtual collaboration because traveling to work together in person is pricey. However, relying on the telephone as the primary means of communication often results in hefty charges. Increasingly aware of the bottom line, organizations frequently look for more cost-effective means of communication and collaboration across all boundaries. But the new methods must be more than just inexpensive; they have to be fully accessible and user-friendly, and they should not trigger extra costs such as additional IT support or staff requirements.

Microsoft Office Real-Time Collaboration Solutions

A Microsoft real-time collaboration system delivers interoperability with the Microsoft Office System, Microsoft Windows Server™ 2003 operating system, and line-of-business applications.

Microsoft Office Live Meeting is a hosted Web conferencing service that enables people to communicate and collaborate with anyone, anywhere, using a PC and an Internet connection. From small collaborative meetings to large-scale presentations, Live Meeting supports a variety of online presentation and meeting uses. It provides unique interactive tools, integrates with existing systems and productivity applications, and incorporates an easy-to-use interface that improves remote collaboration and enables effective meetings for companies of all sizes.



Figure 1: A presentation using Live Meeting

Live Meeting also provides Web conferencing with the security, reliability, and scalability that lets meeting participants concentrate on communicating and collaborating rather than worrying about technology. With nothing to deploy, the Live Meeting intuitive interface allows customers to use Live Meeting effectively from the first time they log on.

Microsoft Office Live Communications Server 2005 provides a powerful, scalable, enterprise-grade, instant-messaging and integrated presence solution. Live Communications Server also supports peer-to-peer audio, video, application-sharing, and data collaboration, instantly accelerating the workflow of today's information workers. The new advances in Live Communications Server 2005 allow people to communicate across firewalls with the same enterprise-grade benefits as internal-only conversations enjoyed in previous versions. Workers

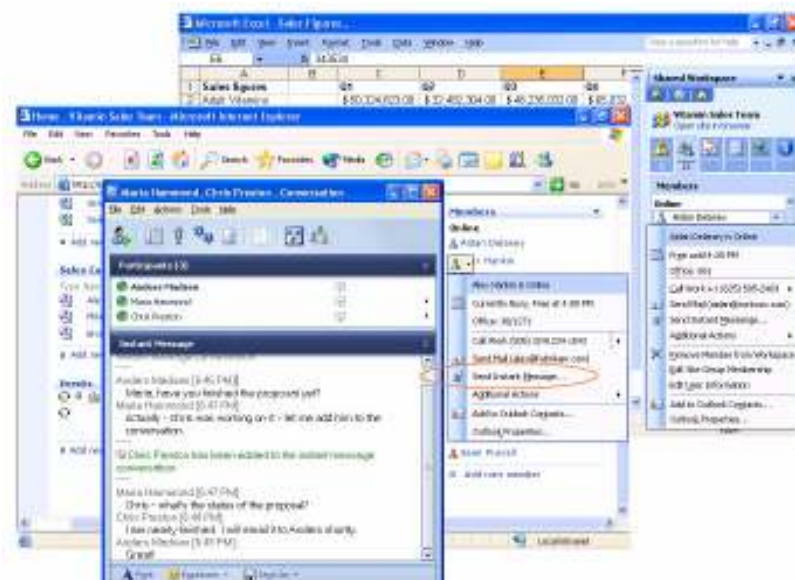


Figure 2: Instant messaging with Live Communications Server and Communicator

can also log in to their IM interface from remote locations using a simple Internet connection and their Live Communications Server-compatible IM client. These specific, real-time communications capabilities immediately increase the productivity of team members regardless of their location.

Microsoft Office Communicator 2005, the recommended client for Microsoft Office Live

Communications Server 2005, is an enterprise messenger client that provides integrated communications capabilities, including instant messaging and extensible presence. It also provides integration with enterprise telephony systems, allowing users to control their enterprise phones directly from their computers to initiate calls and even divert calls to a remote location when they are not at their desks.

Communicator enables better decisions about how and when to communicate with someone, decreases the turnaround time to reach customers and suppliers, and provides different communications options to make immediate contact. The telephony features of Communicator require an appropriate Private Branch Exchange (PBX) or Public Switched Telephone Networks (PSTN) gateway infrastructure to be in place.

Benefits of Real-Time Collaboration

Microsoft® Office real-time collaboration servers and services—Live Communications Server 2005, Communicator 2005, and Live Meeting—connect people and information in real time, using instant messaging, Web/data conferencing, audio and video collaboration, and integrated rich presence functionality, which shows users if someone is online and available to communicate.

These solutions offer significant benefits to organizations, including increased individual and team productivity, fostering of collaboration, improved relationships, enhanced security, and enterprise-class scalability. By granting instant access to team members, partners, suppliers, and customers across geographies, time zones, and organizational boundaries, timely information can flow rapidly and efficiently. Organizations can improve team results by using real-time collaboration to share ideas and information faster and more effectively. Quickly resolving issues directly equates to lower expenses and accelerated business decisions.

Enhanced Work Force Productivity

Real-time collaboration enhances work force productivity by eliminating communications delays and providing rich information-sharing capabilities. The improved flow and exchange of information enables teams and individuals to execute their work more efficiently. By substituting Web/data conferencing and audio and video collaboration for face-to-face meetings with customers, partners, suppliers, or other employees, businesses avoid lost productivity due to travel and are able to improve key business metrics. Productivity also is enhanced by improving business processes and communications using real-time collaboration solutions because they allow teams to meet more frequently, resulting in quicker problem resolution and improved information sharing.

Cost Savings

Organizations that deploy Microsoft Office real-time solutions have experienced a measurable impact on their business processes—

“By supplementing face-to-face meetings with Live Meeting for remote users, we believe that we will see a 500 percent return on the money we spend on the service once we fully maximize its use. Also, 7-Eleven has only just begun making the Web conferences available to its Canadian regional offices. In Canada, we have stores that are more than a day’s drive from the regional office. We expect that providing Web conference access for those field consultants will be a huge win.”

Lori Albers-Coates
Operations Systems Analyst
7-Eleven

and, ultimately, their bottom line—through faster responses, increased accessibility, and improved decision-making and information sharing. Avoiding travel expenses is just the beginning of the potential cost savings of using these products. For online meetings, training, or events, Live Meeting is the effective meeting solution that enables people to collaborate with groups of two or of thousands—without leaving their desks. With everyone participating from their PCs, employees can kick off a project, brainstorm ideas, edit files, collaborate on whiteboards, or negotiate deals at a fraction of the cost and hassle of travel.

Live Communications Server and Communicator help companies reduce their long-distance and international telephone bills because employees can make immediate contact using several different communication modes.

Business Agility

The comprehensive Web conferencing, instant messaging, and rich presence functions available with a Microsoft real-time collaboration solution provides a faster way to resolve business issues in today's workplace. These capabilities integrate smoothly with the desktop applications—and even the telephone—that already are used by many companies. Familiar interfaces mean less training is necessary, and having an integrated suite of communications tools increases users' responsiveness. Because organizations can use instant messaging for fast information exchange and Live Meeting Web conferencing for regular or ad hoc meetings, people can make more informed decisions more quickly, which often leads to shorter project durations and increased profits.

Fostering Collaboration and Improved Relationships

From managing customer relationships and sales presentations to handling internal IT support and product procurement, corporations can facilitate collaboration and advance relationships by staying in close touch. Live Meeting provides employees with an easy-to-use venue for sharing information with and conducting demonstrations and training for a range of internal and external participants. Live Communications Server improves business efficiencies across organizational boundaries by extending IM and other real-time communication capabilities to trusted partners, customers, and suppliers. With the addition of public IM connectivity, these capabilities can also be extended to users of public IM services including MSN® Messenger, AOL® Instant Messenger™, and Yahoo!® Messenger.

2. Interactive, Integrated Solutions

Unlike traditional customer interaction methods, real-time collaboration enables organizations to connect to customers quickly and effectively, regardless of location, through a range of options—including text, video, voice, audio, and data collaboration. By equipping employees with enterprise-wide solutions, managers can get better results because teams can rapidly and effectively share ideas and information. And companies can have more frequent, meaningful dialogue with their customers.

Integration with Related Technology

In contrast to the stand-alone nature of other available applications, the integrated, unified, real-time collaboration solutions from Microsoft foster streamlined communications and enhance team productivity. These options are visible in everyday business programs such as Microsoft Office Outlook® 2003, Microsoft Office Word 2003, Microsoft Office Excel® 2003, Microsoft Office PowerPoint® 2003, Microsoft Windows® SharePoint® Services and Microsoft SharePoint® Portal Server. The integration and familiar interfaces of Microsoft's real-time collaboration solutions dramatically reduce the learning curve for users and give teams immediate access to a full suite of interactivity tools.

Live Meeting Integration

Users can initiate Live Meeting sessions from Microsoft Office System programs such as Outlook, Word, Excel, PowerPoint, Project, and Visio®, or from IM applications including Microsoft Office Communicator and Microsoft MSN Messenger. Team members can use Outlook to schedule meetings (even when offline) and invite presenters and attendees with separate invitations that automatically include audio conference information in every meeting invitation.

Through integration with existing systems, companies can use Live Meeting to collaborate in a convenient online meeting, presentation, or training environment. From setup and preparation to meeting management and follow-up, Live Meeting provides a streamlined environment for Web conferencing. For instance, when using Live Meeting, presenters can take advantage of the full capabilities of PowerPoint 2003 presentations, with high-resolution support for all types of animations and slide transitions that allow presentations to flow as intended. Presenters also can immediately share any printable document for online review or editing. With the high-resolution Document Viewer, participants can zoom in and out without loss of quality to text or graphics.

BT Conferencing, InterCall, and MCI audio customers can control audio conference calls from within Live Meeting, which provides the ability to dial out directly to participants, mute or unmute participants' phone lines, eject participants, or lock the meeting. Additionally, as an alternative to audio conferencing, Internet Audio Broadcast enables presenters to stream audio over the Internet so participants need only the speakers on their computers to participate.

“We use instant messaging whether we're buried in a pricing spreadsheet or working on a presentation. It is a tremendous time saver to be able to keep focus on a particular topic while sharing that information in real time.”

Tracey Reuck
Senior Infrastructure Consultant
Weyerhaeuser Company

Presence Awareness in the Microsoft Office System

Live Communications Server provides presence awareness within the Microsoft Office System programs. Users can see contacts inside and outside of the organization, identify who is online, and immediately contact them—or even start a Live Meeting—thereby increasing the likelihood that the intended communication will yield positive results. If an employee notices that three key people are available for an ad hoc discussion, that employee can call a Live Meeting session to get fast resolution to issues.

“Collaboration is a key business driver in Lockheed Martin. Having IM and presence capabilities integrated within our existing enterprise infrastructure was very appealing. For Lockheed, Live Communications Server has simplified basic daily collaboration activities for highly dispersed teams.”

Massimo Villinger
Chief Technology Officer
Lockheed Martin

Presence icons automatically appear next to people’s names in a number of Microsoft products that use shared workspaces, and they can be integrated into other programs such as enterprise line-of-business applications. All it takes is a single mouse-click on an icon for users to discover document authors, contributors, reviewers, or others who may be a good source of follow-up information. Making information available within other applications supports communication and collaboration in the context of a task or workflow. Microsoft Office Communicator provides the ability to tag key contacts; users are alerted only when select people become available, minimizing random interruptions.

The presence icons make it clear when colleagues can be reached, so users immediately can get answers to their questions and begin collaborating in real time on spreadsheets, documents, and other files—without ever leaving a particular task. When they are provided with this key information, users can make more-informed decisions on how best to interact with contacts.

Fast Access to People and Information

Communicator extends the traditional boundaries of the enterprise and enables faster reactions throughout the supply and value chains. Users can collaborate with business partners and other organizations as easily as with their coworkers while protecting sensitive business information through the federation capabilities of Live Communications Server (see “Federation” below). With Communicator, contact consists of back-and-forth dialogue through instant messaging—similar to e-mail, but in real time. Also, Communicator offers one-to-one video and voice communication capabilities that enable rich interactions beyond IM conversations.

“Using Live Meeting, we’ve certainly saved on our travel costs, and we’ve definitely more than justified the purchase price. But the other thing is, we’re now able to work in more detail when we’re apart. With [Live Meeting], we can meet more frequently, and I think it has really allowed us to accelerate our projects.”

Lee Allen
Manager, eBusiness Operations
Honeywell

Workers in and out of meetings find instant messaging to be an effective tool to accelerate getting answers and making decisions. Used in meetings, participants can contact colleagues outside the meeting without leaving or disrupting the meeting, and they can resolve issues and get answers before the meeting ends. Out of meetings, faster answers shorten decision cycles, accelerate projects, and reduce the turnaround time for tasks.

Live Meeting also contributes to workforce agility in that it enables organizations to hold effective meetings with geographically dispersed employees or customers with or without notice, rather than having to plan in-person meetings well in advance. This means that meetings can occur more often, whenever an issue arises that requires teamwork to resolve.

Live Meeting supports two-way communication through interactive tools that encourage audience participation. For example, the Real-Time Polls feature gives presenters the option of asking multiple-choice questions of attendees, who respond in real time. If attendees submit typed questions within Live Meeting, the Question Manager enables any of the presenters to view and respond to them by replying either to individuals or to all participants. Other interactive tools include Mood Indicator, Chat, Annotations, Text Slide, and Web Slide.

Sometimes, perhaps during a large-scale sales or training session, companies want a more one-sided presentation with less interaction. In those cases, presenters can take advantage of the Audio Conference Call Controls in Live Meeting to lock the meeting or control audio participation.

“At least four or five times each day, I share PowerPoint documents with others. Together, we’re able to make real progress by collaborating on a single document.”

Rich Strong
Senior IT Architect
Aliant

Project Collaboration

Instant messaging, Web conferencing, and presence awareness eliminate the distance barriers of geographically dispersed project groups and enable them to deliver better results in a shorter amount of time.

Microsoft Office Communicator supports one-to-one as well as multiparty IM conversations that can include up to 32 participants. When text messaging is not sufficient, users can immediately initiate an audio or video conversation through their computers. With Live Communications Server and partner solutions for

telephony integration, Microsoft Office Communicator supports several enterprise telephony scenarios, including call control, call intercept, and presence-enabled call forwarding. And Communicator can integrate with PSTN-conferencing service providers, so a user can go from a multiparty IM conversation to a PSTN-based conference call with the click of a button.

Real-time instant messaging is further enhanced by the rich information-sharing capabilities of Communicator. The Whiteboard functionality enables users to write as they would on a physical whiteboard and also paste in content from other applications. Control of the whiteboard can be passed to other participants in the conversation. Users also can share the application in which they are working or transfer files in the same way they attach files to e-mail messages, without breaking the conversation.

Interactive tools such as the Whiteboard are included in Live Meeting as well. Web conference attendees can draw, annotate, and type simultaneously on a whiteboard or text slide while attendees watch in real time, thus achieving the natural interactivity of an in-person meeting. Unlike in-person meetings, the virtual meeting room in Live Meeting retains all meeting-related documentation, complete with annotations and edits, so the information can be referenced long after the meeting has finished.

Federation

Although in some instances it is crucial for organizations to share a standard set of technology tools, it isn't always feasible. Microsoft RTC technologies facilitate real-time communications for *anyone* who has an Internet connection or a phone. The ability to establish instant messaging between organizations—known as *federation*—is a unique and critical driver of business value of Live Communications Server. Federation enables users from separate companies to add each other to contact lists, see each other's availability through presence functionality, and send instant messages to each other across firewalls, just as easily as if they were part of the same company.

With federation, different organizations can share authenticated, encrypted, and logged instant-messaging and presence information; therefore, collaboration can take place securely among suppliers, customers, partners, and different divisions of the same organization. Often companies will have separate networks for new acquisitions, geographically dispersed groups, and different business units. With federation, all of those teams can be instantly connected.

Federation gives users the ability to communicate informally in real time to coordinate plans, share information, or just stay in closer communication with important contacts. Customers and suppliers appreciate the ability to get in touch directly and rapidly. In fact, many companies believe that it will become common for customers to demand that suppliers connect through instant messaging. Federation delivers business value in three principal areas:

- **Supply Chain Management:** Faster flow of information between suppliers and customers facilitates the efficient procurement and allocation of resources.
- **Customer Service:** Customers have real-time access to key suppliers and business partners. Instant messaging users can see online status information as well as securely send messages across the firewall.

University enhances learning with IM

Texas Tech University uses instant messaging to increase contact between faculty and students. "My goal is to create an efficient and effective collaboration environment at Texas Tech by providing state-of-the-art systems," says J. Stalcup, Director of Telecommunications. "For instant messaging, we looked at everything, including open source and Lotus Notes. We chose Live Communications Server because of its sophistication and built-in capabilities."

Teachers such as Katherine Austin Stalcup, Director of Technology Support and Psychology Instructor, augment normal class time and office hours with virtual office hours. Students use IM to ask questions, transfer documents, share work, and receive feedback on complex statistical problems.

In the most recent semester, Stalcup had more than 50 one-on-one help sessions with students using IM. Increasing the amount of one-on-one time between students and faculty helps improve the effectiveness and quality of teaching. Through IM-enabled virtual office hours, Instructor Stalcup was able to increase the amount of real-time interaction with students last semester: "I spent two hours a week, or 33 percent more time with my students and I resolved 13 issues with them. Without IM, I would never be able to resolve that many issues one-on-one in a single semester."

- Sales:** Time-sensitive business development situations can be enhanced by opening additional channels of communication. For example, while contracts are negotiated, sales teams can get critical input from the customer's legal, operations, and other departments, as well as their own.



Figure 3: Microsoft Office Communicator and Public IM

Connectivity with Public IM Clients

Just as federation connects companies directly, Live Communications Server has the capability to achieve an authenticated, encrypted connection with public IM networks. Frequently, important outside contacts are not on Live Communications Server or other enterprise systems but use the public networks.

Live Communications Server enables users of MSN Messenger, AOL Instant Messenger, and Yahoo! Messenger to extend the business value of federation to partners that do not have enterprise IM capability.

3. Easy-to-Use Solutions

Smoothly integrating into the corporate environment, Microsoft RTC solutions are easy for employees to use and straightforward for IT departments to maintain.

Intuitive for Users

Microsoft RTC technologies incorporate the look and feel of the Microsoft Office System, so they are easy for people to understand and use quickly and efficiently. Live Meeting helps new users get started with in-meeting help resources for common tasks that are tailored to the meeting phase and the role of the meeting participant.

Using Live Communications Server with Communicator does not require a virtual private network, making it less cumbersome for people to stay in touch, particularly when working at home or on business travel. Communicator also provides access to phone features, making it easy to accept, transfer, forward, and divert calls or add other people to the phone conversation, all through an intuitive user interface.

“Live Meeting had all the capabilities we were looking for. The only customer requirement is a Web browser, and it's straightforward and easy for everyone to use. Plus, it comes from a familiar company that stands behind its products.”

Melanie Netwal
Director of Marketing
Scriptlogic Corporation

Content Management

Live Meeting makes it easy to manage a presentation through intuitive drag-and-drop opening of files, thumbnail navigation of documents, and a common resource list that maintains an inventory of content available for the meeting. Recording a presentation requires only a click of the mouse and no special equipment. It is easy for people who missed the meeting or class to view recordings on demand using Microsoft Windows Media® Player 9 Series or by downloading the recording for viewing at their convenience. Companies can use their presentations over and over again with full-quality recordings.

Live Communications Server includes logging and archiving functions so that instant-message conversations can be accessed and referred to long after the conversation is over.

Participant Management

Live Meeting presenters can easily maintain control of attendees through meeting options that enable the presenter to turn interactive tools on and off as needed depending on the level of interactivity necessary. Other participant management features allow the presenter to promote an attendee to presenter, view an attendee profile, send an e-mail message to participants from the meeting, and invite or remove participants from the meeting.

Straightforward Implementation and Management

Organizations' internal communications systems often consist of a set of diverse applications and capabilities. This fragmentation makes it hard for employees to use the systems and equally hard for the IT departments who must support them to deploy, manage, and update the systems—all of which leads to user frustration and high total cost of ownership for IT.

Microsoft RTC solutions offer the benefits of integrated solutions that lower the costs and barriers of deploying, managing, and using real-time collaboration technology. Microsoft RTC services and servers are easy to implement and maintain because they are built to the Microsoft standard of software design and development.

Because Live Meeting is a hosted service, deploying it across a department or an entire company worldwide is straightforward. Live Meeting also delivers zero-touch deployment for participants, avoiding the need for presenters to ask meeting participants to download client software.

Live Communications Server works with existing Microsoft infrastructure elements such as the Microsoft Windows Active Directory® service and the Windows Server 2003. This integration makes it easy for IT managers to consolidate network, server, and IM user resources, providing more security and control over the network.

With the management capabilities built into Live Communications Server, IT managers can get more of the information they need about their server environment at a glance. Companies save server management time and reduce training costs because Live Communications Server integrates with existing management tools, including Windows Management Interface, Microsoft Management Console, and Microsoft Operations Manager 2000. Using these administration tools—which are based on the familiar Windows® operating system graphical user interface—IT staff can manage users, servers, and global settings and monitor the entire real-time collaboration system.

“We also found that IM reduces the load on other communications channels. When people get fewer calls and e-mails, they respond better and faster, and we can reduce storage and support costs.”

Intel
May 2004

“Especially when dealing with larger customers, we find that the IT departments don’t allow their employees to download applications to the desktop because of concerns about security and retaining system integrity. Live Meeting allows us to make our presentations without requiring participants to install a plug-in or player. This is one of the reasons we chose to go with Live Meeting.”

David Sanchez
Solutions Architect
Autodesk

Functionality in Live Communications Server enables companies to perform large-scale deployments, including failover and data recovery capabilities, with an advanced architecture using Microsoft SQL Server™ 2000. Communicator relies on certain elements of the Microsoft Windows XP/Windows 2000 operating system for key functionality. Communicator uses operating system-level components for media and also to manage application integration.

Siemens decreases telephone infrastructure costs with IM

Siemens believes that conducting voice conferences through Live Communications Server will improve productivity and lower costs.

The ease and familiarity of Live Communications Server will also give employees an incentive to use IM technology. Siemens estimates that the average cost for voice communications is about U.S.\$1 each, whereas instant message costs approximately 15 cents per message. This represents a tremendous savings for a company like Siemens, which has more than 300,000 employees.

"We know that [Live Communications Server] provides an excellent means of helping IT departments get control over the cost of communications transactions. We may be able to save nearly \$100 or more in a four-person conference call through the elimination of audio conferencing fees, document collaboration session fees, and the time saved in setting up these types of communications," said Tim Miller, Director of Product Planning, Siemens.

Live Meeting has an advanced technical architecture and maintains more than 150 servers in data centers located around the world. These data centers provide load balancing, redundant equipment with no single point of failure, and multiple network connections to various network providers to give Live Meeting the highest availability of any Web conferencing service. Live Meeting can provide up to 99.99 percent reliability, which instills user confidence because interactions occur as planned.

Lower Infrastructure Costs

Organizations deploying Live Communications Server realize business value through lower total cost of ownership of their communications infrastructure. Workers use presence awareness to determine availability of their contacts, increasing the chance that they will reach someone. Fewer calls result in less e-mail, and long voice-mail messages are avoided. Reduced e-mail traffic minimizes the need for network resources, storage, and support and, ultimately, lowers costs.

Built-in voice, video conferencing, and group IM capabilities allow people to share information and even hear and see colleagues. When these capabilities are combined with presence awareness, there is a higher chance of connecting and reduced long-distance charges for an entire organization.

Trustworthy Technology

Microsoft real-time collaboration solutions provide industry-leading reliability, security, and scalability that enable users to communicate whenever, however, and with whomever they want.

Reliability

Microsoft built these real-time collaboration products to scale with the enterprise for reliability and availability regardless of the deployment size.

Microsoft Office Live Communications Server Enterprise Edition is designed to take advantage of a clustered architecture configuration. The two-tier architecture enables all user data to be stored on a SQL Server 2000 database, and front-end/back-end server architecture offers failover support for uninterrupted use.

Logging

Live Communications Server 2005, through integration with Microsoft SQL Server, provides logs in a text format written to a flat file that is readily usable and under the control of the administrator. Such logs provide an audit trail of user behavior for security purposes; information to assist in troubleshooting, routing, and security issues; and raw information on system usage. Because of its logging capabilities, Live Communications Server 2005 is ideal for use in regulated environments.

Archiving

Archiving instant messages in Live Communications Server 2005 uses two components: the IM Archiving Agent and the IM Archiving Service. The IM Archiving Agent writes the content of all messages to a private or public Message Queuing (also known as MSMQ) queue. The IM Archiving Service then extracts the messages from the queue and adds them to a SQL Server database. If archiving is enabled, all instant-messaging conversations are archived by default. Archiving can be disabled or enabled for specified users.

Security

Real-time communication users must feel confident they are conducting secure and confidential meetings and discussions. The nature and substance of presentations, meetings, and general communication in a corporate environment require safeguards to protect critical financial, strategic, and personnel information from being compromised.

"About half of our employees were using some form of instant messaging, and, therefore, exposing us over the Internet, but we didn't want to prevent instant messaging because we recognized its business value."

Rick Strong
Senior IT Architect
Aliant

"What might be an almost unnoticeable interruption of service to my desktop is entirely intolerable to a customer and might require rescheduling a meeting for 20 remote clients. Given the number of simultaneous meetings that we hold, the reliability of Live Meeting is critical to our reputation as a premium service provider."

Greg Simpson
Director of eLearning
DBM

Designed in accordance with the Microsoft companywide Trustworthy Computing initiative, Live Communications Server, Communicator, and Live Meeting address specific business requirements for heightened security in today's computing environments.

A key benefit for IT managers using Live Communications Server is the control of sensitive or proprietary business information. Live Communications Server provides authenticated, encrypted instant messaging, making it easier to comply with applicable regulations such as the Sarbanes-Oxley Act (financial services) and the Health

Insurance Portability and Accountability Act (HIPAA).

When it comes to Web meetings, all forms of customer data and sensitive content must be secure, and companies also must make certain that only invited participants attend and view documents. Live Meeting protects a company's sensitive information using a combination of advanced computer hardware and software technology as well as security policies and procedures, which make sure that unauthorized visitors cannot view presentation content or participate in private meetings.

Live Meeting uses nine layers of security, multiple access control mechanisms, and transmission security with 128-bit Secure Socket Layer (SSL) encryption that is always on. Live Meeting offers a range of access controls to address everything from public meetings to highly sensitive private sessions. In addition, Live Meeting enables organizers to view attendee status in real time and to disconnect disruptive or uninvited participants, if necessary.

Secure content storage also is critical, and Live Meeting provides true content encryption for all customers. Presentations and other documents uploaded to Live Meeting are encrypted with 128-bit Advanced Encryption Standard technology. In fact, each slide is separately encrypted for maximum security, and no slides can be left unencrypted on participant machines or browser caches.

Scalability

Microsoft works to ensure that customers can extend current infrastructure investments, yet have the opportunity to incorporate new technologies into their existing computing environments. Effective, long-term RTC solutions must be able to accommodate business growth and increased demands, which is why Microsoft built Live Communications Server 2005 to scale with the enterprise. The individual servers have 50 percent more capacity than the 2003 version, supporting up to 15,000 concurrent active users. Using Live Communications Server 2005 in a two-tier architecture structure supports more than 100,000 concurrent users per server pool.

Live Meeting can handle a two-person ad hoc meeting or a monthly departmental training session that includes hundreds of participants or an international product launch for thousands of customers and prospects. Live Meeting leads the industry in total supported seats, and many customers use Live Meeting to conduct product rollouts, corporate announcements, and training sessions with up to thousands of participants.

Robust and Extensible

Extensibility—the capability to interconnect and share information and functions with other information technology systems—is native to Live Communications Server. Its architecture uses the industry-standard protocols Session Initiation Protocol (SIP) and SIP for Instant Messaging and Presence Leveraging Extensions (SIMPLE). Corporate telephony systems such as PBX, video conferencing, interactive voice responses, VoIP, and other solutions all can integrate with Live Communications Server using these protocols. Live Communications Server offers both

“Our previous solution couldn't grow as we needed it to. With Live Communications Server, we will be able to offer our employees and our customers better service.”

Guna D. Gunasekar
Advisory Engineer
MCI

client and server software development kits to encourage innovative uses of real-time communication.

Both Live Communications Server and Live Meeting include a rich set of application programming interfaces (APIs). Microsoft supports these standards because of their broad potential in future communications.

4. Return on Investment

New technology can be intimidating, especially for employees who typically use only basic productivity tools to do their jobs. Because they share the familiar Microsoft interface, RTC solutions are intuitive and easy to use for anyone who is accustomed to Microsoft Windows functionality. They can be used in operations, sales, marketing, human resources, IT, and other scenarios in organizations of any size and in any industry.

Many companies find that, once real-time collaboration solutions are introduced in their environment, employees find additional ways to use them, capitalizing on the existing investment for further cost savings and productivity benefits.

Real-Time Communications and Collaboration Tools at Fair Isaac		
Benefit Area	Business Metric	Technology Enabler
Shortening Sales Cycle	↓30 percent – Shortened sales cycle to 8 months from 1 year	Live Meeting provides a rich, interactive environment for client education and interaction.
Improving Training	↓\$150,000 – Eliminated costly travel and lost productivity	Live Meeting facilitates distance learning.
Capturing New Markets	↓\$500,000 – Travel costs avoided while generating \$5 million in revenue	Live Meeting eliminates travel costs for sales calls.
Reducing Communications Delays	↓5 percent – Decreased delays, speeding project cycle time	Live Communications Server connects individuals and teams, so they can share information faster.

Figure 4. Real-time collaboration tools accelerate growth at Fair Isaac

Operations

Daily operations at an increasing number of companies require employees to collaborate across geographic boundaries. Microsoft's real-time collaboration offerings allow widespread operations teams to complete their work quickly and effectively, making the physical location of team members irrelevant.

With Microsoft Office Communicator, teams can exchange information in real time, immediately working through difficult, unexpected issues without waiting for colleagues to sort through e-mail messages or check voice mail. Using Communicator can help shorten time-to-market and reduce the expense of long-distance phone calls and business travel.

“Instant messaging and presence information are aiding productivity by allowing people to immediately get answers to questions that could otherwise become blocking issues. Instant messaging facilitates group projects because it makes it so easy for people to initiate or join a conversation whenever information, guidance, or any other type of communication is needed.”

Bruce E. Guytonz

North America Operations Manager
Unisys

Inventory management company triples sales calls

Using Live Meeting, Inventory Consulting Specialists (ICS) achieved substantial gains in sales productivity. Time that otherwise would be lost traveling to customer sites is used in more productive ways. "Looking at the North American market, I think we're able to do three times the presentations in a week than we would if we had salespeople flying and driving around," says Stuart Dunkin, Principal at ICS.

ICS is conducting more sales meetings with smoother presentations and hands-on demonstrations that help the company close sales more effectively. "Live Meeting enables us to quickly demonstrate how well our software can work within the customer's environment. We can clearly demonstrate the benefits of our product by allowing them to take it for a test drive," says Dunkin.

Live Meeting is being used by many companies to hold more effective project status meetings with customers. Eliminating the time, hassle, and expense of travel encourages project teams to meet more often and improve the quality of their customer relationships. Live Meeting can help decrease product development time, reduce project management costs, increase overall product quality, and improve customer service.

Sales

Sales departments are some of the quickest adopters of Microsoft RTC solutions; they can help companies enrich sales training, improve communication for new product introductions, reduce selling and service costs, increase the number of sales calls made per day, shorten the sales cycle, and close more deals.

Sales departments also need to communicate internally to share product information and customer contacts.

Companies are using solutions such as Live Meeting to qualify leads, conduct product demonstrations, and run sales presentations.

Live Meeting shortens the sales process because it is much easier to schedule a customer for a one-hour presentation than to find the block of time needed to visit in person and gather all customer stakeholders in a single location.

Sharing information among different departments is faster and easier with Communicator; salespeople can use

instant messaging to get immediate, accurate answers from operations or customer service staff while on the phone with customers. Communicator also helps salespeople reach out to their contacts to deliver up-to-date competitive pricing or inventory information.

Marketing

Marketing departments must continually strive to stay in touch with their customers and reach new prospects. Real-time collaboration enables this contact to occur anywhere in the world without the cost of travel. It can help marketing departments lower promotional costs, widen the reach of marketing events, increase lead generation, and decrease time-to-market.

Using Live Meeting, businesses can reach more prospective customers than ever before, at a lower cost. Marketing departments are using Live Meeting to launch new products, roll out new promotions, conduct market research through online focus groups, and hold Web seminars.

Internally, Communicator helps marketing departments run more successful campaigns. Users can choose from a range of communication modes to gather feedback from and disseminate

updated information to the rest of the organization instantly. Marketing staff also can look back to review feedback on campaigns by viewing logged and archived conversation records.

Human Resources

Human resources (HR) departments have to ensure that employees receive what they need to do their jobs better. HR communications can cover areas as diverse as educating employees on new applications to instructing managers on a new performance-review initiative to answering employee benefit questions.

Live Meeting helps HR departments roll out programs for new employees, complete regulatory compliance programs, and make company announcements. And employee training can be conducted more effectively because trainees and presenters can interact, asking and answering questions on the spot. Also, Communicator gives employees multiple means of alerting HR staff to problems and questions, to which HR staff can respond quickly.

Information Technology

IT departments are responsible for promptly addressing issues and proactively educating users about ongoing changes in the technical environment. Managers continually look for ways to reduce the costs of these activities because they cut into profit margins. Many organizations now are using Microsoft RTC solutions for a range of IT tasks, improving results and saving money at the same time.

Live Meeting training sessions offer IT departments a cost-effective way to educate users on new technology systems and policies. By using Communicator, IT staff members can help employees remotely by exchanging information and testing potential solutions while the employee is at the workstation. The result is that employees are better informed, more productive, and more satisfied.

Consulting firm reduces training costs

DBM, a global human resources consulting firm, helps companies align their work forces with evolving business demands.

DBM decided to extend its e-Learning solution with Web conferencing, which would help the company maintain the group learning dynamic of a seminar while making it more convenient for clients to attend.

DBM estimates that Live Meeting has cut the overall cost of delivering services to its clients. Those savings have come through several avenues, including eliminating the cost of leasing and staffing a temporary training center. DBM has also realized savings through presenting appropriate information to clients through Webinars instead of in one-on-one consulting sessions. "Live Meeting increases our ability to manage costs while delivering premium service to our customers," says Greg Simpson, Director of Client E-Learning at DBM.

5. Conclusion

Microsoft real-time collaboration solutions—Live Meeting and Live Communications Server with the Microsoft Office Communicator client—can deliver significant return on investment while enabling better decision-making and improved relationships.

The returns are generated from a combination of cost savings due to the elimination of travel and improved business processes and productivity that result in increased revenues and decreased operating costs. With instant access and the ability to have rich interactions, organizations can be more engaging, more persuasive, and more responsive.

RTC Provides Immediate Cost Savings		
Company	Industry	Reported Savings
7-Eleven	Retail	Saves \$5 for each dollar spent.
Autodesk	Software	Realizes \$653,000 annual benefit.
DBM	Human Resources Consulting	Eliminated cost of new training center.
DDI	Human Resources Consulting	Saved \$23,000 on one marketing event alone.
Fair Isaac	Financial Services	Avoids more than \$150,000 in travel expenses and lost employee productivity for sales group.
Fieldglass	Information Technology	Saves \$1.9 million annually.
Geisinger Health System	Healthcare	Saved nearly \$40,000 in mileage by using Live Meeting for a single department's weekly meetings.
Laplink	Technology	Saves \$80,000 annually.
Neulogic	Information Technology	Reduced project costs by 80 percent.
SI International	Information Technology	Saves \$120,000 annually.
XRT	Corporate Banking	Saved \$145,000 in travel expenses in six months.

Figure 5: Companies using Live Meeting have seen dramatic cost reductions by holding meetings online

Companies considering collaboration solutions should identify:

- Use of public instant messaging within the organization.
- Significant intra-company long-distance and international call volume.
- Cost of business travel.
- Barriers to sales in terms of time-sensitive communications.
- Use of voice or video conferencing within the organization.
- Rising volume of e-mail messages and increased storage requirements.
- Regulatory requirements related to text communications archiving.

Microsoft Office provides a complete, integrated, enterprise-grade real-time communications solution, maximizing reach through the enterprise phone system, public and federated IM client connectivity, and the ability to Web conference with anyone who has access to a PC and an Internet connection.

Real-time collaboration solutions provide the security, scalability, reliability, and functionality that companies need to meet the demands of today's fast-paced business environment. Built on a standards-based platform, Microsoft's real-time collaboration products enable employees, partners, customers, and suppliers to work together more effectively.

For more information about Microsoft Office Real-Time Collaboration, please visit:
www.microsoft.com/office/rtc .