

Configuring the Promodag Reports Application in Microsoft Entra ID

This document describes the steps involved in creating and configuring the “Promodag Reports RBAC Application” in Microsoft Entra ID, along with its certificate, using the CreateRepexRBACApp.ps1 PowerShell script to enable certificate-based authentication to Office 365.


Create the certificate and the Promodag Reports Application

Please follow these steps to create the Promodag Reports Application, the certificate, register them in Microsoft Entra ID and create a dedicated role group in Exchange Admin Center:

Prerequisites

The computer’s operating version must be greater than or equal to Windows 10/Windows Server 2016. Microsoft PowerShell 7 or higher is required.

The ExchangeOnlineManagement and Microsoft.Graph PowerShell modules should be installed on the computer. If they are not, please proceed with these steps:

1. Click  and search for PowerShell > Windows PowerShell 7 and run it as administrator.
2. Install the ExchangeOnlineManagement module: [Install-Module ExchangeOnlineManagement -Scope AllUsers](#)
3. Install the Microsoft.Graph module: [Install-Module Microsoft.Graph -Scope AllUsers](#)

Create the certificate and application using the provided script

These steps will enable you to create a self-signed certificate, an application in Microsoft Entra ID to access your tenant, and a role group in Exchange Admin Center.

1. The script is delivered by default in the C:\Users\Public\Documents\Promodag\Reports\ directory but you can use it from a different location.
2. Run the script: `.\CreateRepexRBACApp.ps1`
3. Enter certificate password at prompt and write it down.
4. The script will proceed, and you will be prompted to sign-in to Office 365 to create the role group and grant it the relevant permissions. Use a Global Administrator account.
5. A certificate valid for two years has now been created in the script directory with the name "RepexRBACAppCertificate.pfx". The application has been created in Microsoft Entra ID with the name "Promodag Reports RBAC Application", a role group with the name “Promodag Reports RBAC Role Group” has been created in Exchange Admin Center, a service principal object has been created for this new application and it has been added as a member of this new role group.
6. The script displays the summary information to be used in Promodag Reports: Application ID and certificate path, plus a link (*Authorization URL*) to connect to Microsoft Entra ID and authorize the newly created application. This information is then saved into a file in the current directory.

Promodag – v.3.0 – 11/26/2025

```
[INFO] Check Windows version: OK
[INFO] Check Microsoft Graph module: OK
[INFO] Check ExchangeOnlineManagement module: OK
Input certificate password, please: *****
[INFO] MS Graph connection established.
[INFO] Creating the client application (Promodag Reports RBAC Application)
[INFO] Creating the Service Principal for the client application (Promodag Reports RBAC Application)
[INFO] 'Administrator@promodagdev.onmicrosoft.com' added as an application owner to app 'Promodag Reports RBAC Application'
[INFO] Done creating the client application ()
[INFO] Getting API permissions for Microsoft Graph, Microsoft 365 Exchange Online, Microsoft 365 SharePoint Online
[INFO] Adding permissions.
[INFO] Please connect to Exchange Online.
[INFO] Exchange Online connection established.
[INFO] Role Group created.
[INFO] Service Principal created.
[INFO] Service Principal added to the Role Group.

-----
Your Promodag Reports application and certificate has been successfully generated.
-----

Tenant domain: promodag.dev
Tenant ID: 83b6c697-b53d-4f39-bea8-8629b304010e
Application name: Promodag Reports RBAC Application
Application ID: 83b6c697-b53d-4f39-bea8-8629b304010e
RoleGroup name: Promodag Reports RBAC Role Group
Service Principal name: SP for Promodag Reports RBAC Application
Certificate file: \RepexRBACAppCertificate.pfx
Certificate expiration: 06/06/2026 18:34:12

Copy the below URL and paste it into your browser to grant permission to the application:
URL: https://portal.azure.com/#blade/Microsoft_AAD_RegisteredApps/ApplicationMenuBlade/CallAnAPI/appId/83b6c697-b53d-4f39-bea8-8629b304010e/permissions/ExchangeOnlineManagement

A summary of these information has been saved in \RepexRBACAppCreation.log
```

Authorize this new application in Microsoft Entra ID

Grant admin consent

1. Paste the URL displayed in a web browser to connect to Microsoft Entra ID. Sign in using a Global Administrator account. The Promodag Reports RBAC Application | API permissions page opens.
2. Click **Grant admin consent for <name of your Office 365 tenant>**.
3. Review the permissions granted to the application.

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

+ Add a permission ✓ Grant admin consent for promodagdev

| API / Permissions name | Type | Description | Admin consent requ... | Status |
|--------------------------------|-------------|---|-----------------------|--------------------------------|
| Microsoft Graph (2) | | | | ... |
| Group.Read.All | Application | Read all groups | Yes | ✓ Granted for promodagd... ... |
| User.Read.All | Application | Read all users' full profiles | Yes | ✓ Granted for promodagd... ... |
| Office 365 Exchange Online (2) | | | | ... |
| Exchange.ManageAsApp | Application | Manage Exchange As Application | Yes | ✓ Granted for promodagd... ... |
| full_access_as_app | Application | Use Exchange Web Services with full access to all mailboxes | Yes | ✓ Granted for promodagd... ... |
| SharePoint (1) | | | | ... |
| Sites.Selected | Application | Access selected site collections | Yes | ✓ Granted for promodagd... ... |

Permissions granted to the Promodag Reports RBAC application (Microsoft Entra ID)

| What for? | Required permissions | Permission description |
|---|--|--|
| Import Office 365 licenses. | Microsoft Graph User.Read.All | Allows the application to read the full set of profile properties, group membership, reports and managers of other users in your organization, without a signed-in user. |
| Import group members faster than with PowerShell. | Microsoft Graph Group.Read.All | Allows the application to list groups, and to read their properties and all group memberships on behalf of the signed-in user. Also allows the app to read calendar, conversations, files, and other group content for all groups the signed-in user can access. |
| Run reports on mailbox and public folder content. | Office 365 Exchange Online full_access_as_app | Allows the application to have full access via Exchange Web Services to all mailboxes without a signed-in user. |
| Import the directory, create Office 365 message tracking files, import the storage size, Run reports on mailbox and mailbox folder permissions. | Office 365 Exchange Online Exchange.ManageAsApp | Allows the application to manage the organization's Exchange environment without any user interaction. This includes mailboxes, groups, and other configuration objects. To enable management actions, an admin must assign the appropriate roles directly to the app. |
| Publish reports onto a SharePoint Online library. | SharePoint Sites.Selected | Allows the application to access a subset of site collections without a signed in user. The specific site collections and the permissions granted will be configured in SharePoint Online. |

Exchange roles in the Promodag Reports RBAC Role Group (Exchange Admin Center)

| What for? | Required permissions | Role description |
|---|---|---|
| Import the directory, create Office 365 message tracking files, Import the size of mailboxes. | View-Only Recipients (Exchange Online). | Enables administrators to view the configuration of recipients, such as mailboxes, mail users, mail contacts, distribution groups, and dynamic distribution groups. |
| Import group members faster than with PowerShell. | Mail Recipients (Exchange Online). | Enables administrators to manage existing mailboxes, mail users, mail contacts, distribution groups, and dynamic distribution groups in an organization. |

Optional: You can delete the self-signed certificate and use your own if you prefer. See the help file, Replace or renew the certificate.

Apply "Promodag Reports RBAC Application" settings to Promodag Reports

Please make sure that you have retrieved the following information the first step:

- Application ID,
 - Certificate path,
 - Certificate password.
1. In Promodag Reports, go to **Tools > Options, Office 365 configuration**.
 2. Select Certificate-based authentication.
 3. Enter the Application ID and Certificate password in the corresponding fields.
 4. Enter the path to the .pfx certificate file in the corresponding field.
 5. Click the [Check validity](#) link to verify the certificate expiration date.
 6. Click the [Check connection](#) links to verify that Promodag Reports can connect to your tenant using the Microsoft Entra ID application and the certificate.