



## **Test Lab Guide: Demonstrate Lync Server 2013**

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# Test Lab Guide: Demonstrate Lync Server 2013

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**Applies to:** Lync Server 2013 Standard Edition

**Summary:** This paper contains step-by-step instructions to create a test lab containing a server running Lync Server 2013 Standard Edition and two client computers.

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## Introduction

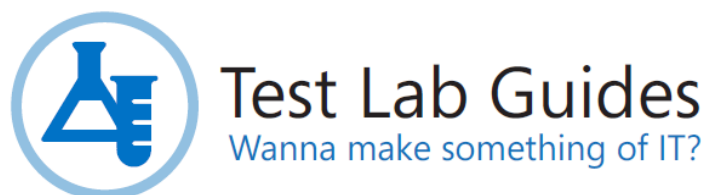
Lync Server 2013 and its client software, such as Lync 2013, enable your users to connect in new ways and to stay connected, regardless of their physical location. Lync and Lync Server include the following feature sets:

- **Instant messaging (IM) and presence** Help your users find and communicate with one another efficiently and effectively. IM provides an instant messaging platform with conversation history, and supports public IM connectivity with users of public IM networks such as MSN/Windows Live, Yahoo!, AOL, and Google Talk.
- **Conferencing** Lync Server includes support for IM conferencing, audio conferencing, web conferencing, video conferencing, and application sharing, for both scheduled and impromptu meetings. All these meeting types are supported with a single client. Lync Server also supports dial-in conferencing so that users of public switched telephone network (PSTN) phones can participate in the audio portion of conferences.
- **Enterprise Voice** The Voice over Internet Protocol (VoIP) offering in Lync Server. It delivers a voice option to enhance or replace traditional private branch exchange (PBX) systems. In addition to the complete telephony capabilities of an IP PBX, Enterprise Voice is integrated with rich presence, IM, collaboration, and meetings.
- **Support for remote users** You can provide full Lync Server functionality for users who are currently outside your organization's firewalls by deploying servers called Edge Servers to provide a connection for these remote users. These remote users can connect to conferences by using a personal computer with Lync 2013 installed, the phone, or a web interface.

This document describes how to demonstrate IM, presence, and conferencing. This document does not cover application sharing or dial-in conferencing, enterprise voice, or remote user support.

For more information, see [Microsoft Lync](#).

## Test Lab Guides



Microsoft Test Lab Guides (TLGs) are a set of documents that step you through the configuration and demonstration of a Microsoft technology or product in a standardized test lab environment, which starts with a common base configuration that mimics a simplified intranet and the Internet. TLGs are designed to be modular, extensible, and stackable to configure complex, multi-product solutions. TLGs make learning about products, technologies, and solutions easier by providing that crucial hands-on, “I built it out myself” experience.

For more information, see [Test Lab Guides](#) at <http://microsoft.com/testlabguides>.

A TLG stack is a set of dependent TLGs that, when configured from the bottom of the stack, create a meaningful test lab configuration. This TLG is at the top of the following TLG stack:



## In this guide

The paper describes how to configure a test lab consisting of a server running Lync Server 2013 by using three server computers and two client computers and then verifying that you can use Lync functionality between two Lync clients. The resulting test lab can be used to demonstrate additional Lync Server 2013 functionality.

### Important

The following instructions configure an integrated test lab by using the minimum number of computers. Individual computers are needed to separate services provided on the network and to clearly show the desired functionality. This configuration is neither designed to reflect best practices nor does it reflect a desired or recommended configuration for a production network. The configuration, including IP addresses and all other configuration parameters, is designed only to work on a separate test lab network. Attempting to adapt this test lab

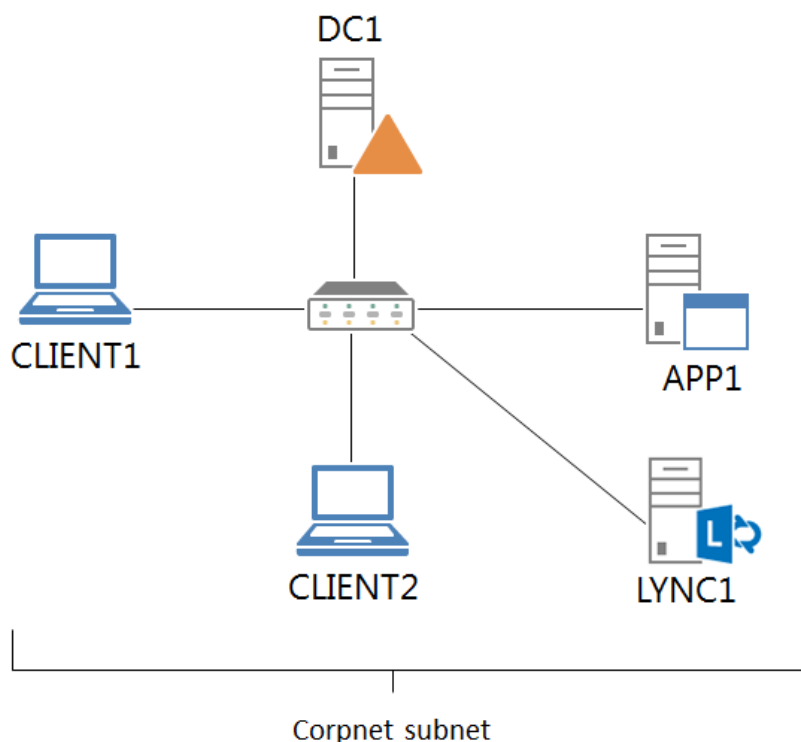
configuration to a pilot or production deployment can result in configuration or functionality issues. For information about how to deploy Lync Server 2013 in a pilot or production environment, see [Deployment for Lync Server 2013](#).

## Test lab overview

In this test lab, integrated functionality is deployed by using the following:

- One computer running Windows® Server® 2012 named DC1 that is configured as an intranet domain controller, Domain Name System (DNS) server, and DHCP server.
- One intranet member server running Windows Server 2012 named APP1 that is configured as a web server, file server, and certification authority.
- One intranet member server running Windows Server 2012 named LYNC1 that is configured as a Lync 2013 server.
- One member client computer running Windows 8 named CLIENT1.
- One member client computer running Windows 8 named CLIENT2.

The Lync Server 2013 test lab consists of a single subnet named Corpnet (10.0.0.0/24) that simulates a private intranet. Computers on the Corpnet subnet connect by using a hub or switch. See the following figure.



## Hardware and software requirements

The following are required components of the test lab:

- The product disc or files for Windows Server 2012. For an evaluation copy, see [Download Windows Server 2012](#) in the TechNet Evaluation Center.
- The product disc or files for Windows 8. For an evaluation copy, see [Download Windows 8 Enterprise Evaluation](#).
- The product disc or files for Lync Server 2013. For an evaluation copy, see [Download Microsoft Lync Server 2013 Evaluation](#).
- Three computers that meet the minimum hardware requirements for Windows Server 2012.
- Two computers that meet the minimum hardware requirements for Windows 8.

## Steps for Configuring the Lync Server 2013 Test Lab

There are six steps to follow when setting up the Lync Server 2013 test lab.

1. Set up the Windows Server 2012 Base Configuration test lab.
2. Install and configure a new client computer named CLIENT2.
3. Install Microsoft Office 2013 on CLIENT1 and CLIENT2.
4. Install and configure a new server named LYNC1.
5. Install Lync Server 2013 Standard Edition on LYNC1.
6. Demonstrate Lync functionality between CLIENT1 and CLIENT2.



### Note

You must be logged on as a member of the Domain Admins group or a member of the Administrators group on each computer to complete the tasks described in this guide. If you cannot complete a task while you are logged on with an account that is a member of the Administrators group, try performing the task while you are logged on with an account that is a member of the Domain Admins group.

The following sections provide details about how to perform these steps.

## Step 1: Configure the Windows Server 2012 Base Configuration Test Lab

Set up the Base Configuration test lab for the Corpnet subnet using the procedures in the "Steps for Configuring the Corpnet Subnet" section of the [Test Lab Guide: Windows Server 2012 Base Configuration](#).

Add a public key infrastructure to the test lab using the procedures in the [Test Lab Guide Mini-Module: Basic PKI for Windows Server 2012](#). This makes APP1 a root certification authority for the corp.contoso.com domain and configures autoenrollment of certificates.

## Step 2: Install and configure a new client computer named CLIENT2

First, install Windows 8 on CLIENT2.

► **To install the operating system on CLIENT2**

1. Start the installation of Windows 8 Enterprise.
2. When you are prompted for a PC name, type **CLIENT2**.
3. When you are prompted by the Settings dialog, click **Use express settings**.
4. At the Log on prompt, click **Don't want to sign in with a Microsoft account?** Click **Local account**.
5. When you are prompted for a user name, type **User2**. Type a strong password twice, type a password hint, and then click **Finish**.
6. Connect CLIENT2 to a network that has Internet access and run Windows Update to install the latest updates for Windows 8.
7. Connect CLIENT2 to the Corpnet subnet. Click **Yes, turn on sharing and connect to devices** when prompted.

Next, join CLIENT2 to the corp.contoso.com domain.

► **To join CLIENT2 to the CORP domain**

1. From the Start screen, right-click **Computer**, and then click **Properties**.
2. On the **System** page, click **Advanced system settings**.
3. In the **System Properties** dialog box, on the **Computer Name** tab, click **Change**.
4. In the **Computer Name/Domain Changes** dialog box, click **Domain**, type **corp.contoso.com**, and then click **OK**.
5. When you are prompted for a user name and password, type the user name and password for the CORP\User1 domain account, and then click **OK**.
6. When you see a dialog box that welcomes you to the corp.contoso.com domain, click **OK**.
7. When you see a dialog box that prompts you to restart the computer, click **OK**.
8. In the **System Properties** dialog box, click **Close**. Click **Restart Now** when prompted.
9. After the computer restarts, click the **Switch User** arrow icon, and then click **Other User**. Log on to the CORP domain with the User1 account.



**Windows PowerShell equivalent commands**

The following Windows PowerShell commands, run at an administrator-level Windows PowerShell command prompt, perform the same function as the preceding procedure. Note that you must supply the CORP\User1 account domain credentials after entering the Add-Computer command.

```
Add-Computer -DomainName corp.contoso.com  
Restart-Computer
```

Next, verify that intranet web and file share resources on APP1 can be accessed by CLIENT2.

► **To test access to intranet resources**

1. From the **Start** screen, click the **Internet Explorer** icon.
2. In the **Address** bar, type **http://app1.corp.contoso.com/**, and then press ENTER. You should see the default IIS 8 web page for APP1.
3. From the **Start** screen or the desktop taskbar, click the **File Explorer** icon.

4. In the address bar, type `\\app1\Files`, and then press ENTER.
5. You should see a folder window with the contents of the Files shared folder.
6. In the Files shared folder window, double-click the **Example.txt** file. You should see the contents of the Example.txt file.
7. Close the **example.txt - Notepad** and the **Files** shared folder windows.

## Step 3: Install Microsoft Office 2013 on CLIENT1 and CLIENT2

Install Microsoft Office Professional Plus 2013 on CLIENT1 and CLIENT2 as described in [Test Lab Guide Mini-Module: Installing Microsoft Office Professional Plus 2013 on CLIENT1](#).

Log on to DC1 with the CORP\User1 account and run the following Windows PowerShell commands:



### Windows PowerShell commands

The following Windows PowerShell commands must be run at an administrator-level Windows PowerShell command prompt. Note that you must supply the account passwords after entering the New-ADUser command.

```
New-ADUser -SamAccountName Chris -AccountPassword (read-host "Set user password" -
assecurestring) -name "Chris" -enabled $true -PasswordNeverExpires $true -
ChangePasswordAtLogon $false -DisplayName "Chris Ashton" -EmailAddress
chris@contoso.com -GivenName Chris -Surname Ashton -UserPrincipalName
chris@corp.contoso.com

New-ADUser -SamAccountName Janet -AccountPassword (read-host "Set user password" -
assecurestring) -name "Janet" -enabled $true -PasswordNeverExpires $true -
ChangePasswordAtLogon $false -DisplayName "Janet Schorr" -EmailAddress janet@
contoso.com -GivenName Janet -Surname Schorr -UserPrincipalName
janet@corp.contoso.com
```

## Step 4: Install and configure a new server named LYNC1

In this procedure, you install the Windows Server 2012 operating system and the latest updates on a new server named LYNC1.

### ▶ To install Windows Server 2012 on LYNC1

1. Start the installation of Windows Server 2012.
2. Follow the instructions to complete the installation, specifying Windows Server 2012 (full installation), the computer name LYNC1, and a strong password for the local Administrator account.
3. Once the installation completes, log on using the local Administrator account.
4. Connect LYNC1 to a network that has Internet access and run Windows Update to install the latest updates for Windows Server 2012.
5. Once the updates are complete, restart LYNC1 and log on as the local Administrator.



6. Connect LYNC1 to the Corpnet subnet.

In this procedure, you configure the TCP/IP properties on LYNC1 so that it can join the corp.contoso.com domain.

► **To configure the TCP/IP properties on LYNC1**

1. In Server Manager, click **Local Server** in the console tree. Click the link next to **Ethernet** in the Properties tile.
2. In the **Network Connections** window, right-click **Ethernet**, and then click **Properties**.
3. Click **Internet Protocol Version 4 (TCP/IPv4)**, and then click **Properties**.
4. Select **Use the following IP address**. In **IP address**, type **10.0.0.5**. In **Subnet mask**, type **255.255.255.0**. In **Default Gateway**, type **10.0.0.1**. In **Preferred DNS server**, type **10.0.0.1**.
5. Click **Advanced**, and then click the **DNS** tab. In **DNS suffix for this connection**, type **corp.contoso.com**, click **OK** twice, and then click **Close**.
6. Close the **Network Connections** window.
7. To check name resolution and network communication between LYNC1 and DC1, from the **Start** screen, type **cmd**, and then press **ENTER**.
8. In the Command Prompt window, type **ping dc1.corp.contoso.com**.
9. Verify that there are four replies from 10.0.0.1.
10. Close the Command Prompt window.



**Windows PowerShell equivalent commands**

The following Windows PowerShell commands, run at an administrator-level Windows PowerShell command prompt, perform the same function as the preceding procedure. Long command lines are indented for readability. Note that the "Ethernet" interface name may be different on your computer. Use **ipconfig /all** to list the interfaces.

```
New-NetIPAddress 10.0.0.5 -InterfaceAlias Ethernet -PrefixLength 24
Set-DnsClientServerAddress -InterfaceAlias Ethernet -ServerAddresses 10.0.0.1
Set-DnsClient -InterfaceAlias Ethernet -ConnectionSpecificSuffix corp.contoso.com
ping dc1.corp.contoso.com
```

In this procedure, you join LYNC1 to the corp.contoso.com domain.

► **To join LYNC1 to the corp.contoso.com domain**

1. In Server Manager, click **Local Server** in the console tree. Click the link next to **Computer name** in the Properties tile.
2. In the **System Properties** dialog box, on the **Computer Name** tab, click **Change**.
3. In **Member of**, click **Domain**, type **corp.contoso.com**, and then click **OK**.
4. When you are prompted for a user name and password, type **User1** and its password, and then click **OK**.
5. When you see a dialog box welcoming you to the corp.contoso.com domain, click **OK**.

6. When you are prompted that you must restart the computer, click **OK**.
7. On the **System Properties** dialog box, click **Close**.
8. When you are prompted to restart the computer, click **Restart Now**.
9. After the computer restarts, click the **Switch User arrow icon**, and then click **Other User** and log on to the CORP domain with the User1 account.



#### Windows PowerShell equivalent commands

The following Windows PowerShell commands, run at an administrator-level Windows PowerShell command prompt, perform the same function as the preceding procedure. Note that you must supply the User1 account domain credentials after entering the Add-Computer command.

```
Add-Computer -DomainName corp.contoso.com
Restart-Computer
```

## Step 5: Install Lync Server 2013 Standard Edition on LYNC1

In this step, you install Lync Server 2013 Standard Edition on LYNC1 and enable users in the Lync Server Control Panel.

### ► To install Lync Server 2013 prerequisites on LYNC1

1. Log on to LYNC1 with the CORP\User1 account.
2. Insert a Windows Server 2012 installation media disk in the DVD drive of DC1. Alternately, copy the Windows Server 2012 installation files to a location that is accessible from DC1.
3. On the **Dashboard** screen of Server Manager, under **Configure this local server**, click **Add roles and features**.
4. Click **Next** three times to get to the server role selection screen.
5. In **Select server roles**, click **Web Server (IIS)**, and then click **Add Features**.
6. Click **Next**.
7. In **Select features**, expand **.NET Framework 4.5 Features (Installed)\WCF Services (Installed)**.
8. Click **HTTP Activation**, and then click **Add Features** when prompted.
9. In **Features**, click **Media Foundation**.
10. Expand **Remote Server Administration Tools (Installed)\Role Administration Tools (Installed)**.
11. Select **AD DS and AD LDS Tools**.
12. In **Features**, select **Windows Identity Foundation 3.5**.
13. Click **Next** twice.
14. In **Role services**, under **Health and Diagnostics**, click **Logging Tools** and **Tracing**.
15. Under **Performance**, click **Dynamic Content Compression**.
16. Under **Security**, click **Client Certificate Mapping Authentication** and **Windows Authentication**.

17. Expand **Application Development** and click **ASP.NET 3.5**. Click **Add Features** when prompted.
18. Select **ASP.NET 4.5**. Click **Add Features** when prompted.
19. Under **Management Tools**, click **IIS Management Scripts and Tools**.
20. Click **Next**.
21. On the **Confirm installation selections page**, click **Specify an alternate source path**.
22. In the Path box, type **d:\sources\sxs**, or the appropriate drive letter or location where the Windows Server 2012 installation media is located. Click **OK**.
23. Click **Install**.
24. Click **Close** and restart the LYNC1 server.

► **To prepare Active Directory**

1. Log on to LYNC1 with the CORP\User1 account.
2. Connect LYNC1 to a network that has Internet access and configure the TCP/IP protocol on the Ethernet network connection as needed. The Lync Server 2013 installer must download and install components from the Microsoft Download Center. For example, if the network that has access to the Internet uses DHCP, configure the Internet Protocol version 4 (TCP/IPv4) component from the properties of the Ethernet network connection in the Network Connections folder to use automatic addressing and to automatically configure a DNS server.
3. From the desktop, click **Server Manager**.
4. In the console tree of **Server Manager**, click **Local Server**.
5. In the **Properties for DC1** pane, click **On** next to **IE Enhanced Security Configuration**.
6. In **Internet Explorer Enhanced Security Configuration**, click **Off** twice, and then click **OK**.
7. From the Start screen, click **Internet Explorer**.
8. In the address bar, type **http://www.microsoft.com/silverlight**, and then press ENTER.
9. On the **Microsoft Silverlight** web page, click **Download Now**.
10. When prompted, click **Run**.
11. In the **Install Silverlight** window, click **Install now**.
12. In the **Enable Microsoft Update** window, click **Next**.
13. In the **Installation successful** window, click **Close**.
14. Start the installation of Lync Server 2013 Standard Server by clicking **Setup.exe** in the Setup\AMD64 folder containing the Lync installation files.
15. Click **Yes** to install the Visual C++ x64 Runtime.
16. Connect LYNC1 to the Corpnet subnet and configure the TCP/IP protocol on the Ethernet network connection as needed. For example, configure the Internet Protocol version 4 (TCP/IPv4) component from the properties of the Ethernet network connection in the Network Connections folder to use the address 10.0.0.5 with a subnet mask of 255.255.255.0 and the preferred DNS server of 10.0.0.1.
17. On the Lync Server 2013 Installation Location page, click **Install**.
18. Accept the terms in the license agreement and click **OK**.

19. Click **Prepare Active Directory**.
20. Click **Yes** to install the Visual C++ Runtime.
21. On **Step 1: Prepare Schema**, click **Run**, and then click **Next**.
22. Click **Finish** to close the Prepare Schema page.
23. On **Step 3: Prepare Current Forest**, click **Run**, and then click **Next** twice.
24. Click **Finish** to close the Prepare Forest page.
25. On **Step 5: Prepare Current Domain**, click **Run**, and then click **Next**.
26. Click **Finish** to close the **Prepare Domain** page.
27. Click **Back** to return to the Lync Server 2013 Deployment Wizard.
28. On DC1, from the **Start** screen, click **Active Directory Administrative Center**.
29. In the console tree, click the arrow to expand **corp (local)**, and then click **Users**. This adds Users as a recent navigation link in the console tree.
30. Select user **User1**, right-click the user and choose **Properties** from the context menu.
31. Under the **Member Of** section, click **Add**.
32. In the **Select Groups** window, type **CSAdministrator** and then click **Check Names**.
33. Click **OK** twice.
34. Exit the Active Directory Administrative Center.

► **To prepare the first Standard Edition server**

1. On LYNC1, from the Lync Server 2013 Deployment Wizard, click **Prepare first Standard Edition server**, and then click **Next**.
2. Click **Finish** to close the Prepare single Standard Edition Server wizard.
3. From the Lync Server 2013 Deployment Wizard, click **Install Administrative Tools**.

► **To define and configure the topology**

1. On LYNC1, from the Start screen, click **Computer**, and then double-click the **C:** drive.
2. Right-click an empty area, point to **New**, and then click **Folder**.
3. Type **Files**, and then press ENTER.
4. Right-click the **Files** folder, point to **Share with**, and then click **Specific people**.
5. In the drop-down box, click **Everyone**, click **Add**, click the down arrow for the **Everyone** group in the **Permission Level** column, click **Read/Write**, click **Share**, and then click **Done**.
6. From the **Start** screen, click **Lync Server Topology Builder**.
7. Select **New Topology** and then click **OK**.
8. For **File name**, type **Contoso**, and then click **Save**.
9. For **Primary SIP domain**, type **corp.contoso.com**, and then click **Next** twice.
10. In **Define the first site**, for **Name**, type **Contoso**, click **Next** twice, and then click **Finish**.
11. In **Define the New Front End pool**, click **Next**.
12. On the **Define the Front End pool FQDN** page:
  - a. For **Pool FQDN**, type **lync1.corp.contoso.com**.

- b. Click **Standard Edition Server**.
13. Click **Next**.
14. On the **Select features** page, leave all features cleared and then click **Next** four times.
15. On the **Define the file store** page, under **File share** replace the word **share** with the word **Files**, and then click **Next**. Click **Finish**.
16. In Topology Builder, right-click **Lync Server**, and then click **Edit Properties**.
17. Click **Simple URLs**.
18. Under **Administrative access URL**, type **https://admin.corp.contoso.com**.
19. Under **Central Management Server**, select **lync1.corp.contoso.com Contoso**, and then click **OK**.
20. In Topology Builder, click **Action**, and then click **Publish Topology**.
21. Click **Next** twice.
22. Click **Finish** to close the publishing wizard.

► **To install Lync Server 2013 core components**

1. From the Lync Server 2013 Deployment Wizard, click **Install or Update Lync Server System**.
2. For step 1 of the wizard, click **Run** and then click **Next**. Once completed, click **Finish**.
3. For step 2 of the wizard, click **Run** and then click **Next**. Once completed, click **Finish**.
4. For step 3 of the wizard, click **Run**.
5. Select **Default certificate** and then click **Request**.
6. Click **Next** five times until you reach the **Name and Security Settings** page.
7. For **Friendly name**, type **default** and click **Next** seven times.
8. On the **Executing Commands** page, click **Next**, then click **Finish**.
9. From the **Certificate Assignment** page, click **Next** twice.
10. Click **Finish**.
11. From the **Certificate Wizard** page, select the **OAuthTokenIssuer** certificate and then click **Request**.
12. Click **Next** five times until you reach the **Name and Security Settings** page.
13. For **friendly name**, type **OAuth** and click **Next** six times.
14. When **Task status** shows completed, click **Next** and then click **Finish**.
15. From the **Certificate Assignment** page, click **Next** twice.
16. Click **Finish** and then **Close** to close the Certificate Wizard.
17. From **Step 4: Start Services**, click **Run** and then click **Next**.
18. When **Task status** shows completed, click **Finish**.

► **To add A and SRV DNS records for Lync**

1. From the DC1 **Start** screen, click **DNS**.
2. In console tree of DNS Manager, open DC1 > Forward Lookup Zones > corp.contoso.com > \_tcp.
3. Right-click **\_tcp**, and then click **Other new records**.

4. In **Resource Record Type**, click **Service Location (SRV)** in the resource record type list, and then click **Create Record**.
5. In **New Resource Record**, type the following:
  - a. **\_sipinternal** in **Service**
  - b. **\_tcp** in **Protocol**
  - c. **5061** in **Port number**
  - d. **lync1.corp.contoso.com.** in **Host offering this service**
6. Click **OK** to add the new record.
7. In **Resource Record Type**, click **Service Location (SRV)** in the resource record type list, and then click **Create Record**.
8. In **New Resource Record**, type the following:
  - a. **\_sipinternalTLS** in **Service**
  - b. **\_tcp** in **Protocol**
  - c. **5061** in **Port number**
  - d. **lync1.corp.contoso.com.** in **Host offering this service**
9. Click **OK** to add the new record.
10. In **Resource Record Type**, click **Done**.
11. In the console tree, right-click **corp.contoso.com**, and then click **New Host (A or AAAA)**.
12. In **New Host**, type the following:
  - a. **admin** in **Name**
  - b. **10.0.0.5** in **IP address**
13. Click **Add Host**, and then click **OK**.
14. In **New Host**, type the following:
  - a. **LyncdiscoverInternal** in **Name**
  - b. **10.0.0.5** in **IP address**
15. Click **Add Host**, and then click **OK**.
16. In **New Host**, type the following:
  - a. **Meet** in **Name**
  - b. **10.0.0.5** in **IP address**
17. Click **Add Host**, and then click **OK**.
18. In **New Host**, type the following:
  - a. **Dialin** in **Name**
  - b. **10.0.0.5** in **IP address**
19. Click **Add Host**, click **OK**, and then click **Done**.

**Windows PowerShell equivalent commands**

The following Windows PowerShell commands, run at an administrator-level Windows PowerShell command prompt, perform the same function as the preceding procedure.

```
Add-DnsServerResourceRecord -Srv -ZoneName corp.contoso.com -Name _sipinternal._tcp -
DomainName lync1.corp.contoso.com -Port 5061 -Priority 0 -Weight 0
Add-DnsServerResourceRecord -Srv -ZoneName corp.contoso.com -Name _sipinternalTLS._tcp -
DomainName lync1.corp.contoso.com -Port 5061 -Priority 0 -Weight 0
Add-DnsServerResourceRecordA -Name admin -ZoneName corp.contoso.com -IPv4Address
10.0.0.5
Add-DnsServerResourceRecordA -Name LyncdiscoverInternal -ZoneName corp.contoso.com -
IPv4Address 10.0.0.5
Add-DnsServerResourceRecordA -Name Meet -ZoneName corp.contoso.com -IPv4Address
10.0.0.5
Add-DnsServerResourceRecordA -Name Dialin -ZoneName corp.contoso.com -IPv4Address
10.0.0.5
```

In this procedure, you enable users in the Lync Server Control Panel. You'll use these users to verify your Lync Server installation.

► **To enable users in the Lync Server Control Panel**

1. From the LYNC1 **Start** screen, click **Lync Server Control Panel**. (If a security error appears, you may need to add <https://localhost/Cscp> to the list of trusted sites in Internet Explorer by selecting **Tools > Internet options** and choosing the **Security** tab.)
2. Under **Top Actions**, click **Enable users for Lync Server**.
3. Click the **Enable Users** button.
4. Under **New Lync Server User**, click the **Add** button.
5. In **Select from Active Directory**, in the **Search** box, type **Janet Schorr**, and then click **Find**. When the name appears in the results, click **OK**.
6. Repeat step 5 for **Chris Ashton**. Ensure that both users appear in the **Users** list.
7. In **Assign users to a pool**, click **lync1.corp.contoso.com**.
8. For **Generate user's SIP URI**, click **Use the user principal name**.
9. Click the **Enable** button to enable the users.

## Step 6: Demonstrate Lync functionality between CLIENT1 and CLIENT2

In this procedure, you have an instant-message conversation, create a conference, and manage presence between Janet Schorr and Chris Ashton.

### ► To communicate between enabled Lync Server users

1. Log on to CLIENT1 with the Janet Schorr account (CORP\janet).
2. Open the Lync client by choosing **Lync 2013** from the **Start** screen.
3. When sign in completes, you'll see Janet's name in the Lync client and her availability (Available).
4. Log on to CLIENT2 with the Chris Ashton account (CORP\chris).
5. Open the Lync client by choosing **Lync 2013** from the **Start** screen.
6. When sign in completes, you'll see Chris' name in the Lync client and his availability (Available). Upon completion, both users are signed in on separate client computers. (Ideally, you can view the client computers simultaneously.)
7. On CLIENT1, in the text box of the Lync client, type **chris**. When **Chris Ashton** appears in the list, double-click it. An instant-messaging window appears.
8. Type **Hi Chris** and then press ENTER.
9. On CLIENT2, click the Lync popup titled Janet Schorr. A Lync instant messaging window appears with the **Hi Chris** message sent from Janet on CLIENT1.
10. Type **Hi Janet** and then press ENTER.
11. On CLIENT1, see the **Hi Janet** reply from Chris on CLIENT2.
12. In the instant message window, move your mouse over the monitor icon (for PRESENT options), click **Desktop**, and then click **OK**.
13. On CLIENT2, click **Accept meeting content**. The instant message window expands to show the CLIENT1 desktop. This is an example of creating a conference, in which CLIENT1's desktop is shared for the conference participants.
14. On CLIENT1, click **Stop Presenting**, and then close the instant message window.
15. In the Lync window, under **Janet Schorr**, click the down arrow, and then click **Busy**.
16. On CLIENT2, close the instant message window. Note that Janet Schorr is now displayed under **Favorites**, but with a **Busy** status. This is an example of managing presence (the availability for communication).
17. On CLIENT1, in the Lync window, under **Janet Schorr**, click the down arrow, and then click **Available**.
18. On CLIENT2, in the Lync window, note that Janet Schorr is now displayed under **Favorites** with an **Available** status.

## Snapshot the Configuration

This completes the Lync Server 2013 test lab. To save this configuration so that you can quickly return to a working configuration from which you can test solutions or for your own experimentation and learning, do the following:

1. On all physical computers or virtual machines in the test lab, close all windows and then perform a graceful shutdown.



2. If your lab is based on virtual machines, save a snapshot of each virtual machine and name the snapshots **LyncServer2013**. If your lab uses physical computers, create disk images to save the integrated test lab configuration.

## Additional Resources

To provide the authors of this guide with feedback or suggestions for improvement, send an email message to [lyncdoc@microsoft.com](mailto:lyncdoc@microsoft.com).

For more information about Lync Server 2013, see the [Lync product information web page](#) and [Lync Server for IT pros](#).

Microsoft strongly encourages you to develop and publish your own TLG content for Lync Server 2013, either in the TechNet Wiki (example: [Test Lab Guide: Demonstrate Remote Access VPNs](#)) or in your own publishing forum (example: [Test Lab Guide \(Part 1\) - Demonstrate TMG PPTP, L2TP/IPsec and SSTP Remote Access VPN Server](#)). If you want to publish your own TLG content, see [Wiki: Creating and Publishing Test Lab Guide Content](#) for information about the types of content you can create and for links to guidance and templates.

For a list of additional Microsoft TLGs, see [Test Lab Guides](#) in the TechNet Wiki.