

At-a-Glance Updates by Version

The Microsoft software-based approach to communications has enabled rapid iteration throughout its product releases. The table below provides a quick view of how the product has evolved.






































 Existed
  Improved in Release
  New Item

Table 1. Communications Server updates by version

	Live Communications Server 2005	Office Communications Server 2007	Office Communications Server 2007 R2	
Streamlined Communications	Presence			
	Instant messaging			
	Web conferencing			
	Video conferencing			
	High-definition video			
	Dial-in audio conferencing			
	Persistent group chat rooms			
	Team calling			
	Communicator Web Access			
	Rich client and Web-based desktop sharing			
	Communicator Mobile for Windows Mobile			
	Microsoft Office integration			
	Enterprise voice			
	Rich telephony devices			
	PSTN connectivity			
	Call treatment, queuing, and routing			
	Attendant console			

		Live Communications Server 2005	Office Communications Server 2007	Office Communications Server 2007 R2
Operational flexibility and control	Active Directory support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Microsoft management console support		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Monitoring tools for communications		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Single number reach for mobile phones			<input checked="" type="checkbox"/>
	Session Initiation Protocol (SIP) trunking			<input checked="" type="checkbox"/>
	Secure business federation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
	On-premises conferencing		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Response groups			<input checked="" type="checkbox"/>
	Support for virtualization*			<input checked="" type="checkbox"/>
	System center operations manager support			<input checked="" type="checkbox"/>
	Public IM federation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Archiving, call detail records		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Extensible communications platform	Visual studio support		<input type="radio"/>	<input checked="" type="checkbox"/>
	Embeddable presence	<input type="radio"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	UC activities for Windows workflow			<input checked="" type="checkbox"/>
	UC-managed API for call control (SIP stack)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	UC managed API for media (voice and video)			<input checked="" type="checkbox"/>
	UC-managed API for speech technology			<input checked="" type="checkbox"/>
	Microsoft speech recognition and synthesis		<input type="radio"/>	<input checked="" type="checkbox"/>
Open Interoperability program		<input type="radio"/>	<input type="radio"/>	

*Support is expected to be available mid 2009

Capabilities

Microsoft Office Communications Server 2007 provides presence, instant messaging (IM), Web and audio/video conferencing, and voice over internet protocol (VoIP) capabilities in an innovative software package. The server software is compatible with existing hardware and telephony systems, but can also be enhanced with devices designed specifically for Office Communications Server.

Comprehensive communications and presence technologies allow users to immediately verify presence status and connect with teammates. Communication is available through IM, conferencing, or VoIP. Office Communications Server includes a rich feature set for each communication capability.

- [Presence](#)
- [Instant Messaging](#)
- [Web and Audio Conferencing](#)
- [Voice over Internet Protocol \(VoIP\)](#)
- [Microsoft Office Integration](#)

Presence

Rich Presence unites real-time status information (available, offline, busy, in a meeting, in a call, etc.) with all the ways you communicate: phone, conferencing, instant messaging, and e-mail. Wherever a contact's name appears—in an e-mail, on a team site, or in a document workspace—status and contact information travels with the identity. Presence also integrates with Windows Mobile devices, so real-time status and contact information are available when you travel, too.

Feature	Description
Automatic Presence States	A user's presence state is automatically updated to "In a Meeting" based on his/her personal calendar stored in Exchange. Users can also choose to expose additional details about each meeting to their contacts. A user's OOF message is automatically updated based on his/her personal calendar stored in Exchange to contacts that view the user's status.
Contact Tagging	Users can "tag" contacts to receive a notification whenever the tagged contact's presence changes. Tagged contacts have a special indicator and when the resultant notification appears, the tag can be removed.

- Customized Presence States** Users can publish presence states that are custom-defined, usually by administrators in an organization.

- Do Not Disturb** Users can set a "Do Not Disturb" state that stops all notifications and incoming communications, except for those from designated users.

- Federated Presence Indicator** Users can easily see which of their contacts are from a "federated" relationship with another organization, or with a public IM network.

- Rich Presence States** Users can publish states beyond the usual Online, Busy, Away, or Offline. They can select Do Not Disturb, Be Right Back, and customize their notes to provide additional information.

- Location Display** Users can publish details of their current physical location.

- Presence Levels** Users can control what information about themselves is exposed to their contacts by setting "presence levels" (logical groupings of the user's information) for each contact, which range from sharing a lot of information about the user and their state to blocking contacts.

- Presence Note** Users can create a custom text note in addition to their presence state to provide contacts with more details about their current activity and view the presence notes of other contacts.

Instant Messaging

Office Communications Server 2007 includes instant messaging functionality that works with rich presence to allow users to communicate almost instantaneously with colleagues, partners, and contacts. Instant messaging allows real-time text-based communication, which helps to reduce turnaround time and increase productivity.

Feature	Description
Contact Card	Users can easily view detailed information about their contacts, including a link to their SharePoint My Sites, and immediately start conversations with them through any of the available communication options (e.g., IM, call, e-mail).
Contact Grouping	Users can group their contacts based on the contacts' availability, the contacts' presence level, whether the contact is "tagged," or by group.

Contact Search	Users can search for anyone in the global address list of an organization or their Microsoft Office Outlook contacts, view the results, and continue typing to narrow the results while viewing the contacts' presence states.
Corporate Distribution List Integration	Users can search corporate distribution lists alongside individual contacts and can add them to contact lists, and view and converse with list members.
Customized Contact Groups	Users can create personal groups to better organize their contacts.
Drag and Drop	Users can easily modify their contact lists, initiate conversations, and add additional contacts to conversations, all using a comprehensive and intuitive drag-and-drop capability.
Emoticons	Users can convey emotions in IM conversations using special expressive characters.
File Transfer	Users can send and receive files from within IM conversations.
Group IM	Users can initiate and hold IM conversations with up to 100 other people, including individuals, user-defined groups, and corporate distribution groups.
Ink IMs	Users can use a Tablet PC to send handwritten "ink" IMs.
Integration with Web Conferencing	Users can escalate from an IM conversation to a Web conference.
Missed IM Indicator	Users are notified via an icon when they have missed IM conversations.
Most Recently Used (MRU) Contacts	Users can quickly view the 10 most recent contacts with which they have held IM conversations in a separate, dynamic list.
Rich Content in Instant Messages	Users can choose the font, style, and color of their IMs and can paste formatted text and pictures from other applications into their IM conversations without losing the formatting (e.g., paste an Office Excel spreadsheet or bullets from an Office PowerPoint slide).
Roaming Contact List	As contact lists are stored on the server, a user can log on to different PCs and avoid the effort of recreating contact lists.

Typing Notification Users can see when a contact in an IM conversation is currently typing a response.

Web and Audio Conferencing

With Microsoft Office Communicator 2007, setting up a conference call happens with drag-and-drop simplicity. You can transform any conversation—a phone call or an instant message session—into a conference call or a videoconference on the fly. On-premise Web conferencing in Office Communications Server 2007 supports voice and videoconferencing tools along with a rich online meeting environment that includes whiteboarding, polling, and application sharing. With Office Communications Server 2007, you can effectively collaborate, train, or deliver interactive presentations with anyone, virtually anywhere, using just a PC and an Internet connection. Video devices like Microsoft RoundTable integrate with the Web conferencing client to provide a panoramic view of the meeting room to remote participants, further enhancing their conferencing experience.

Feature	Description
1:1 Chat	Users can send and receive text messages to and from each other.
Active Speaker Detection	Users can see the active speaker through an indicator; if a video stream is also present in the conference, they can see the active speaker.
Alternate Participation Location	Users can choose an alternate location from which to join a call, e.g., home phone, mobile phone, SIP phone, or another number.
Annotation	Users can annotate slides and share the multimedia changes automatically.
Anonymous Participants	Conferences can be conducted with users who are inside or outside the firewall, across federated links, or are anonymous.
Application Sharing	Users can share the display and control of an application with other users.
Audience Polling	Presenters can poll the audience for responses to specific questions, and quickly share the results.
Audio Conferencing Provider Integration	The audio portion of a web conference can be conducted using the conferencing services of an audioconferencing provider and the bridge can be controlled from the meeting console.

Client-Side Recording	Using the Live Meeting client, users can create recordings of meetings as they take place, including audio and video that may have been part of the meeting.
Dynamic Content Sharing	Users can share dynamic content such as a Windows Media file or a Flash resource with other attendees.
Handouts	Participants can share files in their native formats among meeting participants.
Invite Additional Participants	Conference participants can easily invite additional users to an existing conference.
Presenter Conference Controls	Conference leaders can lock the conference, selectively mute or eject participants, or end the conference.
Meeting Security	Meeting organizers can restrict the attendance of Web conferences based on Active Directory authentication.
Multi Party Audio/Video Conferencing in a Web Conference	Users can hold 1:1 or multi party IP audio and video conversations while in a Web conference.
Questioning	Audience members can add questions to a queue, and the presenter can respond to them in an orderly manner.
Rich Conference Roster	Users can see details about participants, such as active modes, leader status, and the active speaker.
Microsoft RoundTable Integration	Users can create an immersive meeting experience with panoramic video and active speaker detection for meetings with remote participants by using the Microsoft RoundTable device in conjunction with the Live Meeting client.
Shared Notes	Attendees can share notes with other meeting participants.
Snapshot	Users can share static images of their desktops.
Static Content Sharing	Users can share such static content, such as a Microsoft Office Word document or a PowerPoint presentation, during a Web conference.
Web Slide	URLs can be shared with participants in the meeting and viewed via a browser embedded in the console.

Whiteboard Users can start a whiteboard session during a Web conference to share ideas or diagrams.

Multiparty Audio/Video Conferencing (using Communicator client)

Dial-Out Users can be "dialed out" at any PSTN phone number to join a conference.

Escalation to Web Conference Users can easily escalate from an IM/audio/video conversation or conference to a Web conference.

Leader Conference Controls Conference leaders can selectively mute or eject participants, and lock or end the conference.

Rich Conference Roster Users can see details about participants, including active modes, leader status, and who is the active speaker.

Transition from 1:1 to MultiParty Conversation Users can add participants to a 1:1 conversation (IM, voice, video), automatically transitioning from a peer-to-peer session to a server-based conference without further configuration.

Single-Click Conferencing Users can select a range or group of contacts and easily initiate an IM, audio, or video conference.

Voice over Internet Protocol (VoIP)

With Microsoft Office Communicator 2007, basic telephone tools like call forwarding, hold, transfer, and conference calling are easier to use. Office Communications Server 2007 provides a software-based VoIP backbone that runs on off-the-shelf hardware and also connects an organization's VoIP infrastructure to the PSTN for a complete telephony solution. With VoIP, people manage the telephone the same way they manage e-mail and the Internet: with intuitive software. And you can deploy VoIP and continue leveraging your investment in current PBX and telephony hardware.

Feature	Description
Call Authorization	Only allow authorized users to initiate certain calls (e.g., international calls).
Call Context	Voice calls can be given an importance or a subject that can be displayed to another Office Communicator user.

Call Deflect	Users can "deflect" (dynamically forward) incoming voice calls to another device such as a cellular phone or voice mail.
Call Encryptions	Calls can be encrypted (SRTP).
Call Forwarding	Users can forward calls using rules (e.g., all calls, if there's no answer, based on presence, based on Office Outlook working hours).
Call Hold	Users can put calls on hold and then retrieve them from hold.
Call Logs	Maintain call logs for incoming, outgoing, or recent calls.
Call Sensitivity Control	Users can control the sensitivity of calls, preventing others from being added to the call.
Call Transfer	Users can transfer calls either using single-step or consultative transfer.
Call Waiting	When on a call, users are notified of any waiting calls.
Click to Call	Users can initiate calls directly from existing address lists or other applications where presence information is shown.
Conference Call	Users can initiate multiparty calls or dial out from an existing call to include other contacts. These calls can be initiated on ad hoc basis or can be scheduled using an Office Outlook add-in.
DTMF Digit Generation	Users can use a dial pad to generate DTMF digits while on a call (for example, to navigate touch tone interfaces).
Inbound and Outbound Calling	Users can make and receive voice calls from their PC to another PC or to and from a regular PSTN telephone number.
Multiple Call	While on one call, a user can initiate a second call and the first is automatically put on hold.
Reverse Number Lookup	When an incoming call is received from the PSTN, the number is compared with those in the corporate address list and the user's Office Outlook contacts. If a match is found, the contact's name is displayed.
Simultaneous Ring (a.k.a. Call Forking)	A call can simultaneously ring all registered endpoints plus an internal, external, or mobile phone number.

Unified Messaging Integration Unified messaging capability from Exchange Server 2007 can be integrated.

USB Device Integration for Voice Calls Communicator is designed to integrate with USB devices to provide a rich calling experience. This includes interacting with the state of hook switches, customizing advanced audio configuration options, and displaying call information on devices with a display.

Microsoft Office Integration

Office Communications Server 2007 allows office integration via Microsoft Office Outlook conference scheduling, conversation history, integrated presence, Microsoft Office OneNote integration, and the ability to reply to e-mail with real-time communication.

- **Conference scheduling via Office Outlook.**

Using a plug-in for Office Outlook, the user can schedule a conference call or Web conference straight from a toolbar. A meeting request is then created, and at the appointed time, the user simply clicks a link in the meeting request to join the conference.

- **Conversation history stored in Office Outlook.**

Office Communications Server can be configured to store a user's conversation history in an Office Outlook folder. This includes all instant message conversations, phone calls, and forwarded calls. Each item in the conversation history folder includes the following information:

- Time and date of the message
- Conversation subject
- Conversation body
- Participant names

- **Contextual integrated presence.**

With Office Communications Server, information about a user's presence displays throughout the 2007 Microsoft Office system using icons consistent with those found in the Office Communicator client. Whenever these icons display, users can access a drop-down menu that provides a variety of communications options, including the ability to initiate an instant message conversation or a voice call.

- **Missed conversations search folder in Microsoft Exchange/Microsoft Outlook.**

If a user is not at their PC when a conversation is initiated, a "missed conversation" notification is generated. This appears in their Exchange inbox and also is highlighted via an icon in the Office Communicator interface.

- **OneNote Integration**

During a conversation—voice call, IM, or conference—users can open Office OneNote to take notes and automatically track conversation participants.

- **Reply to e-mail with real-time communication.**

Users can easily initiate conversations with contacts from within a variety of Microsoft Office applications. In an Outlook 2007 e-mail message, there are options to reply (or reply all) to the mail with a voice call or IM. In other Microsoft Office applications, anywhere there is a presence icon, users can initiate an IM or voice conversation from the presence icon's drop-down menu.

Rel 2 Features

What's New

Learn more about the new features and functionality in the Office Communications Server 2007 R2 update that continue to deliver on the Microsoft promise to streamline communications for users, give IT organizations the flexibility and control they need, and provide an extensible communications platform.

Streamlined Communications

- **Call management** capabilities let receptionists and team assistants take a large volume of incoming calls and quickly route them to the intended recipients. Delegation allows executives to give complete management of their phone calls to assistants.
- **Desktop-sharing** capabilities allow users on Windows, Macintosh, and Linux platforms to collaborate with one another while they talk to each other using enhanced audio conferencing features.
- **Group chat** lets organizations set-up searchable, topic-based chat rooms that persist over time, which allows geographically distributed teams to collaborate with one another efficiently while preserving organizational knowledge.

Operational Flexibility and Control

- **On-premise audio conferencing** capability puts IT in control of audio conferencing infrastructure while saving on outsourced audio conferencing costs.
- **Single Number Reach** allows IT to log business calls placed from mobile phones for accounting purposes. It also helps to ensure that the same dialing rules that apply to calls from a work phone extends to mobile calls.
- **Video monitoring** capabilities allow IT to monitor the quality of video calls and conferences on their network and make adjustments if necessary.
- **Support for SIP-trunking** removes the need to manage on-premise gateways.

Extensible Communications Platform

- **Automate business processes** with instant messaging, voice, and e-mail workflows with familiar development tools like Microsoft Visual Studio 2008.
- **Agent Dashboard for Microsoft Dynamics CRM**, built using the published platform APIs in Office Communications Server 2007 R2, gives call center agents the ability to see presence information and the ability to “click-to-communicate” from within the Microsoft Dynamics CRM screens.