

Cisco and Microsoft Collaboration in Unified Communications

Cisco and Microsoft have an established history of cooperating across technologies to provide customers with innovative business solutions. In the area of unified communications, the two companies are interoperating to help joint customers deliver inclusive and business-transforming communications solutions using services and applications from each company.

Both companies are committed to making collaboration a transparent and effective experience for customers and partners. To help achieve this goal, Cisco and Microsoft actively participate together in open-standards working groups, such as the IETF. Developers from both companies also meet regularly to discuss current integration efforts and to define future areas of integration.

Unified Communications

Cisco® Unified Communications Solutions unify voice, video, and web applications on fixed and mobile networks, delivering an easy-to-use, media-rich collaboration experience across business, government agency, and institutional workspaces. These applications use the network as the platform for enhancing competitive advantage by accelerating decision time and reducing transaction time. The security, resilience, and scalability of the communications network enable users in any workspace to connect — everywhere, every time, so everyone's included.

The main components of Cisco Unified Communications Solutions include call processing, presence, voicemail and unified messaging, video, conferencing and collaboration, mobility, security, unified clients, and contact center services and applications. Table 1 lists unified communications products both companies offer.

Table 1. Cisco and Microsoft Unified Communications Products

Unified Communications Components	Cisco	Microsoft
Call processing	<ul style="list-style-type: none"> • Cisco Unified Communications Manager • Cisco Unified Communications Manager Business Edition • Cisco Unified Communications Manager Express • Cisco Unified Communications 500 Series for Small Business 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007
IP phones	<ul style="list-style-type: none"> • Cisco Unified IP Phone 7900G Series low- to high-end wired and wireless phones 	<ul style="list-style-type: none"> • Third-party original equipment manufacturer (OEM)
Presence and unified client*	<ul style="list-style-type: none"> • Cisco Unified Presence • Cisco Unified Personal Communicator (PC and Mac) 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007 • Microsoft Office Live Communications Server 2005 • Microsoft Office Communicator 2005 and 2007
Conferencing and collaboration	<ul style="list-style-type: none"> • Cisco Unified MeetingPlace® conferencing • Cisco Unified MeetingPlace Express • Cisco WebEx® meeting applications • Cisco WebEx Connect 	<ul style="list-style-type: none"> • Microsoft Office Live Meeting and Office Communications Server 2007
Video	<ul style="list-style-type: none"> • Cisco Unified Video Advantage • Cisco Unified MeetingPlace and MeetingPlace Express conferencing • Cisco Unified Videoconferencing • Cisco WebEx meeting applications • Cisco TelePresence™ 	<ul style="list-style-type: none"> • Microsoft Office Communications Server • Microsoft Office Live Meeting • Microsoft RoundTable

Voicemail and unified messaging	<ul style="list-style-type: none"> • Cisco Unity® unified messaging • Cisco Unity Connection • Cisco Unity Express • Cisco Unified Messaging Gateway 	<ul style="list-style-type: none"> • Microsoft Exchange Server 2007 for Unified Messaging
Contact center	<ul style="list-style-type: none"> • Cisco Unified Contact Center • Cisco Unified Contact Center Express 	<ul style="list-style-type: none"> • None
Mobility	<ul style="list-style-type: none"> • Cisco Unified Mobility • Cisco Unified CallConnector Mobility 	<ul style="list-style-type: none"> • Microsoft Windows Mobile
Mobile client	<ul style="list-style-type: none"> • Cisco Unified Mobile Communicator 	<ul style="list-style-type: none"> • Microsoft Office Communicator Mobile
Groupware	<ul style="list-style-type: none"> • Cisco WebEx WebOffice • Cisco WebEx Connect 	<ul style="list-style-type: none"> • Microsoft Office SharePoint • Microsoft Office Groove • Microsoft Office Live
Secure network foundation	<ul style="list-style-type: none"> • Cisco ASA 5500 Series Adaptive Security Appliances • Cisco Intrusion Prevention System (IPS) Cisco VPN solutions • Cisco Secure Access Control Server (ACS) • Cisco Security Agent • Cisco Network Admission Control (NAC) • Cisco integrated services routers with quality of service (QoS) • Cisco Catalyst® switches with Power over Ethernet (PoE) 	<ul style="list-style-type: none"> • None
Email and directory services	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Microsoft Exchange • Microsoft Active Directory

*Cisco offers a variety of desktop integrations with Microsoft, IBM, and other technology partners.

Cisco Unified Communications Interoperability with Microsoft

Cisco offers several categories of unified communications interoperability with Microsoft:

- **Cisco IP Telephony with Microsoft:** For customers with existing Microsoft Office Communications Server (OCS) investments, Cisco UC Integration™ for Microsoft Office Communicator directly extends a broad set of Cisco Unified Communications services — Cisco IP softphone with mid-call control features, messaging, conferencing, desk-phone control, phone presence — directly to Microsoft Office Communicator 2007. Cisco also offers click-to-call capabilities from Microsoft Office Communicator, Microsoft desktop productivity applications, and Windows Mobile handsets. With native simultaneous ringing capabilities of Cisco Unified Communications Manager, you can answer incoming calls on either Microsoft Office Communicator or your Cisco Unified IP Phone. In addition, you can enable Cisco Unified Communications Manager and Cisco Unified Communications Manager Business Edition to interoperate with Microsoft Exchange 2007 as a companion unified messaging solution.
- **Cisco Presence with Microsoft:** Cisco offers interoperability through Cisco Unified Presence and Cisco Unified Communications Manager so you can view the presence status of Cisco Unified IP Phone users directly in the Microsoft Office Communicator client. Business-to-business federation between Cisco Unified Presence and Microsoft Live Communications or Office Communications Server facilitates ongoing collaboration between businesses. With Cisco Unified Personal Communicator, you can add Microsoft Office Communicator users in other businesses to your buddy list, view their presence status, and securely exchange instant messages for ongoing collaboration. Cisco Unified Presence also integrates with Microsoft Exchange 2003 and 2007 Calendar and automatically updates Cisco Unified Personal Communicator presence state based on a user's calendar availability. This server-to-server integration provides always-on Microsoft Exchange Calendar availability information of the originating user even when the user is not logged into the client.

- **Cisco Messaging with Microsoft:** For unified or integrated messaging with Microsoft Exchange, Cisco offers three proven enterprise-class solutions. Cisco Unity unified communications facilitates unified messaging with Microsoft Exchange so you can manage all email, voice, and fax messages in a single inbox. Cisco Unity Connection is an integrated messaging solution that requires less time and effort to deploy and offers enhanced speech access to Microsoft Exchange 2003 and 2007 Email and Calendar. Both Cisco Unity and Cisco Unity Connection solutions provide secure and easy access to voice messages with Cisco Unity and Cisco Unity Connection ViewMail applications for Microsoft Outlook. Cisco Unity Express provides integrated messaging with Microsoft Outlook for up to 250 users — ideal for small enterprises or branch offices.
- **Cisco Conferencing and Collaboration with Microsoft:** For conferencing and collaboration with Microsoft, Cisco offers the ability to schedule Cisco Unified MeetingPlace, Cisco WebEx, and Cisco TelePresence meetings directly from Microsoft Outlook. For real-time collaboration, you can initiate impromptu Cisco Unified MeetingPlace and Cisco WebEx meetings directly from Microsoft Office Communicator and use its presence and instant messaging capabilities. Cisco Unified Videoconferencing enables multiparticipant video conferencing between Microsoft Office Communicator 2007 and other standards-based video endpoints supported by Cisco Unified Videoconferencing such as Cisco TelePresence, Cisco Unified Video Advantage endpoints, and Cisco Unified IP video phones. In addition, Cisco WebEx Connect also facilitates asynchronous collaboration by exposing Microsoft Outlook information through the WebEx Connect interface.
- **Cisco Contact Center with Microsoft:** The Cisco Unified CallConnector for Microsoft Dynamics CRM integrates Cisco Unified Communications with the Microsoft Dynamics CRM application at the desktop, without the need for additional hardware. It provides greater employee productivity and organizational efficiencies, immediate information about inbound and outbound calls, fast and easy click-to-dial functions from customer-relationship-management (CRM) database records, and call-duration tracking, information capture, and record creation. With Cisco Unified Expert Advisor, Cisco also offers the ability to increase first-call resolution and caller satisfaction by allowing presence-enabled knowledge experts using Microsoft Office Communicator or Cisco Unified Personal Communicator anywhere in the business to assist and collaborate with callers, with or without a formal contact center.
- **Cisco Network with Microsoft:** Cisco integrated services routers and Cisco Catalyst switches provide the ideal foundation with network services (such as Call Admission Control [CAC], QoS, Session Initiation Protocol [SIP] trunking, Survivable Remote Site Telephony [SRST], and secure access from public networks) for delivering unified communications applications for secure business-class, real-time communications and collaboration. Cisco integrated services routers are Microsoft-certified gateways for Microsoft Office Communications Server 2007 deployments.

Cisco IP Telephony with Microsoft

Cisco UC Integration™ for Microsoft Office Communicator

Cisco UC Integration™ for Microsoft Office Communicator is an easy-to-deploy desktop integration that provides instant access to enhanced Cisco Unified Communications directly from Microsoft Office Communicator 2007 (Figure 1). This tight integration enables a seamless collaboration experience with Cisco Unified Communications services — Cisco IP softphone with mid-call control features, messaging, conferencing, desk-phone control, and phone presence — from Microsoft Office Communicator 2007 on your PC.

Figure 1. Cisco UC Integration™ for Microsoft Office Communicator

This tight integration for Microsoft Office Communicator takes advantage of a common unified client services framework to increase productivity, streamline communications, and enhance collaboration with the following capabilities:

- Integrated Cisco IP softphone: Click to call directly from your desktop to have a business-class communication experience with an embedded Cisco IP softphone — anywhere.
- Cisco IP phone quality and rich mid-call control: Have a business-class desktop communications experience with the quality and reliability that you experience with your Cisco IP desk phone in the office.
- Desk-phone control: Simply click to make or answer business calls through your desk phone using its calling features and resources to have a rich communications experience.
- Phone presence: This capability adds telephony presence to your contact list — providing additional information about when the contact might be available.
- One-click voice messages and communications history access: With a mouse click, access your corporate voice messages and communications history and rapidly respond to voice messages or missed calls.
- Impromptu multiparty conferencing: If you need to initiate an impromptu collaboration session with multiple contacts on your contact list, you can also initiate multiparty conference calls from your desktop and quickly add additional participants.
- Click to call from desktop applications: Instantly place calls directly from Microsoft Office applications, Internet Explorer, and Mozilla Firefox web browsers.

This easy-to-deploy desktop integration also provides additional benefits of investment protection and reduced complexity delivered by a single call-control architecture. Because Cisco UC Integration™ for Microsoft directly extends proven attributes of Cisco Unified Communications Manager (such as CAC, QoS, and standards-based codec support) directly to your desktop, it reduces the management complexity associated with dual call-control alternatives while protecting your investments in existing desktop applications.

Table 2 lists solution components.

Table 2. Table 2 Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 6.1.3 or later (including Business Edition) • Cisco UC Integration™ for Microsoft Office Communicator 7.1 or later • Cisco Unified IP Phones (optional) 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007 • Microsoft Office Communicator 2007

Remote Call-Control Solution

Cisco also offers remote call-control interoperability between Microsoft Office Live Communications Server 2007, Cisco Unified Communications Manager, and Cisco Unified Presence to offer Microsoft Office Communicator 2007 users in your organization the following capabilities:

- Initiate a phone call from one Cisco Unified IP Phone to another directly from Microsoft Office Communicator.
- Choose from multiple Cisco IP Phones to control with Cisco Unified Presence 7.0.3 (or later).
- Escalate Instant Messaging (IM) sessions to voice conversations by clicking the phone icon and then clicking “Call”. This action rings both Cisco Unified IP Phones. You can initiate this feature from an IM chat session in progress or directly from the contact list.
- Redirect calls to mobile phones.
- Use Microsoft Office Communicator to accept incoming calls on a Cisco Unified IP Phone.
- View incoming call notifications on your computer, with options to click to answer or click to divert when calls are placed to Cisco Unified IP Phones.
- Access phone feature controls from Microsoft Office Communicator, including hang up, hold, and transfer.
- Benefit from the core capabilities of Cisco Unified Communications Manager or Cisco Unified Communications Manager Business Edition, including digit translation and routing, billing and recording, call screening and privacy, CAC and QoS capabilities, signaling and media security capabilities, and numerous enhanced call-control services.

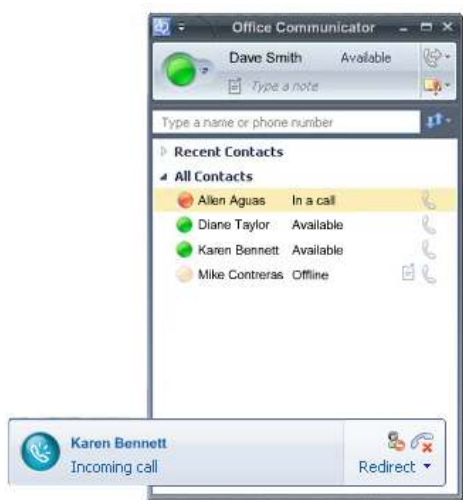
Figure 2 shows how to initiate a call using Microsoft Office Communicator 2007 and Cisco Unified Communications Manager.

Figure 2. Click-to-Call Dialing and Third-Party Call Control of Cisco Unified IP Phones Using Microsoft Office Communicator 2007 and Cisco Unified Communications Manager



Figure 3 shows how you can manage incoming calls to Cisco Unified IP Phones from Microsoft Office Communicator 2007.

Figure 3. Incoming Call Management for Calls Directed to Cisco Unified IP Phones from Microsoft Office Communicator 2007



The process follows:

1. A call is placed to a Cisco Unified IP Phone. Immediately, an incoming call notification message appears within Microsoft Office Communicator.
2. You can accept the call by clicking the message or divert the message to another number by selecting "Redirect" and choosing the number to receive the call.

Figure 4 shows how Microsoft Office Communicator manages calls to Cisco Unified IP Phones. During an active call, you can simply click to hang up, hold, or transfer calls on your Cisco Unified IP Phone.

Figure 4. Incoming Call Management for Calls Directed to Cisco Unified IP Phones from Microsoft Office Communicator 2007



Table 3 lists the solution components.

Table 3. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 5.1(2) or later (including Business Edition) • Cisco Unified Presence 6.0(4) or later • Cisco Unified IP Phones • Cisco IP Communicator and Cisco Unified Video Advantage (optional) 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007 • Microsoft Office Communicator 2007* • Microsoft Server 2003, Microsoft Server 2003 Active Directory, Microsoft Server 2003 Domain Name Service (DNS), and Microsoft SQL Server 2000, if using Microsoft Office Communications Server 2005 Enterprise Edition

*Microsoft Live Communications Server (LCS) 2005 support is also available with Cisco Unified Communications Manager 5.0(4)+ and Cisco Unified Presence 1.0(2) or later.

Direct SIP

A standards-based direct SIP trunk connection is also supported between Cisco Unified Communications Manager and Microsoft Office Communications mediation server. Although such a deployment increases system management overhead associated with managing multiple dial plans and requires transcoding for intersystem voice calls, it offers your business the option to support basic intracompany telephony capabilities (such as call transfer and call forwarding) between Cisco Unified IP Phone and Microsoft Office Communicator users within the same business.

In addition, as a subset of direct SIP capabilities, native simultaneous ringing capabilities of Cisco Unified Communications Manager 7.0 allows Microsoft Office Communicator users to answer incoming Cisco Unified Communications Manager calls on either Microsoft Office Communicator or Cisco Unified IP Phones. In addition to any other alternate destination number associated with a Cisco Unified IP Phone user, an inbound call to your Cisco Unified IP Phone simultaneously rings your Microsoft Office Communicator 2007 client — allowing you to answer business calls from your PC when you are away from your primary workspace. Business calls extended and answered on Microsoft Office Communicator 2007 continue to remain anchored in Cisco Unified Communications Manager, taking advantage of its rich centralized call-processing capabilities for the duration of the call.

Table 4 lists solution components.

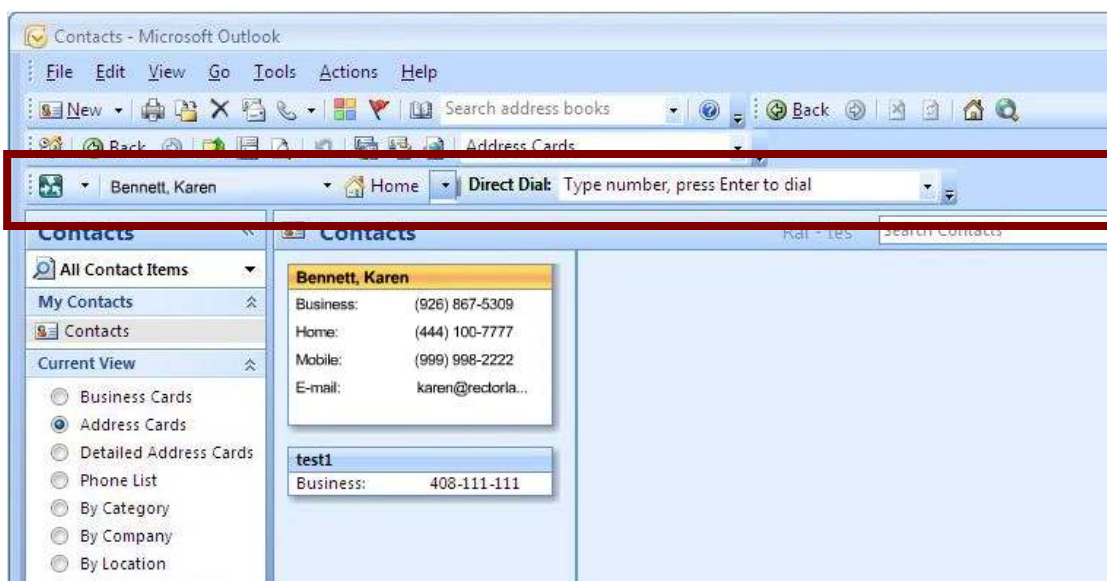
Table 4. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 7.0 or later (including Business Edition) with Cisco Unified Mobility* 	<ul style="list-style-type: none"> • Microsoft Office Communicator 2007 • Microsoft Office Communications Server 2007

*Cisco Unified Communications Manager 6.1 also supports direct SIP connectivity with Microsoft Office Communications Server 2007.

Click to Call with Cisco Unified Personal Communicator Outlook Toolbar

For organizations using Cisco Unified Personal Communicator, Cisco IP Telephony with Microsoft enables click-to-call capabilities directly from Microsoft Outlook 2003 or 2007 using a Microsoft Outlook toolbar (Figure 5) for Cisco Unified Personal Communicator. This toolbar enables click-to-call capabilities from Microsoft Outlook contacts and email. With Microsoft Outlook you can save time and respond swiftly to queries by using the toolbar to initiate a call with Cisco Unified Personal Communicator. You do not need to manually enter a number; simply click with the mouse to communicate with anyone in your contacts list.

Figure 5. Microsoft Outlook Toolbar for Cisco Unified Personal Communicator

Cisco Unified Personal Communicator also enables you to display free and busy availability information based on your Microsoft Outlook Calendar. For example, an appointment or meeting in the calendar automatically changes your presence status to busy, eliminating the need to manually update availability information when joining a meeting. Automatically maintaining availability and status information helps you keep your presence information up-to-date at all times and makes collaboration more efficient.

Table 5 lists solution components.

Table 5. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Personal Communicator 1.2 or later • Cisco Unified Presence 6.0 or later • Cisco Unified Communications Manager 5.0 or later, or Cisco Unified Communications Manager Business Edition 	<ul style="list-style-type: none"> • Microsoft Exchange Server 2007 or 2003 • Microsoft Outlook 2007 or 2003

Click to Call from Microsoft Desktop Applications with Cisco Unified Communications Widget for PC – Click-to-Call Application

With the introduction of Click to Call (a free-to-download Cisco Unified Communications widget for PCs), you can instantly place Cisco Unified Communications Manager calls directly from your Microsoft desktop applications and web browsers — without having to use the dial pad key on your Cisco Unified IP Phone. You do not need Microsoft Office Communications Server to take advantage of this capability (Figure 6).

Click to Call uses Cisco Unified Communications Manager WebDialer service to provide the following capabilities through your Cisco Unified IP Phone:

- Simply highlight phone numbers and click to call from Microsoft Office, Microsoft Outlook, Microsoft SharePoint, Internet Explorer, and Mozilla Firefox.
- Click to call from the Persona Menu (a commonly used rapid contact information lookup capability available to Microsoft Outlook and Microsoft SharePoint) to call one of the phone numbers associated with your contact list.
- Edit phone numbers before placing international calls, dial a co-worker's extension, or place a call outside the enterprise to contact business partners and customers.

- View the history of the last 10 calls made from your Click to Call application from the System Tray menu and click to call previously dialed numbers.

Figure 6. Cisco Unified Communications Widget for PC – Click to Call



Table 6 lists solution components.

Table 6. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 5.1 and later (including Cisco Unified Communications Manager Business Edition) • Click to Call application — a Cisco Unified Communications widget for PCs • Cisco Unified IP Phones that support Cisco Unified Communications Manager WebDialer service 	<ul style="list-style-type: none"> • Microsoft Windows XP (SP2) and Vista • Internet Explorer 6.0 and 7.0 • Mozilla Firefox 1.5 and 2.0 • Microsoft Outlook 2003 and 2007 • Microsoft SharePoint 2003 and 2007 • Microsoft Office: <ul style="list-style-type: none"> ◦ Word 2003 and 2007 ◦ Excel 2003 and 2007 ◦ PowerPoint 2003

Dial Via Office from Windows Mobile Smart Phones with Cisco Unified Mobile Communicator

With Cisco Unified Mobile Communicator 7.0 for Windows Mobile, your business can extend rich Cisco Unified Communications experiences to your mobile workers using Windows Mobile handsets (Figure 7). With Cisco Unified Mobile Communicator 7.0 for Windows Mobile handsets, your employees can:

- Access current company and personal directory information from everywhere in real time
- View busy or available status of colleagues
- Securely exchange text messages with colleagues
- View a list of messages on the “visual voicemail” display and select one to play back
- Receive and play back Cisco Unity voice messages on their mobile handset
- Proactively receive Cisco Unified MeetingPlace conference meeting notifications
- Access recent call histories for any of their phones on mobile handsets

In addition, Cisco Unified Mobile Communicator 7.0 for Windows Mobile handsets also allows your business to extend rich calling capabilities of Cisco Unified Communications Manager to an increasing mobile workforce. With

Cisco Unified Mobile Communicator 7.0, you can simply click to place calls through Cisco Unified Communications Manager to customers, partners, and co-workers directly from your Windows Mobile handset (Figure 7).

Figure 7. Dial Via Office with Cisco Unified Mobile Communicator 7.0 for Windows Mobile Handsets



Table 7 lists solution components.

Table 7. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Mobile Communicator 7.0 (or later) for Windows Mobile • Cisco Unified Mobility Advantage 7.0 (or later) 	<ul style="list-style-type: none"> • Microsoft Windows Mobile 6.0 and 6.1 (on a supported handset)

Finally, the SIP standards implemented in Cisco IP Telephony solutions enable interoperability with Microsoft Exchange Server 2007 and Cisco Unified Communications Manager or Cisco Unified Communications Manager Business Edition. Cisco Unified Communications Manager and Cisco Unified Communications Manager Business Edition currently offer standards-based SIP interoperability with Microsoft Exchange 2007. This interoperability simplifies installation and reduces the overall solution cost by eliminating the need for third-party gateways and software. To interoperate with non-SIP, older, or nonintegrated telephony systems or with IP private branch exchanges (IP PBXs), Microsoft Exchange 2007 requires a third-party gateway that can receive and correctly forward incoming calls to the unified messaging server. For message-waiting indicator capability (capability to light the message lamp on the phone) and Short Message Service (SMS) notification, third-party software from Geomant is required when using Microsoft Exchange Server 2007.

Table 8 lists solution components.

Table 8. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 5.1 or later, or Cisco Unified Communications Business Edition 	<ul style="list-style-type: none"> • Microsoft Exchange Server 2007

Cisco Presence with Microsoft

Share Cisco Unified IP Phone Presence with Microsoft Office Communicator Contacts

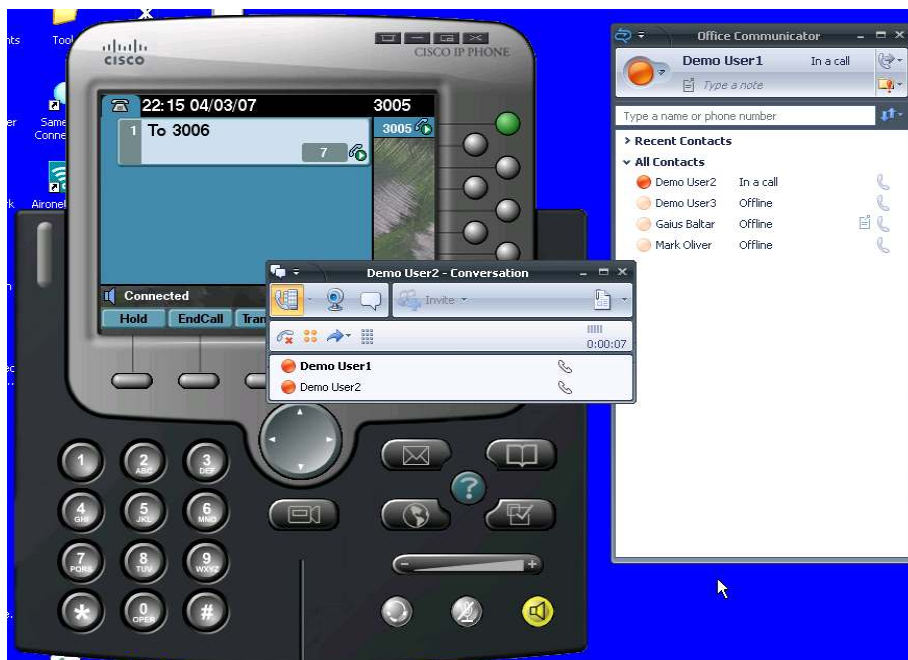
The interoperability between Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, Cisco Unified Presence, and Microsoft Office Communications Server 2007 allows you to view Cisco Unified IP Phone presence information (such as “in a call” or “idle”) in Microsoft Office Communicator 2007. You can see whether or not the person you are trying to reach is on a Cisco Unified IP Phone, helping you determine the most appropriate form of contact.

Figures 8 and 9 show the Cisco Unified IP Phone presence display and the change-of-presence information when a call is made.

Figure 8. Display of Cisco Unified IP Phone Presence Information on Microsoft Office Communicator 2007



Figure 9. Cisco Unified IP Phone Presence Changes from “Available” to “In a Call” in Microsoft Office Communicator 2007



Figures 10 and 11 show presence-aware speed dialing, call logs, and directory on Cisco Unified IP Phones.

Figure 10. Presence-Aware Speed Dialing



Busy or Available
Presence Indicator

Figure 11. Presence-Aware Call Logs and Directory



Busy, Idle, or Unknown Presence Indicator

Table 9 lists solution components.

Table 9. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 5.1 or later (including Cisco Unified Communications Manager Business Edition) • Cisco Unified Presence 6.0.2 or later • Cisco Unified IP Phones or Cisco IP Communicator 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007 • Microsoft Office Communicator 2007** • Microsoft Server 2003, Microsoft Server 2003 Active Directory, Microsoft Server 2003 Domain Name Service (DNS), and Microsoft SQL Server 2000, if using Microsoft Office Communications Server 2005 Enterprise Edition

**Microsoft Live Communications Server (LCS) 2005 support is also available with Cisco Unified Communications Manager 5.0(4)+ and Cisco Unified Presence 1.0(2)+.

Business-to-Business Exchange of Cisco and Microsoft Presence and IM

In addition, Cisco Unified Presence supports business-to-business federation that enables policy-based interconnection between different enterprises to enable them to securely exchange instant messages and presence information. With the introduction of Cisco Unified Presence 7.0, Cisco supports business-to-business federation with Microsoft Live Communications Server (LCS) 2005 and Microsoft Office Communications Server (OCS) 2007. This capability allows Cisco Unified Personal Communicator 7.0 users in one business to add a Microsoft Office Communicator user in another business to their buddy list, view their presence status, and exchange instant messages for ongoing collaboration. [Click here](#) for more information about this solution.

Table 10 lists solution components.

Table 10. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Presence 7.0 or later • Cisco Unified Personal Communicator 7.0 or later 	<ul style="list-style-type: none"> • Microsoft Live Communications Server 2005 • Microsoft Office Communications Server 2007

Microsoft Exchange Calendar Availability Integration to Cisco Unified Presence States

Cisco Unified Presence integrates Microsoft Exchange 2003 and 2007 Calendar availability information to automatically update a Cisco Unified Personal Communicator and Cisco Unified Mobile Communicator user's presence state to indicate that the user is unavailable. This server-to-server integration provides always-on Microsoft Exchange availability information independent of whether or not the originating user is logged in on the client .

Table 11 lists solution components.

Table 11. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Presence 6.0 or later • Cisco Unified Personal Communicator 6.0 or later • Cisco Unified Mobile Communicator 7.0 or later 	<ul style="list-style-type: none"> • Microsoft Exchange 2003 • Microsoft Exchange 2007

Cisco Messaging with Microsoft

The Cisco Unity solution portfolio provides voice, integrated, and unified messaging options that transparently integrate with Microsoft Exchange. Cisco Unity, Cisco Unity Connection, and Cisco Unity Express applications support Microsoft Exchange.

Support for mixed deployments of voice, integrated, and unified messaging and for different versions of Microsoft Exchange Server provides a cost-effective migration path to unified messaging.

Cisco Unity unified messaging users benefit from the simplicity of having email, voice, and fax messages in their Microsoft Outlook inbox and from the advanced options of the Cisco Unity solution, which scales to meet the needs of large organizations, including the following:

- **Alternative device recognition:** The Cisco Unity solution automatically recognizes alternative devices (such as mobile phones) when accessing the system, streamlining access.
- **Secure messaging:** You can retrieve encrypted voice messages only through authorized clients connected to the network; authorized clients also can configure the message expiration date.
- **Message monitoring:** You can listen to and pick up your calls while a message is being recorded.
- **Cisco Unity ViewMail for Microsoft Outlook:** You can play, compose, and respond to voice messages from within Microsoft Outlook. You also can play back messages on your Cisco Unified IP Phone or mobile phone (Figure 12).
- **Cisco Unity Visual Message Locator:** You can view, sort, search, and play back voice messages from your Cisco Unified IP Phone display.

With Cisco Unity Connection — a feature-rich messaging platform for enterprises providing voicemail, integrated messaging, speech recognition, and streamlined installation and management — and Microsoft Outlook, you can access and manage your voice messages in an Outlook folder through Internet Message Access Protocol (IMAP) integration with Microsoft Exchange. Similar to Cisco Unity messaging, Cisco Unity Connection also offers the ViewMail for Microsoft Outlook player, secure messaging, and numerous enterprise-class features.

Cisco Unity Connection 7.0 also provides speech access to your Microsoft Exchange 2003 and 2007 email messages, calendar, and Cisco Unified MeetingPlace conference-call information. Cisco Unity Connection 7.0 offers:

- Text-to-speech email access
- Calendar and conference browsing
 - Browse Microsoft Outlook Calendar and Cisco Unified MeetingPlace meetings in one listing
 - Review start time, duration, subject, organizer, invitees, and body
 - Listen to events for today, or any day in the future
- Calendar and conference actions
 - Join a Cisco Unified MeetingPlace meeting
 - Schedule and join a reservation-less Cisco Unified MeetingPlace meeting
 - Accept, decline, or cancel a Microsoft Outlook appointment

- Send a voicemail to the organizer or all participants of an event

In addition, Cisco Unity Express — which provides cost-effective voicemail, integrated messaging, interactive voice response (IVR), and Automated-Attendant services for small to medium-sized businesses (SMBs) and enterprise branch offices — also enables you to view and manage your voice messages from a folder in Microsoft Outlook.

Figure 12. Microsoft Outlook and Cisco Unity and Cisco Unity Connection ViewMail for Microsoft Outlook Player

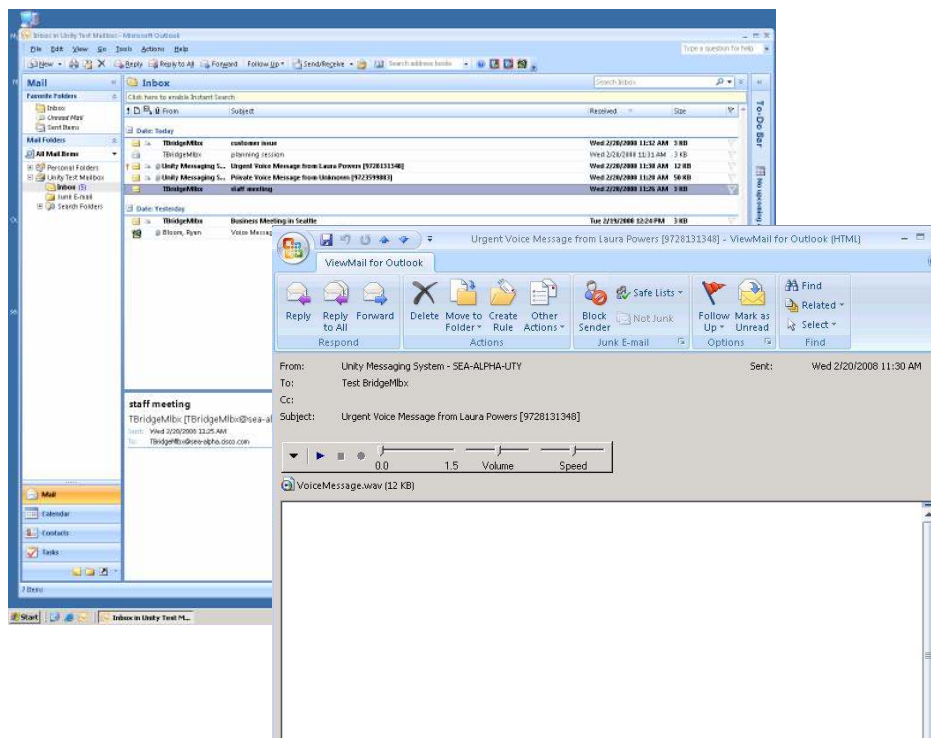


Table 12 lists solution components.

Table 12. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unity 5.0 and 7.0** (for unified messaging) • Cisco Unity Connection 2.1 and 7.0 or later** (for integrated messaging) • Cisco Unity Express 3.2 and 7.0 (for integrated messaging) 	<ul style="list-style-type: none"> • Microsoft Exchange Server 2000, 2003, or 2007 (for unified or integrated messaging with Cisco Unity unified messaging) • Microsoft Outlook 2000, 2002 (XP), 2003, or 2007 (for integrated messaging with Cisco Unity Connection) • Microsoft Outlook 2000, 2002, 2003, or 2007 and Microsoft Outlook Express 6.0 (for integrated messaging with Cisco Unity Express)

**Cisco Unity 4.2 and Cisco Unity Connection 1.2 support Microsoft Exchange 2000 and 2003.

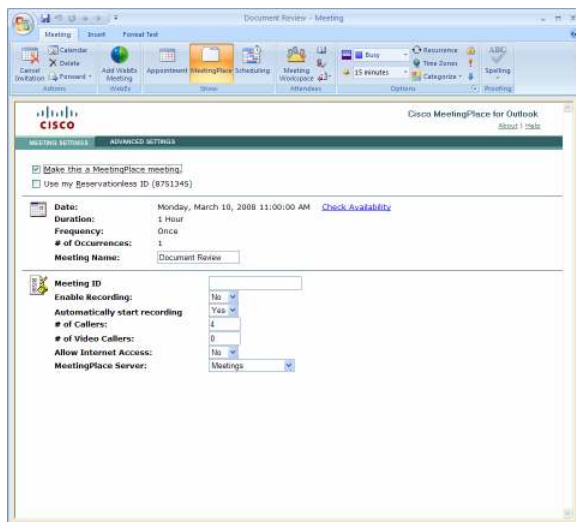
Cisco Conferencing and Collaboration with Microsoft

Cisco Unified MeetingPlace Conferencing

Cisco Unified MeetingPlace conferencing has multiple solution options that can help your organization simplify the user experience and system management by integrating with a Microsoft environment. Cisco Unified MeetingPlace for Microsoft Outlook makes it simple to set up and attend integrated voice, video, and web conferences directly from an Outlook Calendar (Figure 13). Cisco Unified MeetingPlace Express also integrates with Outlook.

To set up a Cisco Unified MeetingPlace rich-media conference, a meeting organizer simply checks the “Make this a MeetingPlace meeting” box on the Cisco Unified MeetingPlace tab of the Microsoft Outlook meeting request form. When the organizer sends the meeting invitations, Cisco Unified MeetingPlace for Microsoft Outlook reserves resources on the Cisco Unified MeetingPlace system and provides Outlook with all the meeting information to send to invitees. After successfully setting up the meeting on the Cisco Unified MeetingPlace system, Outlook sends the meeting invitation with the meeting attendance information. If the organizer needs to change the meeting time, the organizer can simply make the change in Outlook; the associated conference will be automatically rescheduled.

Figure 13. Cisco Unified MeetingPlace Scheduling in Microsoft Outlook



Cisco Unified MeetingPlace for Microsoft Outlook makes it easy to join a meeting by providing simple point-and-click attendance options. This degree of simplicity helps meetings start on time so users are ready to be productive instead of spending valuable time struggling with the video remote control or connecting into separate voice and web systems.

Additionally, the integration of the rich-media conferencing capabilities of Cisco Unified MeetingPlace conferencing with the presence and text messaging capabilities of Microsoft Office Live Communications Server and Office Communicator allows you to establish Cisco Unified MeetingPlace conferences directly from the Microsoft Office Communicator 2005 client and quickly escalate IM sessions to audio conferences.

The conferencing features of the Cisco Unified MeetingPlace solution are simple point-and-click options that are accessible from Microsoft Office Communicator. Figure 14 shows a Microsoft Office Communicator user escalating an instant message chat session to a Cisco Unified MeetingPlace conference session by clicking the Conference button on the toolbar. The invitees see a dialog box, where they can click the Go button to have the Cisco Unified MeetingPlace application dial their phone and connect them to the audio conference.

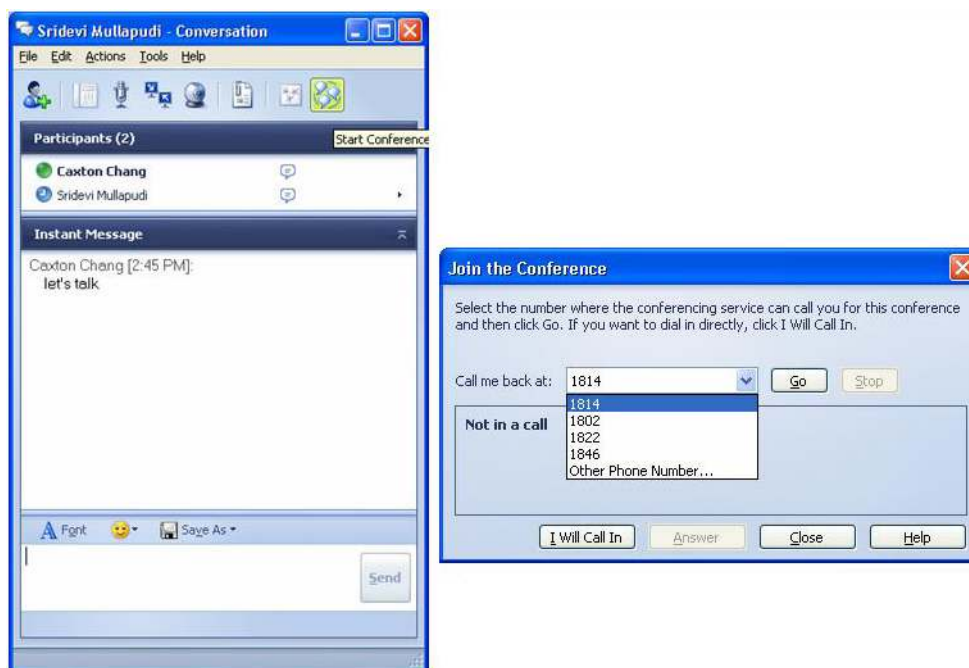
Figure 14. Initiating a Cisco Unified MeetingPlace Conference Using Microsoft Office Communicator

Table 13 lists solution components.

Table 13. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified MeetingPlace 6.0 or later (Launch and control Cisco Unified MeetingPlace voice conferences from Microsoft Office Communicator.) • Cisco Unified MeetingPlace Microsoft Integration Package 5.4 or later (Set up and attend Cisco Unified MeetingPlace meetings from Microsoft Outlook**.) 	<ul style="list-style-type: none"> • Microsoft Office Communicator 2005 and Microsoft Live Communications Server 2005 • Microsoft Outlook 2003 or 2007 and Microsoft Exchange 2000, 2003, and 2007 supported for Cisco Unified MeetingPlace conferencing

**Microsoft Outlook integration is also available for Cisco Unified MeetingPlace Express Versions 2.0 and 1.2.

Cisco WebEx Meeting Applications

Scheduling a Cisco WebEx meeting is just like scheduling any other meeting using Microsoft Outlook. With a simple click, meeting hosts can schedule, invite users, and start meetings directly from their Microsoft Outlook Calendar.

This integration eliminates the need to book meetings on the web or maintain separate schedules. When it is time to join a meeting, attendees simply click the calendar or the email link (Figure 15).

Figure 15. Schedule Cisco WebEx Meetings in Microsoft Outlook

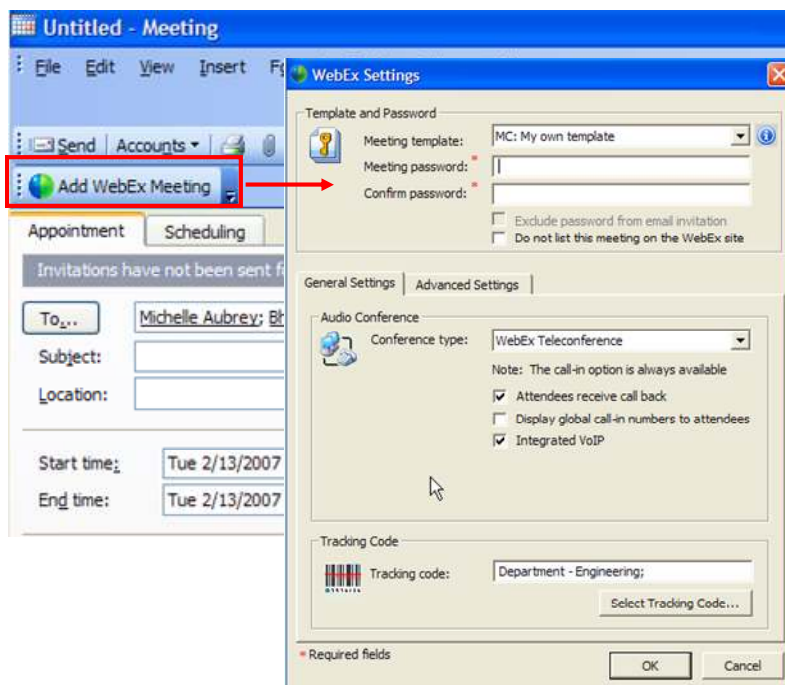


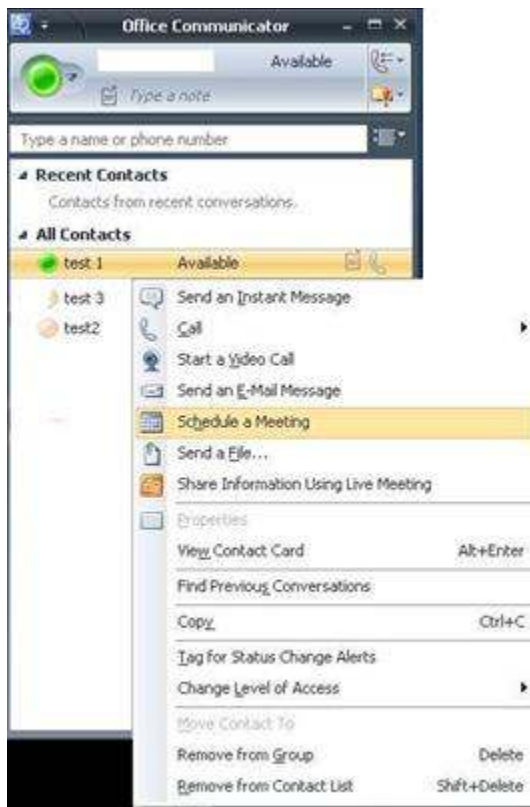
Table 14 lists solution components.

Table 14. Table 14 Solution Components

Cisco WebEx Meeting Application	Microsoft
<ul style="list-style-type: none"> • Meeting Center, Training Center, Event Center, and Sales Center • Available today with Cisco WebEx Business Suite 23 or later • Integrated Cisco Unified MeetingPlace 7.0 (or later) audio conferencing with Cisco WebEx Meeting Center 26 or later (optional) 	<ul style="list-style-type: none"> • Microsoft Outlook 2000 or later

Microsoft Office Communicator and Windows Messenger users also can benefit from Cisco WebEx interoperability. Meeting hosts can start, invite people, and join meetings directly from the Microsoft Office Communicator or Windows Messenger applications (Figure 16).

Figure 16. Schedule Cisco WebEx Meetings Using Microsoft Office Communicator



With one click, hosts can invite contacts into a Cisco WebEx meeting. The attendee simply clicks a URL in the chat message to join the meeting, eliminating the cumbersome process of going to a website to start and invite attendees into Cisco WebEx meetings (Figure 17).

Figure 17. Escalate Instant Messaging Sessions into Cisco WebEx Meetings

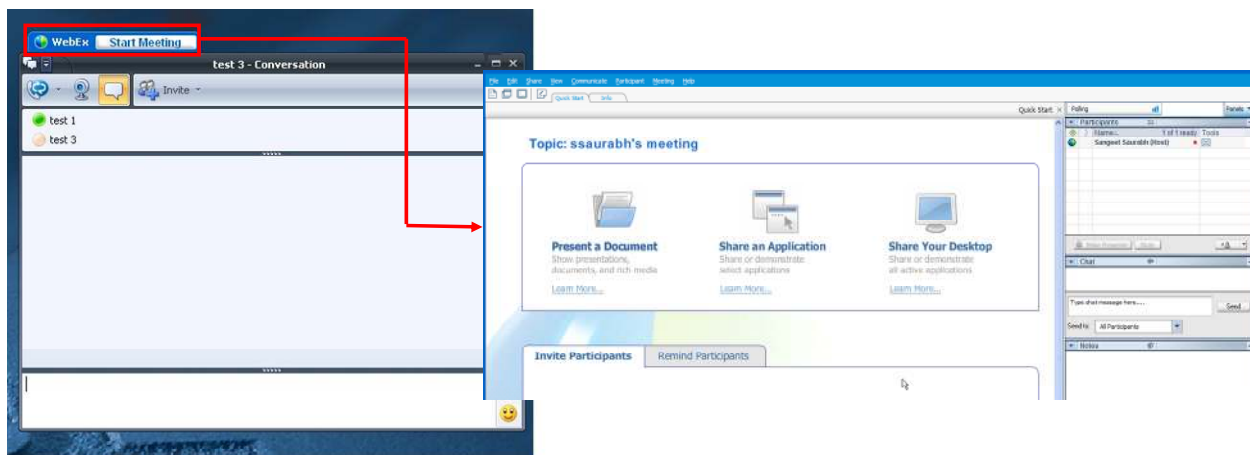


Table 15 lists solution components.

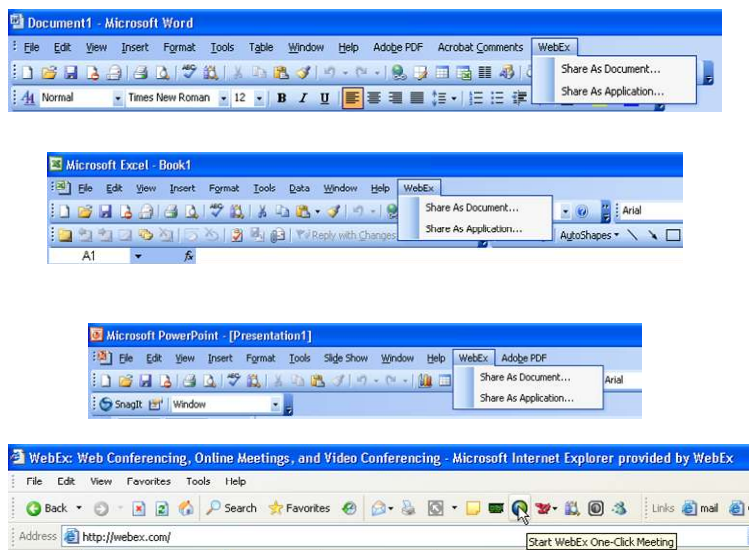
Table 15. Solution Components

Cisco WebEx Meeting Application	Microsoft
<ul style="list-style-type: none"> Meeting Center, Support Center, Training Center, and Sales Center Available with Cisco WebEx Business Suite 26 	<ul style="list-style-type: none"> Microsoft Office Communicator 2005 or later

- Integrated Cisco Unified MeetingPlace 7.0 (or later) audio conferencing with Cisco WebEx Meeting Center 26 or later (optional)

Additionally, you can easily start Cisco WebEx meetings from any Microsoft Office application (Figure 18). There is no need to leave the application in which you are working to start a meeting. Hosts can invite attendees using the Cisco WebEx One-Click “Invite to Meeting” function.

Figure 18. Start Cisco WebEx Meetings from Any Microsoft Office Application



Cisco WebEx One-Click desktop integration enables you to start and join Cisco WebEx meetings instantly, right from your desktop task bar (Figure 19). Benefits to this convenient integration include the ability to start an instant meeting from the desktop (eliminating the need to log onto the Cisco WebEx site) and join any meeting from the Cisco WebEx site from the desktop. All you need is the meeting host’s email address. You can integrate your Microsoft Outlook Global Address Book and personal contacts with Cisco WebEx applications to easily send meeting invitations to attendees inside or outside the company.

Figure 19. Start Cisco WebEx Meetings from Your Windows Desktop

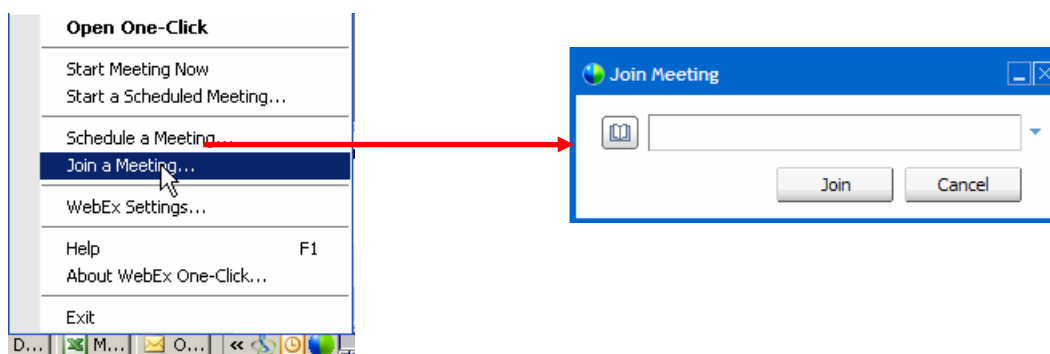


Table 16 lists solution components.

Table 16. Solution Components

Cisco WebEx Meeting Application	Microsoft
<ul style="list-style-type: none"> • Meeting Center, Training Center, Support Center, and Sales Center • Available in Cisco WebEx Business Suite 20 or later • Integrated Cisco Unified MeetingPlace 7.0 (or later) audio conferencing with Cisco WebEx Meeting Center 26 or later (optional) 	<ul style="list-style-type: none"> • Microsoft Windows 2000 and XP • Microsoft Outlook 2000 or later

Table 17 lists solution components.

Table 17. Solution Components

Cisco WebEx Meeting Application	Microsoft
<ul style="list-style-type: none"> • Training Center, Meeting Center, Sales Center, Support Center, and Event Center • Cisco WebEx Business Suite 23 or later • Integrated Cisco Unified MeetingPlace 7.0 (or later) audio conferencing with Cisco WebEx Meeting Center 26 or later (optional) 	<ul style="list-style-type: none"> • Windows 2003 Server • Active Directory Application Mode • Windows SharePoint Services 2.0 and 3.0 • Microsoft Office SharePoint Services 2003 and 2007

Cisco Unified Videoconferencing

Cisco Unified Videoconferencing Manager desktop video enhances the collaboration capabilities of Microsoft Office Communicator 2007 and Microsoft Office Communications Server 2007 by adding support for standards-based, multiparticipant video. Microsoft Office Communicator users can initiate impromptu video communications with other Microsoft Office Communicator users, as well as with any video solution that can connect to a Cisco Unified Videoconferencing Multipoint Control Unit (MCU), including Cisco TelePresence systems, Cisco Unified Video Advantage, and Cisco Unified IP video phones.

Table 18 lists solution components.

Table 18. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Videoconferencing Manager 5.6 (or later) 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007 • Microsoft Office Communicator 2007

Cisco WebEx Connect

Cisco WebEx Connect facilitates asynchronous collaboration by exposing Microsoft Outlook information through WebEx Connect. Cisco WebEx Connect makes it simple to access Microsoft Outlook email messages, calendar information, and SharePoint documents residing in file repositories — all through one interface.

You can quickly access your Microsoft Outlook Calendar information such as meeting subject, location, times, conference details, and attendees directly from Cisco WebEx Connect. Cisco WebEx Meeting Application meetings that are scheduled from Cisco WebEx Connect are also registered on your Microsoft Outlook Calendar.

Cisco WebEx Connect users can rapidly access Microsoft Outlook Email information directly from Cisco WebEx Connect (Figure 20). Rather than having to sort through Microsoft Outlook mailboxes, you can directly access the last 10 email exchanges with one of your team members directly from the Cisco WebEx Connect interface and have this information readily accessible during a collaboration session. In addition, with Cisco WebEx Connect you can view contact or team member availability information (such as online, in Cisco WebEx meeting, busy in their Microsoft Outlook Calendar, or available on their mobile device) from the Microsoft Outlook interface.

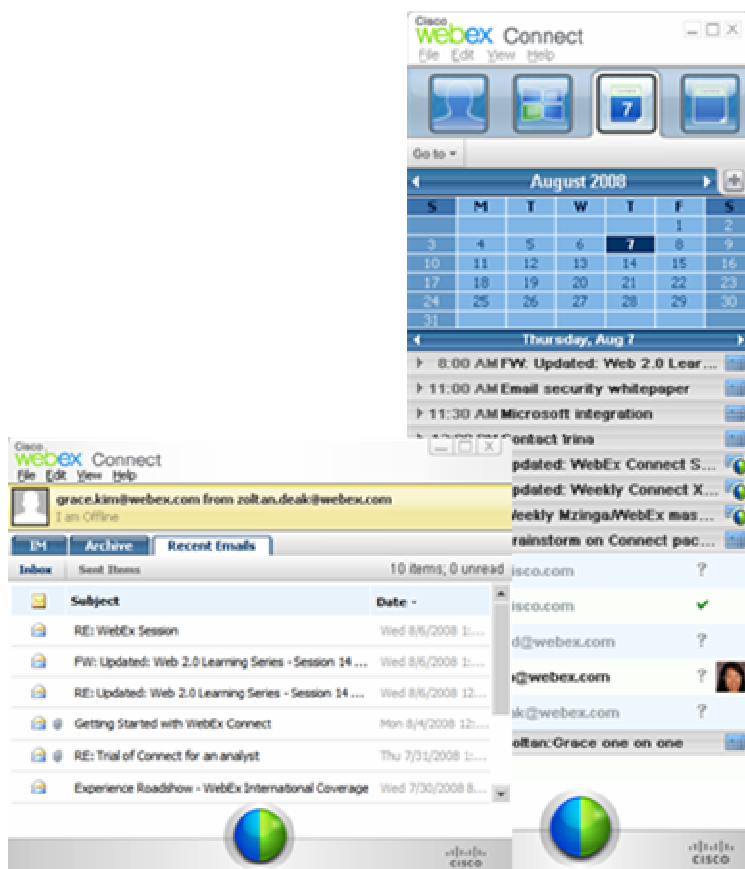
Figure 20. Access Microsoft Outlook Information from Cisco WebEx Connect

Table 19 lists solution components.

Table 19. Solution Components

Cisco WebEx Meeting Application	Microsoft
<ul style="list-style-type: none"> • Cisco WebEx Connect 	<ul style="list-style-type: none"> • Microsoft Outlook 2003 or greater

Cisco TelePresence

Cisco TelePresence creates the feeling of being “in person” with participants in remote locations. An integral part of this solution, Cisco TelePresence Manager makes it easy for you to set up and launch calls and eliminates complexity for administrators managing Cisco TelePresence deployments. The software is designed to make the in-room experience for users as natural and simple as possible, with “one-button-to-push” meeting launch and automatic display of meetings on the in-room IP phone.

The Cisco TelePresence Manager scheduling and management software facilitates call scheduling and setup from common enterprise groupware such as Microsoft Exchange and Lotus Notes. This software gives administrators Cisco TelePresence call and system usage and operations reporting capabilities.

Cisco TelePresence Manager adds value for IT managers by providing the data to justify the Cisco TelePresence investment and helps reduce the cost of ownership by integrating with existing infrastructure.

Cisco TelePresence Manager is essential for delivering the full value of a Cisco TelePresence meeting solution. It collects information about Cisco TelePresence systems from Cisco Unified Communications Manager and associates those systems to their physical locations as defined in Active Directory and Microsoft Exchange. It also automatically collects information about multipoint capabilities and allocates those resources when needed, allowing

you to schedule both point-to-point and multipoint Cisco TelePresence meetings from your Microsoft Outlook group calendar. That schedule is automatically sent to the Cisco TelePresence systems involved in the call. You can launch your Cisco TelePresence meeting with the push of a button by simply selecting your meeting from the list of meetings shown on the Cisco Unified IP Phone in the meeting room.

Table 20 lists solution components.

Table 20. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco TelePresence Manager 1.3 or later • Cisco Unified Communications Manager 5.1.2b or later 	<ul style="list-style-type: none"> • Microsoft Exchange Server 2003 and 2007 • Microsoft Outlook Client 2003 and 2007 • Microsoft Active Directory 2003

Cisco Contact Center with Microsoft

The Cisco Unified CallConnector for Microsoft Dynamics CRM integrates Cisco Unified Communications with the Microsoft Dynamics CRM application at the desktop, without the need for additional hardware. Cisco Unified CallConnector for Microsoft Dynamics CRM provides greater employee productivity and organizational efficiencies, immediate information about inbound and outbound calls, fast and easy “click-to-dial” functions from CRM database records, and call-duration tracking, information capture, and record creation.

With Cisco Unified Expert Advisor, Cisco offers the ability to increase first-call resolution and caller satisfaction by allowing presence-enabled knowledge experts using Microsoft Office Communicator or Cisco Unified Personal Communicator anywhere in the business to assist and collaborate with callers, with or without a formal contact center.

With Cisco Unified Expert Advisor, formal contact center agents can request expert assistance on a call with just the click of a button, or can request expert help through an automated self-service application. Either way, Expert Advisor combines experts’ Microsoft Office Communications Server presence information with innovative skills-based routing technology to automatically select the right expert or experts for each call. Experts are offered calls (with associated caller information) through their Microsoft Office Communicator; multiple experts can be contacted simultaneously, improving the chances of speedy response. Experts accept offered calls simply by typing a response in their IM client, enabling Expert Advisor to route the call to their designated phone or mobile device. If the call was referred to an expert by a formal agent, the agent can remain on the call if desired.

Table 21 lists solution components.

Table 21. Solution Components

Cisco	Microsoft
<ul style="list-style-type: none"> • Cisco Unified Communications Manager 7.0 (or later) • Cisco Unified Presence 7.0 (or later) • Cisco Unified Contact Center Enterprise 7.2(3+) and 7.5(5+) (optional) • Cisco Unified Customer Voice Portal 7.0(2+) (optional) • Cisco Unified Expert Advisor 7.6 (or later) 	<ul style="list-style-type: none"> • Microsoft Office Communications Server 2007 • Microsoft Office Communicator 2007

Cisco Network with Microsoft

Cisco integrated services routers are ideal for SMBs and small enterprise branch offices. The routers enable businesses to reduce costs by deploying a single, resilient system for fast, highly secure delivery of multiple mission-critical business services, including data, security, and wireless. Cisco integrated services routers provide IP-to-public switched telephone network (PSTN) gateway functions, allowing businesses and agencies using Microsoft Office Communications Server 2007 to interconnect with service providers and the public network.

Summary

Cisco and Microsoft have a strong history of collaboration in the development of their respective products and technologies. Both companies are actively working on product integrations across several product areas to provide organizations with maximum flexibility in deploying unified communications. Cisco and Microsoft are building on open standards such as SIP to allow joint customers to use their existing resources and to deliver workspace-transforming collaboration experiences that increase individual and organizational productivity.

For More Information

For more information about Cisco Unified Communications, visit <http://www.cisco.com/go/unifiedcommunications>.

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