# Office 365 from PowerShell Project

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## 1 Introduction

This project utilizes AzureAD PowerShell Module to provide the functionality of managing Office 365 tenants from PowerShell. By using cmdlets provided by the module, managing Office 365 can just be done through PowerShell command line interface and gives better approach for IT administrator for managing tenants in large scale.

# 2 Connecting to Office 365 from PowerShell

#### 2.1 Install AzureAD Module

Connection to Office 365 can be done via integrating AzureAD PowerShell Module in the PowerShell. Steps required for the implementation are discussed below:

1. Install the AzureAD PowerShell Module.

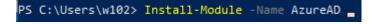


Figure 1: Installing AzureAD PowerShell Module

2. Import the AzureAD module.

PS C:\Users\w102> Import-Module -Name AzureAD

Figure 2: Import AzureAD module

#### 2.2 Connecting to Office 365

After AzureAD Powershell Module has been loaded in PowerShell, the connection now can be made with the following steps:

Figure 3: Create Connection to AzureAD

#### 2.3 Tips for Better Approach

A better and faster approach connecting to Office 365 is by saving credential inside an encrypted xml document. This can be done via:

```
PS C:\Users\w102> Get-Credential | Export-Clixml C:\Scripts\azuread_cred.xml cmdlet Get-Credential at command pipeline position 1 Supply values for the following parameters: Credential
```

Figure 4: Save AzureAD credential in an XML file

By saving password in an XML file, there's no need to re-input credentials when running a PowerShell script. Since the password is encrypted, hard-coded password inside a script is no longer needed which is a big plus.

# 3 Managing Office 365 Users

### 3.1 Managing Users

Several useful cmdlets can be scripted to view and manage users in tenant (Figure 5).

#### 3.2 Create New Office 365 User

Creation of new Office 365 user can be done via the following (Figure 6):

```
# View all users in tenant
     Get-AzureADUser
 2
 3
     # View specific user with its properties
     Get-AzureADUser -ObjectId m4120@vip365.link | Format-List
     # Modify User Properties
 8
     Set-AzureADUser
     -ObjectId m4120@vip365.link '
     -City "Kuala Lumpur"
10
     -Country "Malaysia" `
-JobTitle "IT Manager"
11
12
     -Department "IT"
13
```

Figure 5: Example managing tenant users

```
# 1. Create password object
     $PasswordProfile= New-Object
     -TypeName Microsoft.Open.AzureAD.Model.PasswordProfile
     $PasswordProfile.Password= "testPassw0rd"
     $PasswordProfile.ForceChangePasswordNextLogin= $true
     # 2. Create User
     New-AzureADUser
 8
     -GivenName "John"
 9
     -Surname "Terry" `
-DisplayName "John TERRY" `
10
     -UserPrincipalName "johnTERRY@vip365.link" `
12
     -MailNickname "johnTERRY"
-AccountEnabled $true
13
14
     -PasswordProfile $PasswordProfile `
15
     -JobTitle "IT Help Desk"
16
     -Department "IT
```

Figure 6: Create new user in Office 365 tenant

## 3.3 Managing User Licenses

Examples of managing Office 365 user licenses in PowerShell are presented in Figure 7.

#### 4 Office 365 SharePoint

#### 4.1 View SharePoint sites in Tenant

The following PowerShell code snippet in Figure 8 illustrate method of view all available SharePoint page in the tenant.

```
1 □<# 1. View all subscribed licenses in tenant with their
 2
    current availability #>
 3
      Get-AzureADSubscribedSku
     Select-Object
 4
      -Property ObjectId, SkuPartNumber, ConsumedUnits `
     -ExpandProperty PrepaidUnits
     # 2. Assigning license to a user
 8
     # 2.1 Defining parameters
10
     $user= Get-AzureADUser -ObjectId john@link123
$sku= New-Object -TypeName Microsoft.Open.AzureAD.Model.AssignedLicense
$license= New-Object -TypeName Microsoft.Open.AzureAD.Model.AssignedLicense
11
12
13
14
      # 2.2 Get license SkuID value
15
     Get-AzureADSubscribedSku | Select-Object -Property SkuPartNumber, SkuID
16
17
     # 2.3 Attach the license attribute to parameters
$sku.SkuId= "c7df2760-2c81-4ef7-b578-5b5392b571df" # example SkuID
18
19
     $licenses.AddLicenses= $sku
20
21
22
      # 2.4 Assigned user the license
     Set-AzureADUserLicense -ObjectId $user.ObjectId -AssignedLicense $licenses
```

Figure 7: Example assigning user a license

```
1 Get-SPOSite | Select Url, Title, Template
```

Figure 8: View available SharePoint site

#### 4.2 Create a SharePoint Site with PowerShell

A new SharePoint site can be made easily in PowerShell with preceding code example in Figure 9.

```
New-SPOSite
Purl https://office365powershell.sharepoint.com/teams/IT
Owner vlink-admin365@office365powershell.com
Storagequota 1024
LocaleID 1033
Template "STS#0"
Title "IT Team Site"
```

Figure 9: Create SharePoint site with PowerShell

## 4.3 Viewing Groups and Users of SharePoint Site

Viewing all groups and users of a specific SharePoint site can be done as follows:

```
$site= Get-SPOSite '
-Identity https://office365powershell.sharepoint.com/teams/IT

$groups= Get-SPOSiteGroup -Site $site

Foreach ($group in $groups) {
    Write-Host $group.Title -ForegroundColor "Blue"
    Get-SPOSiteGroup -Site $site -Group $group.Title |
    Select -ExpandProperty Users
    Write-Host # output empty line '\n'
}
```

Figure 10: List groups and users of a SharePoint site