**Configuring SharePoint Hybrid'**

**Objectives**

After you complete this lab, you will be able to:

* Configure and deploy SharePoint Hybrid scenarios.

**Exercise 1: Setup Environment**

**Task 1: Sign into Microsoft 365**

In this task you will open Edge browser and navigate to Microsoft 365 Portal to sign in with the credentials obtained in the previous task.

1. Open **Edge** or **IE** and enter [**https://portal.office.com**](https://portal.office.com/) into the address bar and press **Enter**.
2. You should be presented a sign in dialog box, if you are directed to the page instead, select **Sign In** from the upper right of the page. If you are presented the sign in dialog box, **copy and paste the M365 Credential Username** into the box presented, select **Next**.
3. In the next screen, **copy and paste the M365 Credential Password** into the box presented, select **Sign In**.
4. When it asks if you would like to **Stay signed in?** then select **Yes** to stay signed in.

**Setting up your organization for identity synchronization**

You are the security administrator for SP01, and you have Microsoft 365 deployed in a virtualized lab environment. In this lab, you will implement identity synchronization between your Microsoft 365 tenant accounts and your local active directory accounts.

**Task 2: Configure your UPN suffix**

1. Create 5 Users – UserA to UserE and password Pa55w.rd
2. Run **Windows PowerShell ISE** as administrator, update the UPN suffix for the domain and on the UPN on every user in AD DS with “@**YourTenant**.onmicrosoft.com” (where **YourTenant** is your unique UPN name) for the domain name. To do this, run the following command (remember to change **YourTenant** to your unique UPN name):

Import-Module ActiveDirectory

$upn = "YourTenant.onmicrosoft.com"

Set-ADForest -Identity SP01.COM -UPNSuffixes @{Add=$upn}

$ou = "CN=Users,DC=SP01,DC=com"

$oldSuffix = "SP01.com"

$password = "Pa55w.rd"

Get-ADUser -SearchBase $ou -filter {Name -like "user\*"} | ForEach-Object {

$\_ | Set-ADAccountPassword -reset -newpassword (ConvertTo-SecureString -AsPlainText $password -Force)

$\_.UserPrincipalName

$newUpn = $\_.UserPrincipalName.Replace($oldSuffix, $upn)

$\_ | Set-AdUser -UserPrincipalName $newUpn -EmailAddress $newUpn -ChangePasswordAtLogon $false

}

$serviceUpn = "spfarm@" + $upn

Set-ADUser -Identity spfarm -UserPrincipalName $serviceUpn -EmailAddress $serviceUpn

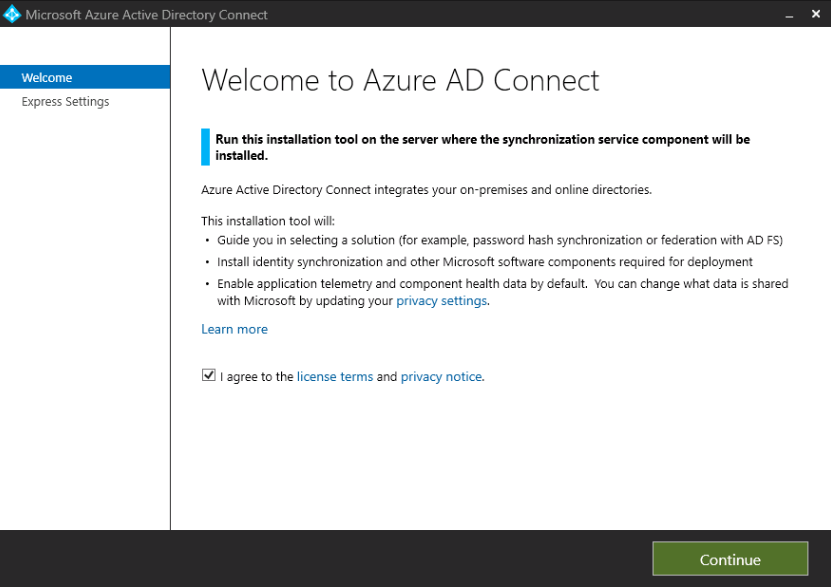
1. To confirm the change, open **Active Directory Administrative** Center, and navigate to the **UserA** under **Users** OU. You should see the value of Users UPN logon been changed to for Yes to **YourTenant**.onmicrosoft.com.

**Task 3: Enable Directory Synchronization**

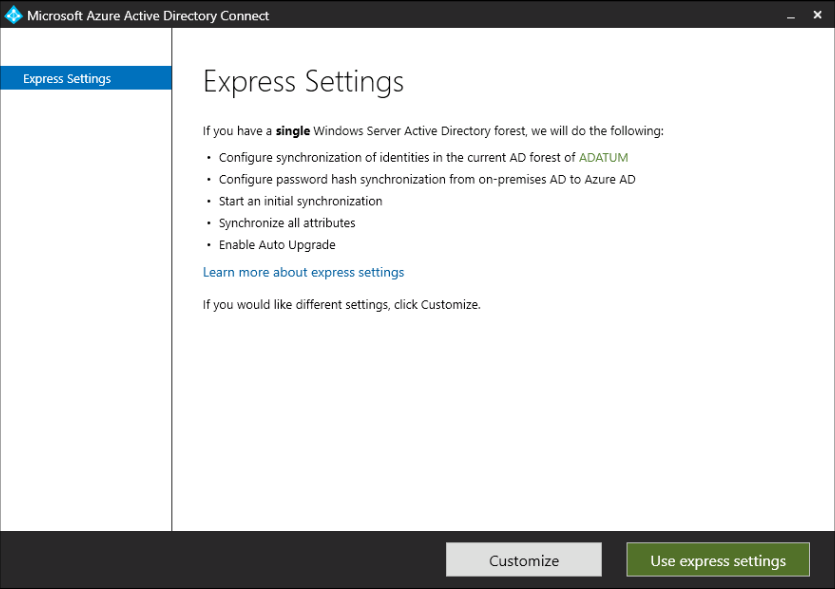
1. Open your browser and go to <https://portal.office.com/>
2. Sign in as [**admin@YourTenant.onmicrosoft.com**](mailto:admin@YourTenant.onmicrosoft.com) with the password for M365 Credentials.
3. Select **Admin** to go to the Microsoft 365 admin center.
   * If asked about **update your admin contact information** select the Cancel button to skip this request.
   * **Note:** If you see the Active Directory synchronization is being activated warning, you can ignore it at this time, but you will not be able t2o run directory synchronization later in this exercise. You must wait until directory synchronization is activated. However, you can complete the following steps, even if you do see the warning message.
4. In the left navigation, select **Setup** icon and under **Sign-in and security** select **View** under **Sync users from your org’s directory**.
   * Select **Get Started**
   * Select **Next** – we are not running IdFix for this lab\*\*.\*\*
   * Select **Download Azure AD Connect** – it will open new window.
   * Select **Save** to download AzureADConnect.msi.
   * Select **Open folder.**

**Task 4: Run Azure AD Connect**

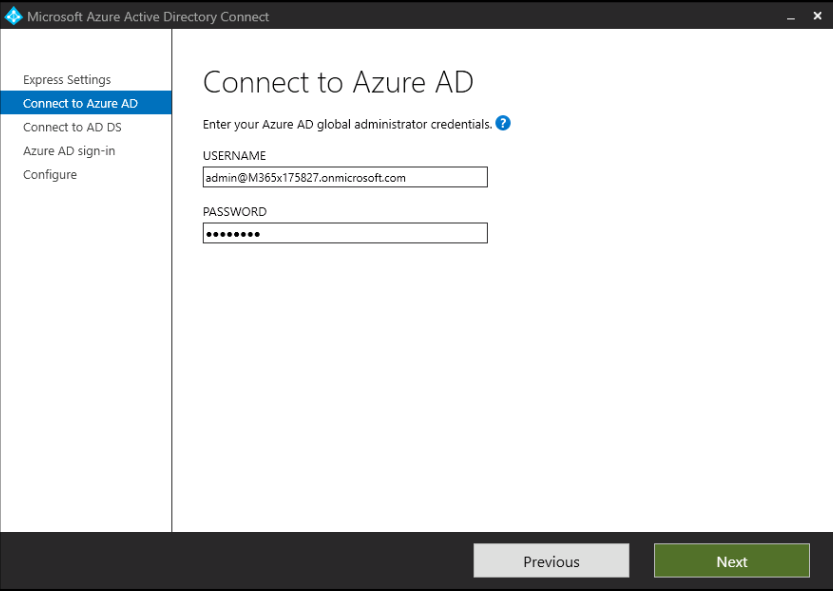
1. Log on as **SP01\Administrator** and use password **admin@123**  to your lab.
2. Go to downloads folder, double-select **Azure AD Connect,** and select **Run.**
3. Run **Azure AD Connect**.
   1. On the Welcome screen, select the box agreeing to the licensing terms and select **Continue**.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image1.png)

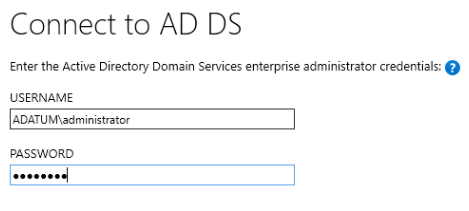
* 1. On the **Express settings** screen, select **Use express settings**.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image2.png)

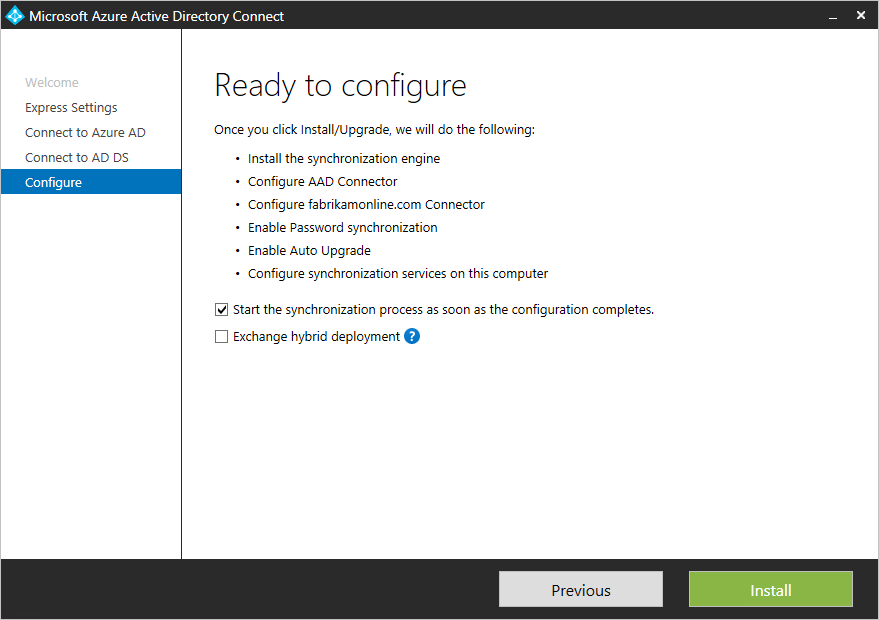
* 1. On the **Connect to Azure AD** screen, enter the Microsoft 365 admin credential ([admin@YourTenant.onmicrosoft.com](mailto:admin@yourtenant.onmicrosoft.com)), and hit **Next**.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image3.png)

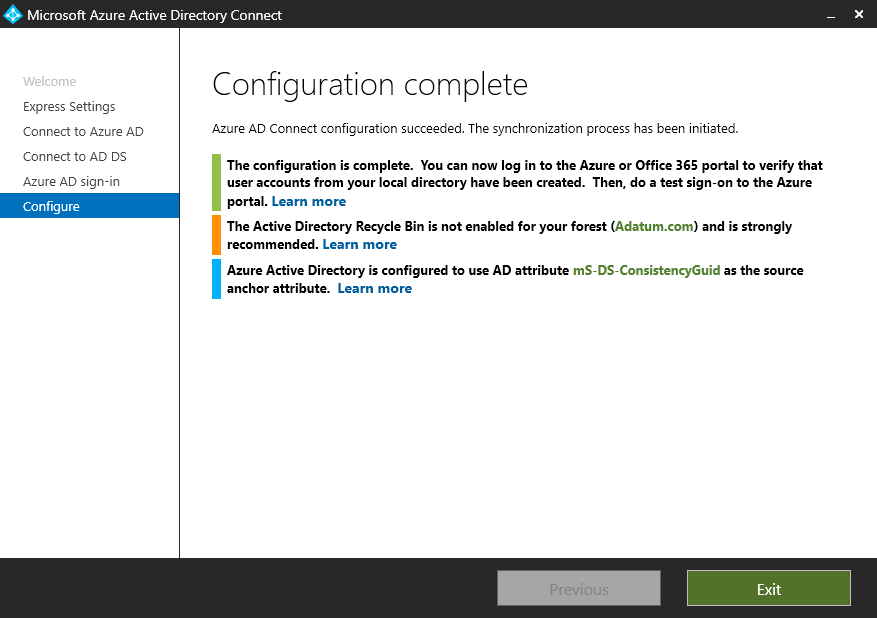
* 1. On the Connect to AD DS screen, enter “SP01\administrator” account and password (admin@123) and click **Next**.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image4.png)

* 1. On the [Azure AD sign-in configuration](https://docs.microsoft.com/en-us/azure/active-directory/connect/active-directory-aadconnect-user-signin#azure-ad-sign-in-configuration) page choose “**Continue without matching all UPN suffixes to verified domains**” and select **NEXT** to continue.
  2. On the Ready to configure screen, select the “**Start the synchronization process when configuration completes**” checkbox, then select **Install**.

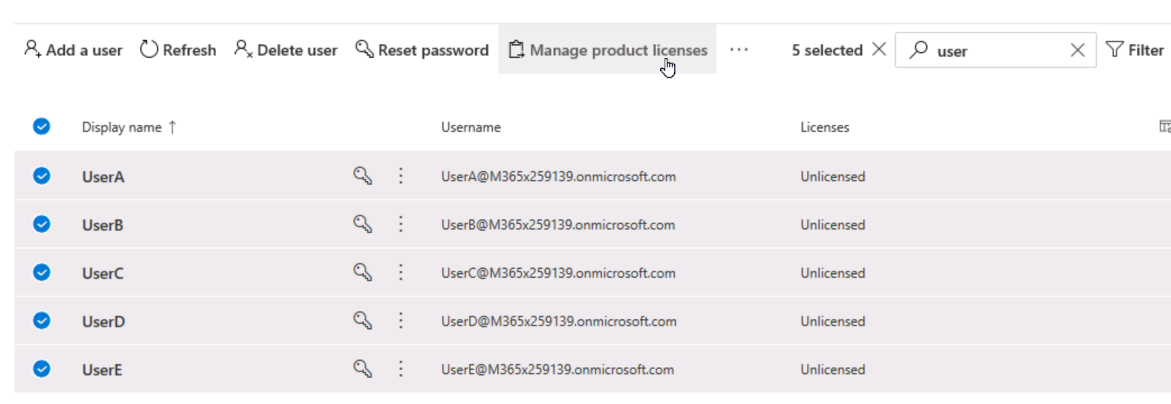
[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image5.png)

* 1. When the installation completes, select **Exit**. This process can take about 5 to 10 minutes to complete.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image6.png)

**Task 5: Assign users the Microsoft 365 licenses**

1. Open your browser and go to <https://portal.office.com/>.
2. Sign in as [**admin@YourTenant.onmicrosoft.com**](mailto:admin@YourTenant.onmicrosoft.com) with the password for M365 Credentials.
3. Browse to **Microsoft 365 Admin Center.**
4. In the left pane, select **Active users** under Users.
5. Find and select **UserA - UserE.** (You can search with keyword “user”)
6. Select all users and select **Manage product licenses** on the top.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image7.png)

1. Then select **Add to existing products license assignments** and choose **Next**.
2. Select the slider beside **Microsoft/Office 365 E5** to active the licenses.
3. Select **Add** then **Close**.
4. Go to [https://YourTenant.SharePoint.com](https://yourtenant.sharepoint.com/) , select **Share** at up-right corner, and share the site with **UserA**.

You have successfully synced local SP01 users into Microsoft 365 and assigned licenses. You have now completed this exercise you may proceed to next one.

**Exercise 2: Configuring SharePoint Hybrid**

**Task 1: Turn on the Microsoft SharePoint Foundation Subscription Settings Service**

1. Log on to virtual machine as the SharePoint Farm Administrator (SP01\Administrator).
2. Go to SharePoint 2016 Central Administration.
3. Select **System Settings** > **Manage Services in Farm** and **Enable Auto Provision** for **Microsoft SharePoint Foundation Subscription Settings Service.**
4. Select **System Settings** > **Manage services on server** and start **Microsoft SharePoint Foundation Subscription Settings Service.**

**Task 2: Install and run SharePoint Hybrid Configuration Wizard**

1. Log on to  virtual machine as the SharePoint Farm Administrator (SP01\Administrator).
2. Install **prerequisites** for Hybrid Search configuration.
   1. **Microsoft Online Services Sign-In Assistant:**

Download and install **msoidcli\_64.msi** via link (<https://www.microsoft.com/en-us/download/details.aspx?id=39267>).

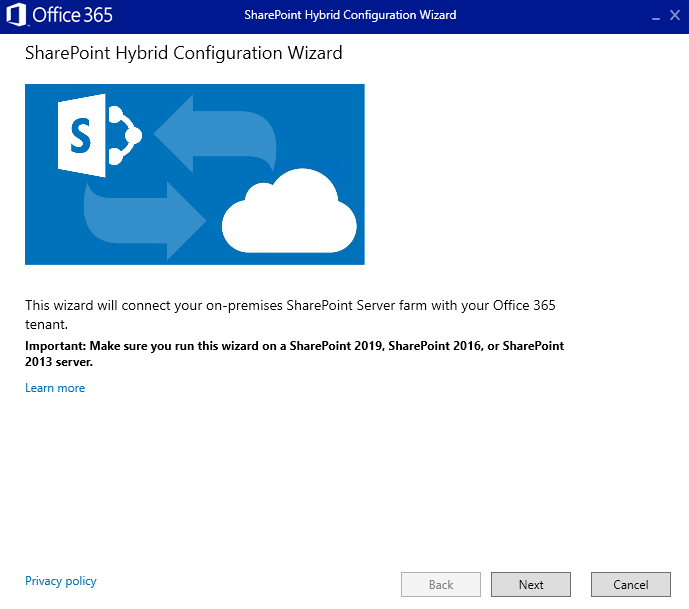
(You might need to restart the machine to finish the installation.)

* 1. **MSOnline AAD PowerShell module:**
     + Open Windows PowerShell and run as administrator.
     + Run following command and Yes to prompt questions.

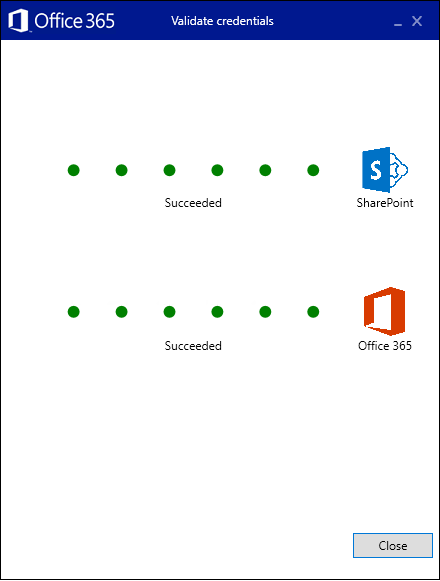
Install-Module -name MSonline -SkipPublisherCheck -Force

* + - Note: We are forcing the install and ignoring the publish check to make sure we override the module with newest available

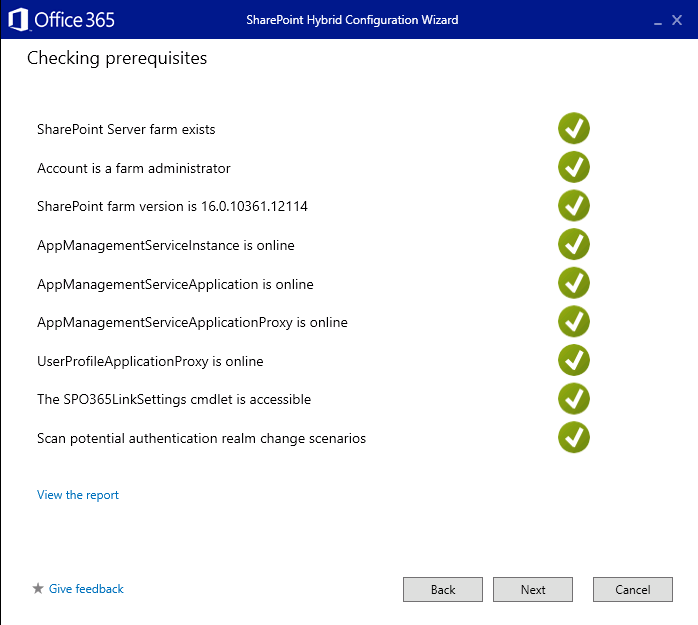
1. Go to **SharePoint 2016 Central Administration (**[http://lon-sp2:50000](http://lon-sp2:50000/) **)** > **Office 365 >** Select **Launch the Hybrid Configuration Wizard** > Select **Run** to install and launch the wizard.
2. Run the **Hybrid Configuration Wizard**
   1. This will launch the **SharePoint Hybrid Picker Wizard** Configuration Wizard. Select **Next**.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image8.png)

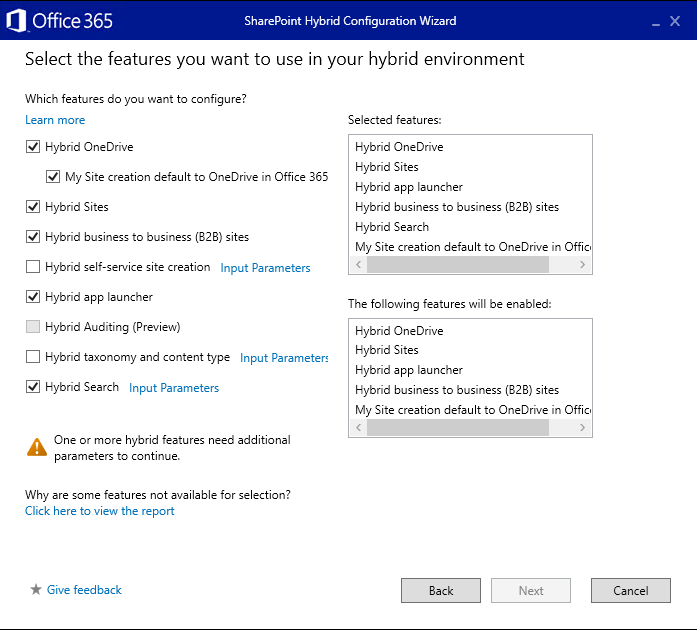
1. On the Credentials page enter:
   1. **Farm Admin** (SP01\**SPFarm) or check use my current credentials.**
   2. **Global Administrator** ([admin@YourTenant.onmicrosoft.com](mailto:admin@YourTenant.onmicrosoft.com)) credential.
   3. Select **Validate Credentials** to continue.

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image9.png)

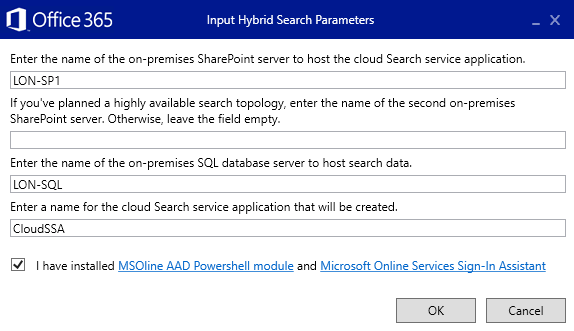
1. Once the **Validation** finishes, select **Close then Next**.
2. After all prerequisites succeed, select **Next**.

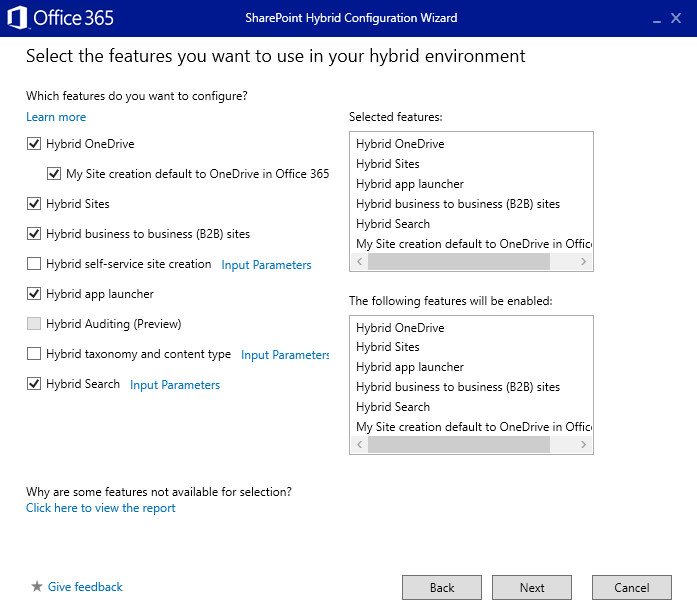
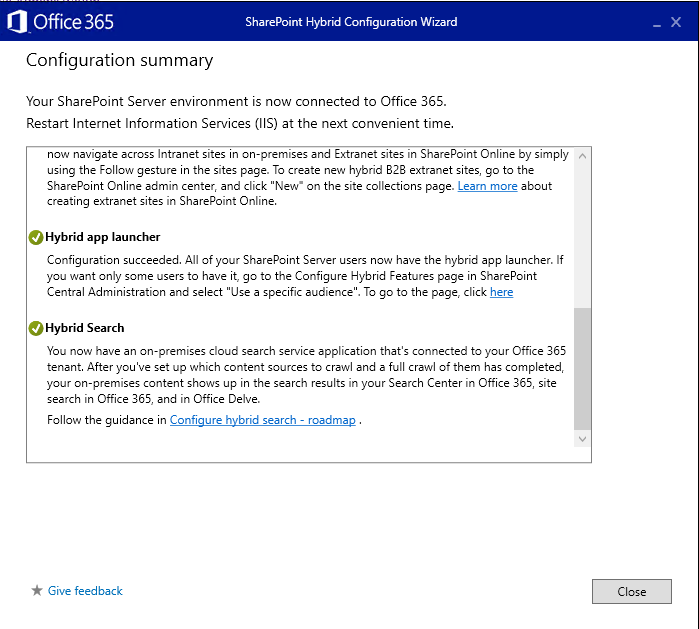
[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image10.png)

1. Keep all the default features to include and check the box for **Hybrid Search.** Verify following hybrid features are checked.
   1. Hybrid OneDrive
   2. My Site creation default to OneDrive in Microsoft 365
   3. Hybrid Sites
   4. Hybrid business to business (B2B) sites
   5. Hybrid app launcher
   6. Hybrid Search

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image11.png)

1. Select **Input Parameters** next to **Hybrid Search.** Enter following information in the popup window and click **OK.**
   1. On-premises SharePoint server: **LON-SP2**
   2. On-premises SQL database server: **LON-SQL**
   3. Name for the cloud Search service application: **CloudSSA**
   4. **Check the box** to validate installed MSOnline AAD PowerShell module and Microsoft Online Services Sign-In Assistant

[](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image12.png)

1. Select **Next** to start the configuration. (It might take more than 10 minutes to finish the wizard.) [](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image13.png)
2. Select **Close** when Configuration completes. [](https://github.com/MicrosoftLearning/MS-050-SharePoint-Hybrid-Deployment-and-Migration/blob/master/Instructions/Labs/media/M09/image14.png)

**Task 2: Configure search result**

1. Log on to  virtual machine as the SharePoint Farm Administrator (SP01\SPFarm).
2. **Crawl on-premises content**
   1. Open Edge or IE
   2. Go to **SharePoint 2016 Central Administration (**[http://lon-sp2:50000](http://lon-sp2:50000/) **)** > Manage service applications > CloudSSA.
   3. Select content source in left pane.
   4. Select the default content source named **Local SharePoint Sites**, and verify if the URL ([http://teams.adatum.com](http://teams.adatum.com/)) is in the start addresses. If not, add it to the text box, and select **OK.**
   5. Back to content source page, select the dropdown menu next to the content source, and start the full crawl.
3. **Create remote result source**
   1. Go to **SharePoint 2016 Central Administration (**[http://lon-sp2:50000](http://lon-sp2:50000/) **)** > Manage service applications > CloudSSA.
   2. Select **Result Sources**, and then select **New Result Source**.
   3. On the **Search Result Sources** page, do the following:
      * In the **Name** text box, type a name for the new result source (for example, Hybrid RS).
      * For **Protocol**, select **Remote SharePoint**.
      * For the **Remote Service URL**, type the address of the root site collection of the SharePoint in Microsoft 365 ([https://YourTenant.sharepoint.com/](https://yourtenant.sharepoint.com/))
      * For the **Type**, select **SharePoint Search Results**.
      * Leave **Query Transform** as **default** which is {searchTerms}.
      * Leave **Credentials Information** as **default** which is Default Authentication.
      * Select **Save** to save the new result source.
4. You will be redirected back to the **Result Sources** page.
5. Select the dropdown menu of the **Result Source** you just created and set it as default.
6. **Change Service Connections**.
   1. Go to **SharePoint 2016 Central Administration (**[http://lon-sp2:50000](http://lon-sp2:50000/) **)** > **Application Management** > **Configure Service Application Associations.**
   2. Select the **default** proxy group.
   3. On the Associations popup, check the box beside the **CloudSSA** Proxy you created, and then select **set as default**. (Uncheck SSA proxy if it is checked.)
   4. Select **OK**
7. **Validate Search Results**
   1. Sign in to virtual machine as SP01\UserA.

Note: If you cannot login to the LON-CL1 with the userA, verify as administrator that the userA is added to local group on LON-CL1 for remote access users.

* 1. Launch **Internet Explorer** and browse to enterprise search center [http://teams.adatum.com](http://teams.adatum.com/).
  2. Within the **search** text box, try to search following query string.
     + IsExternalContent:0
     + IsExternalContent:1
  3. Go to [https://YourTenanat.sharepoint.com](https://yourtenanat.sharepoint.com/) log in as [userA@Yourtenant.onmicrosoft.com](mailto:userA@Yourtenant.onmicrosoft.com) with password: Pa55w.rd
  4. In the Search box (middle-top) type:
     + IsExternalContent:0
     + IsExternalContent:1
  5. In both search centers you can alidate that the Search results are coming for the Online (IsExternalContent:0) & On-Premises content (IsExternalContent:1).

You have reached the end of the task and the exercise. You have completed the Lab.