



## **Microsoft Lync Online** for Enterprises

*Service Description*

**Published:** June 28, 2011

For the latest information, please see [Microsoft Office 365](#).

The information contained in this document represents the current view of Microsoft Corporation on the issues discussed as of the date of publication and is subject to change at any time without notice to you. This document is provided "as-is." Information and views expressed in this document, including URL and other Internet Web site references, may change without notice. You bear the risk of using it. MICROSOFT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS DOCUMENT.

This document does not provide you with any legal rights to any intellectual property in any Microsoft product. You may copy and use this document for your internal, reference purposes. This document is confidential and proprietary to Microsoft. It is disclosed and can be used only pursuant to a non-disclosure agreement.

The descriptions of other companies' products in this document, if any, are provided only as a convenience to you. Any such references should not be considered an endorsement or support by Microsoft. Microsoft cannot guarantee their accuracy, and the products may change over time. Also, the descriptions are intended as brief highlights to aid understanding, rather than as thorough coverage. For authoritative descriptions of these products, please consult their respective manufacturers.

Microsoft may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Microsoft, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

All trademarks are the property of their respective companies.

©2011 Microsoft Corporation. All rights reserved.

Microsoft, Active Directory, Internet Explorer, MSN Messenger, Outlook, PowerPoint, RoundTable, SharePoint, Silverlight, Windows, Windows Live Messenger, Windows PowerShell, Windows Server, Windows SharePoint Services, Windows Vista, and Windows XP are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

# Contents

<b>Introduction</b> .....	<b>5</b>
<b>Features of Microsoft Office 365</b> .....	<b>6</b>
Office Desktop Setup.....	7
Federated Identity and Single Sign-On.....	7
System Requirements.....	7
International Availability.....	8
Data Center Locations.....	8
Localization.....	9
<b>Lync Online Service Benefits</b> .....	<b>10</b>
<b>Lync Online Service Details</b> .....	<b>11</b>
Microsoft Lync 2010 Client.....	11
Instant Messaging.....	11
Presence.....	11
<i>Presence with Office Outlook and Other Office Applications</i> .....	11
<i>Presence with SharePoint Online</i> .....	12
<i>Presence with Exchange Online</i> .....	12
Lync-to-Lync Audio and Video Calls.....	12
File Transfer.....	12
Distribution Lists.....	13
Lync External Connectivity (Lync Federation).....	13
IM Security.....	14
Online Meetings.....	14

<i>Lync Multiparty Audio</i> .....	14
<i>Interoperability with Third-Party Dial-in Audio Conferencing Services</i> .....	15
<i>Lync Multiparty Video</i> .....	15
<i>Content Sharing (Web Conferencing)</i> .....	15
<i>Ad-hoc Meetings</i> .....	15
<i>Scheduled Meetings from Outlook</i> .....	15
<i>Lync Web App Client</i> .....	16
<i>Lync Attendee Client</i> .....	16
<b>Service Administration</b> .....	<b>17</b>
<b>Interoperability</b> .....	<b>18</b>
Lync Online and Lync Server.....	18
Lync Online with Exchange Server .....	18
Lync Online and SharePoint Server.....	18
<b>Subscription Plans</b> .....	<b>20</b>
Office 365 Suite Subscription Plans .....	20
<b>Service Continuity Management</b> .....	<b>22</b>
<b>Appendix A: Lync 2010 System Requirements</b> .....	<b>23</b>
<b>Appendix B: Feature Comparison Matrix</b> .....	<b>25</b>

# Introduction

---

Microsoft® Lync™ Online is a next-generation cloud communications service that connects people in new ways, anytime, from virtually anywhere. Lync Online provides intuitive communications capabilities across presence, instant messaging, audio/video calling and a rich online meeting experience including PC-audio, video and web conferencing. Transform your interactions with colleagues, customers and partners from today's hit-and-miss communication to a more collaborative, engaging, and effective experience.

Organizations can purchase Lync Online as a standalone service from Microsoft Office 365 or as part of an Office 365 for enterprises suite that includes Lync Online, Microsoft Exchange Online, Microsoft SharePoint® Online, Microsoft Office Professional Plus, and Microsoft Office Web Apps.

 Note

Not all Office 365 subscription plans include the services mentioned above.

This service description is intended to help IT professionals by describing the features that are included with Lync Online.

## Features of Microsoft Office 365

---

Lync Online is one of several cloud services offered by Microsoft Office 365 for enterprises. These Internet-based services are designed to help meet the need for robust security, 24/7 reliability, and user productivity.

Each service is designed for reliability, availability, and performance with a financially backed service level agreement (SLA) for a guaranteed 99.9-percent scheduled uptime. Microsoft deploys patches, security updates, and back-end upgrades, helping to eliminate the time and effort organizations spend managing their servers.

Subscribers to Lync Online benefit from a set of features that are common to all of the Microsoft business-class cloud services:

- **Secure access:** Each offering from Microsoft Office 365 is accessed through 128-bit Secure Sockets Layer (SSL) or Transport Layer Security (TLS) encryption. Anyone who intercepts a communication sees only encrypted text.
- **Intrusion monitoring:** Microsoft continuously monitors the Office 365 systems for any unusual or suspicious activity. If Microsoft detects such activity, it investigates and responds appropriately. In the unlikely event that a significant incident occurs, the customer is notified.
- **Security audits:** Microsoft regularly assesses the Office 365 infrastructure to ensure that the latest antivirus signatures and required security updates are installed, and that high-level configuration settings are in compliance with Microsoft security policies. For details, refer to the [Security and Service Continuity for Enterprises Service Description](#).
- **High availability:** Microsoft Office 365 services have a 99.9-percent scheduled uptime. If a customer's service is affected, Office 365 offers financial remedies subject to the terms and conditions of the SLA. For details, refer to the [Service Level Agreement for Microsoft Online Services](#).
- **Service continuity:** Redundant network architecture is hosted at geographically dispersed Microsoft data centers to handle unscheduled service outages. Data centers act as backups for each other: If one fails, the affected customers are transferred to another data center with limited interruption of service.
- **Microsoft Online Services Portal:** This easy-to-use website is the center for activities related to Microsoft Office 365. The portal provides services based on each organization's specific needs. Prospective subscribers can use the portal to sign up for a free trial. End users accessing the portal can find online help, open Microsoft SharePoint site collections, and launch Microsoft Outlook® Web App. Administrators can manage users, administer services, download tools, and learn about service administration from online help.
- **Directory Synchronization tool:** For subscribers with Active Directory® directory services deployed on-premises, this tool helps keep the on-premises Active Directory and the Microsoft Office 365 directory synchronized.

- **Remote administration:** With Microsoft Windows PowerShell™, administrators can perform many tasks using a script or automated process. For example, tasks such as creating users, resetting passwords, assigning licenses, and obtaining service-use data can be fully automated.


## Office Desktop Setup

For the best experience with Office 365, a set of required components and updates must be applied to each workstation. To simplify the installation and maintenance of these components and updates, Microsoft provides an installable piece of software—called Office desktop setup—at no charge. These updates are required for all workstations that use rich clients (such as Microsoft Office 2010) and connect to Microsoft Office 365.

Office desktop setup provides multiple benefits, including:

- Automatically detecting necessary updates
- Installing updates and components upon approval or silently from a command line
- Automatically configuring Outlook and Microsoft Lync for use with Microsoft Office 365
- Uninstalling itself from the client computer after running

A list of these update requirements are available for companies that want to use an alternative method of deploying the updates. See the help topic [Manually update and configure desktops for Office 365](#) for details.

 **Note**

Office desktop setup is not an authentication or sign-in service and should not be confused with single sign-on.

## Federated Identity and Single Sign-On

With on-premises Active Directory, administrators can use a single sign-on approach to Office 365 authentication. To achieve this, administrators can configure on-premises Active Directory federation Services—a Microsoft Windows Server® 2008 service—to federate with the Microsoft Federation Gateway. After Active Directory Federation Services is configured, all Office 365 users whose identities are based on the federated domain can use their existing corporate logon to automatically authenticate to Office 365.

## System Requirements

Table 1 shows the software required to access Microsoft Office 365—including Lync Online.

**Table 1: Software supported by Microsoft Office 365**

Software	Supported Version
Operating systems	Windows® 7 Windows Vista® Service Pack 2 Windows XP Service Pack 3

Software	Supported Version
	Macintosh OS X 10.5 (Leopard), 10.6 (Snow Leopard) Windows Server 2008
System software	Microsoft .NET Framework 3.0 (for Windows XP) Java client 1.4.2 (for Macintosh OS X)*
Office clients	Microsoft Office 2010 or Office 2007 Service Pack 2 Office 2008 for Mac and Microsoft Entourage® 2008 Web Services Edition Office 2011 for Mac and Outlook 2011 for Mac .NET Framework 2.0 or later Microsoft Lync Client 2010
Client applications	Office desktop setup
Browser software—Microsoft Online Services Portal	Internet Explorer 7 or later Mozilla Firefox 3.x Apple Safari 3.x
Browser software—Outlook Web App	Internet Explorer 7 or later Firefox 3 or later Safari 3 or later on Macintosh OS X 10.5 Chrome 3 and later versions Outlook Web App also has a light version that supports a reduced set of features across almost any browser

## International Availability

Office 365 is available in Austria, Belgium, Canada, Colombia, Costa Rica, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Ireland, Israel, Italy, Japan, Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Puerto Rico, Romania, Singapore, Spain, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, and United States.

Multinational customers that purchase services in an approved country may enable use by their end users that reside anywhere in the world, except for Argentina and countries currently embargoed by the U.S. government. Features availability may vary by location. See the help topic [License restrictions for Office 365](#) for details.

## Data Center Locations

Microsoft Office 365 maintains primary and backup data centers distributed around the world. When a company signs up for a Microsoft Office 365 service, its hosted environment is automatically provisioned in the appropriate data center based on the company's address. All users for the company are hosted from the same data center.



## Localization

Table 2 summarizes the languages supported the Microsoft Office 365 platform and related components.

**Table 2: Supported languages for components related to Microsoft Office 365**

Component	Supported languages
Microsoft Online Services Portal	Brazilian Portuguese, Chinese Traditional, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian <sup>1</sup> , Japanese, Norwegian (Bokmal), Polish, Romanian, Spanish, Swedish
Help content—for end users and IT professionals	Brazilian Portuguese, Chinese Traditional, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Norwegian (Bokmal), Polish, Romanian, Spanish, Swedish
Directory Synchronization Tool	Brazilian Portuguese, Chinese Traditional, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Norwegian (Bokmal), Polish, Romanian, Spanish, Swedish

## Technical Support

The Microsoft Office 365 technical support team provides supports services to people with administrator permissions for their company’s Office 365 services. Those with administrator permissions provide support services to their company’s Office 365 end users. For contact information, see Online Help in the services Administration Center.

## Lync Online Service Benefits

---

Lync Online is a next-generation, enterprise-grade communication solution that can improve business efficiencies, increase productivity, and provide cost savings.

Organizations can gain the following major benefits from using Lync Online:

- **Know whether others are available to communicate.** Repeatedly attempting to reach each other by phone or email is a common communication problem in today's business world. Often the problem stems from workers who are physically separated by geography and time zones and who lack visibility into other people's availability or presence. Presence information is especially important when there is a need for a critical business discussion or a time-sensitive decision has to be made. Lync Online helps organizations increase individual productivity by adding presence, IM, and PC-to-PC audio and video calling to the business IT infrastructure.
- **Presence and click-to-communicate from Microsoft Office Outlook.** Collaborating with others can be challenging for workers whose jobs require constant use of business productivity applications during the work day. Lync Online connects presence and real-time collaboration capabilities with the Microsoft Office Outlook messaging and collaboration client. This enables higher productivity by allowing workers to collaborate using the programs they're already familiar with.
- **Connect with people and be more productive through a rich and immersive online meeting experience.** Online meetings enable users to connect wherever they are through PC-based audio, video, and web conferencing, both as scheduled meetings and spontaneous, ad hoc collaboration sessions. With Lync Online, users can collaborate, share information, and coordinate their efforts in real time, all within the context of an existing workflow. Lync Online supports an integrated conferencing experience, enabling users to join the same conference from the PC (via the Microsoft Lync 2010 client) or from a phone (requires a separate dial-in audio conferencing service from a qualified partner).
- **Collaborate within SharePoint sites.** Lync Online serves as the presence engine for SharePoint team sites and portals, providing presence and IM access from within Windows SharePoint Services and SharePoint Server sites. For example, users can enable the Members Web Part to see the presence of anyone associated with a SharePoint site, which allows information workers to spend more productive time in their business productivity applications.
- **Communicate with other organizations running Lync.** The federation feature of Lync Online establishes trusted relationships between an organization and one or more external organizations. This allows users to see user presence and communicate using IM and PC-based audio and video across organizational boundaries.
- **Communicate with Windows Live Messenger contacts.** Lync Online enables your users to connect with Windows Live Messenger contacts using IM, audio and video calls directly from Lync.

**Reduce costs.** Lync Online facilitates rich and engaging communications across and outside an organization without expensive business travel or costly phone bills. The Lync Online service allows organizations to focus IT resources on developing value instead of running IT infrastructure. Microsoft manages the risks and complexity of operational systems.

## Lync Online Service Details

---

This section describes the features of the Lync Online service. Where applicable, service options are noted along with feature limits.

### Microsoft Lync 2010 Client

To access and use the Lync Online service, end users require Microsoft Lync 2010, the desktop client for Lync Online. Currently, Lync 2010 is available to service subscribers at no additional charge as a promotional offer. Organizations can find information on how to download the current version of Lync 2010 in the Office 365 Administration portal. See [Appendix A](#) for Lync 2010 system requirements.

#### Limit

Microsoft Office 365 does not support client deployment in a customer organization. Organizations should work with their IT partners if they need assistance deploying the Lync 2010 client to users.

Two additional clients are available for external users for attending online meetings. See the [Lync Web App Client](#) and [Lync Attendee Client](#) sections for details.

### Instant Messaging

Instant messaging (IM) is the ability to transfer text messages in real time over an Internet Protocol (IP) network such as the Internet or an organization's corporate network. IM text is encrypted for enhanced security.

### Presence

Presence is the ability to detect another user's availability. Using Lync 2010 and Lync Online, users can display their presence status—for example, Available, Away, Do Not Disturb, or Offline—to let others know their availability for consultation.

To easily monitor the presence information of another user, users can add other users to their contact list, and can organize and group these contacts in different ways (by department, for example). Users may also search their company's address book to find other users—which means it is not necessary to add someone to the contact list in order to detect presence or send an instant message.

#### Limit

Users can add up to 250 contacts to their Lync contact list.

### Presence with Office Outlook and Other Office Applications

Lync Online can embed presence with Microsoft Office 2007 or Office 2010. Users can instantly find and communicate with people from within Office Outlook. This connection occurs wherever the user sees a colored presence indicator that represents a person's presence status. The user can then click the presence icon and initiate a communications using Lync 2010 and the interactive Office 2010 contact

card. This feature is called “click-to-communicate.”

## Presence with SharePoint Online

Lync Online embeds presence in SharePoint Online sites using the same presence indicator that is displayed in the Lync 2010 client. SharePoint users can view presence and initiate Lync communications functions (for example, send an instant message) directly from a SharePoint site, making collaboration easy and intuitive.

### Limitations

- Presence in SharePoint Online is available only for SharePoint users who have the Lync 2010 desktop client installed and properly configured.
- Lync Skill Search is not supported with Lync Online

## Presence with Exchange Online

Lync Online connects presence information with Exchange Online. This includes presence status updates based on Exchange calendar information, IM and presence in Outlook Web Apps, out-of-office messages in Lync 2010, and presence status and click-to-communicate in from Outlook.

### Limit

Presence in Outlook is available only for users who have the Lync 2010 desktop client installed and properly configured.

## Lync-to-Lync Audio and Video Calls

Using Lync 2010, Lync Online users can make 1-to-1 computer-based audio and video calls to other Lync users using a PC and a web camera. Conversation quality may vary depending on customer network performance. For the best experience, use a device that is optimized for Lync 2010.

For more details on “optimized for Lync” devices, see the TechNet page [Phones and Devices Qualified for Microsoft Lync](#).

A Lync Online user can initiate Lync-to-Lync audio and video calls with another user in the same Lync Online organization (within or outside the corporate firewall) or with another Lync user in a Lync federated domain (as long as the two Lync domains are properly configured, supported, and permitted for federation).

## File Transfer

The Lync Online service provides peer-to-peer file transfer capability so users can transfer large files as part of a Lync session without using email and clogging mail boxes.

### Limit

- File transfer is not supported across Lync federation.

## Distribution Lists

Using Lync 2010, Lync Online users can add email distribution lists to their Contact Lists. Instant messages may be sent to individual members of a distribution list or the entire distribution list.

Distribution lists can be expanded to see the individual members of such lists.

### Limit

- Distribution list expansion is allowed only for distribution lists with 100 or fewer individual members (regardless of the members' presence or sign-in status).
- Distribution lists with more than 100 members are allowed but these distribution lists may not be expanded to display individual members of the list.
- A distribution list counts as one contact against the 250 contact limit per user, regardless of the number of individual members within the distribution list.

## Lync External Connectivity (Lync Federation)

Lync external connectivity (federation) enables a Lync Online user to connect with users in other organizations that use Lync Online as well as those that host their own Lync Server 2010 on premises. Federated contacts can see presence, communicate using IM and make Lync-to-Lync audio and video calls.

In addition to Lync-to-Lync federation, Lync Online users can also connect with their contacts from the Windows Live Messenger. All federated communications are encrypted between the IM systems using access proxy servers. Microsoft does not control encryption after messages are passed to the federated partner's network (if the partner is federated with an on-premises Lync Server 2010 or third-party network).

Lync external connectivity requires the consent and proper configuration of both parties of the federation relationship. Once the federation is set up by the administrators of both sides, users in each company can see presence and communicate with users in the other company.

### Note

The term "Lync federation" is specific to Lync and should not be confused with the requirements and capabilities of identity federation that are supported in Office 365.

Table 3 describes the supported modalities across federated organizations.

**Table 3: Federation features by link type**

Supported modalities	IM and presence	Lync-to-Lync audio and video
Lync Online tenants (other companies using Office 365 and Lync Online)	Yes	Yes

Supported modalities	IM and presence	Lync-to-Lync audio and video
Lync Server 2010, OCS 2007 and OCS 2007 R2 (on-premises)	Yes	Yes
Windows Live Messenger	Yes	Yes

Service administrators can control which domains are allowed to communicate with Lync Online users by using whitelists and blacklists.

Limit
<ul style="list-style-type: none"> <li>• Federation requires DNS configurations by the customer and each federated partner organization. Federated organizations are solely responsible for proper configuration of their environments to support federation.</li> <li>• Federated connections are not covered by the SLAs provided as a part of Office 365 subscriptions.</li> <li>• Federated connections are excluded from the service continuity management recovery time objectives (RTO) and recovery point objectives (RPO).</li> <li>• File transfer is not available with federated connections.</li> </ul>

## IM Security

Microsoft has extensive experience in designing and operating a highly available instant messaging solution. One key component is the Intelligent Instant Message Filter (IIMF) built into Lync Online, which helps protect both the customer network and the Microsoft managed network against the spread of the most common viruses and spam.

Subscribers to Lync Online benefit from an IIMF design that is built upon years of operating scalable, global IM systems, which can help to protect users from malicious content and links transmitted using IM.

## Online Meetings

Lync Online meetings enable users to connect from virtually anywhere through PC-based audio, video, and web conferencing—both as scheduled meetings and as ad-hoc collaboration sessions. With Lync Online, users can collaborate, share information, and work together in real time, all within context. Lync Online supports an integrated conferencing experience with a maximum meeting capacity of 250 users.

## Lync Multiparty Audio

Lync Online provides for Lync-based, multiparty (three or more users) audio conferencing capabilities. Lync multiparty audio provides users with an adaptive audio codec for optimal performance under varying bandwidth conditions, visual call and roster controls, network quality indicator, and powerful user management features (for example, drag and drop a participant name to add her to a meeting).

## Interoperability with Third-Party Dial-in Audio Conferencing Services

Dial-in audio conferencing is the ability to dial into a scheduled Lync meeting/conference from fixed-line or mobile phones. This capability is not provided natively in Lync Online, but can be achieved through interoperability with leading third-party audio conferencing services. This interoperability with Lync Online enables an integrated experience for scheduling and joining a Lync meeting from any phone, initiate a dial-out to a phone number from within the Lync client in scheduled Lync meeting and control phone end-points from the Lync client.

### Limit

- The dial-in audio conferencing service requires a separate purchase of an audio conferencing service from a certified audio conferencing partner. An up-to-date list of approved audio conferencing partners for Lync Online is available on the [Office 365 marketplace](#).
- Multiparty Lync audio and video capabilities may not be available in certain countries due to regulatory restrictions

## Lync Multiparty Video

In addition to audio, Lync Online enables users to connect via high quality video sessions. Both person-to-person and multiparty (three or more users) sessions are supported. Active speaker video is only available for multiparty sessions. With Lync Online, users can easily schedule an online meeting with video or seamlessly escalate an IM session to a video call.

### Limit

Lync Online does not support interoperability with third-party, room-based conferencing systems.

## Content Sharing (Web Conferencing)

In addition to video and audio, Lync Online provides powerful PC-to-PC and multiparty data sharing capabilities including desktop sharing, application sharing, PowerPoint presentation (via uploading for more control), virtual whiteboard, annotations and polling tool.

## Ad-hoc Meetings

Users can start or join an ad-hoc Lync meeting easily with just a few clicks in Lync 2010—or right from Office applications. Lync Online enables users to escalate simple instant messaging conversations or email conversations to PC-based, multiparty audio and video meetings with shared desktops, applications, and documents.

## Scheduled Meetings from Outlook

The Lync 2010 desktop client includes an Outlook plug-in that provides users with single-click scheduling of online meetings in Outlook. Participants can join with a single click from the Outlook reminder, or via

the Outlook meeting itself. Organizers can easily set up meetings using predefined conference properties or can set meeting types and admission policies for specific needs. Details (such as meeting time, location, and attendees) follow the familiar Outlook template, and conference call-specific information (such as dial-in number and meeting passcode) are automatically populated (access phone numbers require third-party dial-in audio conferencing service).

## Lync Web App Client

Attendees and presenters can participate in Lync Online meetings via leading web browsers using the Microsoft Lync Web App. The web client experience enables IM in meetings, high-fidelity desktop, application and presentation viewing, desktop sharing, whiteboard, lobby, and presenter access controls. In addition, the web client supports phone dial-out after joining the meeting, which requires a [third-party dial-in audio conferencing service](#).

For details on browser support, see [Supported Platforms for Lync Web App](#).

### Limit

Lync Web App does not include PC-based audio and video.

## Lync Attendee Client

The free Microsoft Lync 2010 Attendee client lets external or anonymous users join a scheduled online meeting with full fidelity PC-audio, video, and data sharing. This option extends the value of immersive online meetings to anyone outside the organization. Meeting attendees can install the client on their machines and join and participate in a Lync Online meeting, even if they are not a subscriber to Lync Online.

The Lync 2010 Attendee client is available at the [Microsoft Download Center](#).



## Service Administration

---

The Microsoft Online Services Portal is a web portal that a customer's online service administrator uses to manage the Microsoft Office 365 the company has subscribed to—including the Lync Online service.

When signed in to this portal, the service administrator can perform actions related to service administration and Lync Online including:

- Enable or disable Lync Online
- Create users and assign licenses that enable use of Lync Online
- File support tickets
- Access online help

Administrators can also manage Lync users settings and policies:

- Tenant level settings
  - Lync federation settings
  - Lync federation with Windows Live (at general availability of Lync Online)
- User level settings
  - Audio/video
  - File Transfer
  - Dial-in audio conferencing settings

# Interoperability

---

This section describes the Lync Online interoperability with servers that customers have may deployed on-premises or in a private cloud environment.

## Lync Online and Lync Server

Lync Server 2010 provides all the functionality that is available with Lync Online. In addition, Lync Server includes Voice and PBX capabilities, that enable organizations to replace or enhance traditional telephony solutions with the Lync next generation communications platform. Lync Server Voice and PBX functionality is available as part of the Office 365 E4 suite.

Lync Server provides native interoperability with Exchange Online for presence integration and voice mail. For more information, see the TechNet article [Lync Server 2010 Users Voice Mail on Hosted Exchange UM](#).

Lync technology does not support coexistence between Lync Online and Lync Server using a single domain. Therefore, it is not possible to deploy a subset of users in Lync Online and other users on-premises using a single domain name. Lync federation can be used to enable users to communicate between Lync Online and Lync on-premises deployments, using different domain names.

### Limit

It is not possible to split Lync workloads (IM, online meetings and Voice/PBX) between the cloud and on-premises. For example, it is not possible to deploy IM and meetings in the cloud with voice on-premises for a single user.

## Lync Online with Exchange Server

Lync Online supports presence interoperability with an on-premises deployment of Microsoft Exchange Server 2007 and Exchange Server 2010. The Lync Online service provides presence updates based on calendar information and out-of-office details that appear in Lync 2010.

### Note

Lync 2010 will use the external web URLs defined for Exchange servers. For more information about Exchange server URLs, see the TechNet article [Configure an External Host Name for Outlook Anywhere](#).

## Lync Online and SharePoint Server

Lync Online interoperates with on-premises Microsoft SharePoint Server for presence and click-to-communicate in SharePoint sites. This interoperability requires the Lync 2010 client to run on the user's desktop.



SharePoint skill search via Lync is not supported with Lync Online.

## Subscription Plans

Each authenticated user who accesses the Lync Online service must be assigned to a subscription plan. Lync Online offers two types of standalone plans: **Lync Online (Plan 1)**, and **Lync Online (Plan 2)**.

Table 2 summarizes differences between the types of subscriptions.

**Table 2: Overview of user subscriptions**

Feature	Lync Online (Plan 1)	Lync Online (Plan 2)
Instant messaging (IM) and presence	Yes	Yes
Lync-to-Lync audio/video calling (1-to-1)	Yes	Yes
Lync federation (IM/presence/audio/video)	Yes	Yes
Click-to-communicate in Office	Yes	Yes
Authenticated attendee in Lync meetings*	Yes	Yes
Microsoft Exchange ActiveSync <sup>®</sup>	Yes	Yes
Online Meetings	No	Yes (up to 250 attendees)
Initiate ad-hoc and scheduled online meetings	No	Yes
Initiate multiparty (3 or more users) Lync audio/video sessions	No	Yes
Initiate interactive data sharing (screen/application/whiteboard)	No	Yes
Interop with third-party dial-in audio conferencing services	No	Yes
Rights to Lync Server CALs	Lync Standard CAL	Lync Enterprise CAL
Price (\$/user/month)	\$2/user/month	\$6.5/user/month

\*Unauthenticated attendees who join scheduled Lync meetings do not require a Lync Online license

## Office 365 Suite Subscription Plans

In addition to the standalone Lync Online subscriptions above, Lync Online can be purchased as part of an Office 365 suite. Table 3 below summarizes the relationship between Lync Online plans and Office 365 plans. To determine which plan is right for you, visit the [Office 365 home page](#).

**Table 3: Office 365 subscription plans for information workers**

Office 365 (Plan E1)	Office 365 (Plan E2)	Office 365 (Plan E3)	Office 365 (Plan E4)
Exchange Online (Plan 1)	Exchange Online (Plan 1)	Exchange Online (Plan 2)	Exchange Online (Plan 2)
SharePoint Online (Plan 1)	SharePoint Online (Plan 1)	SharePoint Online (Plan 2)	SharePoint Online (Plan 2)
Lync Online (Plan 2)	Lync Online (Plan 2)	Lync Online (Plan 2)	Lync Online (Plan 2)
	Office Web Apps	Office Web Apps	Office Web Apps
		Office Professional Plus	Office Professional Plus
			Lync Voice & PBX (Lync Plus CAL for Lync Server)*

\*Lync Voice & PBX are only available with Lync Server 2010, deployed on-premises or hosted via a private cloud deployment. All Lync workloads (IM, online meetings and Voice & PBX) must be deployed on Lync server in this case (it is not possible to split Lync workloads between Lync Server and Lync Online).

# Service Continuity Management

---

Lync Online is hosted in Microsoft-managed data centers that are designed to operate highly available online services. Lync Online provides a financially-backed Service Level Agreement (SLA) with a 99.9 percent uptime guarantee.

Hardware failures, natural disasters, and human error all have the potential to affect service availability. To address this, Lync Online offers service continuity management, a process for managing risks to ensure that the Lync Online infrastructure is capable of continuing service if unexpected events occur. Service continuity management for Lync Online includes provisions to quickly recover from these events.

Two metrics commonly used in service continuity management to evaluate disaster recovery solutions are a Recovery Time Objective (RTO), which is the target time between a system disaster and the time when the system is again operational, and a Recovery Point Objective (RPO), is a time representation of the possible data loss that occurred as a result of the recovery from the unexpected event.

Lync Online has set an RPO and RTO for client messaging services in the event of a disaster:

- **30 minutes RPO:** Microsoft protects your Lync Online data and makes a nearly instantaneous copy of your data locally. Data replicated across data centers may experience delay of up to 30 minutes.
- **3 hours RTO:** Organizations will be able to resume service within 3 hours after service disruption if a disaster incapacitates a data center.

The following conditions apply to service continuity management:

- See the *Office 365 Identity Service Description* for recovery times and other details related to sign-in and provisioning of new users and new tenants.
- Client access after recovery from a service disruption typically does not require reconfiguration on the part of Lync Online subscribers.
- To achieve the stated recovery times, customer networking infrastructure must honor the DNS record Time to Live (TTL) of 10 minutes. Customers that have customized their DNS infrastructure settings and set a longer TTL may experience longer recovery times.
- After RPO and RTO objectives are met, there is a period of time before full data center redundancy is restored for the service. For example, data center 1 fails but services are restored by resources in Data Center 2 there may be a period of time until services in Data Center 2 have service continuity support either by restored resources in Data Center 1 or new resources in Data Center 3. Service level agreements apply during this time.

You can obtain the most current information related to a service interrupting event by logging into the Service Health Dashboard at <https://portal.microsoftline.com>.

## Appendix A: Lync 2010 System Requirements

Table 4 contains the minimum hardware and software requirements for the Lync 2010 client.

**Table 4: Hardware and software requirements for Lync 2010**

System component	Minimum requirement
Operating system	Windows 7 32-bit operating system. Windows Vista 32-bit operating system. Windows XP Professional with Service Pack 2 (SP2). Windows Installer 3.1 and Microsoft Core XML services (MSXML) 6.0 SP1 must be installed before deploying Lync 2010.
Computer/processor	Data and voice: 1 gigahertz (GHz) or higher processor; 2 GHz 32-bit or 64-bit processor recommended. For video: Dual Core 1.9 GHz or higher for VGA; Quad Core 2.0 GHz or higher for High Definition. For the Microsoft RoundTable™ conferencing device: 2 GHz or higher.
Display resolution	1024x768 required
Graphics hardware	Support for Microsoft DirectX 9 application programming interface 128 MB of graphics memory (minimum) Microsoft Windows Display Driver Model driver Pixel Shader 2.0 in hardware 32 bits per pixel
Memory	1 GB of RAM (2 GB recommended).
Telephony	Microphone and speakers, headset with microphone, or equivalent device.
Video source	USB 2.0 video camera or RoundTable device.
Bandwidth requirements	Data: 56 kbps (minimum); 56 kbps (high-quality). Voice: 50 kbps (minimum); 80 kbps (high-quality). Video: 50 kbps (minimum); 250 kbps for CIF, 600 kbps for VGA, 1.5 Mbps for High Definition (high-quality). RoundTable device: 50 kbps (minimum); 250 kbps (high-quality). The required and recommended bandwidth speeds are cumulative. For example, to use voice, webcam, and the RoundTable device, the minimum bandwidth would be 50+50+50=150 kbps.
Other requirements	Microsoft Core XML services (MSXML) 6.0 SP1 must be installed before installing Lync 2010. Outlook 2010/Office Outlook 2007 and Exchange Server 2010/2007 or Exchange Online are required for Outlook interoperability options. For interoperability with Microsoft Office to work

System component	Minimum requirement
	<p>correctly, users may need to install an update to Outlook 2007. For details about the Outlook update, see Microsoft Knowledge Base article 936864, "Description of the 2007 Office hotfix package" at <a href="http://go.microsoft.com/fwlink/?LinkID=143112">http://go.microsoft.com/fwlink/?LinkID=143112</a>.</p> <p>Microsoft Silverlight™ 4.0 is installed automatically during setup.</p>
Installation and updates	Administrator privileges or, in Standard User mode, administrator credentials.

**Note**

Microsoft Silverlight™ 4.0 is installed automatically during setup.



## Appendix B: Feature Comparison Matrix

Table 5 compares the current feature availability across delivery models for Lync Server (on-premises), Microsoft Office Communications Online, and Lync Online

Table 5. Feature comparison matrix

Features	Lync Server 2010	Office Communications Online	Lync Online
<b>IM/Presence and Lync-to-Lync Calls</b>			
1-to-1 and multiparty IM/presence	Yes	Yes	Yes
Address book search	Yes	Yes	Yes
DL expansion (DLX)	Yes	Yes	Yes
File transfers	Yes	Yes (inside firewall only)	Yes
Lync-to-Lync audio/video calls	Yes	Yes (inside firewall only)	Yes
Lync-to-Lync high definition video	Yes	No	No
Presence and click-to-Lync from Office Apps	Yes	Yes	Yes
Interactive contact card in Office 2010	Yes	No	Yes
Lync Skill Search in SharePoint Server (on-premise)	Yes	No	No
Lync Skill Search in SharePoint Online	No	No	No
Persistent Group Chat	Yes	No	No
Privacy mode	Yes	No	No

<b>Lync external connectivity (federation and Public IM connectivity)</b>			
IM/presence/audio/video federation with other OCS/Lync Server /Lync Online organizations	Yes	No	Yes
IM/presence/audio/video with Windows Live Messenger	Yes	No	Yes
IBM Sametime federation	Yes	No	No
IM/P federation with XMPP networks (Jabber, Google Talk)	Yes	No	No
IM/presence with AOL, Yahoo	Yes	No	No
<b>Meetings (audio/video/web conferencing)</b>			
Meeting attendee capacity	250	No	250
Desktop sharing	Yes	No	Yes
Application sharing	Yes	No	Yes
White boarding and annotations	Yes	No	Yes
PowerPoint upload for online presentations	Yes	No	Yes
Upload for other file types	No	No	No
Multimedia Content Upload	No	No	No
Polling	Yes	No	Yes
Ad-hoc multiparty PC-based audio/video	Yes	No	Yes
Authenticated attendee in Lync Web App	Yes	No	No
Unauthenticated attendee in Lync Web App	Yes	No	Yes
Lync attendee client	Yes	No	Yes

Scheduled conferences (using Outlook plug-in)	Yes	No	Yes
Outlook delegation for scheduling meetings	Yes	No	Yes
Support for RoundTable	Yes	No	Yes
Lobby	Yes	No	Yes
Interoperability with certified partners for dial-in audio conferencing (ACP)	No	No	Yes
Phone dial-out from scheduled meetings via third-party dial-in conferencing service	No	No	Yes
Client side recording and playback	Yes	No	No
Server-side recording and playback	No	No	No
Generate a link to a scheduled meeting via web page	No	No	No
Scheduling an online meeting in Outlook Web App	No	No	No
Native dial-in audio conferencing on Lync server	Yes	No	No
Screen Snapshot (Desktop Annotation)	No	No	No
Backstage/Content Preview for presenters	Yes	No	Yes
Mute all attendees	Yes	No	Yes
Mute individual attendees	Yes	No	Yes
Unmute all attendees	Yes	No	Yes
Unmute individual attendees	Yes	No	Yes

In-meeting attendee permission controls	Yes	No	Yes
Interoperability with on-premises video conferencing systems	Yes	No	No
<b>Voice and telephony</b>			
Lync-to-phone (calls with landlines and mobile phones)	Yes	No	No
Call hold/retrieve	Yes	No	No
Dial-out from ad-hoc Lync meetings	Yes	No	No
Advanced call controls (transfer, forward, simul-ring)	Yes	No	No
Access to Exchange Online voicemail	Yes	No	No
Team call	Yes	No	No
Delegation (boss-admin) for Voice	Yes	No	No
Call park	Yes	No	No
Outgoing DID manipulation	Yes	No	No
E-911	Yes	No	No
Dial plans and Policies	Yes	No	No
IP desk phone support	Yes	No	No
Resilient Branch Office Appliance	Yes	No	No
Call Admissions Control (CAC)	Yes	No	No
Support for analog devices (such as FAX)	Yes	No	No
Response groups	Yes	No	No

Private Line (secondary DID for executives)	Yes	No	No
Interoperability with third-party PBX or trunks	Yes	No	No
Presence interoperability with third-party PBX	No	No	No
RCC (click-to-call) with on-premises PBX	Yes	No	No
Malicious call trace	Yes	No	No
Unassigned Number	Yes	No	No
Network QoS - DSCP	Yes	No	No
Media path optimization	Yes	No	No
Phone number management	Yes	No	No
CDR and billing reporting	Yes	No	No
Integration with call center solutions (Aspect)	Yes	No	No
<b>Client support</b>			
Lync 2010	Yes	No	Yes
Lync Web App for participating in scheduled meetings	Yes	No	Yes
Lync 2010 Attendee client (joining meetings)	Yes	No	Yes
Communicator for Mac client	Yes	No	No
Office Communicator Web Access (2007 R2) client	Yes	No	No
Office Communicator 2007 R2 client	Yes	Yes	No
Lync 2010 Phone Edition (Lync-based IP phones)	Yes	No	No

Lync 2010 Attendant client (receptionist rich client)	Yes	No	No
Communicator Mobile (Windows Phones 6.x)	Yes	No	No
Lync 2010 Mobile client	No (coming soon)	No	No (coming soon)
IM and media encryption	Yes	Yes	Yes
IM filtering	Yes	Yes	Yes
Anti-malware scanning for meeting content and file transfers	Yes (partner solutions)	No	No
IM archiving (server side)	Yes	No	No
<b>Exchange/SharePoint interoperability</b>			
Presence interoperability with Exchange and SharePoint on-premises	Yes	Yes	Yes
Presence interoperability with Exchange Online and SharePoint Online	Yes	Yes	Yes
Unified Messaging interoperability with Exchange Online	Yes	No	No
Unified Messaging interoperability with Exchange on-premises	Yes	No	No
<b>Lync Online and Lync on-premises, and administration</b>			
Server/cloud coexistence (split domain) on user basis (some users on-premises, some users online)	No	No	No

Splitting workloads (for example, IM/presence/voice on-premises, conferencing in the cloud)	No	No	No
PowerShell support	Yes	No	No
Bigfin (web) UI	Yes	No	No
Attendee/user reporting	No	No	No
Reporting (CDR, QoE)	Yes	No	No
<b>Third-party API support</b>			
Client-side APIs	Yes	No	Yes
Server-side APIs	Yes	No	No