

Configure Cloud Hybrid Features in SharePoint Server 2019 and Office 365

Priyaranjan K S

About the Author

Priyaranjan KS is a Senior SharePoint Consultant who is engaged in architecting, designing and developing solutions in SharePoint and Office 365. He has been working with SharePoint over the past 9 years and has worked on SharePoint 2007 through SharePoint 2019. He is a Certified Scrum Master as well as a Microsoft Certified Solutions Developer (SharePoint Apps)

He is a Microsoft MVP and frequently collaborates in the field of SharePoint. In case you need any SharePoint help, you can either find him [here](#) or drop a [mail](#) to him.

Target Audience

The users reading the book needn't have an in-depth working knowledge in SharePoint. But a basic working knowledge of Azure, Office 365 and SharePoint is considered ideal.

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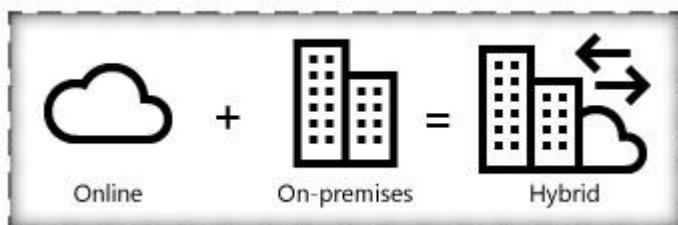
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I. Introduction

SharePoint 2019 general availability was announced by Bill Baer on October 2018. It is the latest iteration of SharePoint and is said to be the most scalable and stable product in SharePoint line up. Lot of improvements have been made over its predecessor, SharePoint 2016. The Notable improvements have happened in the Search Department. With an improved Cloud Hybrid Search Services , SharePoint 2019 brings in a highly scalable and mature Content Management Ecosystem.

SharePoint Cloud Hybrid Features

SharePoint hybrid is considered as the first step towards embracing the cloud infrastructure. Hybrid helps the organization maintain the best of SharePoint On Premise and Online functionalities. With SharePoint hybrid features, you can integrate the two environments together in a variety of ways to provide a more productive user experience.



Cloud Hybrid features in SharePoint includes the following:

- Cloud Hybrid Search: It provides SharePoint On Premise search results in SharePoint Online.
- Cloud One Drive Redirection: It redirects the users to Office 365 One Drive for business, upon clicking the On Premise One Drive button.
- Cloud Hybrid Site Features: It provides an extensible app launcher in SharePoint 2019 which integrates tile in Office 365 to On Premise App Launcher. It also redirects the users to Office 365 Team Sites upon clicking the SharePoint On Premise Sites button in the suite bar.

II. SharePoint Farm Architecture

The SharePoint 2019 installation can be either done On Premise or in Azure VMs. This E-Book assumes that you have a readily running SharePoint Farm in Place. In case you want to quickly spin up a SharePoint 2019 VM, you can do that from Azure Portal. We

would be using a Single Server Farm SharePoint Installation to implement Hybrid features in this book.

Home > New > Virtual machine > Create a virtual machine

Create a virtual machine

PROJECT DETAILS

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

* Subscription ▼
└─ * Resource group ▼
[Create new](#)

INSTANCE DETAILS

* Virtual machine name ✓
* Region ▼
Availability options ▼
* Image ▼
[Browse all images](#)

* Size
4 vcpus, 32 GB memory
[Change size](#)

ADMINISTRATOR ACCOUNT

* Username ✓
* Password ✓
* Confirm password ✓

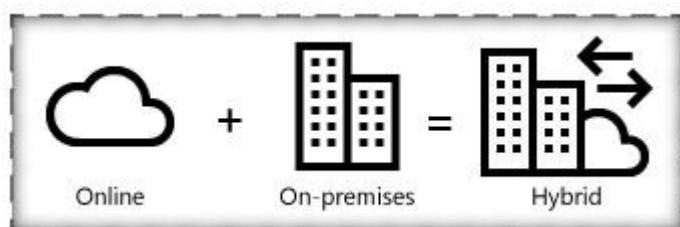
INBOUND PORT RULES

[Review + create](#) [Previous](#) [Next : Disks >](#)

Now let's head over to setting up SharePoint Hybrid Features.

III. SharePoint Hybrid Features

SharePoint hybrid is considered as the first step towards embracing the cloud infrastructure. Hybrid helps the organization maintain the best of SharePoint On Premise and Online functionalities. With SharePoint hybrid features, you can integrate the two environments together in a variety of ways to provide a more productive user experience.



Cloud Hybrid features in SharePoint include the following:

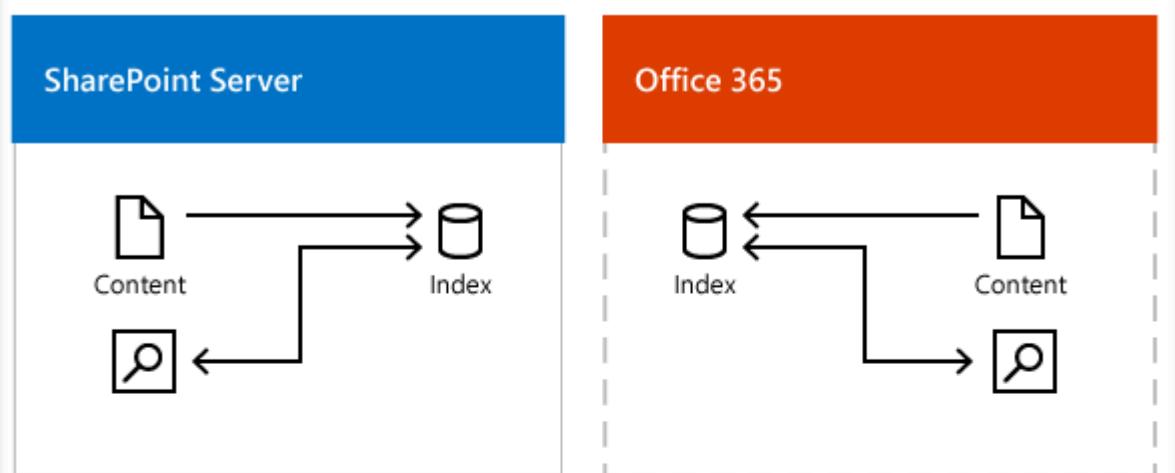
- Cloud Hybrid Search: It provides SharePoint On Premise search results in SharePoint Online.
- Cloud One Drive Redirection: It redirects the users to Office 365 One Drive for business, upon clicking the On Premise One Drive button.
- Cloud Hybrid Site Features: It provides an extensible app launcher in SharePoint 2019 which integrates tile in Office 365 to On Premise App Launcher. It also redirects the users to Office 365 Team Sites upon clicking the SharePoint On Premise Sites button in the suite bar.
- My Site creation default to OneDrive in Office 365 : My Site creation experience for end users will be redirected to Office 365 OneDrive experience.
- Hybrid business to business (B2B) sites : You can now navigate across intranet sites in on-premises and extranet sites in SharePoint Online by using the "Follow gesture" in site pages. New hybrid B2B extranet sites can be created from SharePoint Online Admin center, click "New" on the site collections page. This site later can be shared with external users

We will see more about each of the Cloud Hybrid implementation in the coming sections

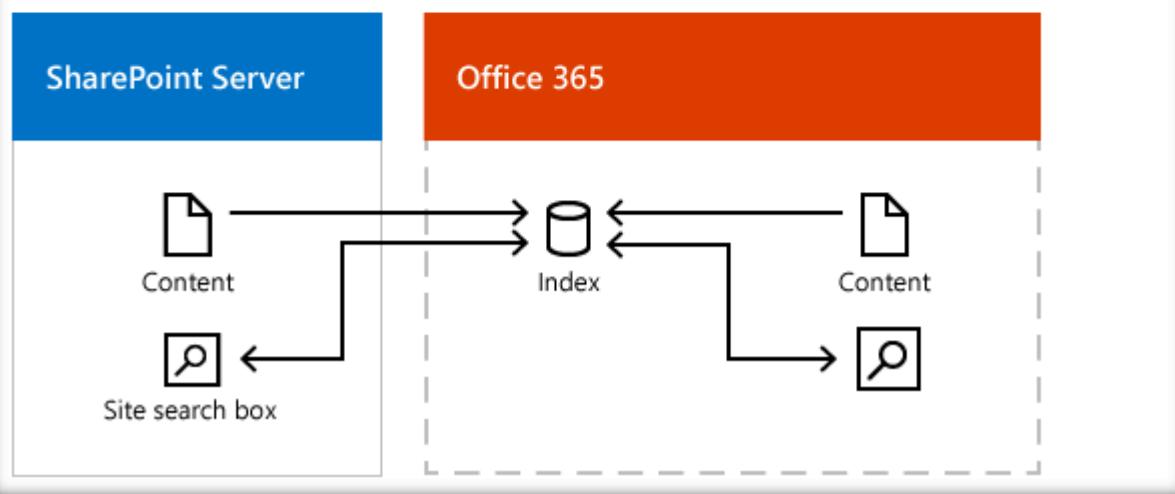
A. Cloud Hybrid Search

Cloud hybrid search facilitates the users to search for content, which exists in SharePoint 2019 On Premise Server along with the content search in Office 365. This is done by crawling the content in SharePoint 2019 Server and indexing it along with the search index in Office 365.

Without hybrid search



With cloud hybrid search



Before setting up Cloud hybrid search, we need to configure some prerequisites in SharePoint 2019 and Office 365 environment. Ensure the steps, mentioned below, are done.

- An Active Azure Subscription is available
- Office 365 AD is manageable from Azure
- A public domain has been registered with Office 365
- A UPN prefix that matches the public domain has been added to the Local AD
- Synchronize Local Active Directory with Office 365

1. Get an Azure Subscription

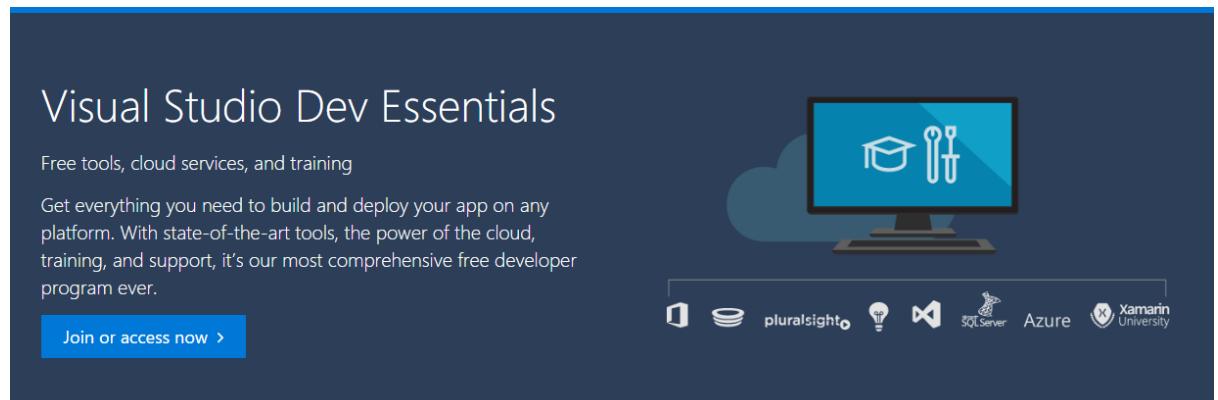
Azure provides multiple purchase options. You can either skip the free trial and get a paid subscription directly from [here](#). Else you can make use of the Visual Studio Dev essentials program where you can make use of fixed credits per month.

Visual Studio Dev essentials provide a lot of freebies for developers. This includes a 6 months PluralSight subscription as well as a \$25/month Azure subscription. These are real value adds to any developer who wants to get their hands dirty with some serious learning. In this article we will see how to register for the free \$25/month Azure subscription.

Microsoft calls this freebie subscription as Developer benefit Program .In order to reap these benefits you need to have a Hotmail or outlook account. Now let's see how to get the free azure credits using the developer benefit program.

Steps to activate Free Azure Subscription

- After creating Hotmail/outlook account go to Visual Studio Essential Dev [site](#).
- Click on 'Join or Access now'.



- There are multiple free resources which can be utilized for learning and R&D purposes. We will go with Azure \$25 monthly Azure credit .Click on Activate.

This screenshot shows the "Featured (6)" section of the Visual Studio Dev Essentials website. It includes six cards with the following details:

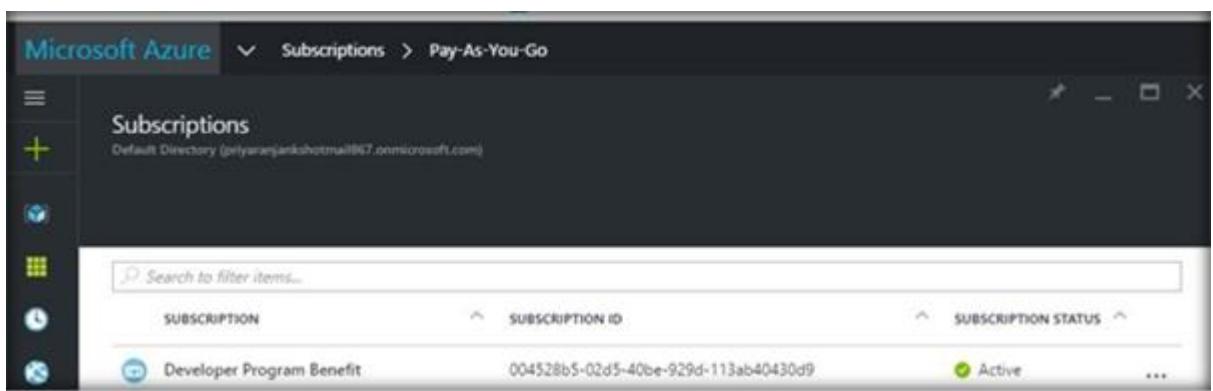
- Visual Studio Community**: Full-featured, extensible IDE. Free for individuals, open source or small teams. Create apps for Windows, iOS,....
- Visual Studio for Mac**: Community IDE on macOS. Build apps for mobile, cloud, web, and games using the IDE you love, on macOS.
- Azure DevOps**: Basic level. Free Git repos, Agile planning tools and hosted builds, for any language – it's the perfect...
- Azure**: Free account + \$200 credit. Combine \$200 free credit along with the 12-month free services to experiment in your own...
- Visual Studio Code**: Modern lightweight editor. A powerful, streamlined code editor for your favorite platform - Linux, macOS, and...
- LinkedIn Learning**: 3 month Premium subscription. Unlock the power of LinkedIn with access to the people, insights, and skills you need t...

Each card has a "Download" or "Get started" button and a "Activate" button for the Azure service.

- This will take us to the Purchase page.

- Here you will have to Enter Personal details and verify yourself via Text Message/Phone Call. In addition to that you have to enter the credit card details. You won't be charged anything. Once the subscription is set up successfully, there is an option called "Remove Spending Limit", which when enabled allows you to use the resources when 25\$ limit is reached. When spending limit has been removed credit card would be charged as per usage.

Click on 'Sign up'.



The subscription has been created for you. You can add VMs and other resources to this subscription and get some serious work done. Make sure you check the usage once in a while from the Manage section of the Subscription.

This will show the remaining credits available. Make sure to stop the VM after usage, if needed, else the credit will be used up for every live minute.

Once the credit is used up for a particular month the VM or any other resources subscribed under the Developer Benefit Program won't be accessible anymore. You will have to wait for the next month so that \$25 credit will be added to your account. This will restore access to the environments. However if you don't want to wait till next month you can click on Remove Spending Limit button in the above screen shot and you will be charged on a usage basis until free credits are loaded to your account in the subsequent month.

2. Sign up for Office 365 account

You can sign up for Office 365 account from [here](#). Make sure you subscribe to an Enterprise plan (Office 365 Enterprise E1/E3/E5)that houses SharePoint Online.

3. Register a new Domain with Office 365

When we sign up for Office 365, initially we get a default domain XXXX.onmicrosoft.com. In my case it was sp2019hybrid.onmicrosoft.com. Microsoft suggests in getting a new public domain of the form contoso.com to set up hybrid search. So I bought a new domain and registered it with Office 365. Adding of a new domain has been explained in this section.

When we sign up for Office 365, initially we get a default domain XXXX.onmicrosoft.com. In order to spin up a trial version and do some testing of the environment this domain is perfectly ok. However if we want to deploy the office 365 service to an organization we will have to get a custom domain so that the customers and users can identify the organization by the url.

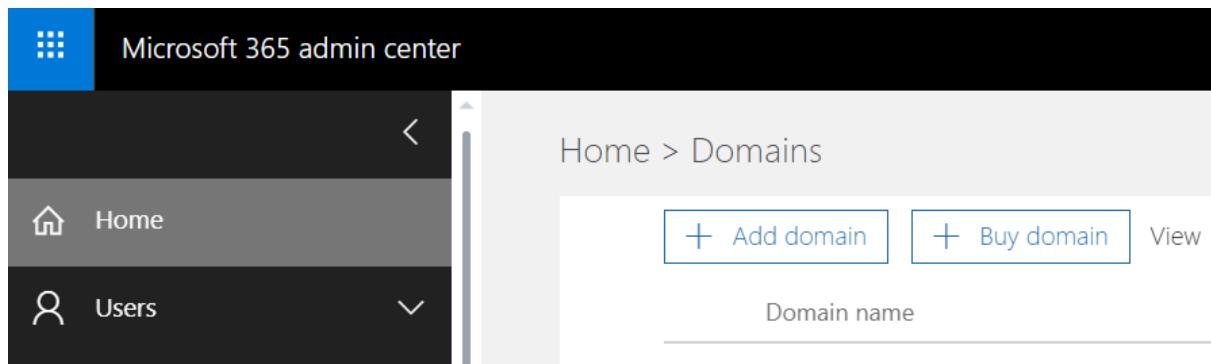
We have two options when it comes to adding a new domain to Office 365

- Buy a new domain from Office 365 Admin Centre
- Use an existing owned domain and add it to Office 365

Let's see how we can achieve both.

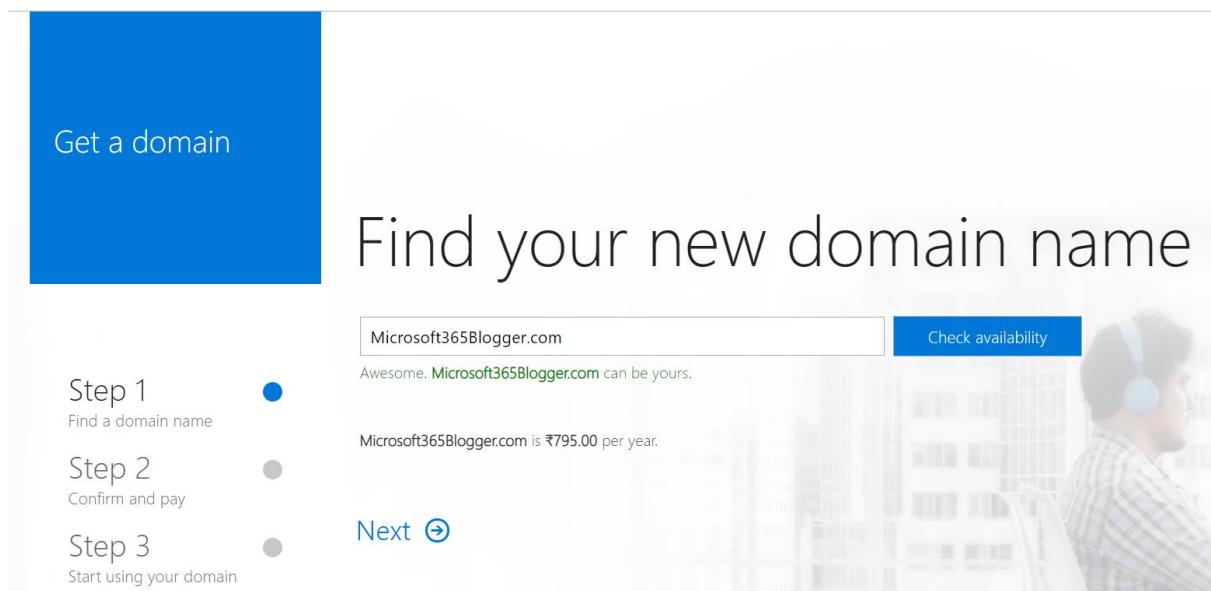
Buy a new domain

Office 365 Admin Center provides the global administrator to buy a new domain from Settings -> Domains section. Here click on the "Buy domain" to navigate to the page from where we can buy a new domain.



The Microsoft 365 admin center Domains page. The left sidebar shows 'Home' and 'Users'. The main area shows 'Home > Domains' with buttons for '+ Add domain' and '+ Buy domain'. A search bar for 'Domain name' is also present.

It will take us to the [page](#) where we can search for a suitable and available domain name. Once we have found a suitable match, click on Buy which will take us to the GoDaddy site to complete the purchase.



The GoDaddy domain search interface. It features a large blue button on the left labeled 'Get a domain'. The main area has a heading 'Find your new domain name' and a search bar containing 'Microsoft365Blogger.com'. Below the search bar, it says 'Awesome. Microsoft365Blogger.com can be yours.' and 'Microsoft365Blogger.com is ₹795.00 per year.' There is a 'Check availability' button and a 'Next' button. To the right, there is a blurred background image of a person wearing headphones.

Get a domain

Find your new domain name

Step 1
Find a domain name

Step 2
Confirm and pay

Step 3
Start using your domain

Microsoft365Blogger.com

Check availability

Awesome. Microsoft365Blogger.com can be yours.

Microsoft365Blogger.com is ₹795.00 per year.

Next ↗

Or Else you can procure a domain directly by going to Go Daddy Site.

Yes! Your domain is available. Buy it before someone else does.

microsoft365blogger.com

✓ Added

Add to Cart

The total amount and the duration of ownership can be specified in the GoDaddy site. Make the payment and procure the new domain.

Add an existing domain to Office 365

Once we have bought the new domain, we can add it to Office by going to the domains page and click on 'Add domain'.

Microsoft 365 admin center

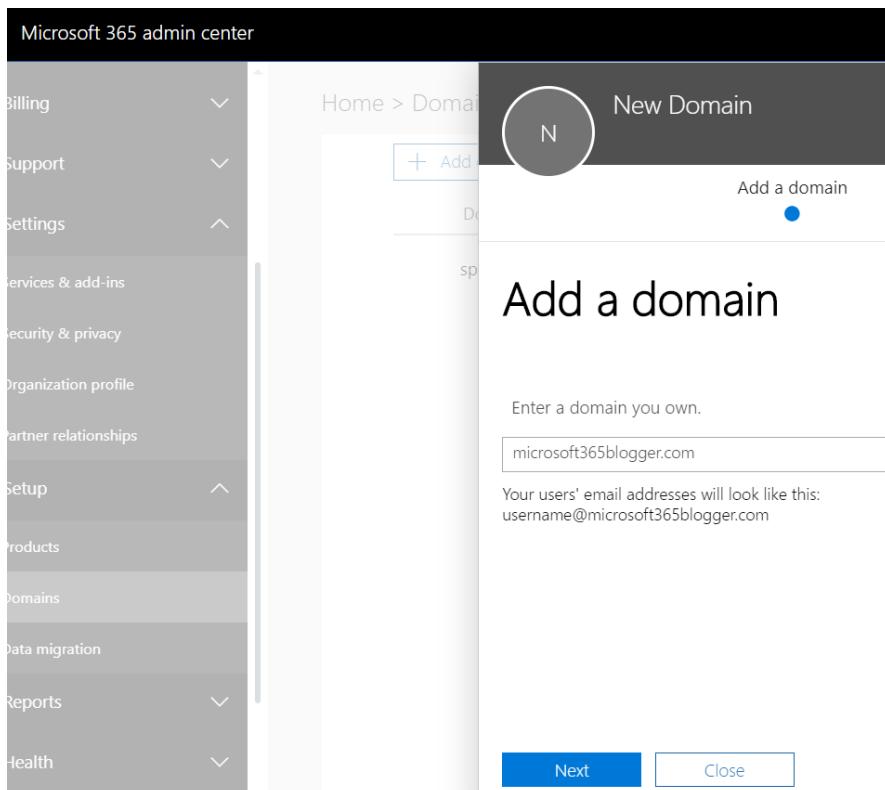
Home > Domains

+ Add domain + Buy domain

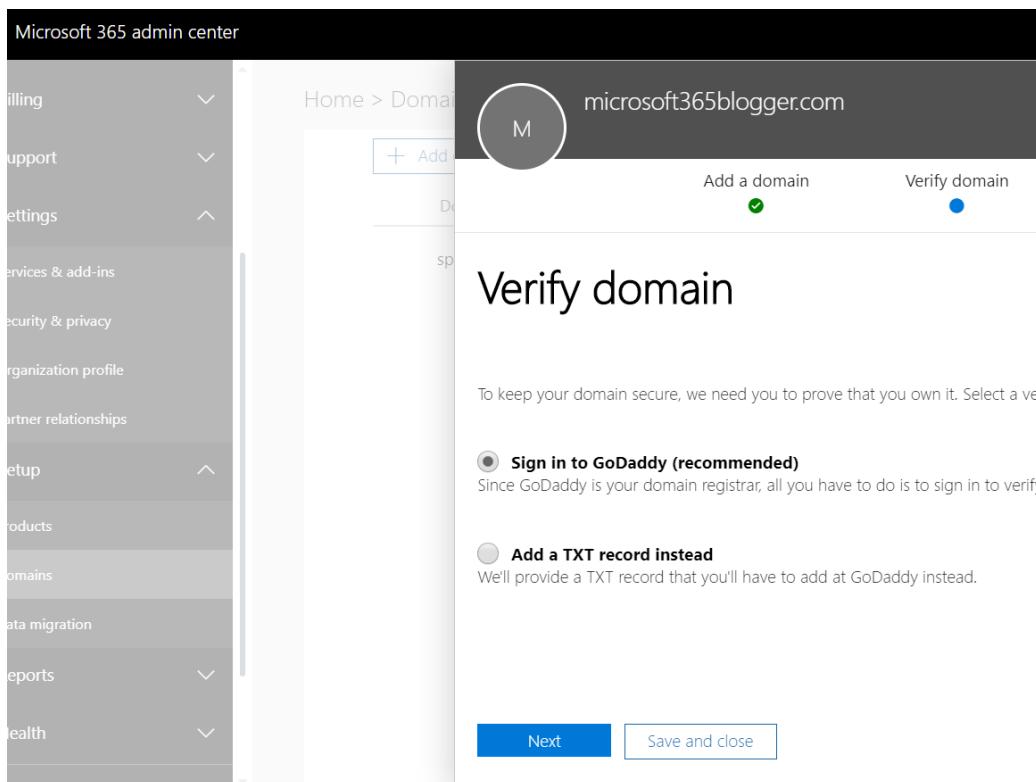
Domain name

sp2019hybrid.onmicrosoft.com (Default)

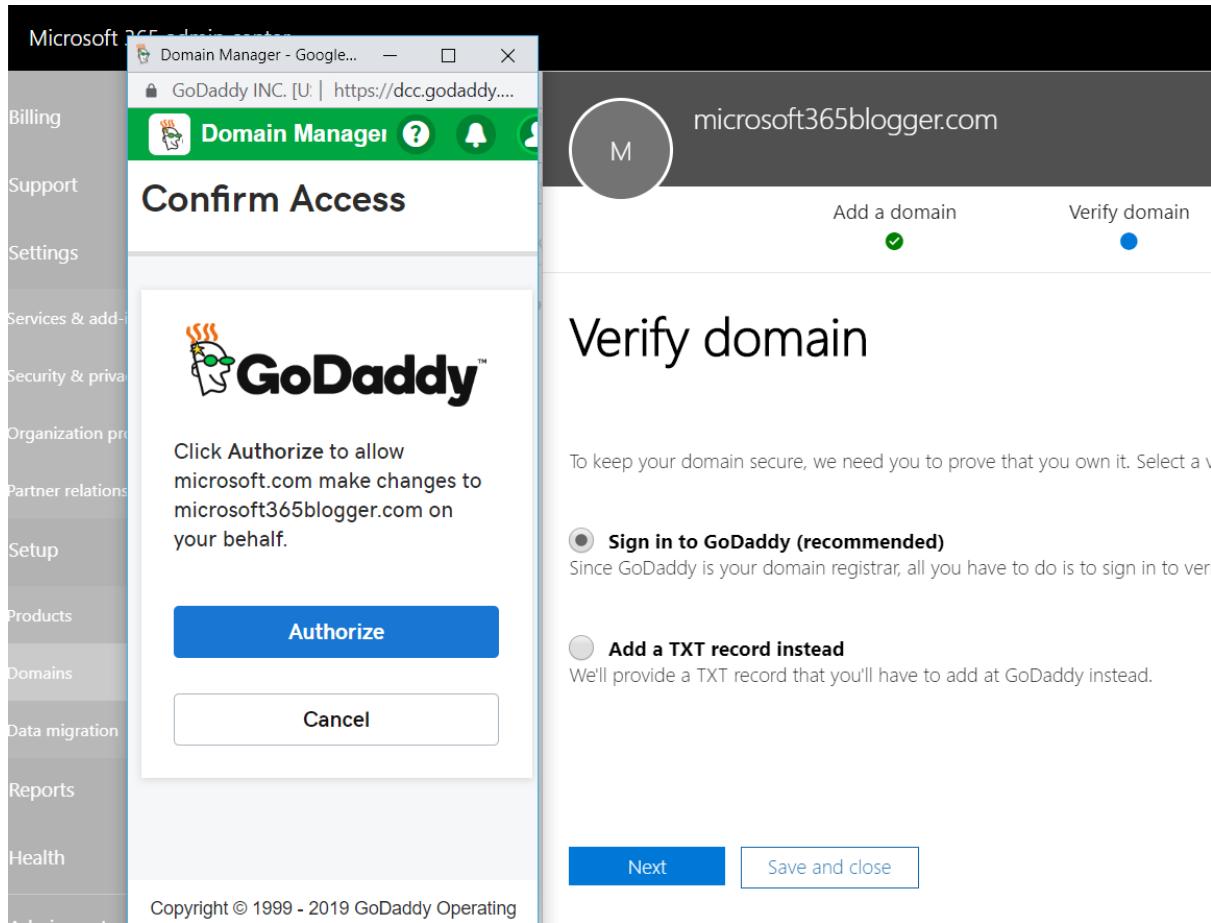
Specify the name of the domain that you own in the text box as shown below.



Office 365 will now want to verify that you really own such a domain. You can either choose 'Sign in to GoDaddy' so that it automatically contacts the domain registrar and do verification.



In order to automatically do the verification, a Go Daddy login screen will come up where you have to authenticate to GoDaddy by entering the username and password.



Allow Office 365 to make changes to the domain at GoDaddy by clicking on Accept and this will automatically verify the domain.

Update DNS Settings

Once we have verified the Domain, we have to update the DNS Settings. Similar to the above step we can automate this step by selecting the first option 'Add the DNS records for me'.

The screenshot shows the Microsoft 365 domain management interface. At the top, it displays the domain name "microsoft365blogger.com". Below the header, there are four status indicators: "Add a domain" (green checkmark), "Verify domain" (green checkmark), "Set up your online services" (green checkmark), and "Update DNS settings" (blue dot). The main content area is titled "Update DNS settings" and contains the following text: "In this step, you'll activate services for your domain, like email and instant messaging, by adding DNS records for microsoft365blogger.com at your DNS hosting provider." A link "What's a DNS record? What's a domain registrar?" is provided. Two options are available: "Add the DNS records for me (recommended)" (selected) and "I'll add the DNS records myself". The "Add the DNS records for me" option is described as "Since GoDaddy is your DNS hosting provider, all you have to do is sign in and we'll update your DNS records." The "I'll add the DNS records myself" option is described as "If you have a complex DNS record structure, choose this option. Next, we'll provide a list of DNS records that you'll need to add for your domain." A link "Why would I manage my own DNS records?" is also present. At the bottom, there are "Next", "Back", and "Save and close" buttons, along with a "Need help?" link.

Click on Next to add the DNS records in GoDaddy

The screenshot shows the Microsoft 365 domain management interface after the DNS records have been added. The status indicators now show green checkmarks for all four steps: "Add a domain", "Verify domain", "Set up your online services", and "Update DNS settings". The main content area is titled "Update DNS settings" and displays the message "Congratulations! Your domain and email addresses are all set up." A "Finish" button is visible at the bottom. A "Need help?" link is also present.

Set Primary Domain

Heading over to the Domains page we can see that the new domain has been added and successfully set up.

Home > Domains

sp2019hybrid

+ Add domain + Buy domain View All domains Search domains

Domain name	Status
microsoft365blogger.com (Default)	Setup complete
sp2019hybrid.onmicrosoft.com	Setup complete

Click on the new domain and set it as default if we want to start using it.

Home > Domains

microsoft365blogger.com
Domain managed outside Office 365

+ Add domain Domain name Set as default DNS management Check DNS Remove

sp2019hybrid

microsoft365blogger.com

^ Required DNS settings

Your DNS records must be set to the following values for your Office 365 services to run smoothly.
You can also download or print this data.

Export options ▾

^ Exchange Online

Thus the newly added domain has been set as the default domain in Office 365.

Home > Domains

microsoft365blogger.com (Default)
Domain managed outside Office 365

+ Add domain DNS management Check DNS Remove

microsoft365blogger.com (Default)

microsoft365blogger.com (Default)

✓ The domain is successfully set as default.

^ Required DNS settings

Your DNS records must be set to the following values for your Office 365 services to run smoothly.
You can also download or print this data.

Export options ▾

As a final step we have to go to the list of users and edit their emails to start using the new domain.

The screenshot shows the Microsoft 365 admin center interface. On the left, there's a navigation sidebar with options like Home, Users (Active users selected), Contacts, Guest users, Deleted users, Groups, Resources, Billing, and Support. The main area displays the user profile for 'Priyanjan KS' (Priyanjan@sp2019hybrid.onmicrosoft.com). The profile includes a circular icon with 'PK', a 'Change' button, and a 'Change password' link. Below the profile, there are several user details listed in a table:

Username	Priyanjan@sp2019hybrid.onmicrosoft.com
Product licenses	No products have been assigned
Group memberships (0)	No groups for the user. Click edit to change group membership.
Sign-in status	Sign-in allowed
Office installs	View and manage which devices this person has Office apps installed on.
Roles	Global administrator
Preferred Data Location	
Contact information	Priyanjan KS

Click on Edit option against the user name.

The screenshot shows the 'Edit username' dialog box. It features a large circular profile picture with 'PK' and the user's name 'Priyanjan KS' and email 'Priyanjan@sp2019hybrid.onmicrosoft.com'. Below this, the title 'Edit username' is displayed. A 'Username' field contains 'Priyanjan' with an '@' symbol followed by a dropdown menu. The dropdown menu lists three options: 'sp2019hybrid.onmicrosoft.com' (selected), 'microsoft365blogger.com', and 'sp2019hybrid.onmicrosoft.com'. At the bottom of the dialog are two buttons: 'Save' (in blue) and 'Cancel'.

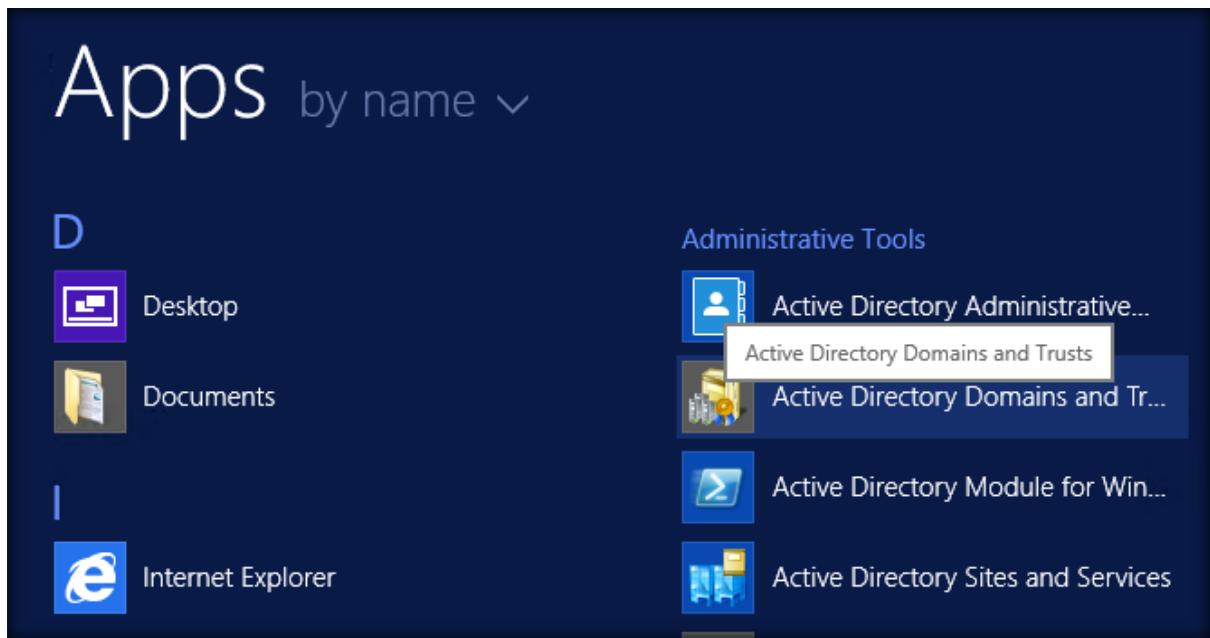
Add the new domain email address and click on Save.

The screenshot shows the Microsoft 365 admin center interface. On the left is a dark sidebar with icons for Home, Active users, Groups, and more. The main area has a header "Microsoft 365 admin center" and a breadcrumb "Home > Active users". Below the header are buttons for "+ Add a user", "More", "Views", "All users", and a search bar "Search users". The main content area displays a table of active users. The columns are "Display name" (with a sorting arrow), "Username", and "Actions". One user is listed: "Priyaranjan KS" with the email "Priyaranjan@microsoft365blogger.com". At the bottom, there are two informational sections: "Just want to add an email address?" and "Types of users".

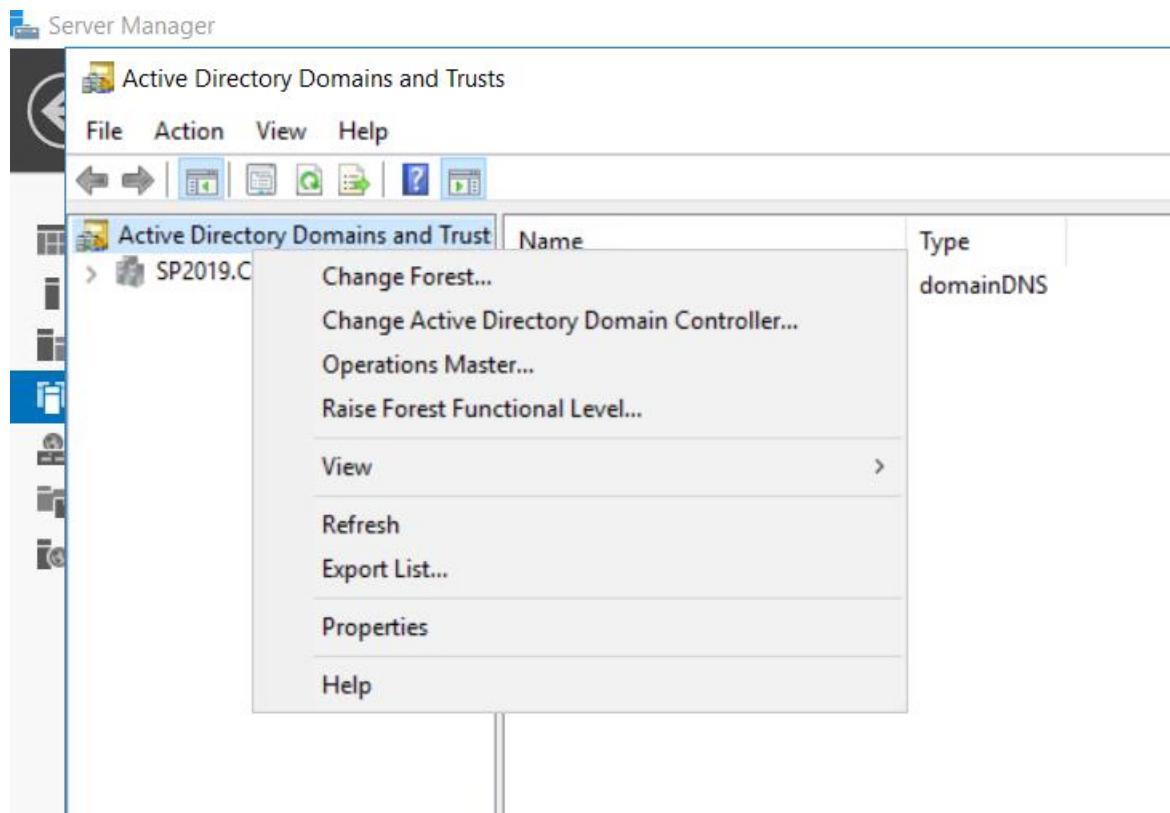
4. Assign a UPN domain suffix

UPN stands for User Profile Name. Now we have to create a UPN domain suffix in the Active Directory domain where Active Directory Services are configured in such a way that it matches the public domain that was created and registered with Office 365 in the previous step. The active directory can be in an On Premise Server or it can be in a virtual machine hosted in azure.

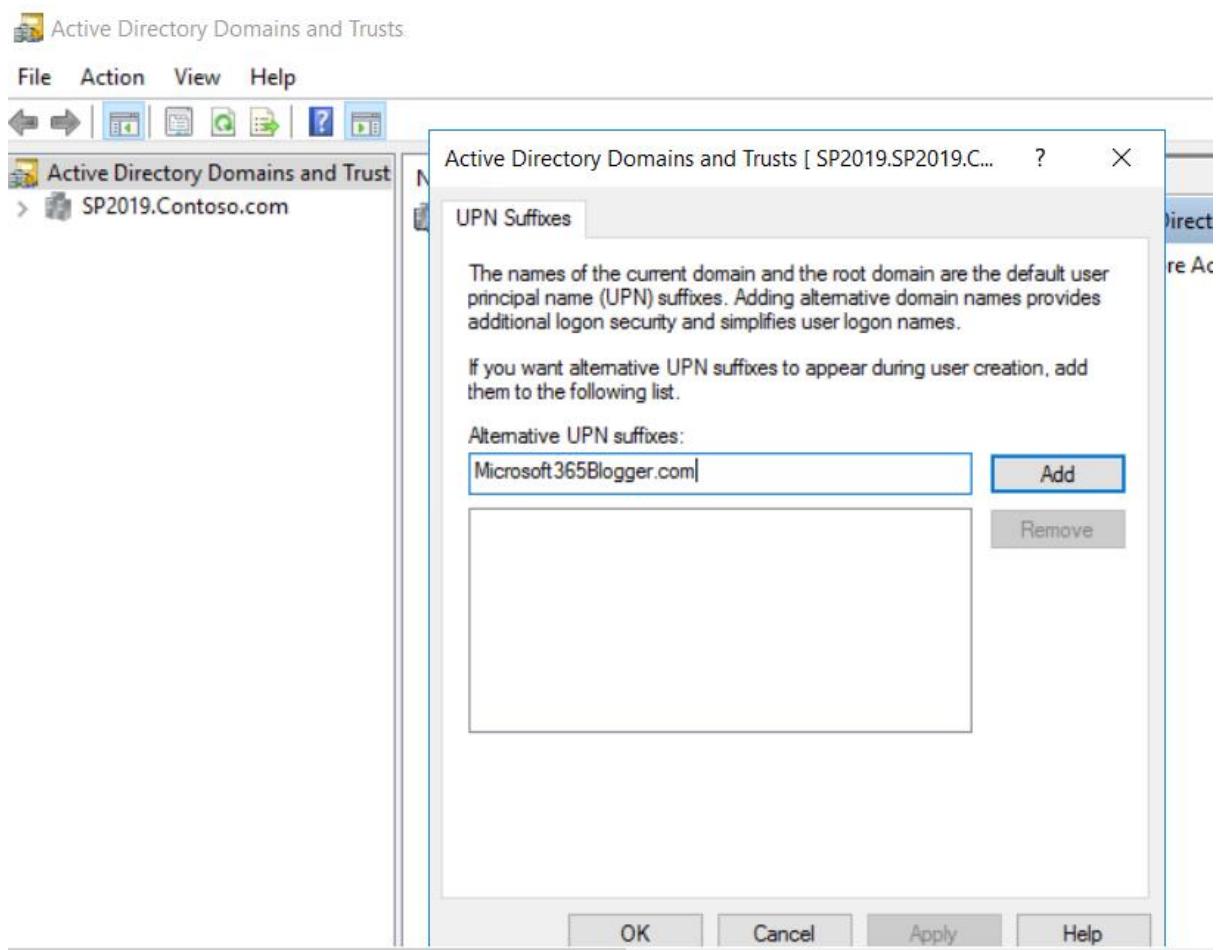
In my existing configuration I have hosted SharePoint Services in Azure and I have set up Azure Directory services in a virtual machine. In my case it is hosted in server SP2019. Select Active directory domain and trusts from the server hosting active directory.



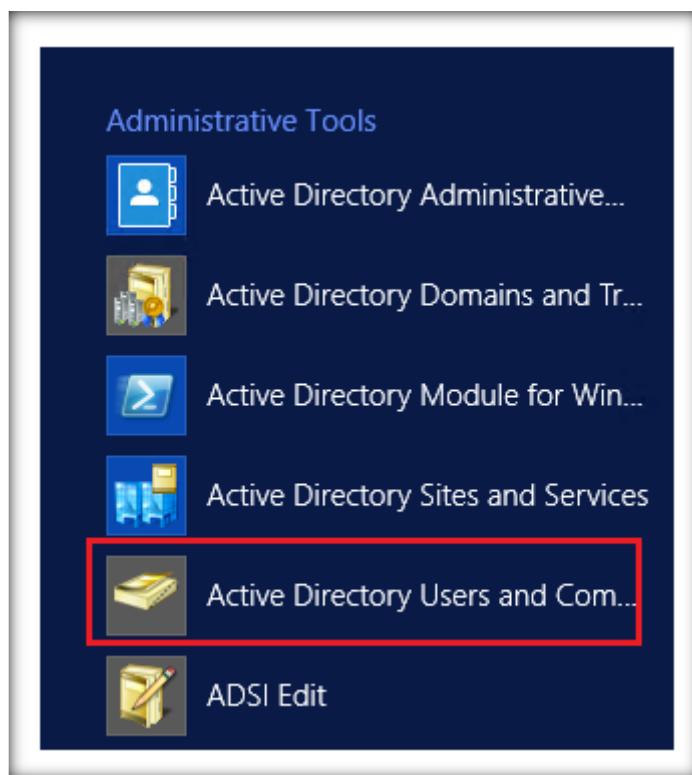
Right click the root and select *Properties*.



This will open up the window where we can specify the UPN Suffix. Specify the Public domain that we had registered earlier with Office 365 here. Click on *Add*.

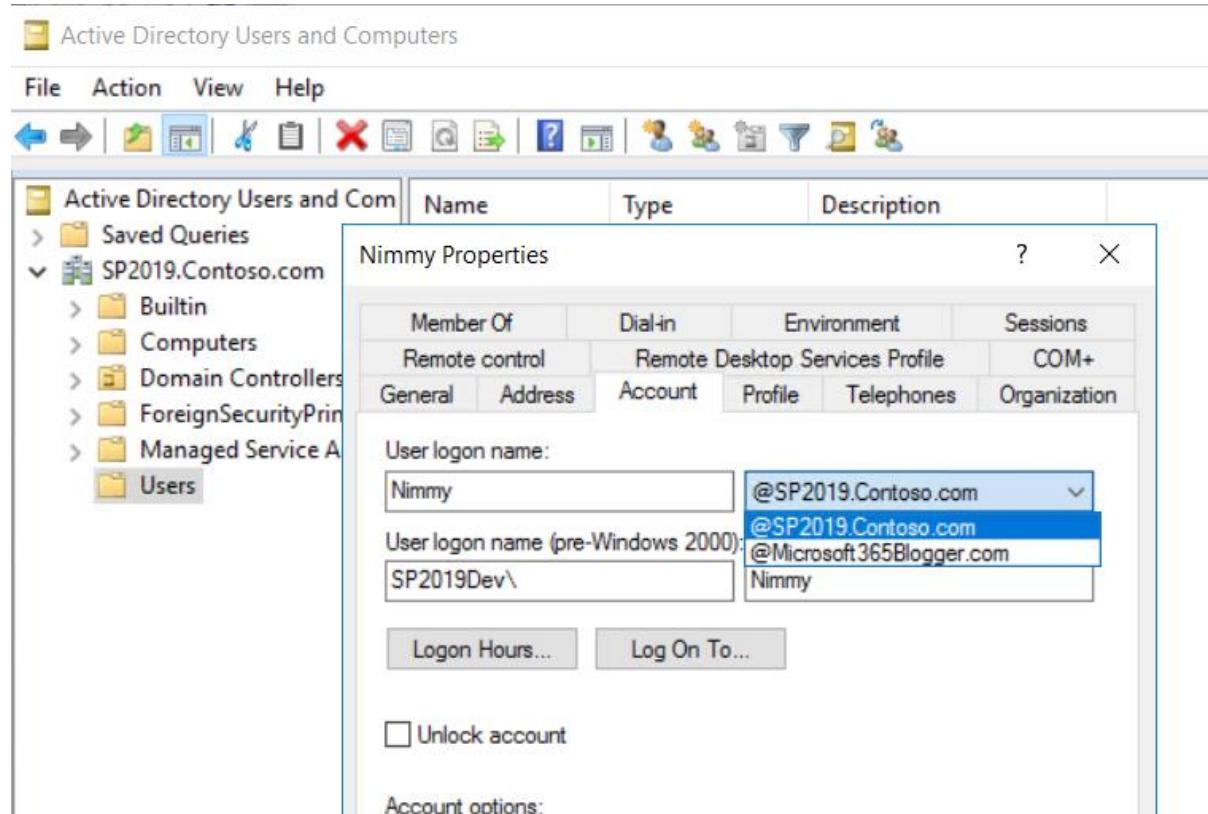


Now head over to the Active Directory users and Computers.

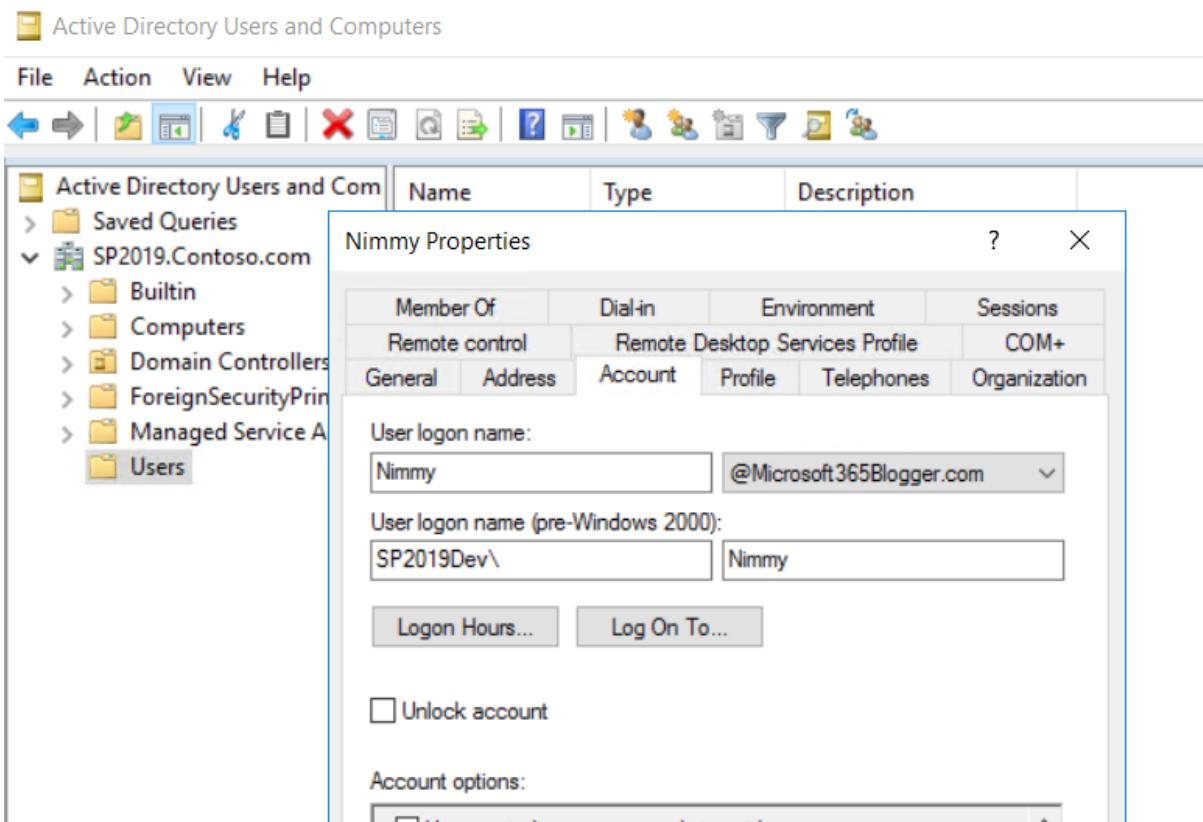


Update UPN for Single User

Select the user names that you would like to federate with cloud search. If the number of accounts is small we can do it manually by editing the user logon name and updating the new UPN. By default, as it opens up, it will show the existing local domain which is *SP2019.Contoso.com* here



We have to change it to *Microsoft365Blogger.com*. Click on *Apply*.



Update UPN for Multiple users

However if there are multiple users, doing it manually for each user is cumbersome. In such a case we can use PowerShell. Spin up PowerShell as administrator and run the below command which will give us the users in the domain and their details

```
Get-ADUser -filter *
```

As you can see, the UPN of the AD Users are currently *SP2019.Contoso.com*.

 Administrator: Windows PowerShell (x86)

```
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\SPFarmAccount> Get-ADUser -Filter *

DistinguishedName : CN=SPFarmAccount,CN=Users,DC=SP2019,DC=Contoso,DC=com
Enabled          : True
GivenName        :
Name              :
ObjectClass      : user
ObjectGUID       : 90705a35-c82d-4a90-81ed-2e096979d102
SamAccountName   : SPFarmAccount
SID              : S-1-5-21-1748209673-2197116857-4218655531-500
Surname          :
UserPrincipalName :

DistinguishedName : CN=Guest,CN=Users,DC=SP2019,DC=Contoso,DC=com
Enabled          : False
GivenName        :
Name              :
ObjectClass      : user
ObjectGUID       : 2695c5b2-4997-4a5c-8306-cbd210c6dbef
SamAccountName   : Guest
SID              : S-1-5-21-1748209673-2197116857-4218655531-501
Surname          :
UserPrincipalName :

DistinguishedName : CN=DefaultAccount,CN=Users,DC=SP2019,DC=Contoso,DC=com
Enabled          : False
GivenName        :
Name              :
ObjectClass      : user
ObjectGUID       : dbe1b396-3af8-4ad3-8a1a-f0fcabc2001
SamAccountName   : DefaultAccount
SID              : S-1-5-21-1748209673-2197116857-4218655531-503
Surname          :
UserPrincipalName :

DistinguishedName : CN=krbtgt,CN=Users,DC=SP2019,DC=Contoso,DC=com
Enabled          : False
GivenName        :
Name              :
ObjectClass      : user
ObjectGUID       : 06a2995e-52aa-4839-b508-77954296d55f
SamAccountName   : krbtgt
SID              : S-1-5-21-1748209673-2197116857-4218655531-502
Surname          :
UserPrincipalName :
```

Run the below script to get the distinguished name of the domain controller which we will need to use in the PowerShell script.

```
Get-ADComputer $env:COMPUTERNAME | Get-ADPrincipalGroupMembership
```

```

PS C:\Users\SPFarmAccount> Get-ADComputer $env:COMPUTERNAME | Get-ADPrincipalGroupMembership

distinguishedName : CN=Domain Controllers,CN=Users,DC=SP2019,DC=Contoso,DC=com
GroupCategory    : Security
GroupScope       : Global
name             : Domain Controllers
objectClass      : group
objectGUID       : 3e44e450-e12a-4e26-a467-f5fb514c96c4
SamAccountName   : Domain Controllers
SID              : S-1-5-21-1748209673-2197116857-4218655531-516

```

Run the below script to change the existing UPN (SP2019.Contoso.com) to the new UPN (Microsoft365Blogger.com). The below script will fetch each user from the current domain and replace the UPN with a new value using the Set-ADUser command.

```
Import-Module ActiveDirectory
```

```

$existingUPNSuffix = "SP2019.Contoso.com"

$newUPNSuffix = "Microsoft365Blogger.com"

$DN = "DC=SP2019,DC=Contoso,DC=com"

$ADServer = "SP2019.SP2019.Contoso.com"

Get-ADUser -SearchBase $DN -filter * -properties UserPrincipalName | where
UserPrincipalName -ne $null | ForEach-Object {

$newUPN = $_.UserPrincipalName.Replace($existingUPNSuffix,$newUPNSuffix)

$user = $_

$user.UserPrincipalName = $newUPN

Set-ADUser -Instance $user

}

```

```

Administrator: Windows PowerShell (x86)
PS C:\Users\SPFarmAccount> Import-Module ActiveDirectory
PS C:\Users\SPFarmAccount> $existingUPNSuffix = "SP2019.Contoso.com"
PS C:\Users\SPFarmAccount> $newUPNSuffix = "Microsoft365Blogger.com"
PS C:\Users\SPFarmAccount> $DN = "DC=SP2019,DC=Contoso,DC=com"
PS C:\Users\SPFarmAccount> $ADServer = "SP2019.SP2019.Contoso.com"
PS C:\Users\SPFarmAccount> Get-ADUser -SearchBase $DN -filter * -properties UserPrincipalName | where
-ne $null | ForEach-Object {
>> $newUPN = $_.UserPrincipalName.Replace($existingUPNSuffix,$newUPNSuffix)
>> $user = $_
>> $user.UserPrincipalName = $newUPN
>> Set-ADUser -Instance $user
>>
}
PS C:\Users\SPFarmAccount> -

```

Post running of the above script, let's see if the UPN has changed. Run the `Get-ADUser` command to retrieve the users in the domain.

```
Get-ADComputer $env:COMPUTERNAME | Get-ADPrincipalGroupMembership
```

After running the script, the UPN has changed from `SP2019.Contoso.com` to `Microsoft365Blogger.com`.

```
Administrator: Windows PowerShell (x86)
GivenName      : krbtgt
Name           : krbtgt
ObjectClass    : user
ObjectGUID     : 06a2995e-52aa-4839-b508-77954296d55f
SamAccountName : krbtgt
SID            : S-1-5-21-1748209673-2197116857-4218655531-502
Surname        :
UserPrincipalName :

DistinguishedName : CN=Jinesh KS,CN=Users ,DC=SP2019 ,DC=Contoso ,DC=com
Enabled         : True
GivenName       : Jinesh
Name           : Jinesh KS
ObjectClass    : user
ObjectGUID     : c86fc033-ea8e-460c-aa3d-c58c2851580b
SamAccountName : Jinesh
SID            : S-1-5-21-1748209673-2197116857-4218655531-1107
Surname        :
UserPrincipalName : Jinesh@Microsoft365Blogger .com

DistinguishedName : CN=Ramesh,CN=Users ,DC=SP2019 ,DC=Contoso ,DC=com
Enabled         : True
GivenName       : Ramesh
Name           : Ramesh
ObjectClass    : user
ObjectGUID     : 7f1d28c9-dee6-4bf1-918a-e4cecf4b645e
SamAccountName : Ramesh
SID            : S-1-5-21-1748209673-2197116857-4218655531-1108
Surname        :
UserPrincipalName : Ramesh@Microsoft365Blogger .com

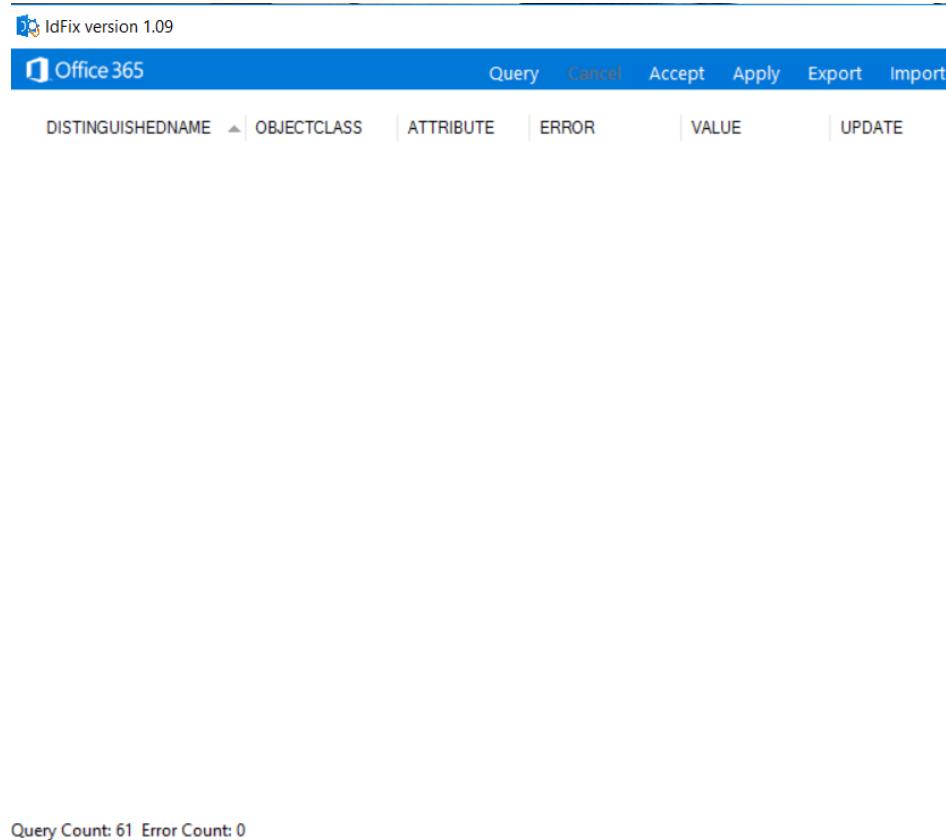
DistinguishedName : CN=Nimmy,CN=Users ,DC=SP2019 ,DC=Contoso ,DC=com
Enabled         : True
GivenName       : Nimmy
Name           : Nimmy
ObjectClass    : user
ObjectGUID     : 9689664e-b0e7-438f-b2f2-1f01e87bbdc2
SamAccountName : Nimmy
SID            : S-1-5-21-1748209673-2197116857-4218655531-1109
Surname        :
UserPrincipalName : Nimmy@Microsoft365Blogger .com

DistinguishedName : CN=Raju,CN=Users ,DC=SP2019 ,DC=Contoso ,DC=com
Enabled         : True
GivenName       : Raju
Name           : Raju
ObjectClass    : user
ObjectGUID     : 86ea7ff3-93fe-42f5-bf09-e188f264ef04
SamAccountName : Raju
```

Fix Active Directory issues.

Before synchronizing the active directory we have to make sure that the active directory is devoid of errors like duplicates and formatting issues. IdFix is a tool that identifies issues with the active directory identity objects and provides remediation measures to

overcome it. It can be downloaded from Microsoft [site](#). Once it is downloaded, unzip the file and run the IdFix tool.



Click on ‘Query’ option to start scanning of the Active Directory identity objects. You can see the number of objects scanned and errors returned in the bottom section of the tool.

In case of any errors, it will list out the errors and the remediation measures that need to be done. We can also get a verbose log file of the scan done by the IdFix tool in the location where IdFix is placed. The log file will give a detailed scan report.

```
Verbose 3-23-2019 7-51-06 AM - Notepad
File Edit Format View Help
3/23/2019 7:51:06 AM Initialized - IdFix version 1.09
3/23/2019 7:51:08 AM Loading TopLevelDomain List
3/23/2019 7:51:08 AM Ready
3/23/2019 7:51:11 AM Query
3/23/2019 7:51:11 AM RULES:Multi-Tenant SERVER:SP2019.Contoso.com PORT:3268 FILTER:(|(objectCategory=Person)(objectCategory=Group))
3/23/2019 7:51:11 AM Please wait while the LDAP Connection is established.
3/23/2019 7:51:11 AM Query Count: 61 Error Count: 0 Duplicate Check Count: 6
3/23/2019 7:51:11 AM Query Count: 61 Error Count: 0 Duplicate Check Count: 6
3/23/2019 7:51:11 AM Write split files
3/23/2019 7:51:11 AM Merge split files
3/23/2019 7:51:11 AM Count duplicates
3/23/2019 7:51:11 AM No duplicate values in file
3/23/2019 7:51:11 AM Elapsed Time: Duplicate Checks - 00:00:00
3/23/2019 7:51:11 AM Populating DataGridView
3/23/2019 7:51:11 AM Elapsed Time: Populate DataGridView - 00:00:00.0138422
3/23/2019 7:51:11 AM Query Count: 61 Error Count: 0
```

5. Sync Azure AD

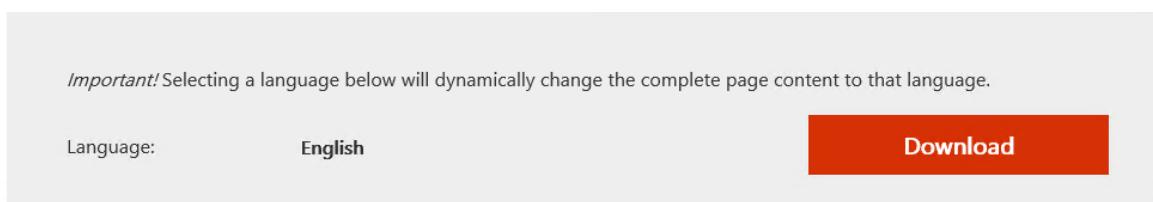
Once the Active Directory is in a healthy state and assured to be devoid of identity object issue, we can plan to sync the on premise active directory with Office 365. Now we really don't have to manually recreate the on premise user accounts in Office 365 as it is not only double the work but also adds up the risk of duplicating user accounts. It is here Directory Synchronization comes into play as it mirrors the on premise directory in Office 365.

We have two types of Active Directory Sync.

- Directory Synchronization along with password synchronization: In this synchronization technique, the user accounts (Directory) are migrated to office 365 along with their passwords. This means the user will have the same password for On Premise environment as well as for Office 365. However the user will have to authenticate separately when logging into On Premise and Office 365 by providing the same credentials.
- Directory Synchronization with Single Sign On (SSO): In this synchronization mechanism the user logs in to the On Premise environment and when they go to office 365 they are automatically logged in.

Directory Synchronization with Password Sync is the most common Active Directory synchronization used. We can use Azure Active Directory Connect to implement On Premise and Office 365 directory synchronization. We can download the Azure AD Connect from Microsoft [Site](#).

Microsoft Azure Active Directory Connect



Azure AD Connect allows you to quickly onboard to Azure AD and Office 365

 [Details](#)

 [System Requirements](#)

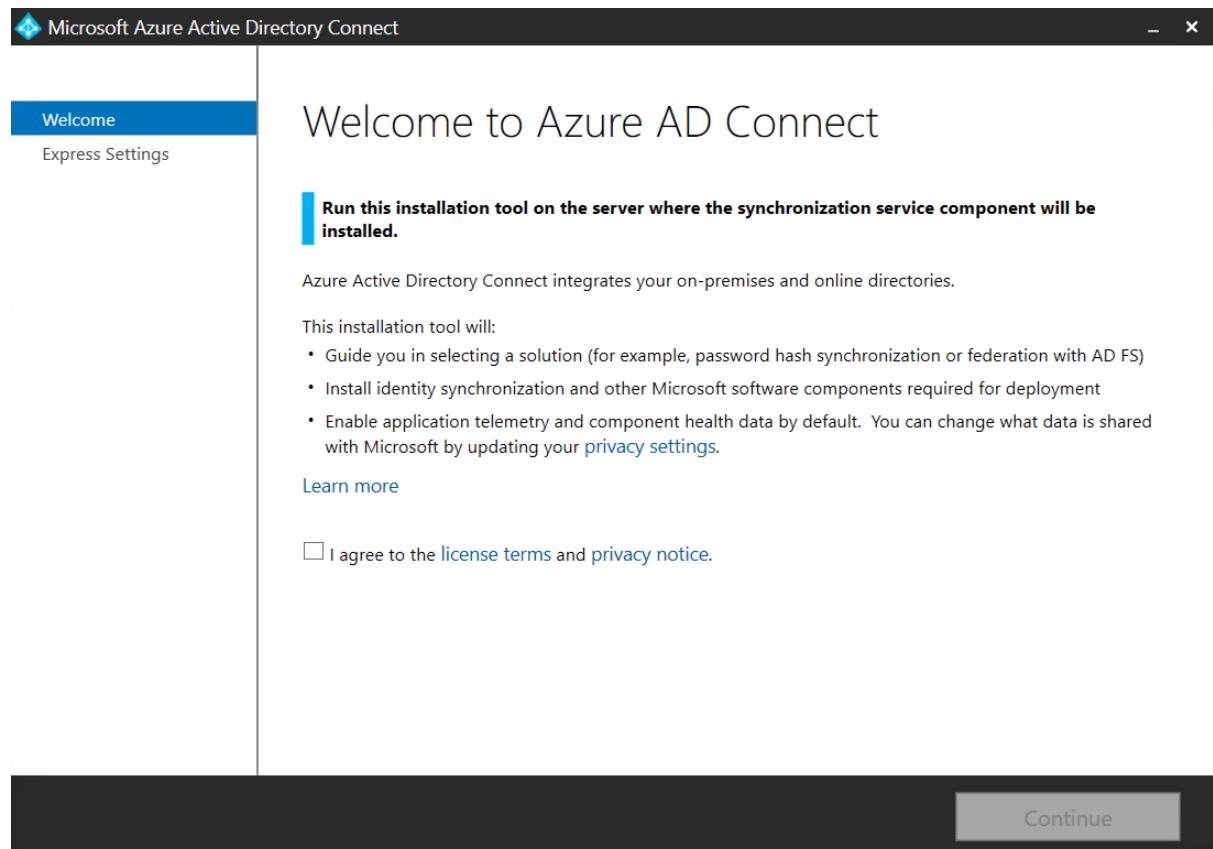
Once it is downloaded, run the installer file.

This will spin up Azure Active Directory Connect Wizard. Accept the agreement and proceed.

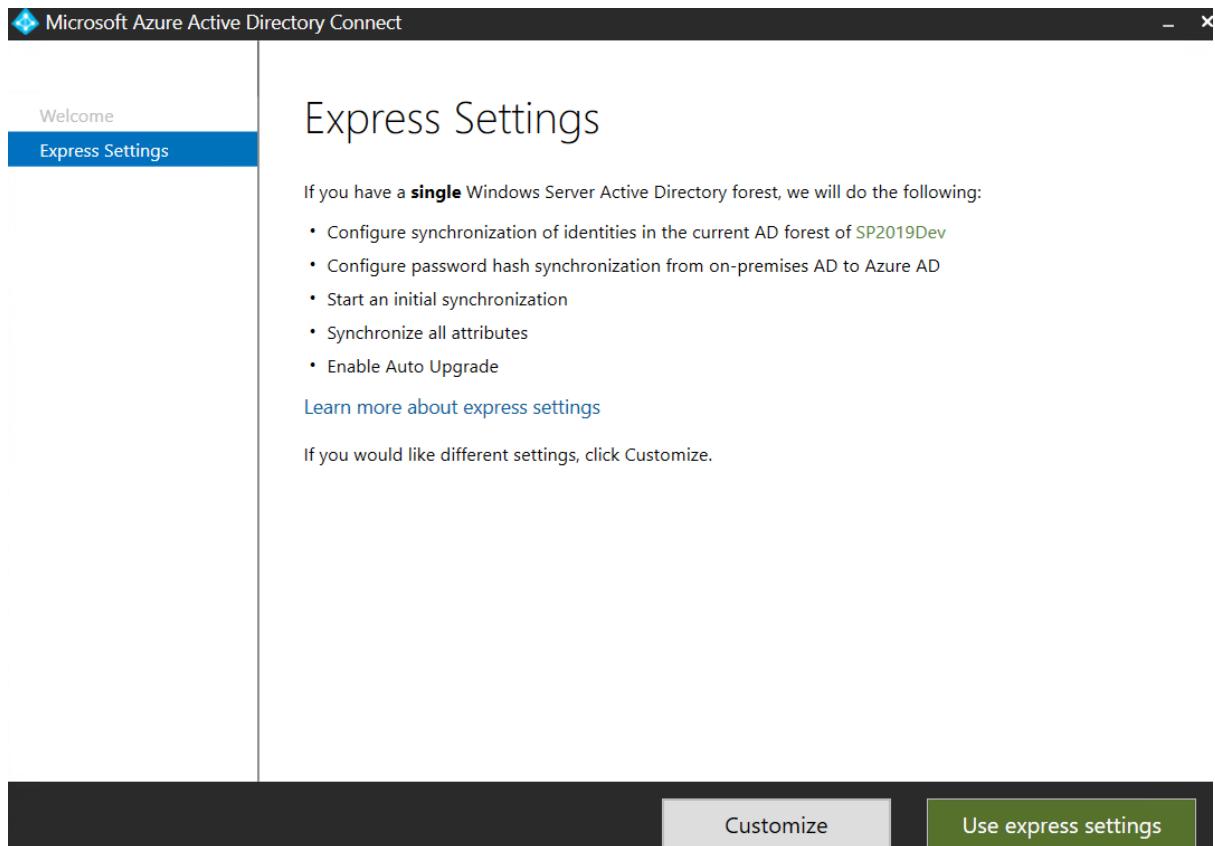
Here we have two options:

- We can continue with Express settings, if we want to user Azure AD Connect to synchronize the directories (On Premise with Office 365 along with Password Synchronization).
- Click on Customize to set up Directory Synchronization with Single Sign On.

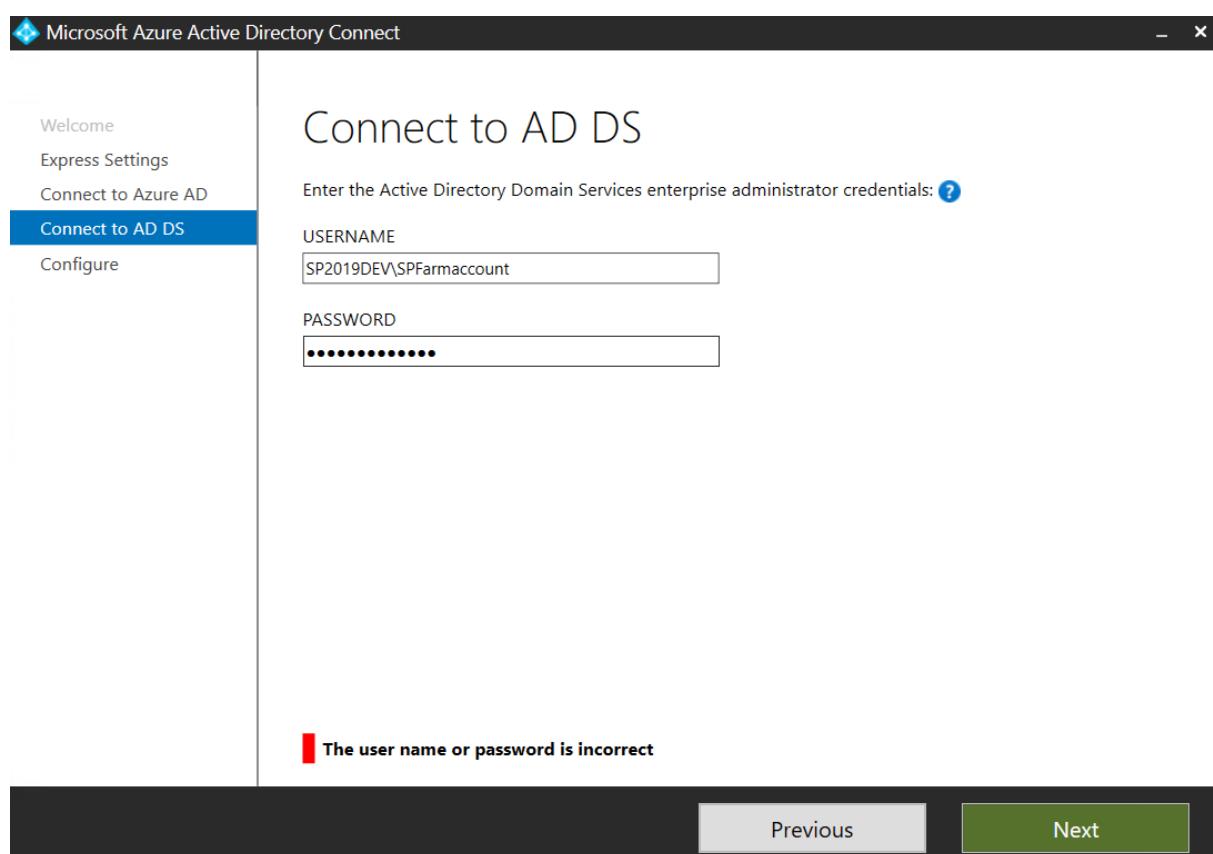
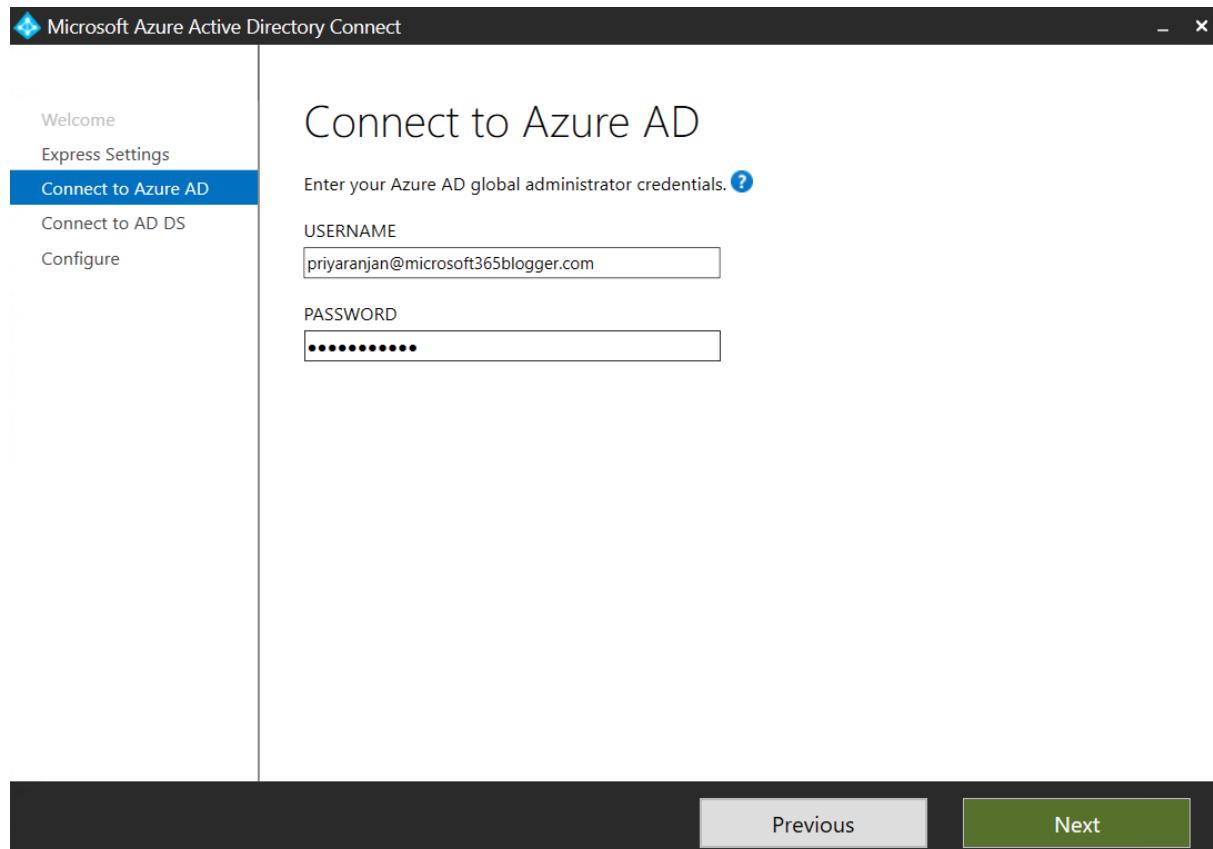
In this walkthrough we will continue with Express settings.



This will start installing the required components in the local machine.



The Office 365 Tenant admin will be the Azure AD Global Administrator. Specify the credentials below



Here you can see that in order to perform an azure ad sign in the UPN prefixes which we had added to the on premise Active directory should match with the verified public domain in azure (Microsoft365Blogger.com)

The screenshot shows the 'Azure AD sign-in configuration' page in the Microsoft Azure Active Directory Connect interface. The left sidebar has a 'Azure AD sign-in' tab selected. The main content area displays a table comparing Active Directory UPN Suffixes with their status in Azure AD. A checkbox at the bottom allows continuing without matching all UPN suffixes to verified domains.

Active Directory UPN Suffix	Azure AD Domain
sp2019.contoso.com	Not Added ?
microsoft365blogger.com	Verified

Continue without matching all UPN suffixes to verified domains

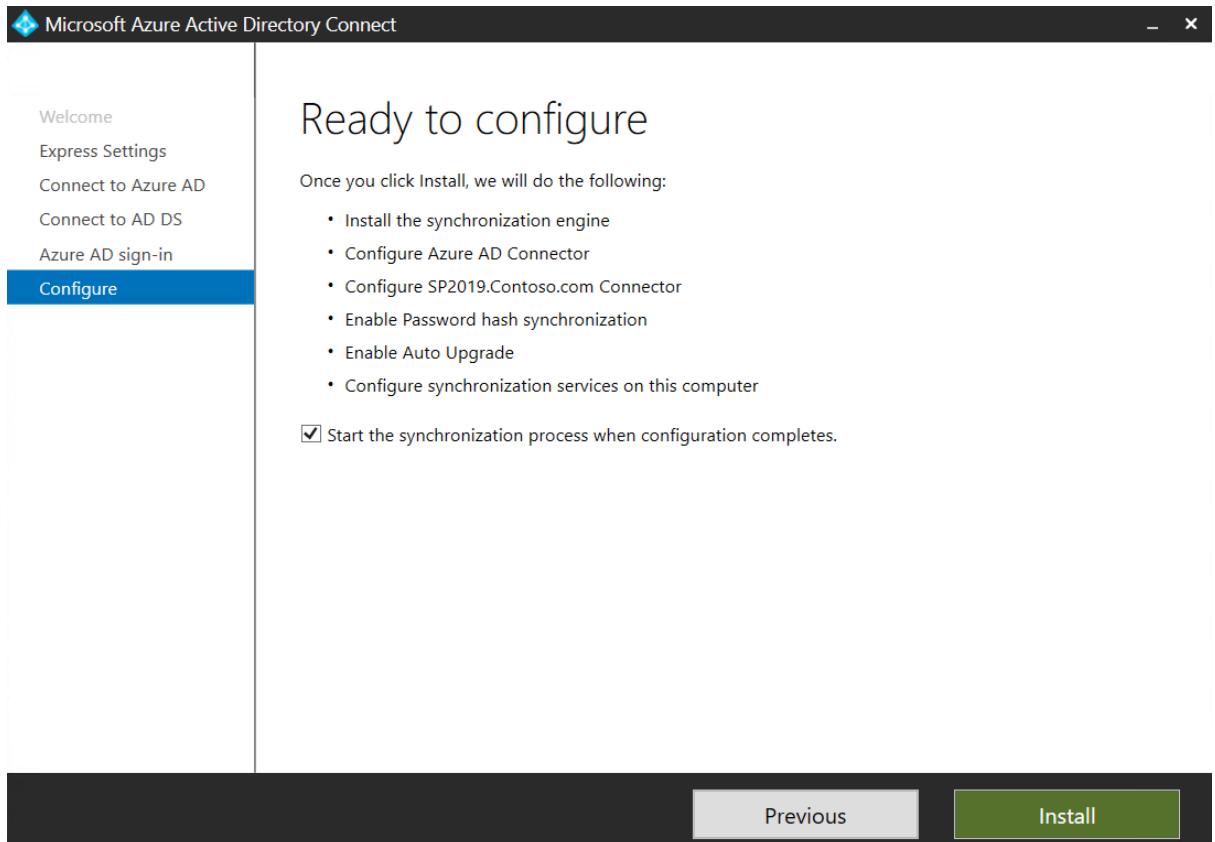
Users will not be able to sign-in to Azure AD with on-premises credentials if the UPN suffix does not match a verified domain. [Learn more](#)

Previous Next

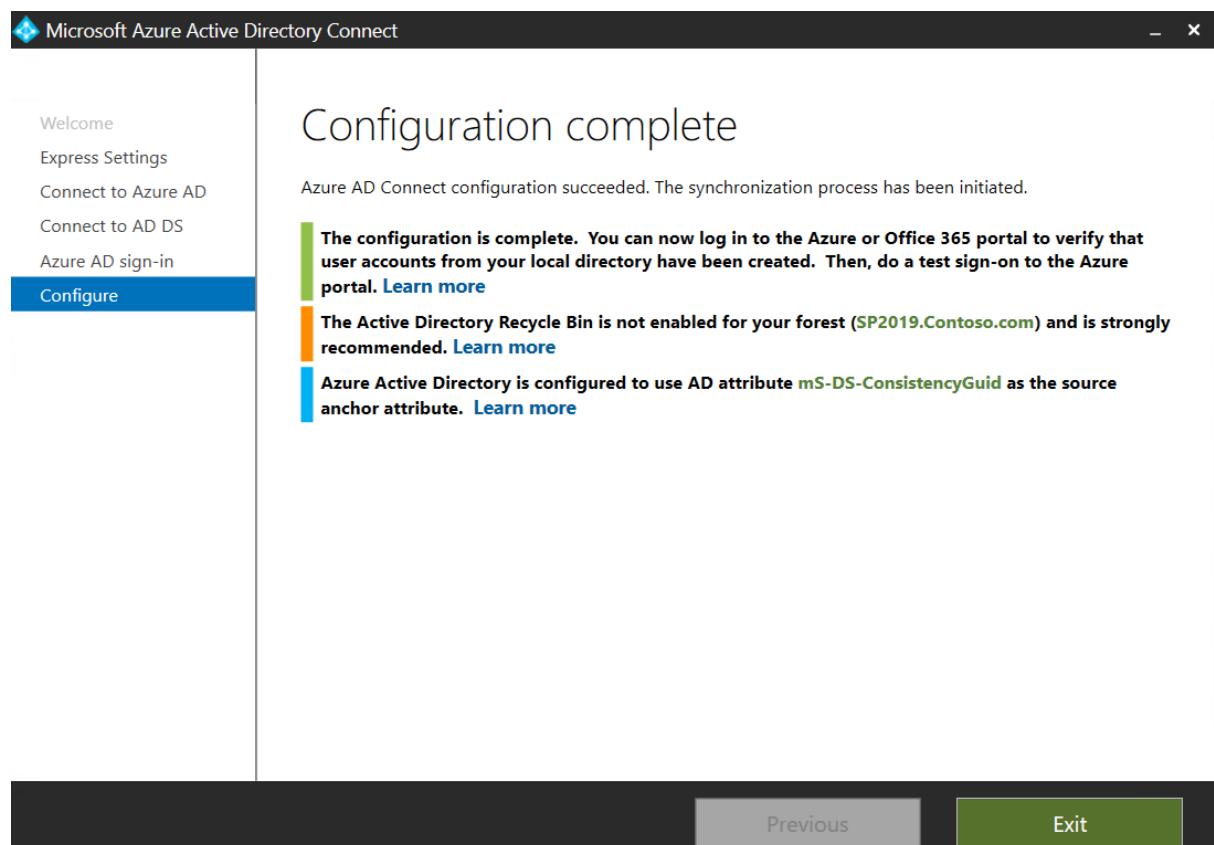
So we have to ensure two things here:

- ✓ The public domain is added as UPN in the local on premise directory
- ✓ The public domain is added and verified in azure

Once we have a verified domain listed, Click on Next.



Click on Install to start the synchronization process once Azure AD Connect installation completes.



Finally the configuration has completed.

Head over to office 365 to check the synchronization status. All the On Premise users have been added to Office 365 as part of the synchronization process.

The screenshot shows two views of the Microsoft 365 Admin Center. The top view is the 'Active users' page under 'Users'. It lists six users: Jinesh KS, Nimmy, On-Premises Directory Synchronization, Priyaranjan KS, Raju, and Ramesh. The bottom view shows the main dashboard with options like 'Delete a user', 'Edit a user', and 'Reset a password'. It also features a 'Train yourself' section for admins and a 'Train your people' section for end users, both delivered by LinkedIn Learning. A sidebar on the left lists various admin categories: Home, Users, Groups, Resources, Billing, Support, and Settings.

6. Configure Cloud Hybrid Search

As part of configuring the search Service Application we have to perform two steps:

- ✓ Create a Cloud Hybrid Search Service Application
- ✓ Set up Cloud Hybrid Onboarding

Windows PowerShell scripts to configure cloud hybrid search for SharePoint

Important! Selecting a language below will dynamically change the complete page content to that language.

Language: English [Download](#)

Download these Windows PowerShell scripts to configure cloud hybrid search for SharePoint.

 [Details](#)

 [System Requirements](#)

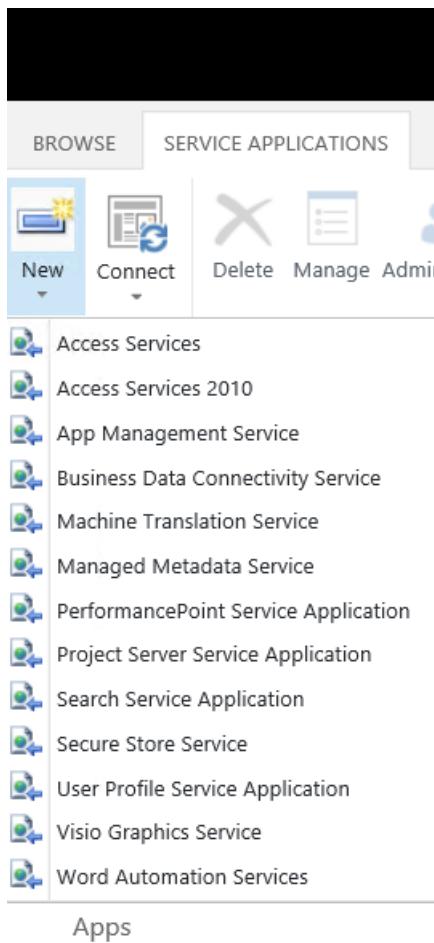
Microsoft has provided two scripts that automate both these steps. You can get the script from [here](#). Two scripts will be downloaded as shown below:

Name	Date modified	Type	Size
 CreateCloudSSA	6/19/2018 2:49 PM	Windows PowerSh...	9 KB
 Onboard-CloudHybridSearch	6/19/2018 2:49 PM	Windows PowerSh...	24 KB

Let's head over to the server where we will be configuring the search

Create Search Service Application from UI

From Manage Service Applications page we can create the cloud search service application through UI.



Apps

It is quite similar to the process of creating a normal search service application, except that we have to select an extra checkbox 'Cloud Search Service Application' to make the service application cater to cloud hybrid solution approach.

The screenshot shows the 'Create New Search Service Application' dialog box. On the left, there's a navigation menu with options like Central Administration, Application Management, System Settings, Monitoring, Backup and Restore, Security, Upgrade and Migration, General Application Settings, Apps, Office 365, and Configuration Wizards. The 'Create' option is selected under the 'New' section.

The main area is titled 'Create New Search Service Application' and contains the following information:

Specify the properties for this Search Service Application. The settings you specify here can be changed later using the properties button in the Manage Service Applications page.

A new Search Service Application will have an initial topology with all search components on one application server and all databases on one database server. The topology of this application can be changed later using PowerShell cmdlets.

Name
Provide a unique name for this Service Application.

Search Service Application type
Select the check box to make this a Cloud Search Service Application that crawls on-premises content in a cloud hybrid search solution.
 Cloud Search Service Application
[Learn more](#)

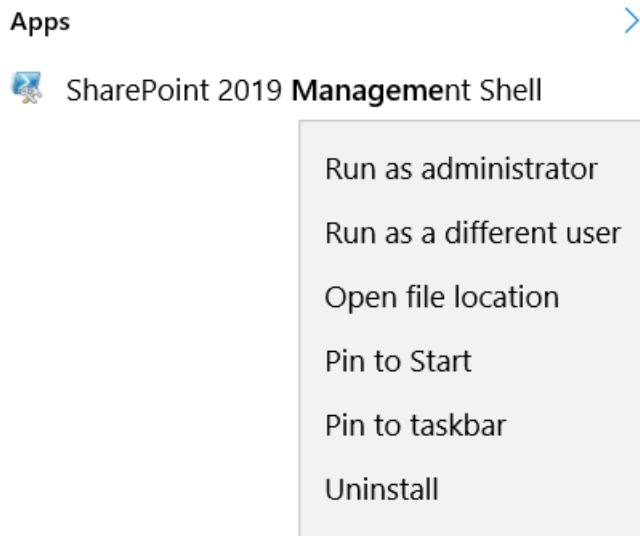
Search Service Account
This is the Windows Service account for the SharePoint Server Search Service. This setting affects all Search Service Applications in the farm. You can change this

[Register new managed account](#)

Though we can create the Service Application through UI, Search service creation and management is more stable when done through PowerShell. This is mainly due to the fact that, as per my personal experience, configuring search through UI sometimes takes longer and may even get stuck and never ends.

Create Cloud Search Service Application through PowerShell

In order to create the Cloud Search Service Application, ensure that you have downloaded the script CreateCloudSSA.ps1 from [here](#). Once you have the script downloaded to the server, spin up SharePoint 2019 Management Shell as administrator.



Navigate to the location where you have stored the CreateCloudSSA.ps1 script and run it.

```
Administrator: SharePoint 2019 Management Shell
PS C:\Users\SPFarmAccount> cd C:\Users\SPFarmAccount\Downloads\SSA
PS C:\Users\SPFarmAccount\Downloads\SSA> .\CreateCloudSSA.ps1

cmdlet CreateCloudSSA.ps1 at command pipeline position 1
Supply values for the following parameters:
SearchServerName: ■
```

It will ask for a few parameters that need to be supplied for the script to continue execution:

SearchServerName : Specify the SharePoint 2019 server where you are configuring the Search Service(SP2019,in my case)

SearchServiceAccount: The Search service account in the format Domain\UserName that will be used to configure search service(I have created a search service account by the name SPFarmAccount)

SearchServiceAppName : The name of the Cloud Search Service Application

DatabaseServerName : The name of the database server in the SharePoint 2019 farm.

```
Administrator: SharePoint 2019 Management Shell
PS C:\Users\SPFarmAccount\Downloads\SSA> .\CreateCloudSSA.ps1

cmdlet CreateCloudSSA.ps1 at command pipeline position 1
Supply values for the following parameters:
SearchServerName: SP2019
SearchServiceAccount: SPSearchAccount
SearchServiceAppName: CloudSearchApplication
DatabaseServerName: SP2019
Active Directory account SPSearchAccount exists. Proceeding with configuration.
Managed account does not exist - creating it.

Windows PowerShell credential request. ? X
Please provide the password for SPSearchAccount
User name: SPSearchAccount
Password: *****| OK Cancel
```

In case the Search Service Account is not added as a managed account, it will be automatically added as a managed account by the script. If prompted add the credentials of the Search Service Account.

The Cloud Search Service Application creation has started and this will take a few minutes to complete.Once the Cloud Search Service Application is created, the next major step is to activate the topology which is a bit of time consuming step.

```
Creating Application Pool.  
Starting Search Service Instance One.  
Creating cloud Search service application.  
Configuring search administration component.  
Waiting for the search administration component to be initialized.  
.  
Inspecting cloud Search service application.  
Search Service Properties  
Cloud SSA Name : CloudSearchApplication  
Cloud SSA Status : Online  
Cloud Index Enabled : True  
Configuring search topology.  
Activating topology.  
.  
Creating proxy.  
Cloud search service application provisioning completed successfully.  
PS C:\Users\SPFarmAccount\Downloads\SSA> ■
```

Finally we will get the success message indicating that the cloud search service application has been created.

Now if we go to the list of Service Application page, we can see the newly created Cloud Search Service Application.

The screenshot shows the SharePoint Service Applications list page. At the top, there is a navigation bar with tabs for 'Service Applications' and 'New'. Below the navigation bar, there is a toolbar with icons for 'Manage Administrators', 'Properties', 'Publish', and 'Permissions'. The main content area displays a table of service applications. The table has columns for 'Name', 'Type', 'Status', and 'Actions'. The 'Name' column contains the names of the service applications: 'App Management Service Application', 'Application Discovery and Load Balancer Service Application', 'Application Discovery and Load Balancer Service Application Proxy', 'CloudSearchApplication', and 'CloudSearchApplication_proxy'. The 'Type' column shows the type of each application. The 'Status' column shows the status. The 'Actions' column contains icons for managing each application. The 'CloudSearchApplication' row is highlighted with a light gray background, indicating it is selected.

Name	Type	Status	Actions
App Management Service Application	App Management Service Application	Active	
Application Discovery and Load Balancer Service Application	Application Discovery and Load Balancer Service Application	Active	
Application Discovery and Load Balancer Service Application Proxy	Application Discovery and Load Balancer Service Application Proxy	Active	
CloudSearchApplication	Cloud Search Service Application	Active	
CloudSearchApplication_proxy	Cloud Search Service Application	Active	

Clicking on it will take you to the Cloud Search Administration page where we can create content sources and configure other search related settings.

System Status

Administrative status	Running
Crawler background activity	None
Recent crawl rate	0.00 items per second
Recent query rate	0.00 queries per minute
Default content access account	SP2019Dev\SPFarmAccount
Contact e-mail address for crawls	someone@example.com
Proxy server for crawling and federation	None
Search alerts status	On Disable
Query logging	On Disable
Global Search Center URL	Set a Search Center URL

The cloud search topology will be listed down in the same page. VM04-MINIROLE is the server where Search has been configured and the various search service components are activated. It will also add 4 databases in the SharePoint Database Server(VM02-SQL2016) as part of the Search Service Application creation.

Search Application Topology

Server Name	Admin	Crawler	Content Processing	Analytics Processing	Query Processing	Index Partition
sp2019	✓	✓	✓	✓	✓	0
Database Server Name	Database Type	Database Name				
sp2019	Administration Database	CloudSearchServiceApplication				
sp2019	Analytics Reporting Database	CloudSearchServiceApplication_AnalyticsReportingStore				
sp2019	Crawl Database	CloudSearchServiceApplication_CrawlStore				
sp2019	Link Database	CloudSearchServiceApplication_LinksStore				

Search Service Components.

As shown in the above Search Configuration setup, SharePoint Search architecture is made up of the below components.

- ✓ Crawl and content processing
- ✓ Index
- ✓ Query processing
- ✓ Search administration
- ✓ Analytics

A successfully configured Search Service will have all the above components working in unison. Each of the components will have a database created in the SQL Server. On a high level, the crawl component is responsible for crawling the SharePoint content and collects the crawl properties which will in turn be sent to the content processing component. The content processing component receives the crawled properties, processes it and sends it to the Index Component.

The index component receives the processed items from the content processing component and writes it to the search index. At the same time, it is responsible for returning the results for a search query from the search index.

When the user inputs a search query and presses enter, the query is processed by the Query Component and is submitted to the Index Component for data retrieval from search index.

Search administration component performs the overall administration of Search like instantiating search service instance and related components.

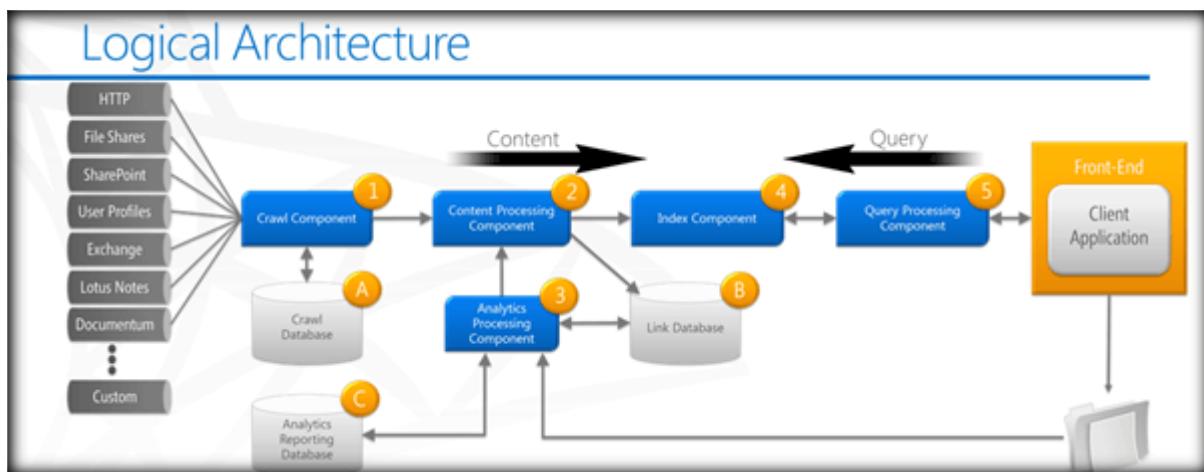


Image Source: Microsoft MSDN

Connect your cloud Search service application to your Office 365 tenant

In order to complete the cloud hybrid search set up we have to connect the recently created Cloud Search Service Application to the Office 365 tenant. Microsoft has provided a the script to automate the onboarding of the Cloud Search Service Application and Office 365 to Cloud Hybrid Search. You can get the script named Onboard-CloudHybridSearch.ps1 from [here](#).

Name	Date modified	Type	Size
CreateCloudSSA	6/19/2018 2:49 PM	Windows PowerShell	9 KB
Onboard-CloudHybridSearch	6/19/2018 2:49 PM	Windows PowerShell	24 KB

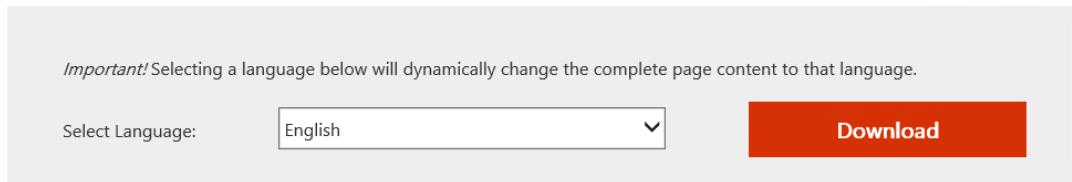
However in order to run the script we have some prerequisites that needs to be completed. Download and install the below modules:

- ✓ [Microsoft Online Services Sign-In Assistant for IT Professionals RTW](#)
- ✓ Azure Active Directory Module for Windows PowerShell

Install Microsoft Online Services Sign-In Assistant

Firstly download Microsoft Online Services Sign-In Assistant.

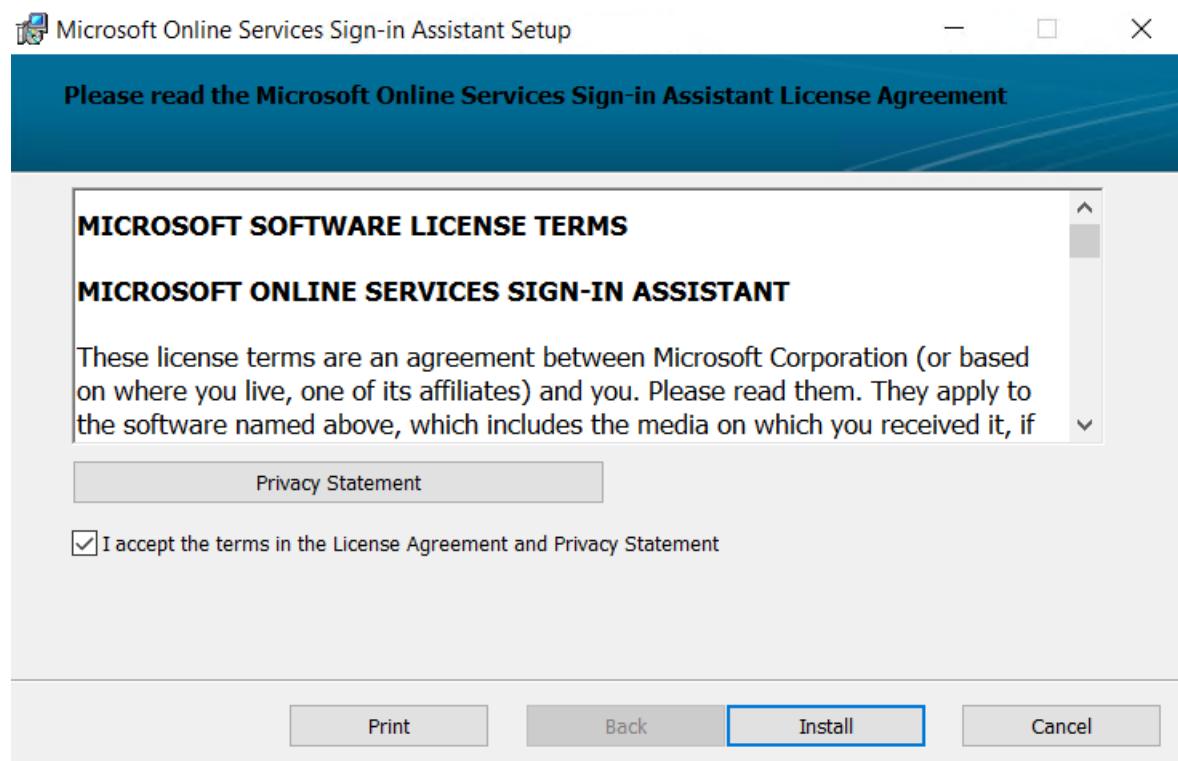
Microsoft Online Services Sign-In Assistant for IT Professionals RTW



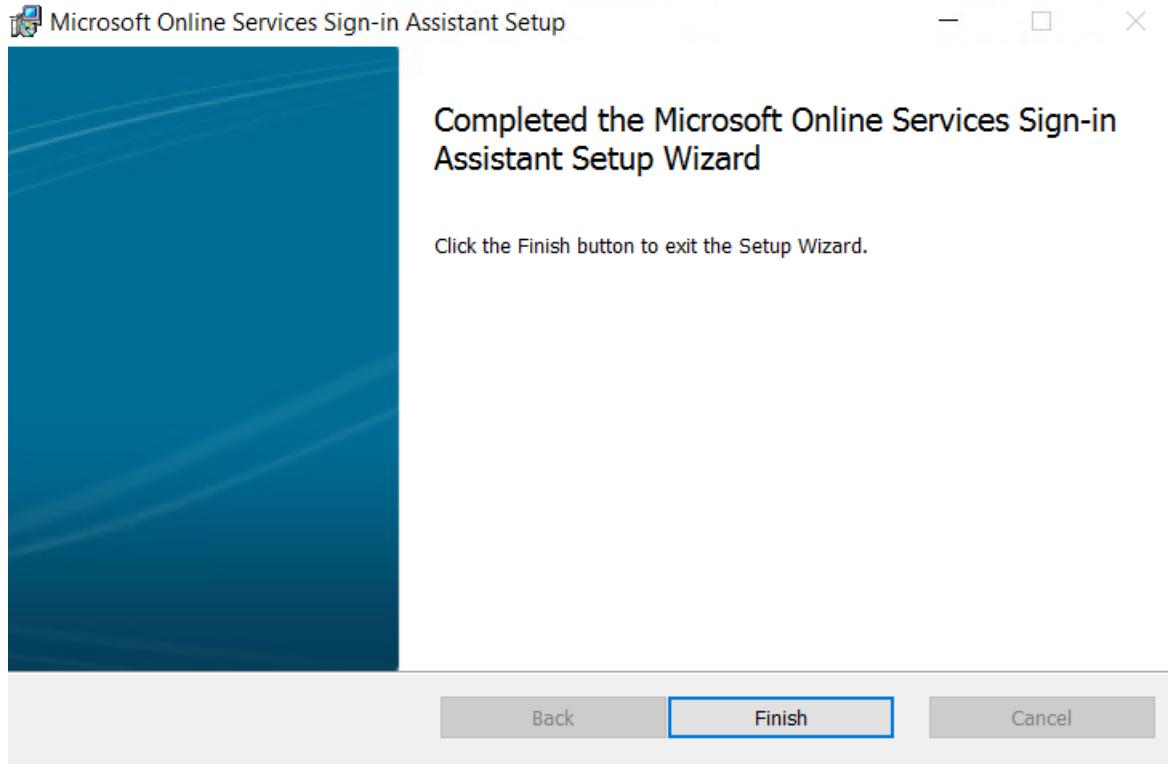
The Microsoft Online Services Sign-In Assistant provides end user sign-in capabilities to Microsoft Online Services, such as Office 365.

 [Details](#)

Select the 64 bit version. Accept the agreement and click on Install.



This would complete the setup of Microsoft Online Services Sign-in Assistant.



Install Azure Active Directory Module

Azure active directory module provides cmdlets for Azure AD administrative tasks like user and domain management

Install the Microsoft Azure Active Directory Module for Windows PowerShell with these steps:

- Open an elevated Windows PowerShell command prompt (run Windows PowerShell as an administrator).
- Run the Install-Module MSOnline command.
- If prompted to install the NuGet provider, type Y and press ENTER.
- If prompted to install the module from PSGallery, type Y and press ENTER

Run the Onboarding Script

In order to complete the onboarding of Cloud Search Service Application and Office 365 on to Cloud Hybrid Search, let's go ahead and run the Onboard-CloudHybridSearch.ps1 script.

```
Administrator: SharePoint 2019 Management Shell
PS C:\Users\SPFarmAccount\Downloads\SSA> .\Onboard-CloudHybridSearch.ps1

cmdlet Onboard-CloudHybridSearch.ps1 at command pipeline position 1
Supply values for the following parameters:
(Type !? for Help.)
PortalUrl: https://sp2019hybrid.sharepoint.com
```

It will ask for few parameters that we will have to input:

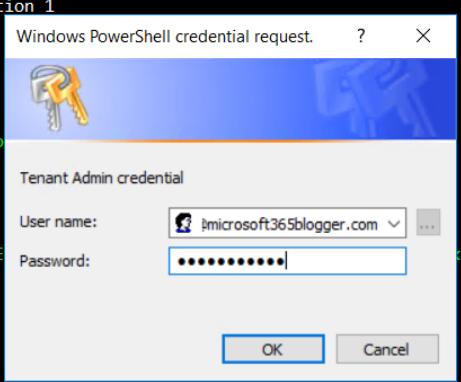
Portal URL: Specify the SharePoint Online URL of the organization.

Administrator Credentials: It will also ask for the Office 365 global administrator credentials

If asked, enter the Cloud Search Service Application name.

```
PS C:\ssa> Connect-msolservice
PS C:\ssa> .\Onboard-CloudHybridSearch.ps1

cmdlet Onboard-CloudHybridSearch.ps1 at command pipeline position 1
Supply values for the following parameters:
(Type !? for Help.)
PortalUrl: https://sp2019hybrid.sharepoint.com
Configuring for SharePoint Server version 16.
Accessing Cloud SSA...
Auto-detected 1 cloud SSA: CloudSearchApplication. Use it to o
Using SSA with id 8e818920-9873-42fe-97ec-d111ebe930ac.
Preparing environment...
Found Online Services Sign-In Assistant!
Found MSOnline AAD PowerShell module!
HKLM:\SOFTWARE\Microsoft\MSOnlinePowershell and HKLM:\SOFTWARE\gistry
Configuring Azure AD settings in the registry...
Restarting MSO IDCRL Service...
Service Restarted!
Connecting to 0365...
```

A Windows PowerShell credential request dialog box titled "Windows PowerShell credential request". It contains a key icon and the text "Tenant Admin credential". There are fields for "User name" (containing a Microsoft 365 email address) and "Password" (redacted). At the bottom are "OK" and "Cancel" buttons.

This will complete the Onboarding process and will register the cloud hybrid search.

```

Administrator: SharePoint 2019 Management Shell
Connecting to 0365...
AAD tenant realm is 4579dc69-217e-4586-9d12-0953e879342b.
Configuring on-prem SharePoint farm...
ACS metadata endpoint: https://accounts.accesscontrol.windows.net/4579dc69-217e-4586-9d12-0953e879342b/metadata/json/1
Found existing ACS proxy 'ACS'.
Found existing token issuer 'ACS-STS'.
Setting up SPO Proxy...
Adding local signing credential to SharePoint principal...
Signing credential already exists in SharePoint principal.
Configuring service principal for the cloud search service...
Service Principal already registered, containing the correct SPNs.
Connecting to content farm in SPO...
Preparing tenant for cloud hybrid search (this can take a couple of minutes)...
PreparePushTenant was successfully invoked!
Getting service info...
Registered cloud hybrid search configuration:

TenantId      : 4579dc69-217e-4586-9d12-0953e879342b
AuthenticationRealm : 4579dc69-217e-4586-9d12-0953e879342b
EndpointAddress   : https://indfrontendexternal.search.production.apac.trafficmanager.net:443/

Configuring Cloud SSA...
Restarting SharePoint Timer Service...
Restarting SharePoint Server Search...
WARNING: Waiting for service 'SharePoint Server Search 16 (0Search16)' to start...
All done!
PS C:\sssa> .

```

7. Create a content source to crawl for cloud hybrid search

As a final step in configuring the Cloud Hybrid search we have to create a content source and run a full crawl in SharePoint On Premise Server. Clicking on the Cloud Search Service Application will open up the Search Administration page. Select Content Source in the left pane of the Search Administration page.

The screenshot shows the SharePoint Search Administration page for a CloudSearchServiceApplication. The left navigation menu includes links for Central Administration, Farm Search Administration, Search Administration (with sub-links for Diagnostics, Crawl Log, Crawl Health Reports, Query Health Reports, Usage Reports), Crawling (with sub-links for Content Sources, Crawl Rules, Server Name Mappings, File Types, Index Reset, Pause/Resume, Crawler Impact Rules), and System Status (with sub-links for Administrative status, Crawler background activity, Recent crawl rate, Searchable items, Recent query rate, Default content access account, Contact e-mail address for crawls, Proxy server for crawling and federation, Search alerts status, Query logging, and Global Search Center URL). A callout box highlights the 'Content Sources' link under the Crawling section.

Click on Create New Content Source. This will open up the page where we can add the start address of the content source that has to be crawled.

CloudSearchServiceApplication: Edit Content Source

Use this page to edit a content source.

* Indicates a required field

Name Type a name to describe this content source.	Name: * CloudServiceContentSource
Content Source Details This shows the current status of the Content Source.	Content Source Type: SharePoint Sites Current Status: Idle Continuous Crawl Status: Last crawl type: Full Last crawl began: 3/23/2019 6:04 PM Last crawl duration: 00:01:30 Last crawl completed: 3/23/2019 6:05 PM
View Crawl History	
Start Addresses Type the URLs from which the search system should start crawling.	Type start addresses below (one per line): * http://sp2019:51000

We can also specify the crawl schedules. We can set the schedules when the incremental and full crawls will take place in the server.

Now let's go ahead and run a full crawl.

CloudSearchServiceApplication: Manage Content Sources

Use this page to add, edit, or delete content sources, and to manage crawls.

New Content Source | Refresh | Start all crawls

Type	Name	Status	Current crawl duration	Last crawl duration	Last crawl completed
Local SharePoint sites	Local SharePoint sites	Idle			
CloudServiceContentSource	CloudServiceContentSource	Idle			

CloudServiceContentSource

- Edit
- View Crawl Log
- Start Full Crawl
- Start Incremental Crawl
- Resume Crawl
- Pause Crawl
- Stop Crawl
- Delete

Since this is the first time we are running the crawl, even if we click on incremental crawl, a full crawl will take place and the time taken will depend upon the amount of content within the content source.

CloudSearchServiceApplication: Manage Content Sources

Use this page to add, edit, or delete content sources, and to manage crawls.

Type	Name	Status	Current crawl duration	Last crawl duration	Last crawl completed	Next Full Crawl
Local SharePoint sites	Local SharePoint sites	Idle				None
CloudServiceContentSource	CloudServiceContentSource	Idle		00:01:30	3/23/2019 6:05:48 PM	None

Once the crawl has completed lets test the hybrid search scenario by going to SharePoint Online and search for `/sExternalContent:1`. This has listed search results from SharePoint On Premise Server indicating a successful Hybrid Search Configuration.

The screenshot shows the SharePoint search interface. At the top, there's a navigation bar with icons for Home, Office 365, and SharePoint. Below the navigation bar, the SharePoint logo is on the left, followed by a search bar containing the query `/sExternalContent:1`. To the right of the search bar is a magnifying glass icon. Below the search bar, there are four categories: Everything, People, Conversations, and Videos. A dropdown menu indicates a preference for results in English. The search results are grouped by result type:

- Result type**
 - SharePoint Site
 - Hybrid**
sp2019:51000
 - Team Site
 - Hybrid - Site Pages**
sp2019:51000/SitePages/Forms/ByAuthor.aspx
 - Web page
 - Hybrid - Documents**
sp2019:51000/Shared Documents/Forms/AllItems.aspx
 - Word
 - Hybrid - Style Library**
sp2019:51000/Style Library/Forms/AllItems.aspx
 - Hybrid - Form Templates**
sp2019:51000/FormServerTemplates/Forms/All Forms.aspx
- Author**
 - System Account
 - Hybrid - SharePoint Saturday**
Thank you for your interest in supporting SharePoint Saturday Qatar, scheduled for April 27th, 2019 ... SharePoint Saturday is a free, community-focused SharePoint event dedicated to ...
sp2019:51000/.../SharePoint Saturday Qatar 2019 Sponsorship Packet....
 - Bhargav Reddy
 - SP**
sp2019:51000/Shared Documents/SP.txt
 - SP2019Dev\spfarmaccount
 - priyan**
sp2019:51000/Shared Documents/priyan.txt
- Modified date**
 - One Year Ago
 - Today
 - All

If we search for some terms , we can see that it fetches results from both Office 365 and On Premise

The screenshot shows a search interface with a blue header bar containing the SharePoint logo, 'Office 365', and 'SharePoint'. Below the header is a search bar with the text 'SharePoint' and a magnifying glass icon. Underneath the search bar are four navigation links: 'Everything', 'People', 'Conversations', and 'Videos'. A dropdown menu titled 'Preference for results in English ▾' is open. To the left of the search results, there are several filter and search parameters:

- Result type:** PDF, Word
- Author:** Bhargav Reddy, System Account, Priyaranjan KS, SHOW MORE
- Modified date:** One Year Ago, Today, All

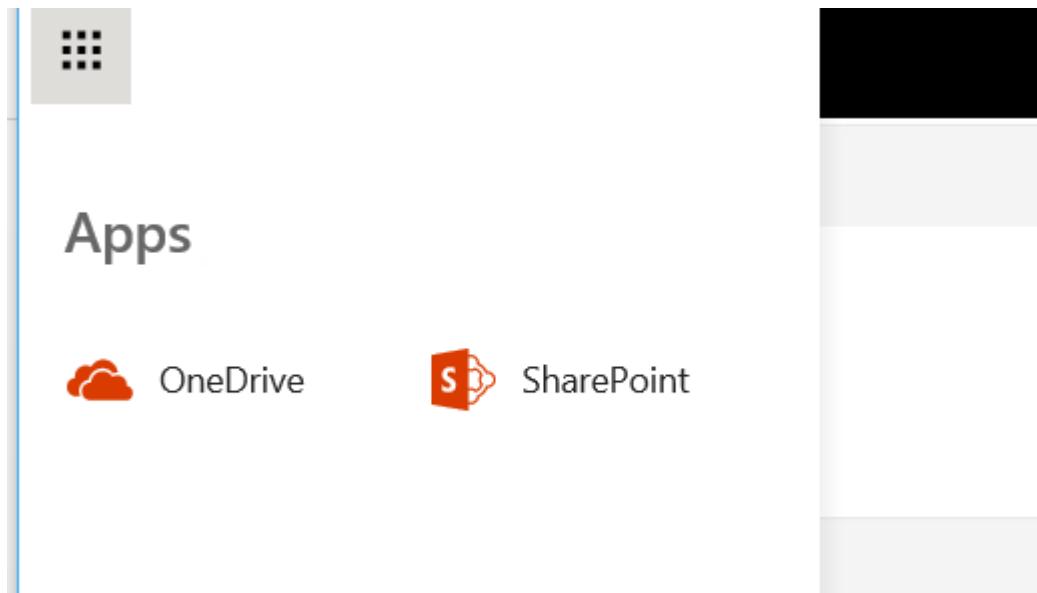
The main search results list includes:

- SharePoint Saturday Hyderabad 2019 Sponsorship Packet**
SharePoint Saturday is a free, community-focused SharePoint event dedicated to educating and engaging ... We want to add Hyderabad to a growing list of SharePoint Saturday cities ...
sp2019hybrid.sharepoint.com/.../SharePoint Saturday Hyderabad 2019 ...
- How To Use This Library**
information about using Microsoft SharePoint Foundation-based wiki libraries, click Help on any Microsoft SharePoint Foundation page ...
sp2019hybrid.sharepoint.com/sites/.../How To Use This Library.aspx
- SharePoint Saturday**
SharePoint Saturday is a free, community-focused SharePoint event dedicated to educating and engaging ... We want to add Qatar to a growing list of SharePoint Saturday cities ...
sp2019:51000/.../SharePoint Saturday Qatar 2019 Sponsorship Packet....

Reference: [https://technet.microsoft.com/en-us/library/dn720906\(v=office.16\).aspx](https://technet.microsoft.com/en-us/library/dn720906(v=office.16).aspx)

B. Configure Hybrid One Drive for Business in SharePoint Server 2019

One Drive for Business is the document library that is available within the My Sites in SharePoint Server 2019. So as to centrally store documents for sharing and collaboration this document library can be used. Thus One Drive provides a central repository for document collaboration.



If we click on One Drive option in the Navigation Bar it will take us to the One Drive Location within My Sites.

A screenshot of the OneDrive for Business interface. The top navigation bar is black with the word 'OneDrive' in white. Below it, there are several buttons: '+ New', 'Upload', 'Flow', and 'Sync'. A central banner features a rocket launching into space with clouds and stars, and the text 'Complete your OneDrive mission: Upload your first file'. To the right is a 'Sign in' button and a large blue 'Upload' button with a white arrow icon. Below the banner, a message says 'Upload your files and photos to OneDrive so you can get to them from any device. Select Upload near the top of the page, or just drag and drop your files.' At the bottom, there's a 'Files' section with columns for 'Name', 'Modified', 'Modified By', 'File Size', and 'Sharing'. A placeholder text 'Drag files here to upload' is visible, along with a cartoon character of a blue robot with arms raised.

However as part of the Hybrid Features in SharePoint Server 2019, we can redirect users to OneDrive for Business in Office 365 when they click OneDrive on the SharePoint 2019 navigation bar.

In this section we will see how to set up Hybrid One Drive for Business in Office 365 and SharePoint 2019.

Before setting up Hybrid One Drive for SharePoint Server 2019 we have to ensure that

- ✓ Office 365 environment is configured for Hybrid setup.
- ✓ Ensure that the required services are up and running in SharePoint Server.

1. Office 365 Prerequisite Configurations

The Configurations that has to be done in Office 365 side is already covered in previous section(Cloud Hybrid Search) as shown below:

- A public domain has been registered with Office 365 (Refer [here](#) for the implementation).
- A UPN prefix that matches the public domain has been added to the Local AD (Refer [here](#) for implementation).
- An Active Azure Subscription is available (Refer [here](#) to see how to get \$25 free Azure credits every month).
- Office 365 AD is manageable from Azure
- Synchronize Local Active Directory with Office 365

2. SharePoint Server 2019 Prerequisite Configurations

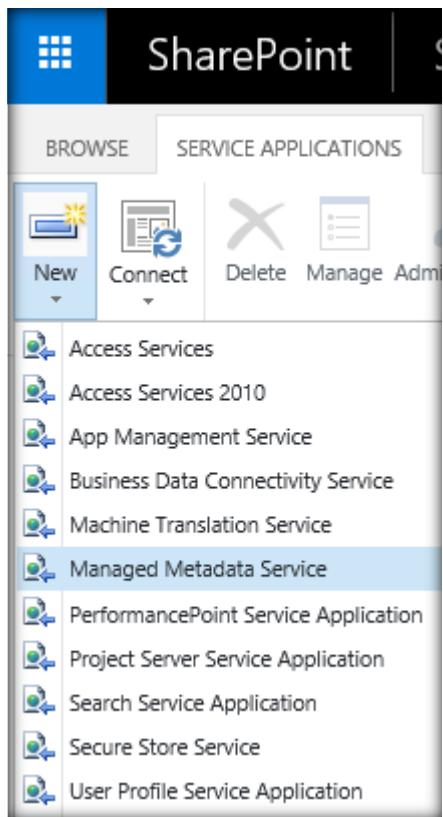
As part of setting up the prerequisites in SharePoint Server 2019 we will have to ensure the successful provisioning of:

- Managed Metadata service application
- User Profile Service application
- My Sites
- App Management Service Application
- Subscription Setting Service
- Setup Synchronization connection with Active Directory Services

We will cover the SharePoint Side Configurations in this section.

3. Provision Managed Metadata Service Application

As the first step to configure SharePoint Server 2019 environment we have to create the managed metadata service application from the Manage Service Applications page.



Enter the service application name, Database Server, Database name and Application Pool that will be used with the Service Application.

Create New Managed Metadata Service

Specify the name, databases, application pool and content settings for this Managed Metadata Service.

Name: Managed Metadata Service Application

Database Server: sp2019

Database Name: MMS DB

Database authentication:

Windows authentication (recommended)

SQL authentication

Account: [empty text box]

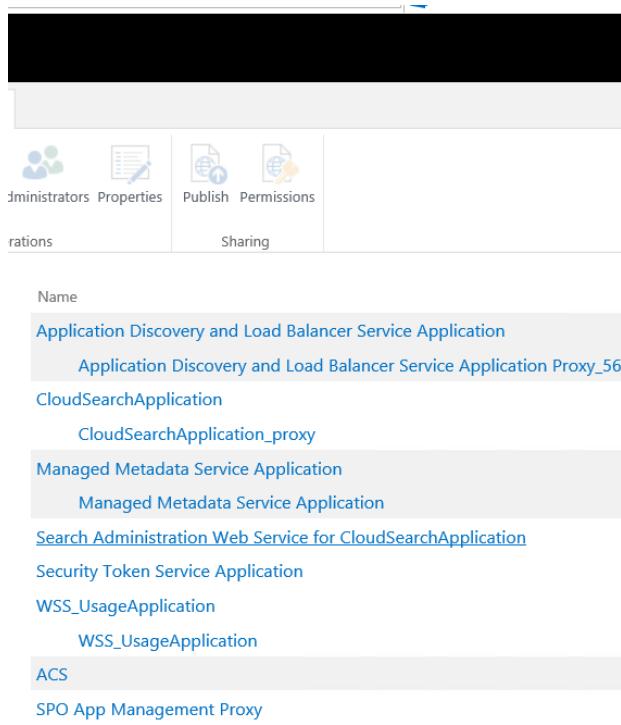
Password: [empty text box]

Failover Server: [empty text box]

Failover Database Server: [empty text box]

OK Cancel

Clicking on OK will start provisioning the Managed Metadata Service Application



4. Setting up My Sites

In order to set up My Sites we can create a new web application that will host the sites. It can either use a separate application pool or use a stand-alone one. There are no extra settings that have to be done during the web application creation. The default settings are good enough. From the web application creation page, create a new web application. Provide the IIS Site name, Port number, Application Pool, Database server and Database name.

Create New Web Application

Warning: This page is not encrypted for secure communication. User names, passwords, and any other information will be sent in clear text. For more information, contact your administrator.

IIS Web Site

Choose between using an existing IIS web site or create a new one to serve the Microsoft SharePoint Foundation application.

If you select an existing IIS web site, that web site must exist on all servers in the farm and have the same name, or this action will not succeed.

If you opt to create a new IIS web site, it will be automatically created on all servers in the farm. If an IIS setting that you wish to change is not shown here, you can use this option to create the basic site, then update it using the standard IIS tools.

Use an existing IIS web site

Create a new IIS web site

Name

Port

Host Header

Path

Security Configuration

Allow Anonymous

Yes

No

Use Secure Sockets Layer (SSL)

Yes

Click on OK. This will start provisioning the web application.

Create New Web Application

∴ This shouldn't take long.

Once the Web Application is created, click on the 'Create Site Collection' option.

Create New Web Application

X

The Microsoft SharePoint Foundation Web application has been created.

If this is the first time that you have used this application pool with a SharePoint Web application, you must wait until the Internet Information Services (IIS) Web site has been created on all servers. By default, no new SharePoint site collections are created with the Web application. If you have just created a Forms Based Authentication (FBA) Web application, then before creating a new site collection, you will need to perform some additional configuration steps.

[Learn about how to configure a Web application for FBA.](#)

Once you are finished, to create a new site collection, go to the [Create Site Collection](#) page.

OK

This will provide the option to create the site collection that will hold the My Sites. Specify the site collection name and select the template “My Site Host” from Enterprise tab.

Create New Web Application

>

Title and Description

Type a title and description for your new site. The title will be displayed on each page in the site.

Title:

My Sites

Description:

OK

Cancel

Web Site Address

Specify the URL name and URL path to create a new site, or choose to create a site at a specific path.

To add a new URL Path go to the [Define Managed Paths](#) page.

URL:

http://sp2019:25000 /

Template Selection

Select a template:

Collaboration Enterprise Publishing Custom

- Document Center
- In-Place Hold Policy Center
- eDiscovery Center
- Records Center
- Business Intelligence Center
- Compliance Policy Center
- Enterprise Search Center
- My Site Host**
- Community Portal
- Basic Search Center

A site used for hosting personal sites (My Sites) and the public People Profile page.

This will complete the creation of the My Site, Site collection at <http://vm03-sp2016:25000/>

Create New Web Application



The new top-level site was created successfully with the specified URL. If you have permission to view the Web site, you can do so in a new browser window by clicking the URL. To close this dialog, click **OK**.

<http://sp2019:25000>

OK

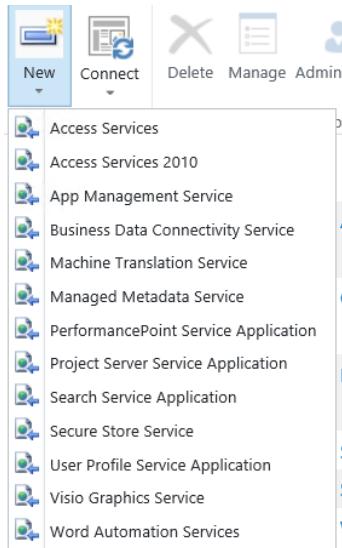
Once you have the My Site Web Application and Site collection in place ensure that you create a managed path for the sites. In order to do that head over to the web application that was created recently and select Managed Paths

Add the managed path personal in the text box and select Wild card inclusion from the type drop down. Click on OK. This will create a managed path in the web application under which all the My Sites will be created in the future.

The screenshot shows the SharePoint Central Administration interface with the 'WEB APPLICATIONS' tab selected. On the left, there's a navigation menu with items like Central Administration, Application Management, System Settings, Monitoring, Backup and Restore, Security, Upgrade and Migration, General Application Settings, Apps, Office 365, and Configuration Wizards. The main content area displays the 'Define Managed Paths' dialog box. The dialog has sections for 'Included Paths' (describing paths managed by SharePoint), 'Add a New Path' (instructions to specify a path), and 'Type' (checkboxes for '(root)' and 'sites' with descriptions 'Explicit inclusion' and 'Wildcard inclusion'). Below these are fields for 'Path:' (containing 'personal') and 'Type:' (checkbox for 'Wildcard inclusion' checked). A 'Check URL' link is also present. At the bottom are 'Add Path' and 'OK' buttons.

5. Setting up User Profile Service Application

We can provision the user profile service application from the Manage Service Applications Page.



Once the User Profile Service Application is selected, it will provide the page where we can specify the Service Application Name, Application Pool, Application Pool Account, Database Server and Database Name.

Create New User Profile Service Application x

Specify the name and databases to use for this Service Application. The settings you specify here can be changed later using the Properties button in the service Application Management page.

Name:	<input type="text" value="User Profile Service Application"/>
Application Pool	
Choose the Application Pool to use for this Service Application. This defines the account and credentials that will be used by this web service.	
You can choose an existing application pool or create a new one.	
<input type="radio"/> Use existing application pool <input type="text" value="CloudSearchApplication_AppPool"/>	
<input checked="" type="radio"/> Create new application pool Application pool name <input type="text" value="UPS App Pool"/>	
Select a security account for this application pool <input type="text" value="SP2019Dev\SPFarmAccount"/>	
Register new managed account	
<input type="checkbox"/> Profile Database: This database will be used to store user and organization profile data. Use of the default database server and database name is recommended for most cases.	
Database Server <input type="text" value="sp2019"/>	
Database Name <input type="text" value="Profile DB"/>	
Database authentication	
<input type="button" value="Create"/> <input type="button" value="Cancel"/>	

Specify the My Site Host URL that was created earlier and leave the My Site Managed Path as /Personal. This is the managed path which we had created in the earlier step.

Create New User Profile Service Application

x

Specify the name and databases to use for this Service Application. The settings you specify here can be changed later using the Properties button in the service Application Management page.

mirroring.

My Site Host URL x

Provide the URL of the site collection where you would like to provision My Site Host. You may want to [create a new site collection](#) for this. Please make sure that the Site Collection you specify does not currently have a site template or it uses My Site Host site template.

Example: http://<My Site host name>, http://servername/<My Site Host Name> etc.

My Site Managed Path

Provide managed path under which you want all personal sites to be created. This managed path will be used to form the URL for

Create Cancel

Click on OK. This will complete the provisioning of the user Profile Service Application.

Create New User Profile Service Application

x

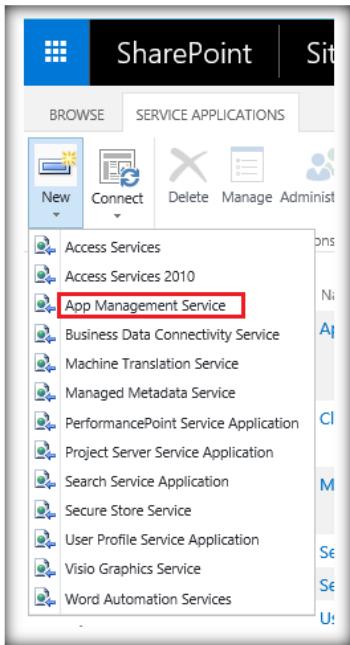
You can change the settings you specified using the Edit button in the Service Application Management page.

Profile Service Application successfully created.

OK

6. Provision App Management Service Application

The next service application that has to be set up is the App Management Service Application. Head over to the Manage Service Applications page and from the New drop down select App Management Service.



This will open up the page where we can specify the App Management Service Application Name, Database server, Database Name, Application Pool and the Application Pool account.

New App Management Service Application

Name
Enter the name of the app management service application. The name entered here will be used in the list of Service Applications displayed in the Manage Service Applications page.

Service Application Name

Database
Use of the default database server and database name is recommended for most cases. Refer to the administrator's guide for advanced scenarios where specifying database information is required.

Database Server

Database Name

Database authentication

Windows authentication (recommended)

SQL authentication

Account

Password

Failover Server
You can choose to associate a database with a specific failover server that is used in

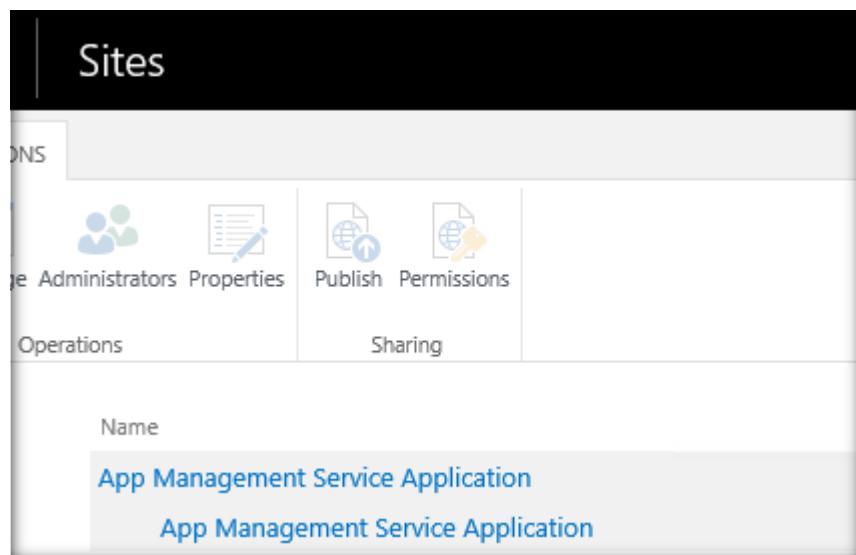
Failover Database Server

Click on OK to start the provisioning of the Service Application.

New App Management Service Application

∴ This shouldn't take long.

This will create the App Management Service Application.



7. Provision Subscription Settings Service Application

The last service application that has to be created is the Subscription Settings Service Application. This cannot be created directly from the Central Administration and has to be provisioned using PowerShell. To do that, spin up SharePoint 2019 Management Shell as Administrator.

Ensure that you have a managed account in place. Run the below commands to provision the Subscription settings service application.

```

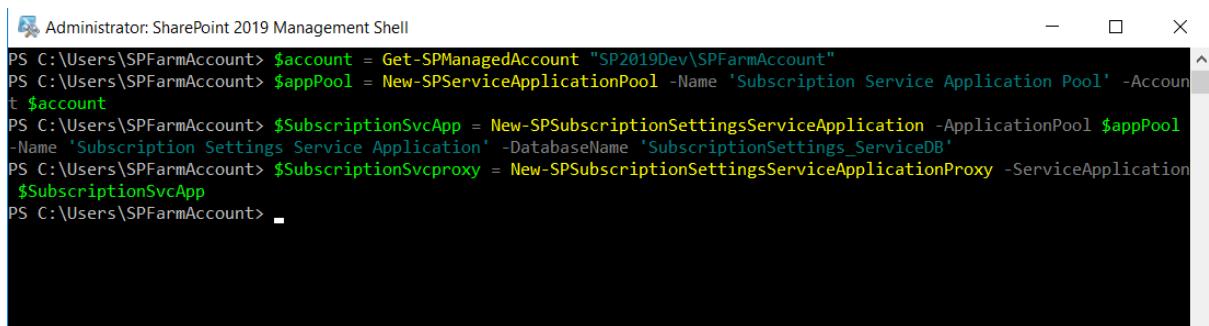
$account = Get-SPManagedAccount "SP2019Dev\SPFarmAccount"

$appPool = New-SPServiceApplicationPool -Name 'Subscription Service Application Pool' -Account $account

$SubscriptionSvcApp = New-SPSubscriptionSettingsServiceApplication -ApplicationPool $appPool -Name 'Subscription Settings Service Application' -DatabaseName 'SubscriptionSettings_ServiceDB'

$SubscriptionSvcproxy = New-SPSubscriptionSettingsServiceApplicationProxy -ServiceApplication $SubscriptionSvcApp

```



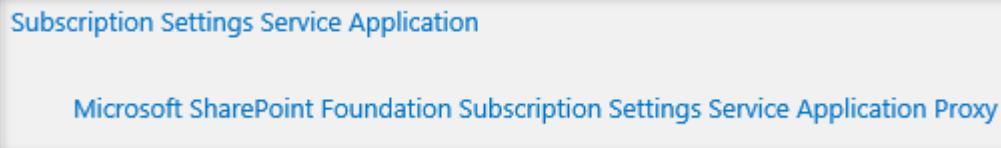
The screenshot shows a Windows command prompt window titled 'Administrator: SharePoint 2019 Management Shell'. The window contains the following PowerShell session:

```

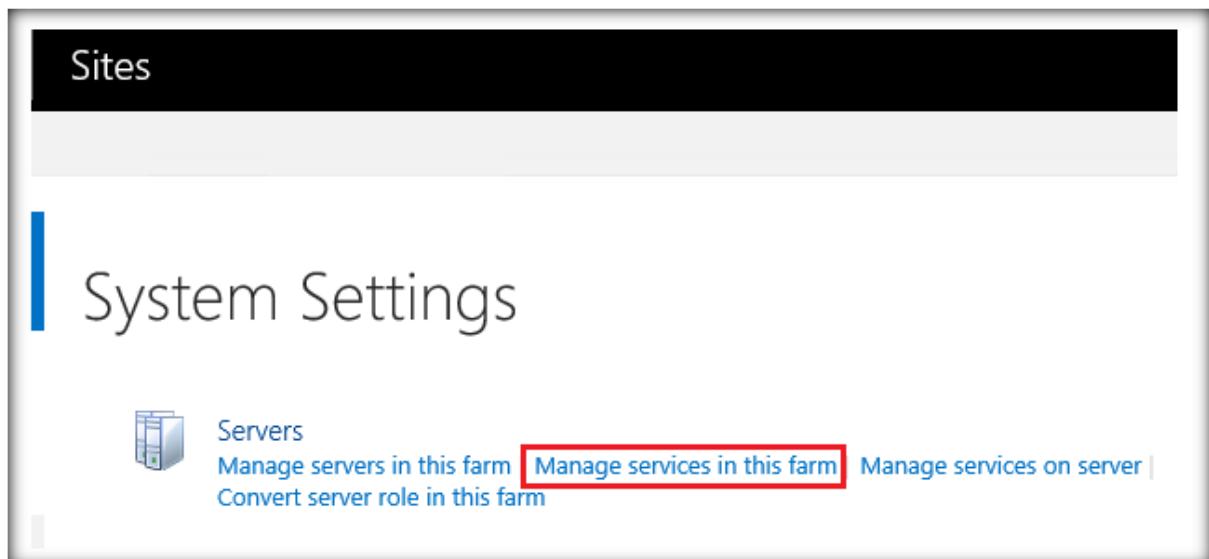
PS C:\Users\SPFarmAccount> $account = Get-SPManagedAccount "SP2019Dev\SPFarmAccount"
PS C:\Users\SPFarmAccount> $appPool = New-SPServiceApplicationPool -Name 'Subscription Service Application Pool' -Account $account
PS C:\Users\SPFarmAccount> $SubscriptionSvcApp = New-SPSubscriptionSettingsServiceApplication -ApplicationPool $appPool -Name 'Subscription Settings Service Application' -DatabaseName 'SubscriptionSettings_ServiceDB'
PS C:\Users\SPFarmAccount> $SubscriptionSvcproxy = New-SPSubscriptionSettingsServiceApplicationProxy -ServiceApplication $SubscriptionSvcApp
PS C:\Users\SPFarmAccount>

```

This will provision the Subscription Settings Service Application.



Now we have to enable the Subscription Settings Service. From System Settings select Manage Services in this farm.



This will list all the Services available within the farm. By default Microsoft SharePoint Foundation Subscription Settings Service is disabled in the farm. Change it to Yes to provision the service.

Microsoft SharePoint Foundation Incoming E-Mail	Yes	Disable Auto Provision
Microsoft SharePoint Foundation Sandboxed Code Service	No	Enable Auto Provision
Microsoft SharePoint Foundation Subscription Settings Service	Yes	Manage Service Application
Microsoft SharePoint Foundation Workflow Timer Service	Yes	Disable Auto Provision
PerformancePoint Service	No	Manage Service Application

8. Configure Synchronization Connection

In order to set up Hybrid One Drive we have to create a synchronization connection with Active Directory Domain Services for the User Profile Service Application. In order to do that, head over to the Manage User Profile Service Application and select Configure Synchronization Connections option.

Manage Profile Service: User Profile Service

-  [People](#)
[Manage User Properties](#) | [Manage User Profiles](#) | [Manage User Sub-types](#) | [Manage Audiences](#) | [Schedule Audience Refresh](#)
[Manage User Permissions](#) | [Compile Audiences](#) | [Manage Policies](#)
-  [Synchronization](#)
[Configure Synchronization Connections](#) | [Configure Synchronization Timer Job](#) | [Configure Synchronization Log](#)
[Start Profile Synchronization](#)
-  [Organizations](#)
[Manage Organization Properties](#) | [Manage Organization Profiles](#) | [Manage Organization Sub-types](#)
-  [My Site Settings](#)
[Setup My Sites](#) | [Configure Trusted Host Locations](#) | [Manage Promoted Sites](#) | [Publish Links to Office](#)
[Manage Social Tags and Notes](#) | [Manage Following](#)

Click on Create New Connection to set up a new Synchronization Connection.

Synchronization Connections

Use this page to manage the list of connections to use to import from Active Directory.

 Create New Connection

Name	Type
The query returns nothing.	

Specify the connection name and Select the type as Active Directory Import. Mention the Connection string which will be the Full Qualified Domain Name. Leave the Authentication Provider Type as Windows Authentication. Account Name and Password has to be the credentials of the Domain Administrator.

Add new synchronization connection

Use this page to configure a connection to a directory service server to synchronize users.

* Indicates a required field

Connection Name

Hybrid Syncornization

Type

Active Directory Import 

Connection Settings

Fully Qualified Domain Name (e.g. contoso.com):

Fully Qualified Domain Name (e.g. contoso.com):

SP2019.contoso.com 

For Active Directory connections to work, this account must have
directory sync rights.

Authentication Provider Type:

Windows Authentication 

Authentication Provider Instance:



Account name: *

SP2019Dev\SPFarmAccount

Example: DOMAIN\user_name

Password: *

Confirm password: *

Port:

389

Populate Containers

The screenshot shows a Windows Active Directory management console. A tree view displays the following structure under the root node 'SP2019Dev':

- SP2019Dev (selected, indicated by a checked checkbox icon)
- Computers (unchecked)
- Domain Controllers (unchecked)
- ForeignSecurityPrincipals (unchecked)
- Keys (unchecked)
- Managed Service Accounts (unchecked)
- Program Data (unchecked)
- System (unchecked)
- Users (selected, indicated by a checked checkbox icon)
 - Users (checked, indicated by a green checkmark icon)
 - AAD_274dc0e4bf07 (checked, indicated by a blue checkmark icon)

Select All

Click on Populate Containers. This will populate the Domain Objects. Select the Users node and click on OK. This will complete the setting up of the Synchronization connection.

9. Verify the User Properties before running Synchronization

Now let's head over to the Manage user Properties option from the People tab. We have to verify the User Profile Properties before running the synchronization connection.

The screenshot shows the 'Manage Profile Service: User Profile Service Application' page. The 'People' section is highlighted, and the 'Manage User Properties' link is specifically highlighted with a red box.

Manage Profile Service: User Profile Service Application

People

[Manage User Properties](#) (highlighted with a red box) | [Manage User Profiles](#) | [Manage User Sub-types](#) | [Manage Audiences](#) |
[Schedule Audience Compilation](#) | [Manage User Permissions](#) | [Compile Audiences](#) | [Manage Policies](#)

Synchronization

[Configure Synchronization Connections](#) | [Configure Synchronization Timer Job](#) |
[Configure Synchronization Settings](#) | [Start Profile Synchronization](#)

Organizations

[Manage Organization Properties](#) | [Manage Organization Profiles](#) | [Manage Organization Sub-types](#)

My Site Settings

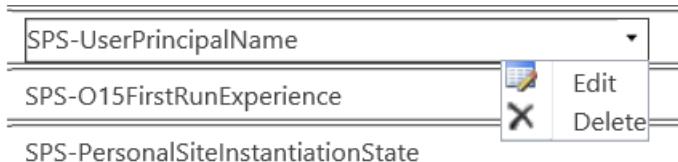
[Setup My Sites](#) | [Configure Trusted Host Locations](#) | [Manage Promoted Sites](#) |
[Publish Links to Office Client Applications](#) | [Manage Social Tags and Notes](#) | [Manage Following](#)

Profiles	Number of
Number of	Number of
Number of	Number of
Number of	Number of
Audience	Number of
Uncompile Audience	Audience
Audience	Last Comp
Profile Sync	Synchroni.
Profile Sync	Profile Sy

We will check for User Principal Name and Work Email. User Profile Name should be mapped to userPrincipalName and Work Email should be mapped to mail. However the mapping property is blank as shown below.

SPS-DisplayOrder	<input type="button" value="^"/>	integer	
SPS-ClaimID	<input type="button" value="^"/>	string (Single Value)	samAccountName
SPS-ClaimProviderID	<input type="button" value="^"/>	string (Single Value)	
SPS-LastColleagueAdded	<input type="button" value="^"/>	date	
SPS-OWAUrl	<input type="button" value="^"/>	URL	
SPS-ResourceSID	<input type="button" value="^"/>	binary	
SPS-UserPrincipalName	<input type="button" value="^"/>	string (Single Value)	
SPS-O15FirstRunExperience	<input type="button" value="^"/>	integer	

So let's add the mapping for User Principal Name. Select Edit.



In the attribute text box specify the mapping “userPrincipalName” and click on Add.

Property Mapping for Synchronization

Click remove to delete or modify an existing mapping.

There are no items to show in this view.

Add New Mapping

Specify the field to map to this property when synchronizing user profile data.

When synchronizing with a Business Data Connectivity source you can only import (not export) data from associated entity fields by selecting the association. Mapping a multivalued field to a single value property is allowed, importing will attempt to get only the first value. Mapped properties cannot be modified by users.

Security Note: If you are using a high privilege account for profile synchronization, you will be able to read, import and export directory attributes that are not normally viewable by all users, make sure the appropriate default privacy setting is selected.

Note: The selection of directory service properties may be disabled if the User Profile Service Application is in an untrusted domain or if profile synchronization is not configured.

Multivalue property is tagged with "(M)".

Source Data Connection:

Hybrid Synchronization

Attribute

Attribute

Direction

The new mapping has come up in the page.

Display Order		integer	
Claim User Identifier		string (Single Value)	samAccountName
Claim Provider Identifier		string (Single Value)	
Last Colleague Added		date	
Outlook Web Access URL		URL	
Resource Forest SID		binary	
User Principal Name		string (Single Value)	userPrincipalName
First Run Experience		integer	

Similarly the Work Email mapping is missing. So edit that property as well.

> Contact Information		Section	
Work email		E-mail	
Mobile phone		string (Single Value)	
Fax		string (Single Value)	

Add the mapping mail in the attribute text box and click on Add.

Add New Mapping

Specify the field to map to this property when synchronizing user profile data.

When synchronizing with a Business Data Connectivity source you can only import (not export) data from associated entity fields by selecting the association. Mapping a multivalued field to a single value property is allowed, importing will attempt to get only the first value. Mapped properties cannot be modified by users.

Security Note: If you are using a high privilege account for profile synchronization, you will be able to read, import and export directory attributes that are not normally viewable by all users, make sure the appropriate default privacy setting is selected.

Note: The selection of directory service properties may be disabled if the User Profile Service Application is in an untrusted domain or if profile synchronization is not configured.

Multivalue property is tagged with "(M)".

Source Data Connection:

Hybrid Synchronization

Attribute



Attribute

mail

Direction

Import

Add

Thus we can see both the properties have been mapped.

Resource Forest SID	^v	binary	
User Principal Name	^v	string (Single Value)	userPrincipalName
First Run Experience	^v	integer	
Personal Site Instantiation State	^v	integer	
Distinguished Name	^v	string (Single Value)	
Source Object Distinguished Name	^v	string (Multi Value)	
Last Keyword Added	^v	date	
Claim Provider Type	^v	string (Single Value)	
Saved Account Name	^v	string (Single Value)	
Saved SID	^v	binary	
Object Exists	^v	string (Single Value)	
Personal Site Capabilities	^v	integer	
SPS-PersonalSiteFirstCreationTime	^v	date time	
SPS-PersonalSiteLastCreationTime	^v	date time	
SPS-PersonalSiteNumberOfRetries	^v	integer	
SPS-PersonalSiteFirstCreationError	^v	string (Single Value)	
Feed service provider defined identifier	^v	string (Single Value)	
> Contact Information	^v	Section	
Work email	^v	E-mail	mail

10. Start Profile Synchronization

The user profile property mappings have been verified. Now we have to synchronize the UPN domain suffix and email address that we configured in Active Directory Domain Services. In order to do that, select the Start Profile Synchronization option from the Synchronization tab.

Sites

Manage Profile Service: User Profile Service Application

- People**
 - Manage User Properties | Manage User Profiles | Manage User Sub-types | Manage Audiences | Schedule Audience Compilation | Manage User Permissions | Compile Audiences | Manage Policies
- Synchronization**
 - Configure Synchronization Connections | Configure Synchronization Timer Job | Configure Synchronization Settings **Start Profile Synchronization**
- Organizations**
 - Manage Organization Properties | Manage Organization Profiles | Manage Organization Sub-types
- My Site Settings**
 - Setup My Sites | Configure Trusted Host Locations | Manage Promoted Sites | Publish Links to Office Client Applications | Manage Social Tags and Notes | Manage Following

Profiles
Number o
Number o
Number o
Number o
Audience:
Number o
Uncompile
Audience
Audience
Last Comp
Profile Sy
Synchroni.
Profile Sy

Select “Start Incremental Synchronization” and Click on OK.

The screenshot shows a user interface for starting profile synchronization. At the top, a black header bar contains the word "Sites". Below it, a blue vertical bar on the left is followed by the title "Start Profile Synchronization" in large, bold, white font. A sub-instruction "Use this page to start a full or incremental Synchronization." is displayed in a smaller, gray font. On the right side, there are two radio buttons: one checked (filled with a dark gray circle) labeled "Start Incremental Synchronization" and another unselected (white circle) labeled "Start Full Synchronization".

To the right of the Manage Profile Service Page you can see the Synchronization Settings summary.

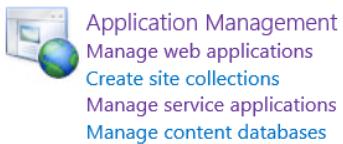
The screenshot displays a summary of synchronization settings. It includes sections for Profiles, Audiences, and Profile Synchronization Settings. The data is presented in a table-like format:

Profiles	
Number of User Profiles	36
Number of User Properties	109
Number of Organization Profiles	1
Number of Organization Properties	15
Audiences	
Number of Audiences	1
Uncompiled Audiences	0
Audience Compilation Status	Idle
Audience Compilation Schedule	Every Saturday at 01:00 AM
Last Compilation Time	Not compiled
Profile Synchronization Settings	
Synchronization Schedule (Incremental)	every 5 minutes between 0 and 0
Profile Synchronization Status	Idle

Configure Hybrid One Drive

Click on Enable Hybrid Experience to launch the Hybrid configuration wizard

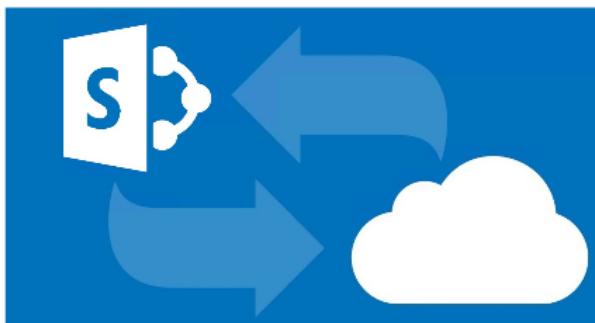
 Unleash the full potential of SharePoint. [Click here to enable Hybrid experiences.](#)



The wizard will connect Office 365 with On Premise SharePoint Server



SharePoint Hybrid Configuration Wizard



This wizard will connect your on-premises SharePoint Server farm with your Office 365 tenant.

Important: Make sure you run this wizard on a SharePoint 2019, SharePoint 2016, or SharePoint 2013 server.

[Learn more](#)

[Privacy policy](#)

[Back](#)

[Next](#)

[Cancel](#)

Specify the credentials to make the connection with Office 365 and SharePoint Server.



Credentials

To set up a hybrid environment for SharePoint or OneDrive for Business, you need to provide administrator credentials for both SharePoint Server and Office 365.

[Learn more](#)

Enter your on-premises account credentials.

Use my current Windows account credentials.

Domain\username:

SP2019Dev\SPfarmaccount

Enter your global administrator credentials for Office 365.

Username:

priyaranjan@microsoft365blogger.com

Password:

[Validate credentials](#)

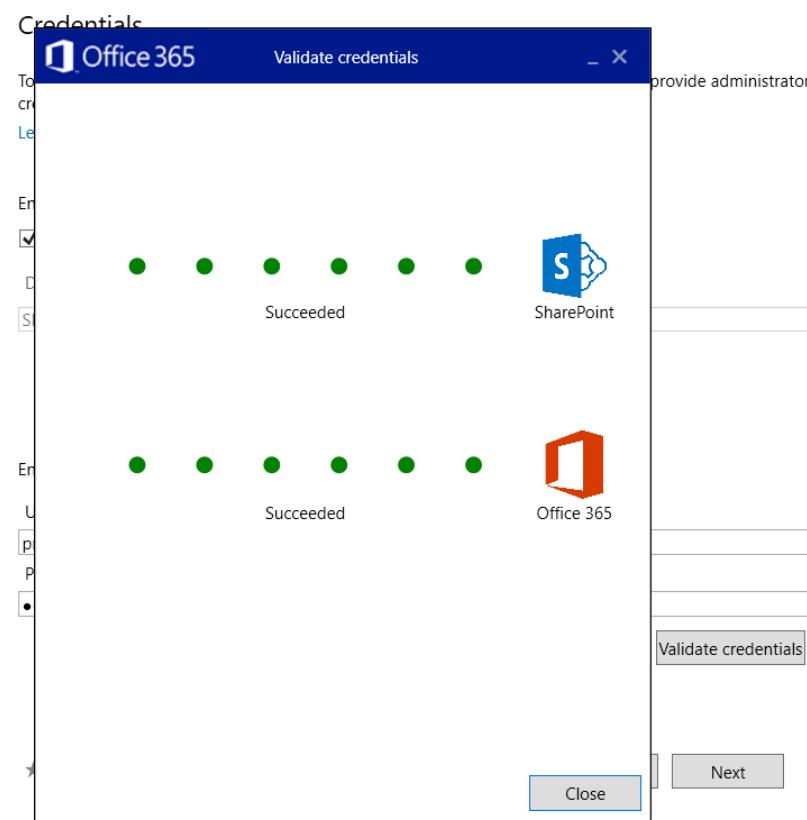
[★ Give feedback](#)

[Back](#)

[Next](#)

[Cancel](#)

Once Successfully validated, Click on next.



Checking prerequisites

SharePoint Server farm exists	✓
Account is a farm administrator	✓
SharePoint farm version is 16.0.10337.12109	✓
AppManagementServiceInstance is online	✓
AppManagementServiceApplication is online	✓
AppManagementServiceApplicationProxy is online	✓
UserProfileApplicationProxy is online	✓
The SPO365LinkSettings cmdlet is accessible	✓
Scan potential authentication realm change scenarios	✓

[View the report](#)[★ Give feedback](#)

Back

Next

Cancel

It will do a prerequisite check and proceed to the page where we can specify the hybrid features that needs to be configured



Select the features you want to use in your hybrid environment

Which features do you want to configure?

[Learn more](#)

- Hybrid OneDrive
- My Site creation default to OneDrive in Office 365
- Hybrid Sites
- Hybrid business to business (B2B) sites
- Hybrid self-service site creation [Input Parameters](#)
- Hybrid app launcher
- Hybrid Auditing (Preview)
- Hybrid taxonomy and content type [Input Parameters](#)
- Hybrid Search [Input Parameters](#)

Selected features:

- Hybrid OneDrive
- Hybrid Sites
- Hybrid app launcher
- Hybrid business to business (B2B) sites
- My Site creation default to OneDrive in Office 365

The following features will be enabled:

- Hybrid OneDrive
- Hybrid Sites
- Hybrid app launcher
- Hybrid business to business (B2B) sites
- My Site creation default to OneDrive in Office 365

Why are some features not available for selection?

[Click here to view the report](#)[★ Give feedback](#)[Back](#)[Next](#)[Cancel](#)

For the time being, we will select the below features to be configured between Office 365 and SharePoint Server

- Hybrid One Drive
- Hybrid Sit4es
- Hybrid Business Sites
- Hybrid App Launcher

Hybrid Self Service Site Creation will be done down the line after this configuration. Click on Next to start with the configuration.



Configuring

Task: Configuring SharePoint OAuth OnPremises

Phase: Configuring

Clicking the "Stop" button will stop this process, but won't undo changes that have already been applied.

★ Give feedback

Stop

It has started to configure the hybrid features.



Configuration summary

Your SharePoint Server environment is now connected to Office 365.

Restart Internet Information Services (IIS) at the next convenient time.

✓ Hybrid OneDrive

Configuration succeeded. All of your SharePoint users have been redirected to OneDrive in Office 365. If you want only some users to be redirected, go to the Configure Hybrid Features page in SharePoint Central Administration and select "Use a specific audience". To go to the page, click [here](#)

✓ My Site creation default to OneDrive in Office 365

The My Site creation experience for end users will now redirect to the Office 365 OneDrive experience.

[Learn more](#) about OneDrive default to cloud.

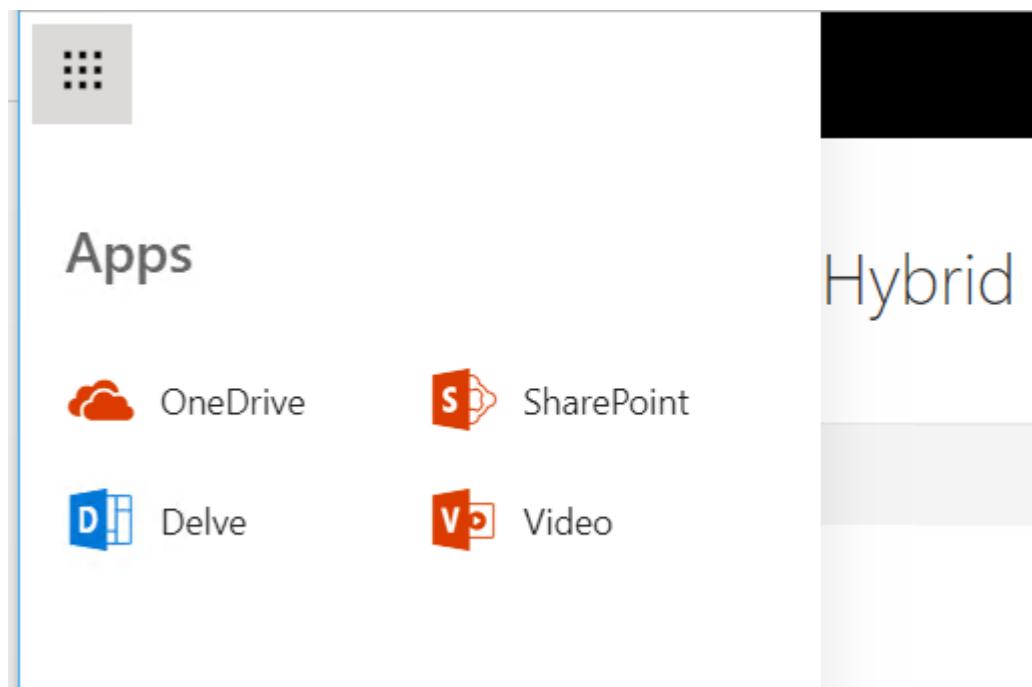
✓ Hybrid Sites

Configuration succeeded. All of your SharePoint users can use hybrid SharePoint Sites features. If you want only some users to use the features, go to the Configure Hybrid Features page in SharePoint Central Administration and select "Use a specific audience". To go to the page, click [here](#)

★ Give feedback

Close

Let's test the One Drive for Business redirect by clicking on the One Drive link.



This will take us to the Office 365 Login page. Once authenticated, we can work on the Office 365 One Drive.

A screenshot of the OneDrive for Business web interface. The top navigation bar shows 'Office 365' and 'OneDrive'. The left sidebar lists 'Nimmy' (selected), 'Files' (highlighted in grey), 'Recent', 'Shared', 'Recycle bin', and 'sp2019hybrid'. A '+' button is next to 'sp2019hybrid'. Below the sidebar is a communication site icon. The main content area features a rocket launching illustration with the text 'Complete your OneDrive mission' and 'Upload your first file'. It also includes a placeholder for uploaded files with the text 'Upload your files and photos to OneDrive so you can access them from anywhere'. At the bottom, there is a 'Files' section with a table header for 'Name' and 'Modified'.

References: [https://technet.microsoft.com/en-us/library/mt147425\(v=office.16\).aspx](https://technet.microsoft.com/en-us/library/mt147425(v=office.16).aspx)

Thus we have successfully configured Hybrid features between Office 365 and SharePoint Server. Now let's test the Hybrid Team Sites Feature

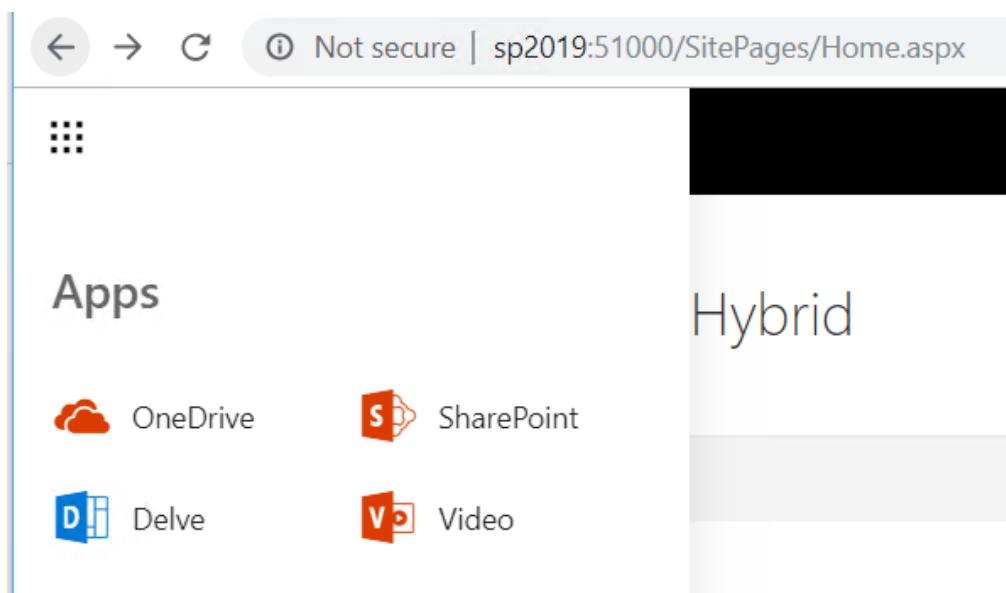
C. Configure SharePoint Hybrid Team Sites

SharePoint Hybrid Team Sites provides an extensible app launcher in SharePoint 2019 which integrates tile in Office 365 to On Premise App Launcher. It also redirects the users to Office 365 Team Sites upon clicking the SharePoint On Premise Sites button in the suite bar.

This has been configured along with One Drive in the Previous section. So lets test how it works.

1. Test Hybrid Site Features

Now let's head over to the SharePoint Server site and test out the hybrid features. Click on SharePoint to test the Hybrid Site functionality.



This will take you to the Office 365 Team sites page ensuring successful configuration.



Following



You are not following any site
Following a site makes it easier to find it.
Simply click the star icon on any site to
start following it.

Recent

Communication site



Featured links



D Extensible App Launcher

In addition to that if you check the suite bar , if there are some customization like logo that were added to Office 365, it will also be synchronized with SharePoint Server. By default only Newsfeed, OneDrive and Sites tiles are present in SharePoint Server App Launcher.



Apps

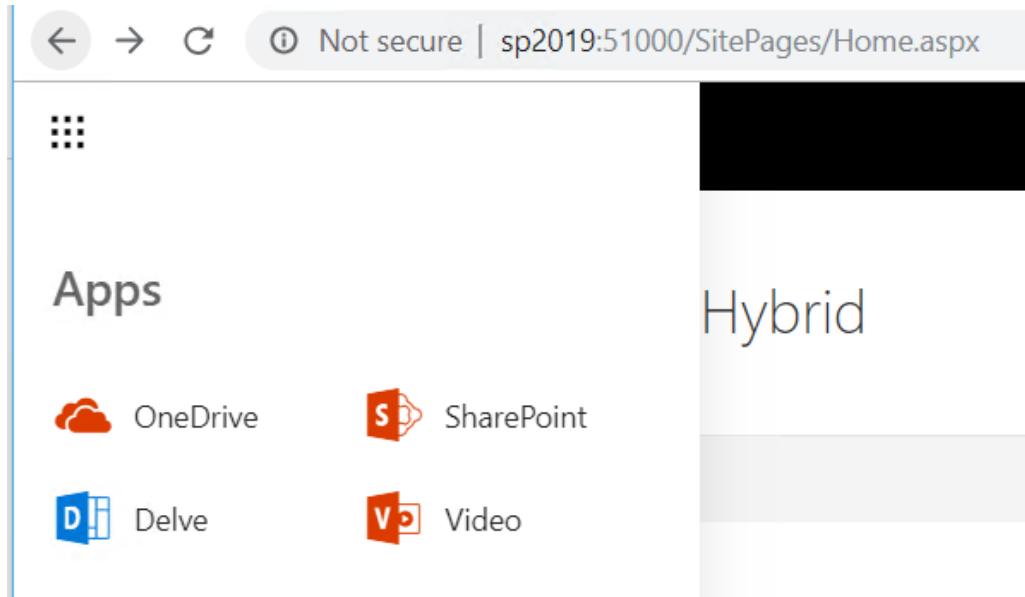


OneDrive



SharePoint

But after hybrid configuration we get an extensible App Launcher with Delve and Video Integration.



Reference: [https://technet.microsoft.com/en-us/library/mt346110\(v=office.16\).aspx](https://technet.microsoft.com/en-us/library/mt346110(v=office.16).aspx)

IV. Summary

Thus we had a walkthrough over the newly introduced/enhanced features of SharePoint Server 2019.