Configure multiple DeepL subscriptions under one instance of Microsoft Azure AD with SAML 2.0 SSO

This guide is designed to help configure multiple DeepL subscriptions under a single instance of Microsoft Azure Active Directory (AAD) using SAML 2.0 Single Sign-On (SSO). The document provides a detailed, step-by-step process to achieve this integration, leveraging AAD's multi-Assertion Consumer Service (ACS) capability.

Context

Companies with different DeepL subscriptions may need to integrate these with a Single Sign-On (SSO) system towards a single Identity Provider (IdP). This setup is useful for companies with different child companies, each requiring separate user and administrator management for privacy or administrative reasons.

Pre-requisites

- A working instance of Microsoft Azure Active Directory P1, P2, or superior.
- Approved SSO domains for the DeepL subscriptions.

Procedure Summary

1. Configure a single DeepL SAML Application in AAD: Add multiple ACS URLs, each corresponding to a separate DeepL subscription.
2. User Access via SP-Initiated Login: Users log in via DeepL's SSO domain or the "Continue with SSO" option on the DeepL login page.

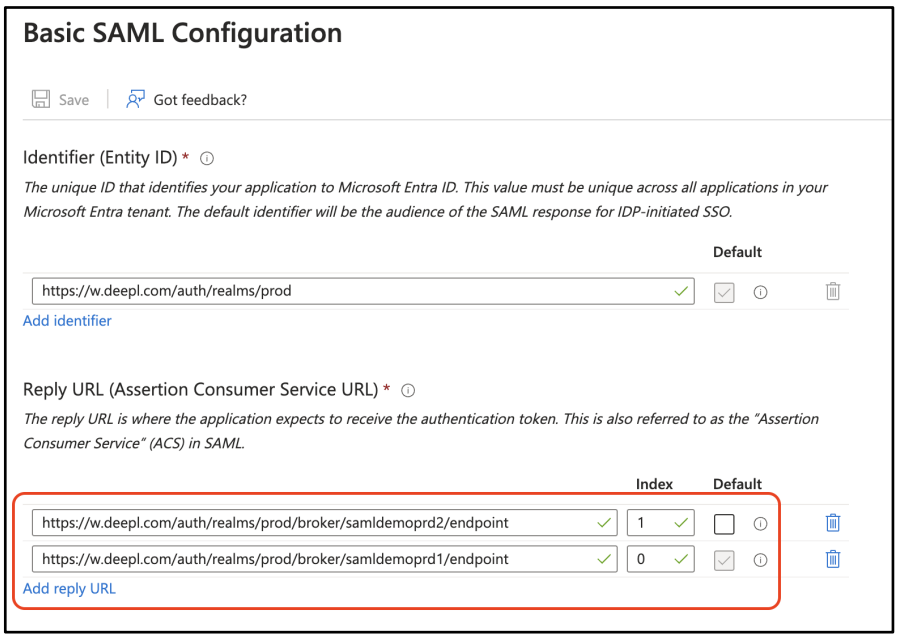
Currently DeepL doesn't support IdP-Initiated SSO login. Therefore, even though this configuration requires defining a "default" ACS URL for the enterprise application -so AAD can select where to route the user when the login is initiated from there IdP- this setting will not have any practical effect since all SSO logins in DeepL need to be SP-initiated.

Step-by-Step Configuration

Step 1: Create an Enterprise Application in AAD

Step 2: Configure SAML SSO

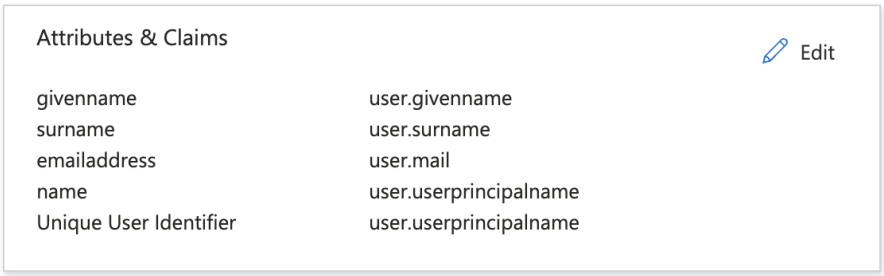
1. **Set ACS URLs**: Enter the ACS URLs for each DeepL subscription.
    - ACS URL format: https://w.deepl.com/auth/realms/prod/broker/{alias}/endpoint
    - Where {alias} is the DeepL subscription's SSO domain without the .sso.deepl.com suffix.
2. **Entity ID**: https://w.deepl.com/auth/realms/prod
3. **Default ACS URL**: Select one ACS URL as the default. This setting is primarily for IdP-Initiated login, which is not used in this setup.



4. **Other Settings**:
    - Sign-on URL: Not required.
    - Relay State: Not required.
    - Logout URL: Not required.

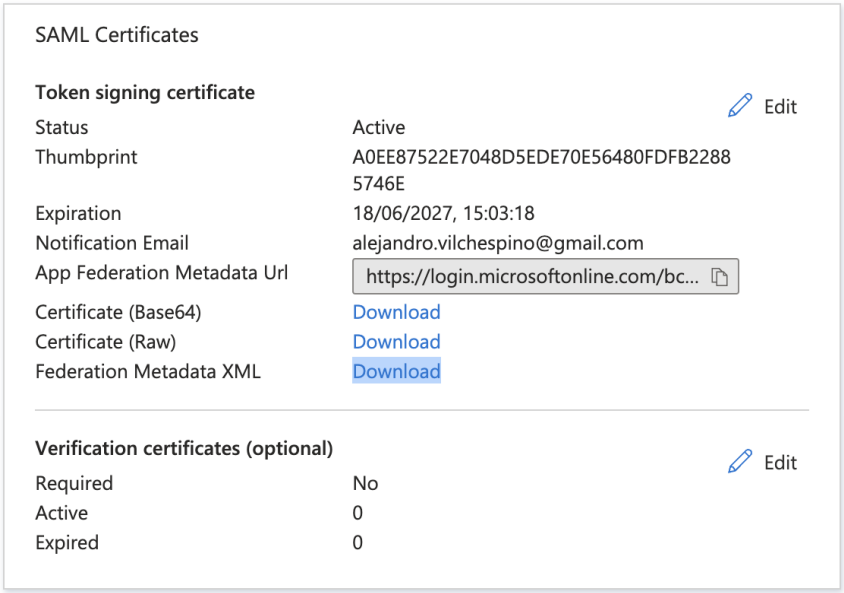
5. Attributes & Claims: Use AAD's default configuration as since our typical configuration maps the AAD attributes as:

AAD's source Attribute	DeepL's target attribute
Email, in email format	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress
User's first name	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/givenname
User's email address	http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress
User Identifier	Email

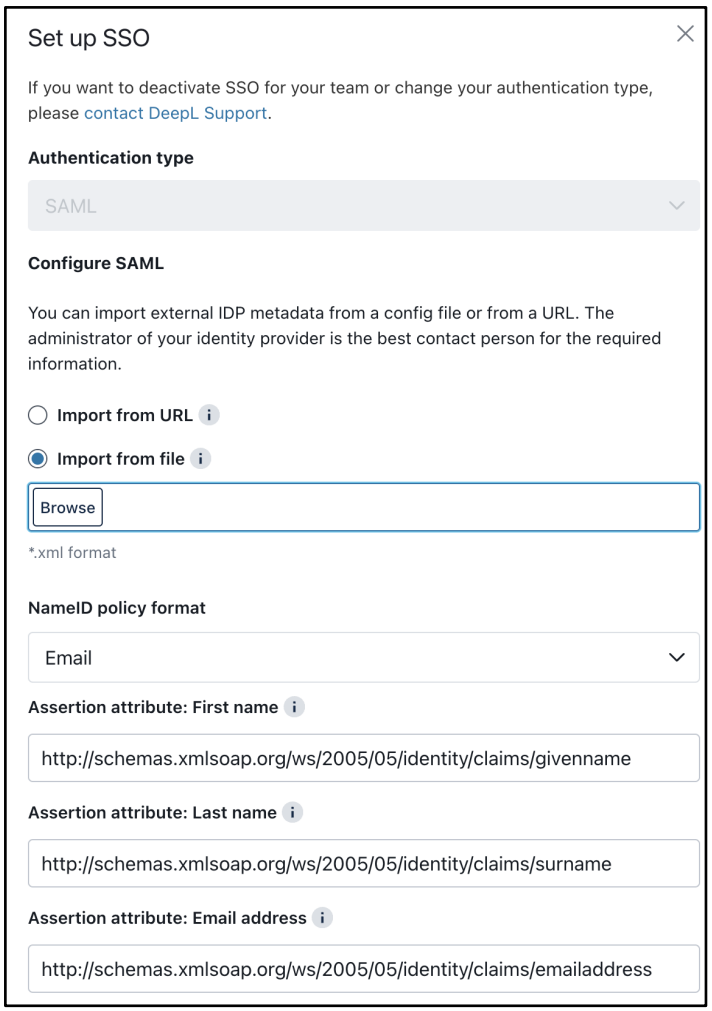


6. **Save changes.**

Step 3: Download the Federated metadata produced by AAD for the DeepL application



Step 4: Upload the metadata file obtained from AAD in each one of your DeepL subscriptions using the Import from file option. Save the changes.



You need to upload the same Federated metadata file in each one of the DeepL subscriptions you are setting up in your AAD, even though these subscriptions have different SSO domains.

Step 5: Grant access to users

1. Grant your users direct access to the DeepL Enterprise application you have created. You can also create a security group that represents each of the business units that will have access to the application to facilitate user management.

Step 6: Test SP-Initiated Login

1. **Login Process:**
    - Go to deepl.com > Login > Continue with SSO > Enter the company SSO domain.
        - *Result*: your DeepL user is created in the corresponding DeepL subscription for which you entered the SSO domain.
    - Use the specific DeepL SSO domain (e.g., company.sso.deepl.com).

Troubleshooting

- **Incorrect Subscription Assignment**:
    1. If a user is created in the wrong subscription, Administrators must:
        - Ask the user to log out from DeepL.
        - Get the user's DeepL account removed from the team subscription.
        - Ask the user to log in again using any of the SP-Initiated login methods making sure to log in to the right subscription.

Ensuring Users Access the Correct DeepL Subscription

When publishing the DeepL application on Azure AD's "MyApps" dashboard, two primary issues may arise:

1. **Default IdP-Initiated Login**: By default, the Enterprise application for DeepL created in AAD points to the IdP-Initiated login, which DeepL does not support.
2. **Routing to Default ACS URL**: Even if IdP-Initiated login were supported, the MyApps dashboard routes users to the default ACS URL, leading all users to be created in the subscription corresponding to the lowest index ACS URL.

Solution

To resolve these issues, create "dummy" DeepL application icons for each company and assign users accordingly. This ensures users see only the DeepL icon that points to their specific subscription.

Procedure

1. **Configure the Main DeepL Application**: Set it up as a normal enterprise application with SSO and multiple ACS URLs.
2. **Create Dummy DeepL Applications**: Create a dummy application for each subscription with a fixed SSO link.
3. **Assign Visibility**: Make each dummy application visible only to the users of the corresponding subscription.
4. **Hide the Main Application**: Hide the main DeepL application from all users to avoid displaying duplicate icons on the Azure MyApps dashboard.

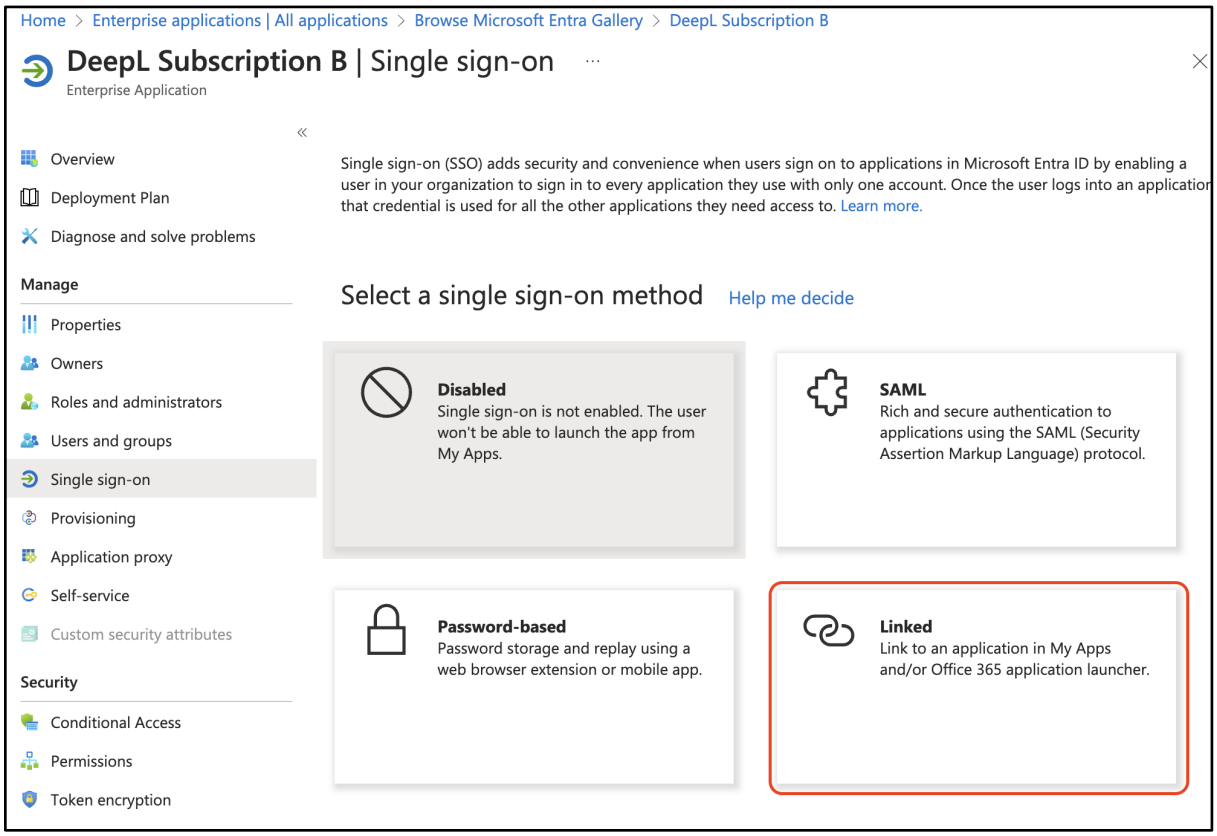
Step-by-Step Guide

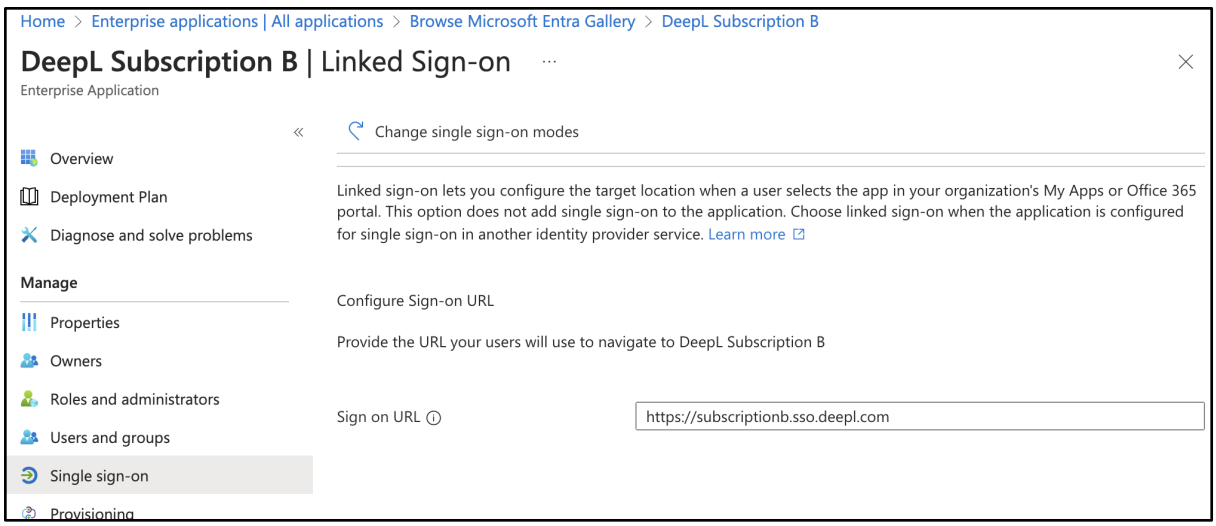
Prerequisite: All DeepL subscriptions have been configured with SSO against the same AAD instance as previously explained.

Steps

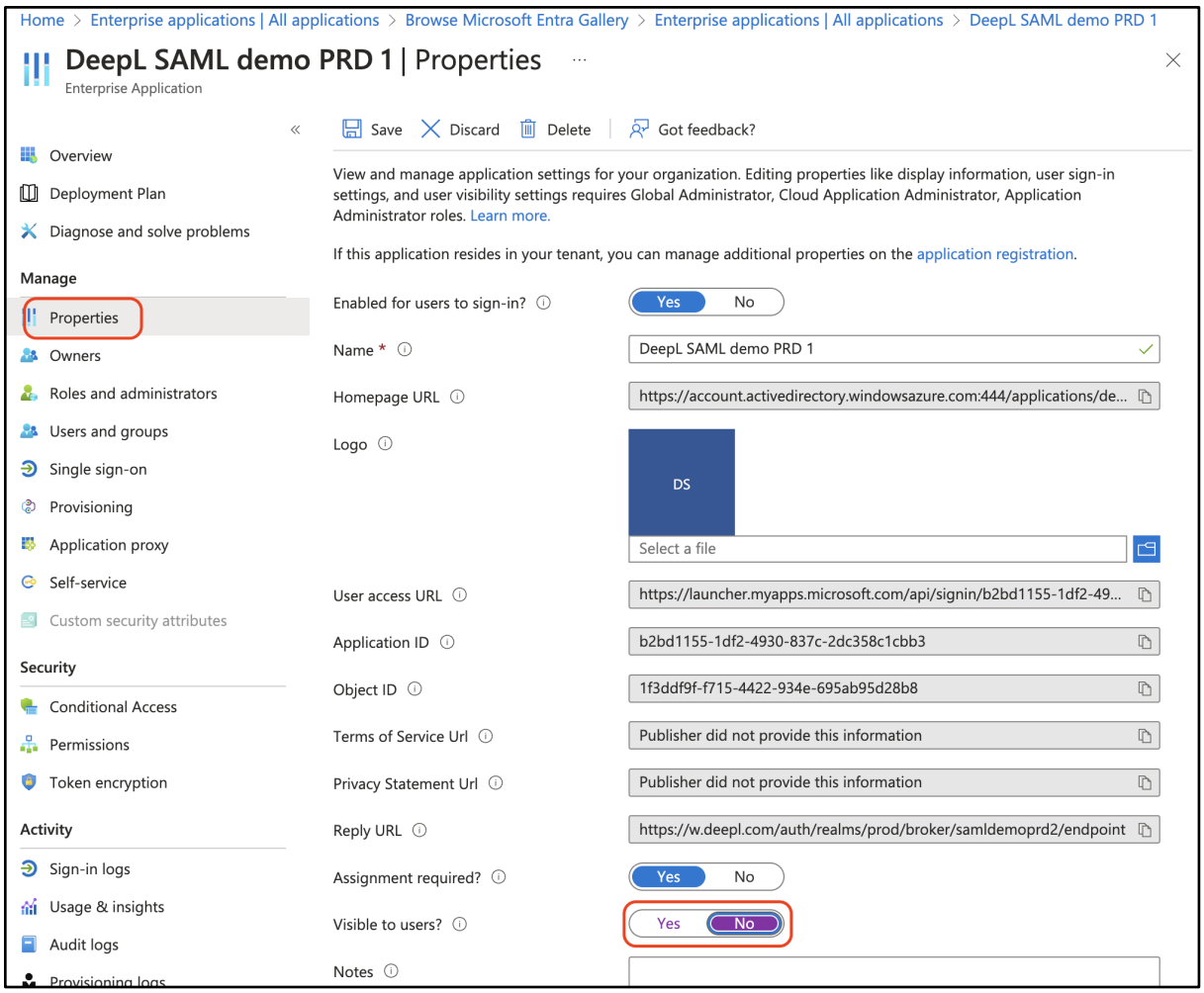
1. **Create a Dummy DeepL Enterprise Application**:
    - **Type**: Non-gallery application
    - **Name**: Use a descriptive name (e.g., “DeepL - Company B”) to simplify IT administration.

- **Single-Sign-On Method**: Select LINKED and enter the fixed URL to access the app, which will be the SSO domain URL for the specific subscription (e.g., company.sso.deepl.com).





2. **Grant Access to Users**:
   - Assign users to both the main and dummy applications corresponding to their company. Use security groups for easier management.
   - Is it critical that the user should be granted access to both the “main” application and the dummy application corresponding to her company
3. **Hide the Main Application**:
   - Go to Properties > Visible to users? > NO.
   - Save the changes to make the main app invisible to end-users, who will only see the dummy application for their company.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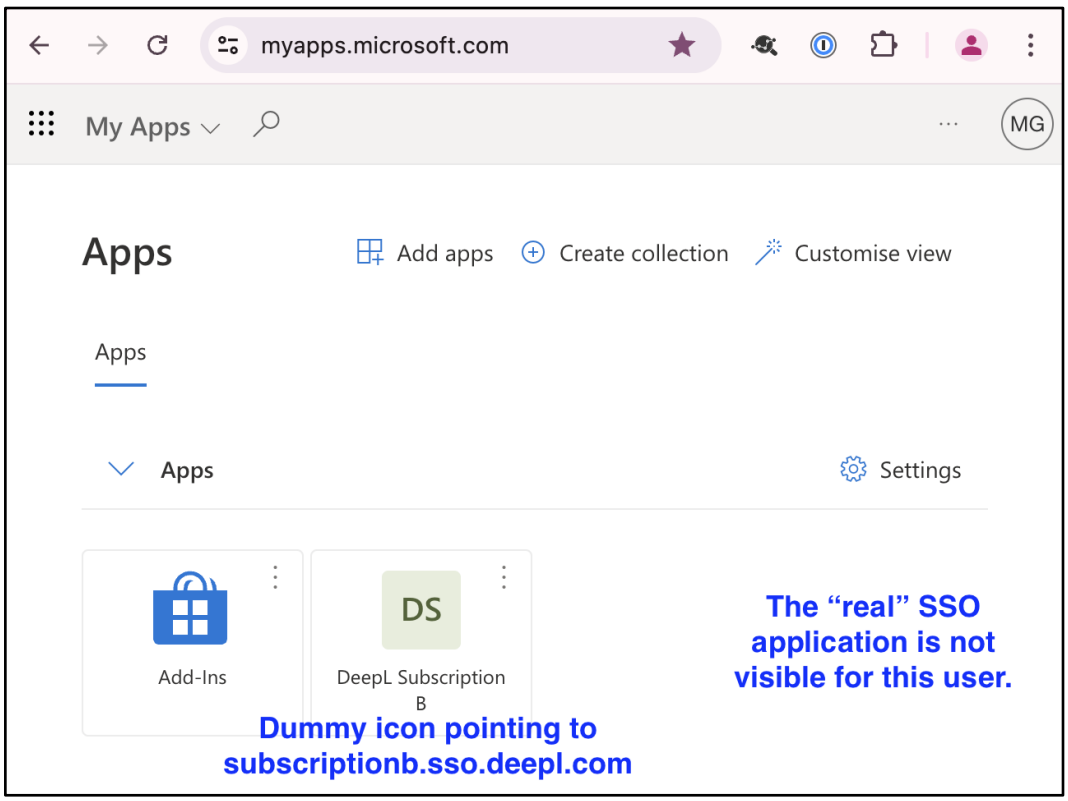
Single sign-on
Provisioning
Application proxy
Self-service
Custom security attributes
Security
Conditional Access
Permissions
Token encryption
Activity
Sign-in logs
Usage & insights
Audit logs
Provisioning logs
View and manage application settings for your organization. Editing properties like display information, user sign-in settings, and user visibility settings requires Global Administrator, Cloud Application Administrator, Application Administrator roles. Learn more.
If this application resides in your tenant, you can manage additional properties on the application registration.
Enabled for users to sign-in?
Yes
No
Name *
DeepL SAML demo PRD 1
Homepage URL
https://account.activedirectory.windowsazure.com:444/applications/de...
Logo
DS
Select a file
User access URL
https://launcher.myapps.microsoft.com/api/signin/b2bd1155-1df2-49...
Application ID
b2bd1155-1df2-4930-837c-2dc358c1cbb3
Object ID
1f3ddf9f-f715-4422-934e-695ab95d28b8
Terms of Service Url
Publisher did not provide this information
Privacy Statement Url
Publisher did not provide this information
Reply URL
https://w.deepl.com/auth/realms/prod/broker/samldemoprd2/endpoint
Assignment required?
Yes
No
Visible to users?
Yes
No
Notes


myapps.microsoft.com
My Apps
MG
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Add apps
Create collection
Customise view
Apps
Apps
Settings
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DS
DeepL Subscription B
Dummy icon pointing to subscriptionb.sso.deepl.com
The “real” SSO application is not visible for this user.

4. **User Creation in the Correct Subscription**:
    - Users will be created in the appropriate DeepL subscription after accessing the dummy application icon.
    - It doesn't matter which ACS URL is the default one in the SAML configuration, because we are forcing SP-Initiated login with the dummy icons on the Azure *My Apps* dashboard.