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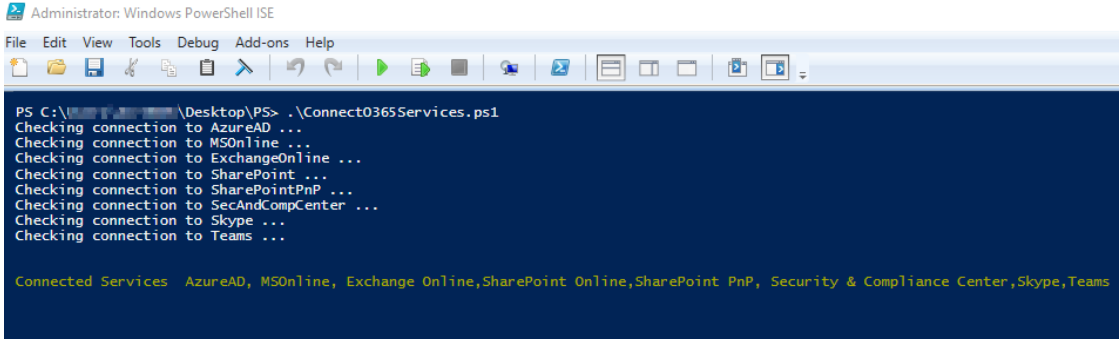
ALL ABOUT OFFICE 365

Connect to all Office 365 Services PowerShell (Supports MFA too)

OCTOBER 5, 2019 (HTTPS://O365REPORTS.COM/2019/10/05/CONNECT-ALL-OFFICE-365-SERVICES-POWERSHELL/)   EXCHANGE ONLINE (HTTPS://O365REPORTS.COM/CATEGORY/EXCHANGE-ONLINE/), O365 POWERSHELL (HTTPS://O365REPORTS.COM/CATEGORY/O365-POWERSHELL/), OFFICE 365 (HTTPS://O365REPORTS.COM/CATEGORY/OFFICE-365/), SHAREPOINT ONLINE (HTTPS://O365REPORTS.COM/CATEGORY/SHAREPOINT-ONLINE/)   11 COMMENTS (HTTPS://O365REPORTS.COM/2019/10/05/CONNECT-ALL-OFFICE-365-SERVICES-POWERSHELL/#DISQUS_THREAD)

As an Office 365 admin, you spend most of the time in PowerShell to accomplish administrative tasks. Office 365 includes a wide variety of cloud services like Exchange Online, Azure Active Directory, SharePoint Online, Skype for Business Online, Teams, and Security & Compliance center.

Each Office 365 service has their own PowerShell module to create a connection via PowerShell. If you want to work with multiple services, you need to remember (copy & paste 😊) various cmdlets and modules to create sessions manually, which is time-consuming and painful task. And the most important part comes here! MFA. Nowadays, most admin accounts are MFA enabled, which requires a different approach to create a PowerShell session.

Don't worry! We have created **"All-in-One" PowerShell script** that connects all Office 365 services using PowerShell with MFA/non-MFA account. You can connect to any/all Office 365 services, just with a single cmdlet.

Script Highlights:

- Installs Office 365 PowerShell modules. ie, Modules required for Office 365 services are **automatically downloaded and installed** upon your confirmation.
- You can **connect to one or more Office 365 services** via PowerShell using a **single cmdlet**.
- You can connect to Office 365 services with **MFA enabled account**.
- For non-MFA account, you don't need to enter credential for each service. You'll be asked to enter your credential only once!
- The script is **scheduler friendly**. i.e., credentials can be passed as a parameter instead of saving inside the script.
- You can **disconnect all service** connections using a single cmdlet.

Script to Connect all Office 365 Services using PowerShell (Works for MFA too)

We have an All-in-One PowerShell script to connect Office 365 services like Exchange Online, Azure AD, SharePoint Online, Skype for Business, Teams, and Compliance Center using PowerShell.

As mentioned earlier, each service requires a different module, we designed our script to install the required module (if it is not installed already) after your confirmation. If you want to download and install manually, you can follow the steps we've given inside the script.

> *Download Script: ConnectO365Services.ps1 (https://admindroid.sharepoint.com/:u:/s/external/ETYww6L3LJFJooEb5MOwjrkBJrHNhGb-EUK5ZBFPiMfm_A?e=Hb9fb4)*

Now I am going to explain how to use our script to connect Office 365 services, with MFA and without MFA. You can use this script to connect single service or combination of services. Also, you can use this script to install Office 365 PowerShell modules.

First, you need to download the above script.

Connect to all Office 365 Services(Without MFA):

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Connect to all Office 365 Services PowerShell (Supports MFA too)   by Kathy Cooper • time to read: 7 min

Using below cmdlet, you can connect to Office 365 services like Exchange Online, Azure Active Directory, MSOnline, SharePoint Online, SharePoint PnP, Skype for Business Online, Teams, and Security & Compliance center.

```
./Connect0365Services.ps1
```

You can also pass the credential as a parameter.

```
./Connect0365Services.ps1 -UserName Admin@Contoso.com -Password "XXX"
```

Note: You can also give script's absolute path if it's not in the current directory.

Connect to all Office 365 Services(With MFA):

Using below cmdlet, you can connect to Office 365 services like Exchange Online, Azure Active Directory, SharePoint Online, Skype for Business Online, Teams, and Security & Compliance center with MFA.

```
./Connect0365Services.ps1 -MFA
```

If you use MFA enabled account, credential should be entered for each service.

For detailed usage of this script, check the use cases.

More Use Cases of "Connect all O365 Services PowerShell Script":

- Connect all Office 365 Services at once
- Connect all Office 365 Services at once with MFA
- PowerShell script to connect Exchange Online PowerShell
- PowerShell script to connect Exchange Online with MFA
- PowerShell script to connect Office 365 PowerShell
- PowerShell script to connect O365 with MFA
- PowerShell script to connect Azure AD PowerShell
- PowerShell script to connect Azure AD PowerShell with MFA
- PowerShell script to connect SharePoint Online PowerShell
- PowerShell script to connect SharePoint Online with MFA
- PowerShell script to connect SharePoint PnP PowerShell
- PowerShell script to connect SharePoint PnP PowerShell with MFA
- PowerShell script to connect Skype for Business PowerShell
- PowerShell script to connect Skype for Business with MFA
- PowerShell script to connect Teams PowerShell
- PowerShell script to connect Teams with MFA
- PowerShell script to connect Security and Compliance Center PowerShell
- PowerShell script to connect Security and Compliance Center with MFA
- Connect multiple Office 365 Services using PowerShell
- Disconnect all Office 365 Services at once

Connect to Exchange Online PowerShell:

To connect Exchange Online, run the below cmdlet.

```
./Connect0365Services.ps1 -Services ExchangeOnline
```

If you want to know detailed explanation about cmdlet, refer connect to Exchange Online PowerShell (https://o365reports.com/2019/08/22/connect-exchange-online-powershell/) blog.

Connect to Exchange Online PowerShell with MFA:

To connect Exchange Online PowerShell with MFA, you need Microsoft's "Exchange Online Remote PowerShell Module". Our script will install Exchange Online MFA module (After your confirmation), when you execute a script with -MFA switch and then connects Exchange Online using MFA.

```
./Connect0365Services.ps1 -Services ExchangeOnline -MFA
```

If you want to install module manually, you can refer Connect Exchange Online with MFA (https://o365reports.com/2019/04/17/connect-exchange-online-using-mfa/) blog.

Connect to Office 365 PowerShell:

To connect with the Microsoft Azure Active Directory Module for Windows PowerShell, run the below cmdlet.

```
./Connect0365Services.ps1 -Services MSOnline
```

Note: Above cmdlet will install MSOnline module if it is not installed already.

Connect to O365 PowerShell using MFA:

To connect with the Microsoft Azure Active Directory Module for Windows PowerShell with MFA, run the below cmdlet.

```
./Connect0365Services.ps1 -Services MSOnline -MFA
```

Note: Above cmdlet will install MSOnline module if it is not installed already.

Connect to Azure Active Directory PowerShell:

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To connect with the Microsoft Azure Active Directory PowerShell for Graph module, run the below cmdlet.

```
./Connect0365Services.ps1 -Services AzureAD
```

Note: Above cmdlet will install AzureAD module if it is not installed already.

Connect to Azure Active Directory PowerShell using MFA:

To connect with the Microsoft Azure Active Directory PowerShell with MFA, run the below cmdlet.

```
./Connect0365Services.ps1 -Services AzureAD -MFA
```

Note: Above cmdlet will install AzureAD module if it is not installed already.

Connect to SharePoint Online PowerShell:

To connect SharePoint Online using PowerShell, SharePoint Online Management Module is required. When you run a below cmdlet, it will ask for installing that module if it is not already installed.

```
./Connect0365Services.ps1 -Services SharePoint -SharePointHostName <Organizat
```

SharePointHostName used to connect SharePoint Online Administration Center. For admin@Contoso.onmicrosoft.com, organization name is Contoso.

Connect to SharePoint Online PowerShell with MFA:

To connect SharePoint Online PowerShell with MFA enabled account, run the below cmdlet.

```
./Connect0365Services.ps1 -Services SharePoint -SharePointHostName <Organizat
```

SharePointHostName used to connect SharePoint Online Administration Center. For admin@Contoso.onmicrosoft.com, organization name is Contoso.

Connect to SharePoint PnP PowerShell:

SharePoint Patterns and Practices (PnP) allows you to perform complex provisioning and artifact management actions in the SharePoint.

To connect SharePoint PnP using PowerShell, run a below cmdlet. It will ask for installing that module if it is not already installed.

```
./Connect0365Services.ps1 -Services SharePointPnP -SharePointHostName <Organi
```

SharePointHostName used to connect SharePoint Online Administration Center. For admin@Contoso.onmicrosoft.com, organization name is Contoso.

Connect to SharePoint PnP PowerShell with MFA:

To connect SharePoint PnP PowerShell with MFA enabled account, run a below cmdlet.

```
./Connect0365Services.ps1 -Services SharePointPnP -SharePointHostName <Organi
```

SharePointHostName used to connect SharePoint Online Administration Center. For admin@Contoso.onmicrosoft.com, organization name is Contoso.

Connect to Skype for Business Online PowerShell:

To connect Skype for Business Online PowerShell, you can use the below cmdlet.

```
./Connect0365Services.ps1 -Services Skype
```

Above cmdlet will install Teams PowerShell which has Skype for Business Online Connector integration. So, you can use *New-CSOnlineSession* cmdlet with the Teams PowerShell itself.

Note: Since Skype for Business Online Connector module is under deprecation, we have used Teams PowerShell to connect Skype for Business Online PowerShell. If you want to install Skype for Business Online Connector module, you can use below link to download the Module.

https://download.microsoft.com/download/2/0/5/2050B39B-4DA5-48E0-B768-583533B42C3B/SkypeOnlinePowerShell.Exe (https://download.microsoft.com/download/2/0/5/2050B39B-4DA5-48E0-B768-583533B42C3B/SkypeOnlinePowerShell.Exe)

Connect to Skype for Business Online PowerShell with MFA:

To connect Skype for Business Online PowerShell with MFA, you can use the below cmdlet.

```
./Connect0365Services.ps1 -Services Skype -MFA
```

Above cmdlet will install the Teams PowerShell which has the Skype for Business Online Connector integration. So, you can use *New-CSOnlineSession* cmdlet with the Teams PowerShell itself.

Connect to Teams PowerShell:

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To connect Teams PowerShell, it requires Microsoft Teams Module. When you run the below cmdlet, it will install Microsoft's Team PowerShell module and then connects to Teams.

```
./Connect0365Services.ps1 -Services Teams
```

Connect to Teams PowerShell with MFA:

To connect Teams PowerShell with MFA, run the below cmdlet.

```
./Connect0365Services.ps1 -Services Teams -MFA
```

Connect to Office 365 Security & Compliance Center PowerShell:

To manage Office 365 Security and Compliance Center from the PowerShell, run the below cmdlet

```
./Connect0365Services.ps1 -Services SecAndCompCenter
```

Connect to Office 365 Security & Compliance Center PowerShell with MFA:

To connect Office 365 Security & Compliance Center with MFA, you need Microsoft's "Exchange Online Remote PowerShell Module". Our script will install Exchange Online MFA module (After getting confirmation from you) when you execute a script with -MFA param and then connects Security & Compliance Center.

```
./Connect0365Services.ps1 -Services SecAndCompCenter -MFA
```

If you want to install module manually, you can refer Install Exchange Online Remote PowerShell Module (https://o365reports.com/2019/04/17/connect-exchange-online-using-mfa/#Install-Exchange-Online-PowerShell-Module) blog.

Connect Multiple Office 365 Services Using PowerShell:

If you want to connect multiple services, mention the required services by using -Services param.

```
./Connect0365Services.ps1 -Services AzureAD,ExchangeOnline
```

If you want to connect multiple Office 365 services with MFA, mention the required services with -MFA switch.

```
./Connect0365Services.ps1 -Services AzureAD,ExchangeOnline,Skype -MFA
```

After executing the script, connected services will be listed as shown in below screenshot.
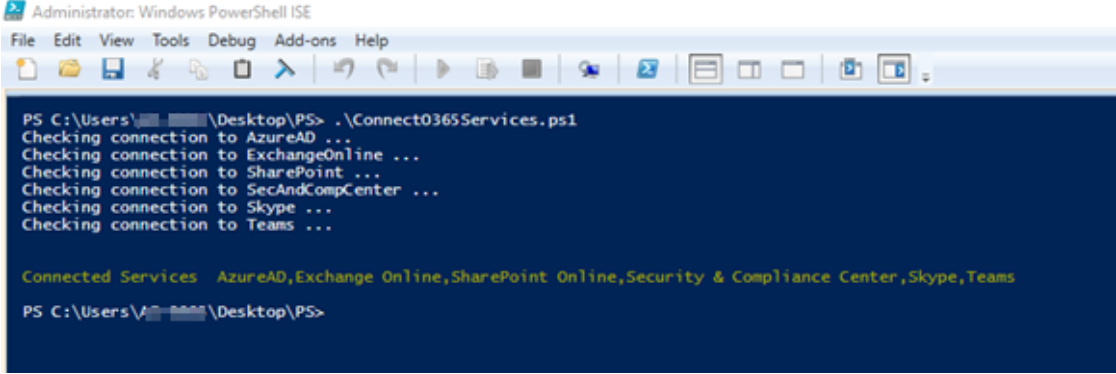
Now you have connected to Office 365 services and you can manage them through PowerShell.

Disconnect Office 365 Services:

Make sure to disconnect the remote PowerShell session when you're finished. Else you would end up using all remote PowerShell sessions available to you and you will get the following error.

New-PSSession : outlook.office365. com Processing data from remote server outlook.office365. com failed with the following error message: Fail to create a runspace because you have exceeded the maximum number of connections allowed: 10 for the policy party: MaxConcurrency. Please close existing runspace and try again.

To disconnect all the Office 365 PowerShell session in the current window, run the below command.

```
./Connect0365Services.ps1 –Disconnect
```

I hope this blog can help you to create a PowerShell session to Office 365 services. If you face any issues during connection, share with us through the comment section.

Even if you face any other challenges in Office 365 Environment or in need of any PowerShell scripts related to Office 365, let us know in the comment section. Happy Scripting!

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Name

Teis Spang Jensen • a day ago

Hello fellos,

why is there no "-MFA" paramenter on the connect to Skype with MFA?

∧ | ∨ • Reply • Share ›

> **KathyCooper** Mod → Teis Spang Jensen • a day ago
>
> Hi Teis Spang Jensen,
> We have added -MFA param in the connect to Skype with MFA code. Thanks for letting us know.
>
> ∧ | ∨ • Reply • Share ›

Charlie Pearce • 8 months ago

Hi - thanks for this, this looks very handy and just what I need. But will this help when I have scripts to run that can often have to run overnight? I'm finding that my session times out and the script starts to fail after an hour

∧ | ∨ • Reply • Share ›

> **KathyCooper** Mod → Charlie Pearce • 8 months ago
>
> Hi Charlie Pearce,
>
> Which PowerShell module are you using in your script? Is the admin account MFA enabled? Also, please share the screenshot of the error to understand your issue better.
>
> ∧ | ∨ • Reply • Share ›

Thomas Balder • a year ago

Very nice, thanks! Could you update the script for use with the proper Azure AD module? When you connect to AzureAD, you still use the MSOL service, same as Exchange online.

I changed the script to import the proper module (after I installed it), but it breaks over line 134 "(Get-MsolUser -MaxResults 1)" Because Get-AzureADuser does not have the -maxresults parameter as far as I can tell. So it -does- connect properly, but it just doesn't say it in the "connected services" part.

∧ | ∨ • Reply • Share ›

> **KathyCooper** Mod → Thomas Balder • 20 days ago
>
> Hi Thomas Balder,
> We have included AzureAD module in the script. You can download and use the latest version.
>
> ∧ | ∨ • Reply • Share ›

> **KathyCooper** Mod → Thomas Balder • a year ago
>
> Hi Thomas,
>
> Thank you for your feedback. We will include AzureAD module in next version.
>
> ∧ | ∨ • Reply • Share ›

Owen Allen • a year ago

Hi Kathy (O365 Reports) - When you assign the SharePoint host name for the SharePoint Online admin center, the entry fails if more than one domain is registered in the tenant. Adding a simple test for more than one domain name and them prompting for the desired hostname would probably fix it.

∧ | ∨ • Reply • Share ›

> **KathyCooper** Mod → Owen Allen • a year ago
>
> Hi Owen,
> We are assigning SharePoint host name from <your domain="">.onmicrosoft.com account. What is your SharePoint admin center host name? Is it differ from your onmicrosoft.com account?
>
> ∧ | ∨ • Reply • Share ›

> > **Owen Allen** → KathyCooper • a year ago
> >
> > I understand where you are trying to retrieve the name from, but the line of code you are using fails if the tenant has one or more additional domain names associated with it.
> >
> > ∧ | ∨ • Reply • Share ›

> > > **KathyCooper** Mod → Owen Allen • a year ago
> > >
> > > Hi Owen,

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