

Microsoft Graph Authentication VBO

User Guide

Document Revision 1.0

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1. Introduction

This document describes the VBO for generating access tokens for Microsoft's Graph API. Microsoft Graph is a RESTful web service interface that can be used to interact with Microsoft's cloud-based Office offerings such as OneNote, Excel, Sharepoint, etc. It supports using delegated and application access tokens.

You can find further details about Microsoft Graph authentication mechanism at the following link:

https://docs.microsoft.com/en-us/graph/auth/

2. Prerequisites

Before using this integration, you must create a service account credential within your Microsoft 365 environment with sufficient permission to interrogate and manage user accounts. This involves creating an *App Registration* within your Azure Active Directory. Additionally set the API permissions as necessary depending upon the API actions that you plan to use.

Creation of the App Registration will provide you with the following items you will need to configure the Microsoft Graph Teams Authentication VBO within Blue Prism:

Required Credential Information

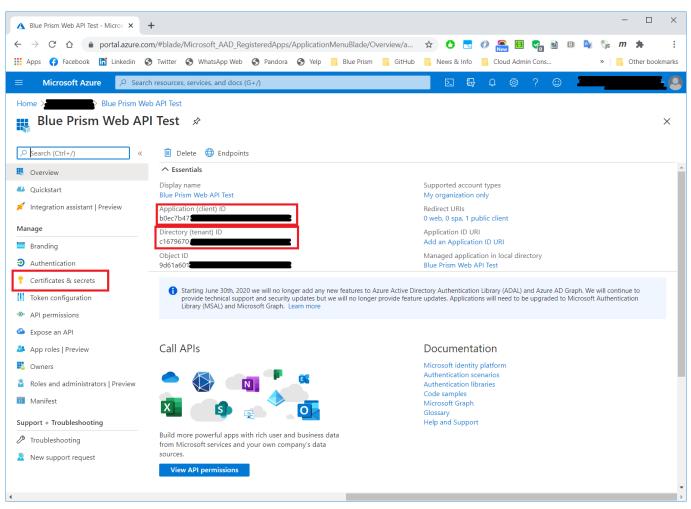
- Client ID
- Client Secret

Web API Service Definition Information

• Azure Tenant ID

| 🔥 blueprismdx - Microsoft Azure 🗙 🕂 | | | | - 🗆 × | | |
|-------------------------------------|--|---|-------------------|------------------------|--|--|
| ← → C ☆ 🌢 portal.azure.com | n/#blade/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/ | RegisteredApps 🛛 🛧 🖸 📃 🕖 👧 | | 🔩 🖏 m 🐅 🗄 | | |
| 🏢 Apps 😝 Facebook 🛗 Linkedin 🔇 | Twitter 🔇 WhatsApp Web 🔇 Pandora 🔇 Yelp 📙 | Blue Prism 📙 GitHub 🔜 News & Info 📙 Cloud Ad | dmin Cons | » 📙 Other bookmarks | | |
| | resources, services, and docs (G+/) | E 🗗 🗘 🕸 | ? 😳 | | | |
| Home > | | | | | | |
| Azure Active Directory | egistrations 🖈 | | | × | | |
| ~ | 🕂 New registration ⊕ Endpoints 🤌 Troubleshooti | ng 🛓 Download (Preview) 🕴 ♡ Got feedback? | | | | |
| 1 Overview | Welcome to the new and improved App registrations (no | w Generally Available). See what's new and learn more on ho | v it's changed. → | | | |
| 🚀 Getting started | • · · · · · · | | 5 | | | |
| Preview hub | | | | | | |
| X Diagnose and solve problems | Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure AD Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. Learn more | | | | | |
| Manage | (WSAL) and WIClosoft Graph. Learn Hore | | | | | |
| 🚨 Users | All applications Owned applications | | | | | |
| A Groups | | | | | | |
| External Identities | Start typing a name or Application ID to filter these res | ults | | | | |
| Roles and administrators | Display name | Application (client) ID | Created on | Certificates & secrets | | |
| Administrative units (Preview) | BP Blue Prism Web API Test | b0ec7b47- | . 6/23/2020 | 🕑 Current | | |
| Enterprise applications | | | | | | |
| Devices | | | | | | |
| App registrations | | | | | | |
| Identity Governance | | | | | | |
| Application proxy | | | | | | |
| Licenses | | | | | | |
| Azure AD Connect | | | | | | |
| Custom domain names | | | | | | |
| Mobility (MDM and MAM) | | | | | | |
| 🕈 Password reset 🔹 🔻 | | | | | | |

Figure 1 - Azure App Registration





| A Blue Prism Web API Test - Micros X - | + | | | - 🗆 × | | |
|--|---|--|--|-----------------------------|--|--|
| 🗧 🔶 C 🏠 🌢 portal.azure.com/#blade/Microsoft_AAD_RegisteredApps/ApplicationMenuBlade/Credentials/ 🛧 O 🚾 🖉 🦰 🗃 🕼 🕼 🕸 🗊 🌲 👔 | | | | | | |
| 🏥 Apps 😝 Facebook 🔚 Linkedin 🔇 | Twitter 🔇 WhatsApp Web 🔇 Pandora 🌘 | 🗿 Yelp 🔜 Blue Prism 🔜 GitHub 🔜 | News & Info 🗧 Cloud Admin Cons | » 📙 Other bookmarks | | |
| ■ Microsoft Azure | h resources, services, and docs (G+/) | | N 🕼 Q 🍪 ? 😳 🖥 | | | |
| Home > Home > Blue Prism Web | ^{b API Test} Test Certificates & secre | ts ☆ | | × | | |
| | ♡ Got feedback? | | | | | |
| 💐 Overview | | | service when receiving tokens at a web addressab | le location (using an HTTPS | | |
| 🗳 Quickstart | scheme). For a higher level of assurance, we n | ecommend using a certificate (instead of a c | client secret) as a credential. | | | |
| 💉 Integration assistant Preview | Certificates | | | | | |
| Manage | Certificates can be used as secrets to prove th | Certificates can be used as secrets to prove the application's identity when requesting a token. Also can be referred to as public keys. | | | | |
| 🔤 Branding | ↓ Upload certificate | | | | | |
| Authentication | Thumbprint | Start date | Expires | | | |
| 📍 Certificates & secrets | No certificates have been added for this appli | cation | | | | |
| Token configuration | No certificates have been added for this appli | cation. | | | | |
| API permissions | | | | | | |
| Expose an API App roles Preview | Client secrets | | | | | |
| App roles Preview Owners | A secret string that the application uses to pre | | | | | |
| Roles and administrators Preview | + New client secret | | | | | |
| III Manifest | Description | Expires | Value | | | |
| Support + Troubleshooting | Client Secret | 12/31/2299 | j~E********* | <u>iii</u> | | |
| Troubleshooting | | | | • | | |
| New support request | | | | | | |
| | | | | | | |
| 4 | | | | | | |
| | | | | | | |

Figure 3 - Client Secret

Depending on the actions that you need to use, you need to grant application or delegated permissions as below -

| Search (Ctrl+/) | × | 🖒 Refresh 🔰 🗢 Got feedback? | | | | | |
|--|----------|--|---------------|-----------------------------------|-------------------|---------------------------|-----|
| R Overview | A | | | | | | |
| QuickstartIntegration assistant | | i The "Admin consent required" column shows the default value for an organization. However, user consent can be customized per permission, user, or app. This column x may not reflect the value in your organization, or in organizations where this app will be used. Learn more | | | | | |
| Manage | | Configured permissions | | | | | |
| 🗮 Branding | | 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 | | | | ould | |
| ∂ Authentication | | | | | | | |
| 📍 Certificates & secrets | | + Add a permission 🗸 Grant a | admin consent | for testblueprism | | | |
| Token configuration | | API / Permissions name | Туре | Description | Admin consent req | Status | |
| ➔ API permissions | | ✓ Microsoft Graph (182) | | | | | ••• |
| Expose an API | • | AccessReview.Read.All | Delegated | Read all access reviews that user | can access Yes | Granted for testblueprism | |



3. Configuration

This asset has been made available as a Blue Prism release file. To use the asset you must import the .bprelease file which contains the following:

- VBO
 - Microsoft Graph Authentication

The Graph API actions can work using delegated permission or application permission. Both requires a token to be generated separately. Use the VBO **Microsoft Graph – Teams Authentication** to retrieve the relevant access token and pass it into the relevant Graph Web API as Bearer access token in the Authentication Header when making the call.

For retrieving Application Access Token, pass in the TenantID, ClientID and ClientSecret as input parameters.

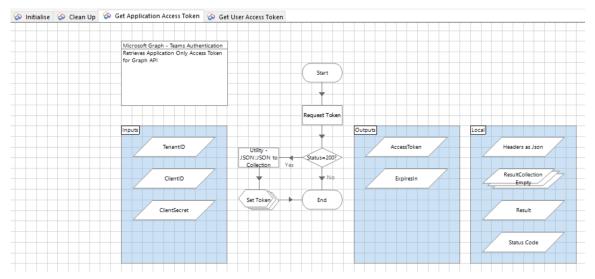
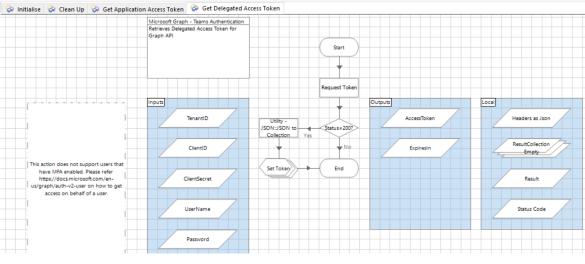


Figure 5 – Application Access Token

For retrieving Delegated Access Token, pass in the TenantID, ClientID, ClientSecret, UserName and Password as input parameters.





4. Actions

4.1 Get Application Access Token

Retrieves Application Only Access Token for Graph API

| Parameter | Direction | Data Type | Description |
|----------------------|-----------|-----------|---|
| TenantID In Text 1 | | Text | TenantID of the organization |
| ClientID In | | Text | Client ID of the Azure app |
| ClientSecret | In | Password | Secret Key for the Azure app |
| AccessToken | Out | Password | AccessToken for Graph API authorization |
| ExpiresIn Out Number | | Number | Token Expiration time interval |

4.2 Get Delegated Access Token

Retrieves Delegated Access Token for Graph API

| Туре | In | Text | Set to either 'users', 'groups', or 'sites'. |
|----------------------|-----|----------|--|
| TenantID In Text | | Text | TenantID of the organization |
| ClientID In 1 | | Text | Client ID of the Azure app |
| ClientSecret In | | Password | Secret Key for the Azure app |
| UserName | In | Text | Username of the user granting access |
| Password | In | Password | Password of the user granting access |
| AccessToken | Out | Password | AccessToken for Graph API authorization |
| ExpiresIn Out Number | | Number | Token Expiration time interval |

5. Support

This asset is provided free-of-charge by Blue Prism. Blue Prism does not provide formal support of this asset. Please direct any questions you have, related to this asset, to the Digital Exchange Community page:

https://community.blueprism.com/communities/community-home?CommunityKey=1e516cfe-4d1f-4de9a9eb-58d15bf38c81