Eagle Eye Application Note - AN022

Configuring SSO in the Eagle Eye Cloud VMS Enhanced Web Interface

2025-01-30 Revision 2.0

Target Audience

This Application Note is intended for users of the Eagle Eye Cloud VMS, particularly those using the Enhanced Web Interface, who want to leverage the convenience and security of single sign-on (SSO) with common or custom Identity Providers (IdPs). Resellers can also configure SSO for their end users. Users of all Eagle Eye Cloud VMS Editions can log in with Microsoft or Google as an IdP, but Standard Edition users are limited to the following domains: msn.com, live.com, hotmail.com, outlook.com, gmail.com, een.com. Professional and Enterprise Edition users can log in via the IdP buttons even without SSO configured. Administrators always have the ability to log in directly.

Introduction

SSO (Single Sign-On) allows you to log in to multiple applications or services using just one set of login credentials. Instead of needing a separate username and password for each service, SSO lets you use a single identity to access everything. It simplifies login and increases security because you're managing fewer passwords.

Personal SSO (Google/Microsoft):

- Personal accounts like Google and Microsoft work as Identity Providers (IdPs) for SSO.
- Gmail or Outlook personal accounts are used to log in to other apps that support SSO.
- Personal SSO is mainly used for individual services, personal accounts, or smaller setups, where using a Google or Microsoft login adds convenience.

Corporate SSO Solutions (Okta/Azure):

- Okta or Microsoft Azure Active Directory (Azure AD) are designed for businesses.
- Okta or Azure AD allow companies to manage employee logins to various internal systems, apps, and cloud services from a central location.
- Okta and Azure AD offer more control, security, and integration options. Companies can enforce policies like multi-factor authentication (MFA) and easily manage services access.

- These systems are designed for large organizations where security, compliance, and scalability are crucial.

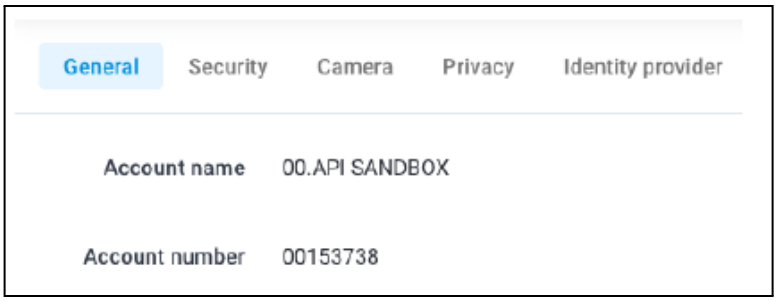
Key Differences:

- Personal SSO (Google/Microsoft): Great for convenience; designed for individuals or small-scale organizations.
- Corporate SSO (Okta/Azure): Designed for businesses, provides higher security, access control, and scalability for large teams.

Prerequisites

Before setting up SSO, you will need the following information depending on what method is being used (Google, Okta, Microsoft):

- Administrator privileges within the Eagle Eye Cloud VMS.
- Your Eagle Eye account ID (Account Number). Go to **Admin** > **Account Settings** > **General**.



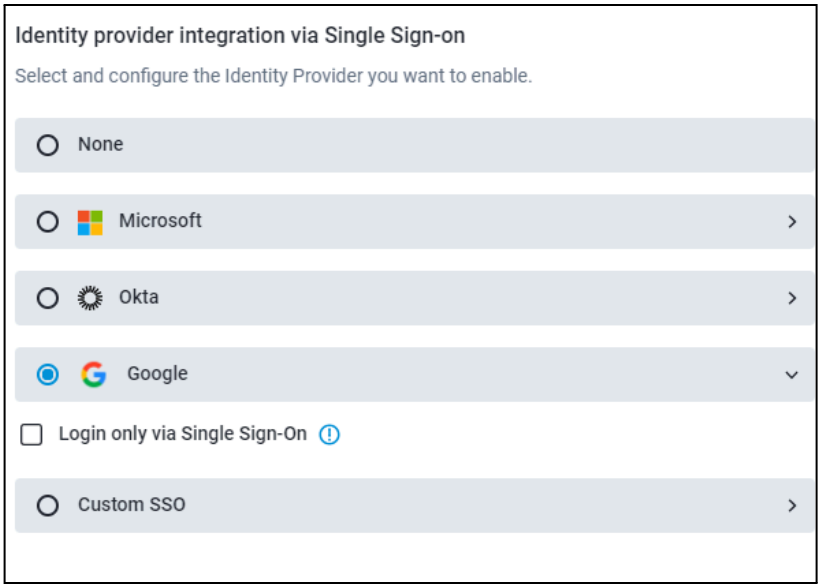
- <registration-id> is the Eagle Eye Account ID.
- <domain-branding> can be eagleeyenetworks.com, mobotixcloud.com, etc.
- <webapp-url> can be "https://webapp.eagleeyenetworks.com" (Based on the domain branding you can use different values for this and make sure values are URL encoded).
- The redirectUrl for the account by adding your account ID at the end of this redirectUrl: https://auth.eagleeyenetworks.com/login/oauth2/code/<account ID>

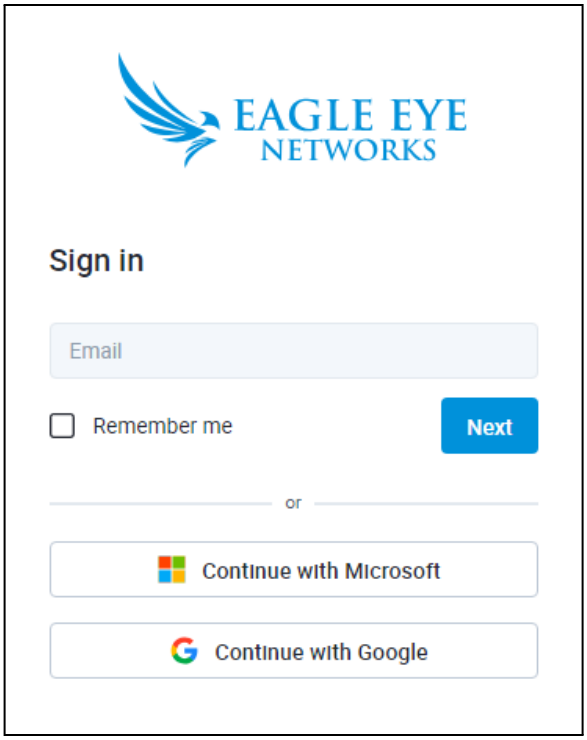
Note: If you do not have an account in Azure AD, register for a free account at https://azure.micrsoft.com. If you do not have an account in Okta, register for a free account at https://www.okta.com

Configuring Google IdP via SSO

Follow the steps in this section to configure Google SSO authentication in the Cloud VMS enhanced web interface.

1. Go to **Admin > Account Settings > Identity Provider** and select Google.



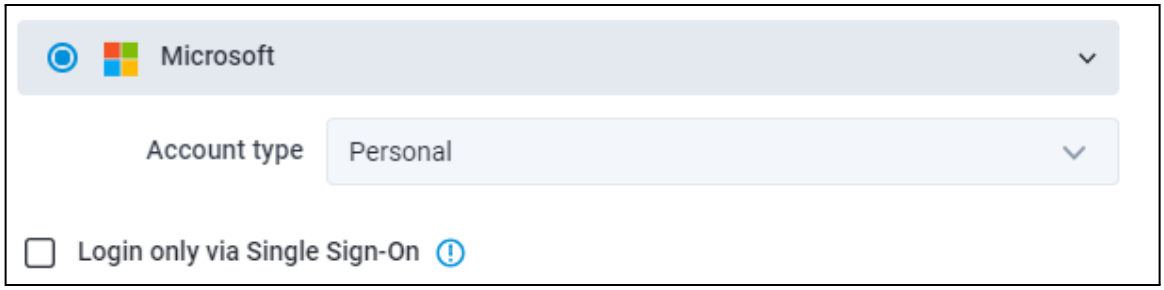


2. Leave the **Login Only via Single Sign-on** checkbox unchecked to allow non-administrator users to have the option to log on with a direct password or by clicking **Continue with Google** to login via SSO.

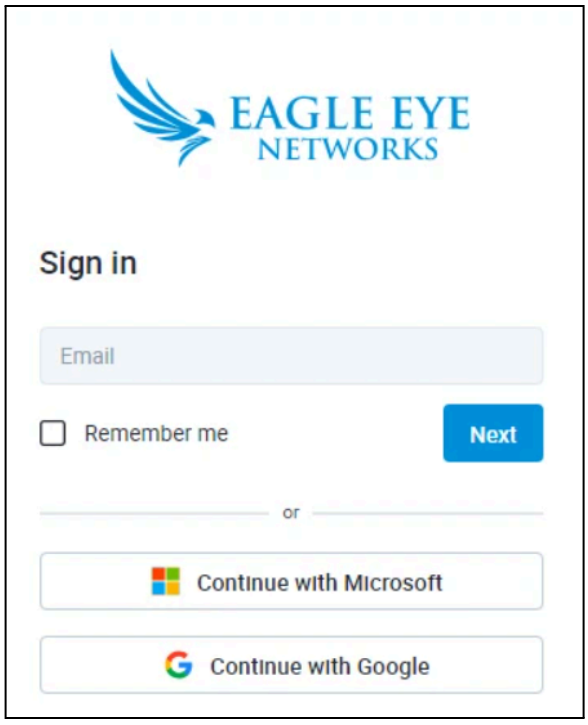
3. Check the **Login only via Single-Sign-On** box to prohibit non-administrator users from logging into the Cloud VMS with a direct password. By entering a non-administrator username and clicking **Next**, the user is automatically redirected to the Google IdP for authentication. Additionally, users can log in using the **Continue with Google** button in the login interface.

Configuring Microsoft IdP via SSO

1. Go to **Admin > Account Settings > Identity Provider** and select Microsoft.



2. Leave the **Login only via Single Sign-On** box unchecked to allow non-administrator users the option to log in with a direct password. They will also have the option to log in by clicking the **Continue with Microsoft** button in the login interface.

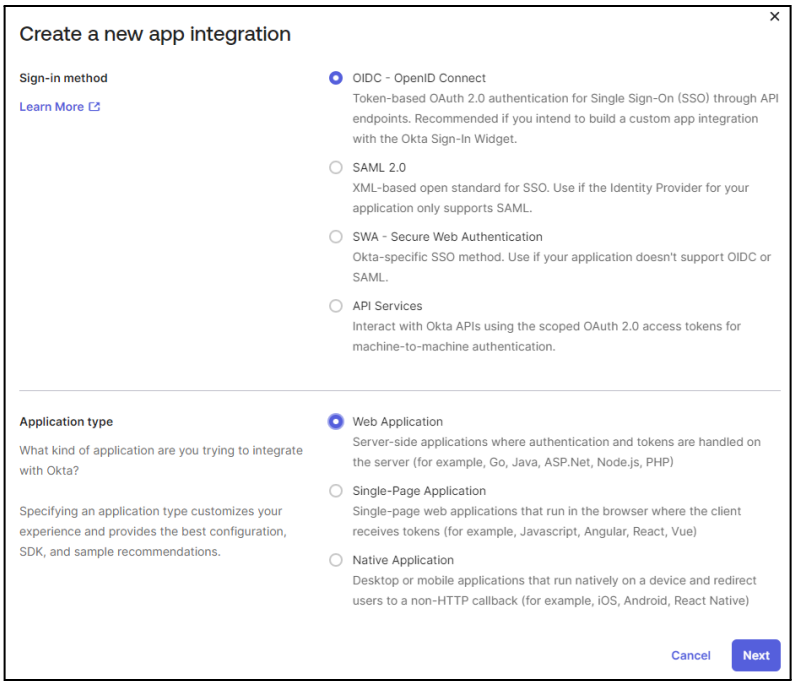


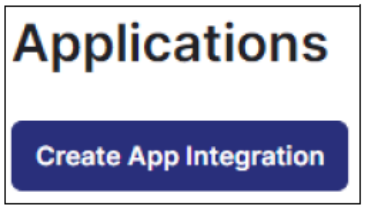
3. Check the **Login only via Single-Sign-On** box to prohibit non-administrator users from logging into the VMS with a direct password. By entering a non-administrator username and clicking **Next**, the user is automatically redirected to the Microsoft IdP for authentication. Additionally, users can log in using the **Continue with Microsoft** button in the login interface.

Configuring Okta IdP for Eagle Eye SSO

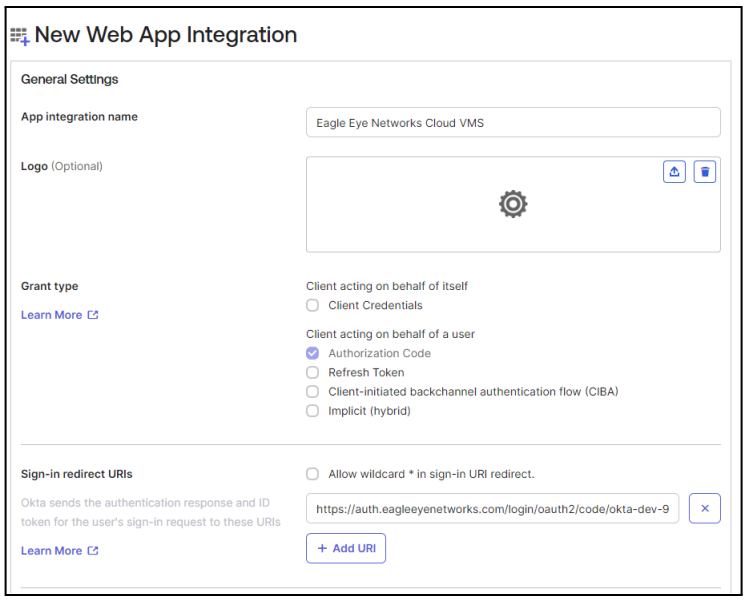
Obtaining a redirectUrl from Okta

1. Open your Okta administrator dashboard and select **Applications > Applications** from the left navigation menu. Click **Create App Integration**.
2. On the **Create a New App Integration** screen, select **OIDC** for Sign-in Method and **Web Application** for Application Type. Click **Next**.

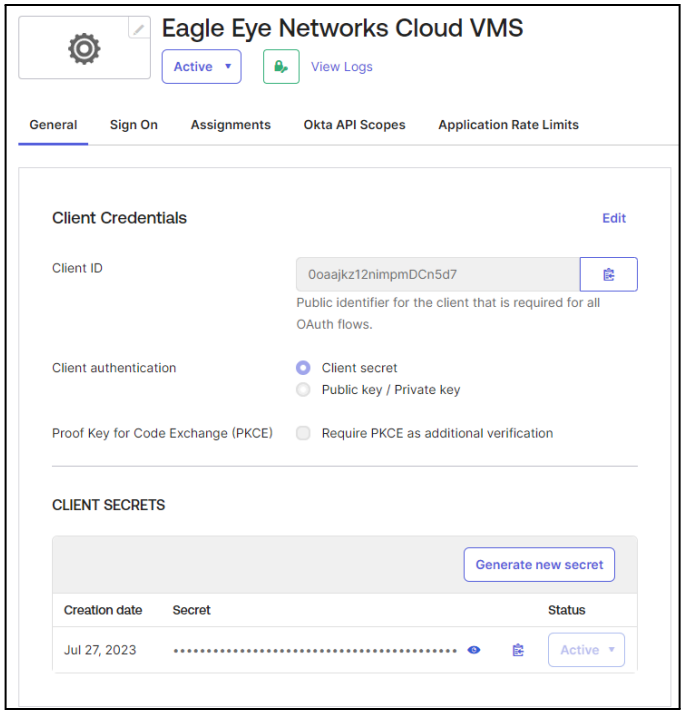




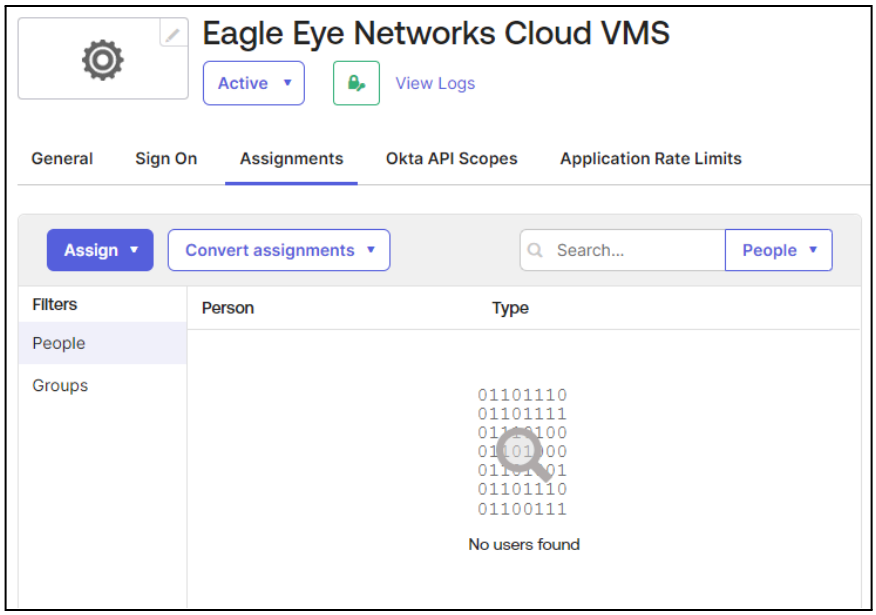
3. On the **New Web App Integration** screen, enter the name for your app integration name and the URL for Sign-in redirect URLs.



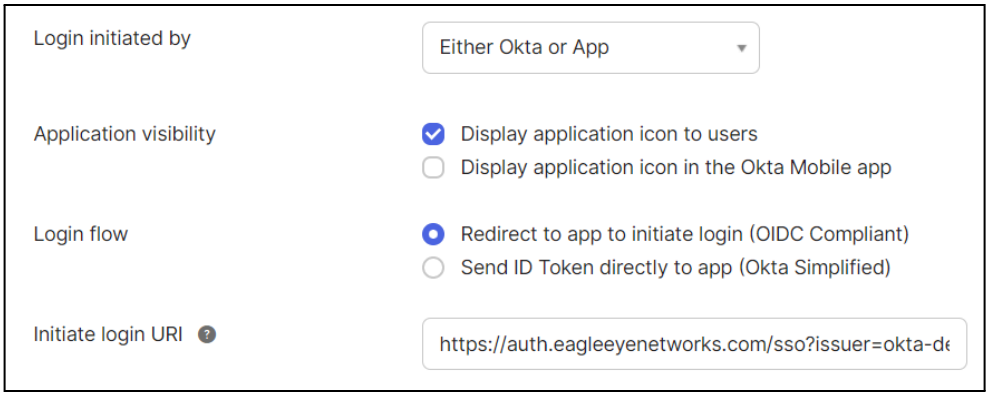
4. The Application Integration Information appears on the next screen. The **Client ID** and **Client Secret** information needed for configuring the Cloud VMS are found here.



5. On the **Assignments** tab, choose the people who can use this login option for the Cloud VMS.

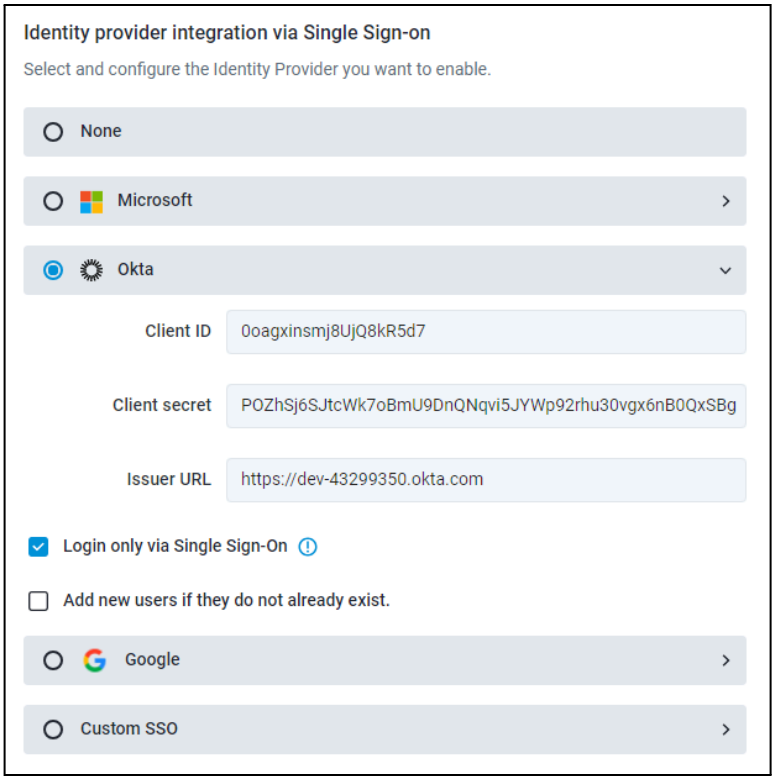


6. In order to use IdP-initiated login, make the following configurations on the **Application > General** tab.



In the **Initiate Login URL** box, enter:
https://auth.eagleeyenetworks.com/sso?issuer={registrationId}&target_link_uri={webapp_url}
The registrationId is your Eagle Eye account ID. Your login URL will be:
https://auth.eagleeyenetworks.com/sso?issuer=00000011&target_link_uri=https%3A//webapp.eagleeyenetworks.com

Configuring SP-initiated SSO settings for Okta
Note: Okta does not have a login link in the Cloud VMS.
The Okta settings are shown below:



Update the Client ID and Client Secret with the values from the Okta application created. For the Issuer URL, you can use the actual Okta domain **https://<your-okta-domain>.** (Do not include "/" at the end.).

SP initiated SSO flow

Log in to the application,

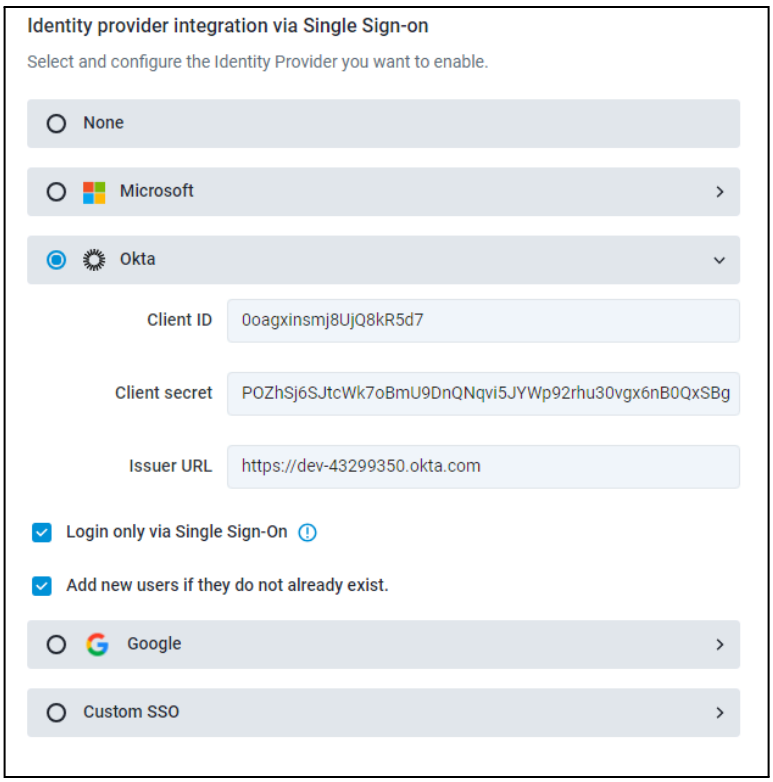
1. Provide a non-administrator user account at the identifier first page.
2. Log in with Okta and provide consent.

IdP initiated SSO flow

1. Go to **https://<your-okta-domain>/app/UserHome**.
2. Log in with a user who exists in your Eagle Eye Networks account with the same email.
3. Click the Application you created to be redirected to the application.

Configuring automated user provisioning for Okta

1. Check the **Add new users if they do not already exist** box in the **Identity Provider Integration via Single Sign-on** screen in the Cloud VMS.

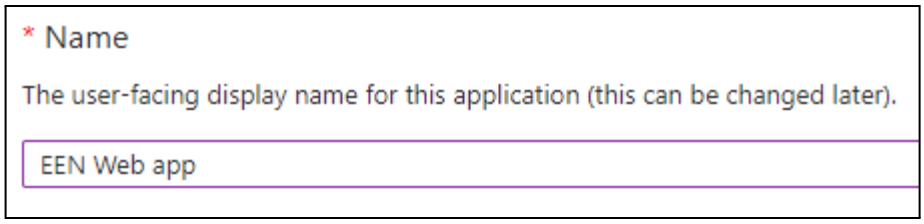


2. Log in to the application. Go to **https://<your-okta-domain>/app/UserHome**.
3. Log in with a user who does not exist in your Eagle Eye account with the same email.
4. Click the Application you created and you will be redirected to the application and auto-provisioned.

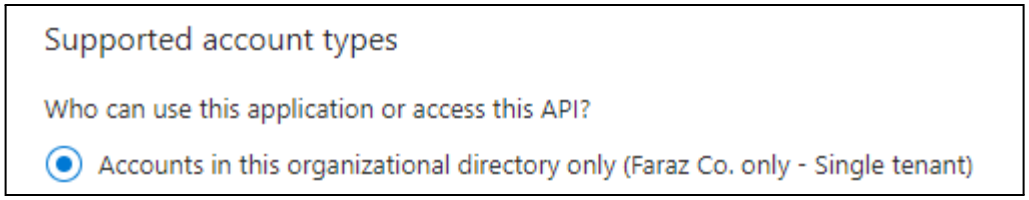
Configuring Azure Active Directory as the IdP

Configuring a new applications in Azure AD

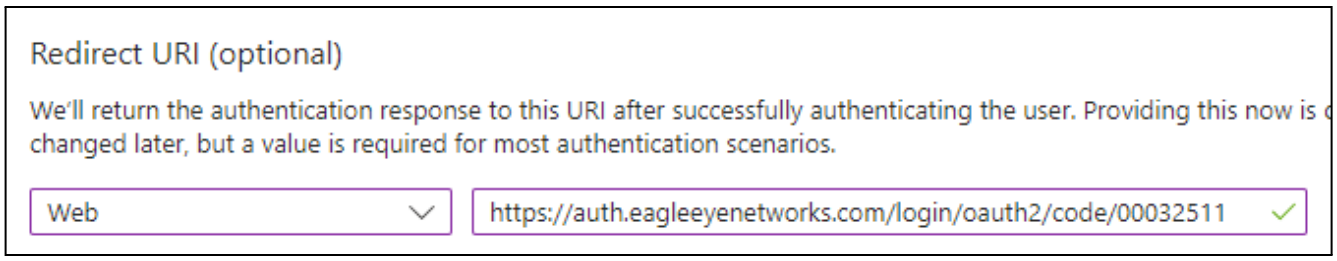
1. Log in to the Azure console (https://portal.azure.com/#home) and navigate to **Manage Microsoft Entra ID** (previously known as Azure ID).
2. Go to **App Registrations** in the left panel and create a new registration.
3. Provide the following information under the **Register an Application** wizard:
    a. Name the application.



    b. Set the Supported Account Type to **Accounts in this Organizational Directory Only**.

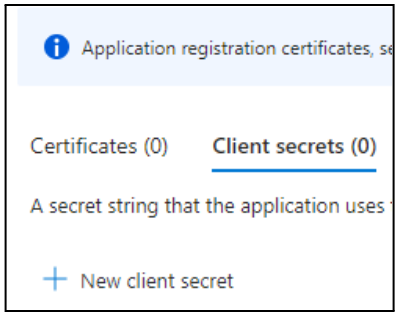


    c. Use the redirectURI as obtained in Prerequisites.

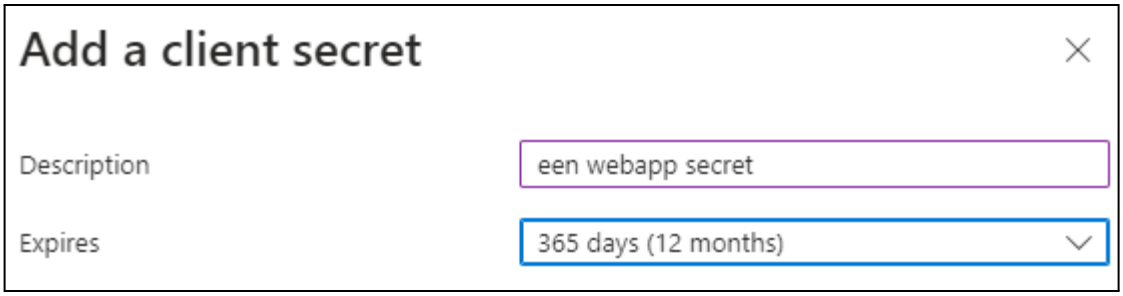


4. On the **Application Overview** screen, create a client credential using the **Add a Certificate or Secret** option.

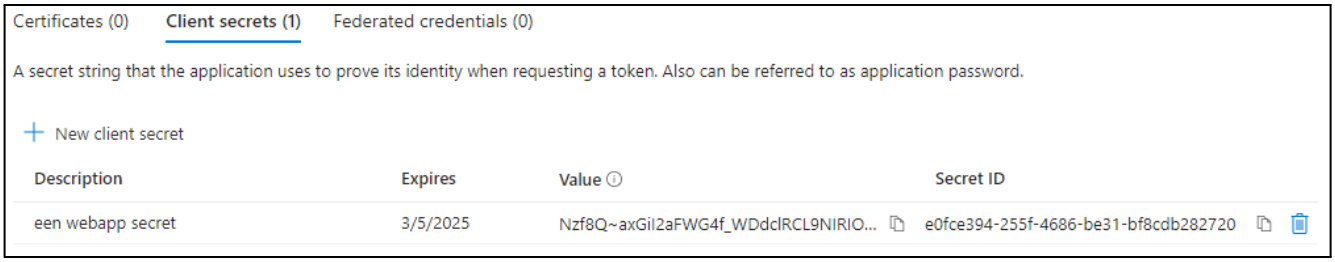
5. Click **New Client Secret**.



6. Enter a description of the secret and an expiration date.

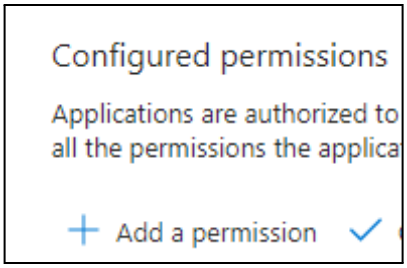


7. Copy the Value field to a text file and save it.
   IMPORTANT: This is the Client Secret cannot be retrieved again after leaving the screen.

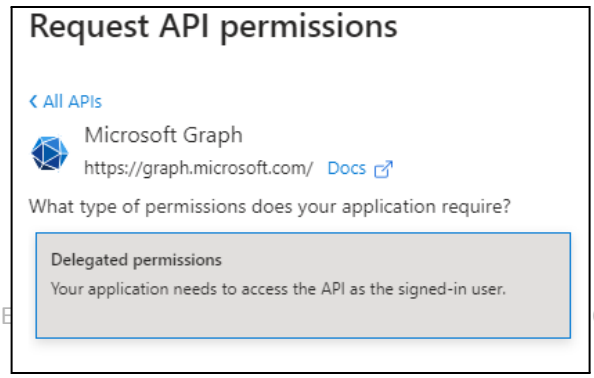


   You can find the **Application (Client) ID** on this screen as well.

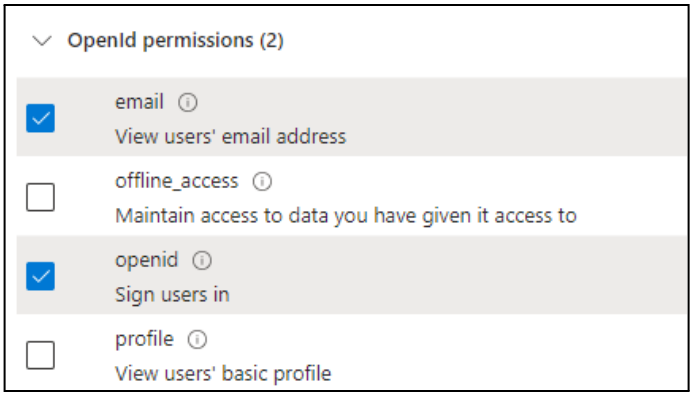
8. Navigate to the API Permissions on the left panel and select **Add a Permission**.



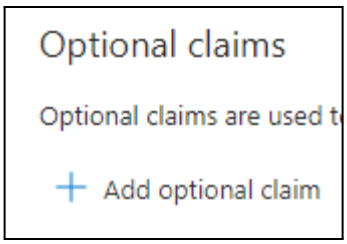
9. Select the Microsoft Graph API.



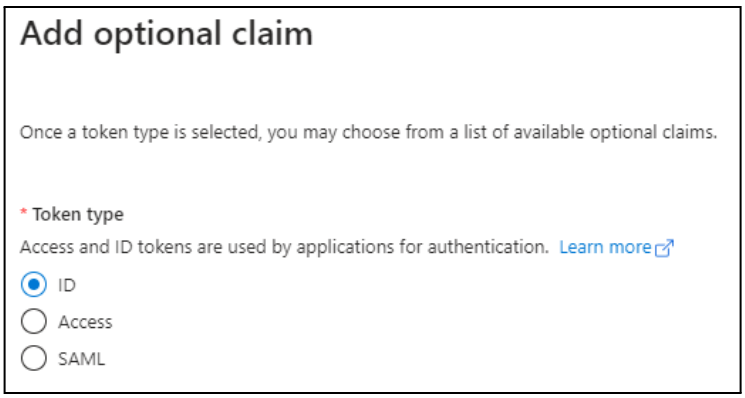
10. Add **Email** and **OpenId** permissions.



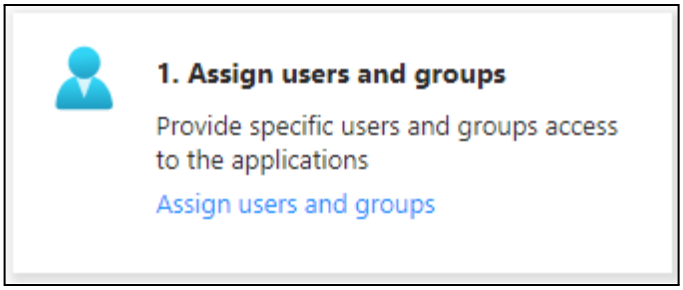
11. Navigate to **Token Configuration** from the left panel and click **Add Optional Claim**.

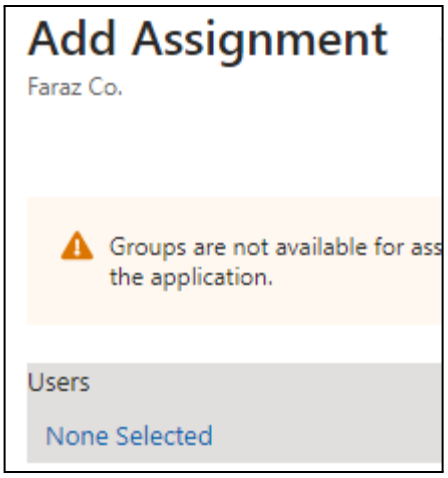


12. In the **Add Optional Claim** wizard, select **Adding verified_primary_email is optional**.



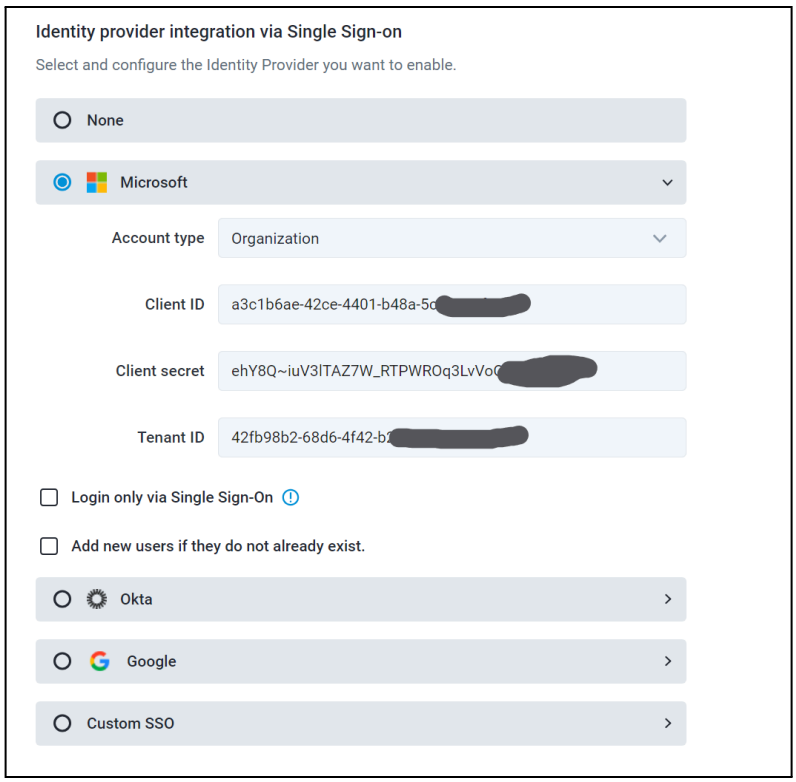
13. (Optional) Update the consent page using the **Branding & Properties** tab in the left panel.
14. Assign users to the application. Navigate to **Home > Manage Microsoft Entra ID > Enterprise Applications** and select your application. Go to **Assign Users and Groups** and assign users as shown below to the application.



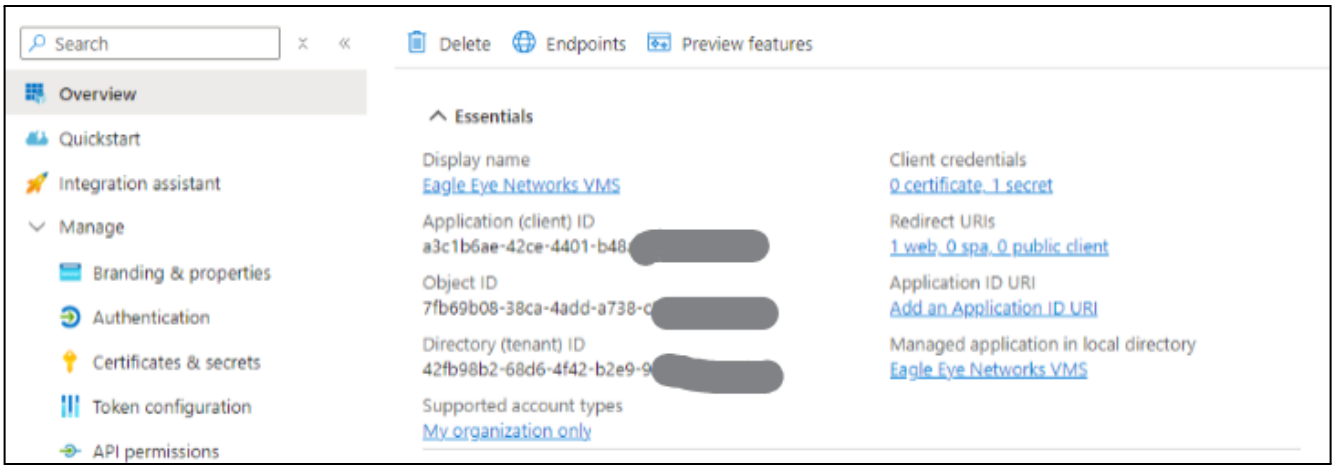


Configuring SP-initiated SSO settings for Azure Active Directory

Use the instructions in this section to configure the organizational Microsoft SSO.



1. Update the **Client ID** (Application (client) ID) and **Client Secret** with values you got from the Azure AD application created in Prerequisites.



2. Enter the **<tenant-id>** found on the **Overview** page.

SP-initiated SSO flow

You should now be able to login to the application.

1. Provide a non-administrator user account at the identifier home page.
2. Log in with Azure AD and provide the consent.

Note: Be sure you have the same user created on the Azure AD side.

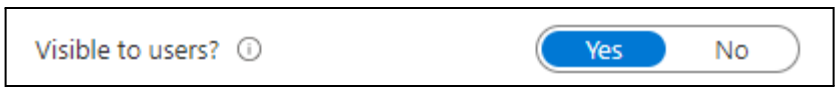
IdP-initiated SSO flow:

1. Update the homepage URL in the **Branding & Properties** section of the application as follows:

https://auth.<domain-branding>/sso?issuer=<registration-id>&target_link_uri=<webapp-url>.

Example:
https://auth.eagleeyenetworks.com/sso?issuer=00032511&target_link_uri=https://webapp.eagleeyenetworks.com

2. Navigate to the **Enterprise Application** tab and select your application. In the left panel select **Manage > Properties**. Set **Visible to Users** to **Yes**.

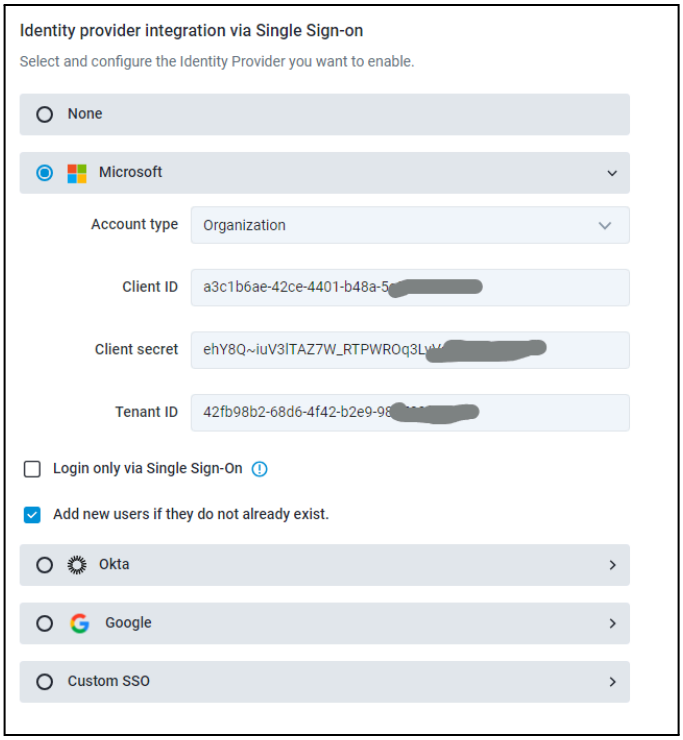


Setting up IdP-initiated SSO flow:

1. Go to **https://myapplications.microsoft.com?tenantId=<tenant-id>**.
2. Login with a user who exists in your Eagle Eye Networks account with the same email.
3. Click the Application you created and you will be redirected to the application.

Configuring auto user provisioning for Azure AD

1. Check the **Add new users if they do not already exist** checkbox in the Identity Provider Integration via Single Sign-on screen in the Cloud VMS interface and click **Save**.



IdP-initiated SSO with auto user provisioning flow:

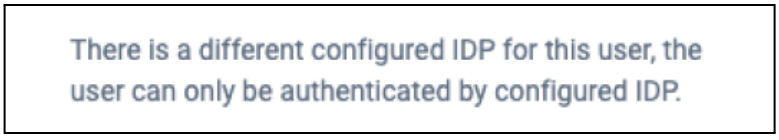
1. Login to the application. Go to **https://myapplications.microsoft.com?tenantId=<tenant-id>.**
2. Login with a user who exists in your Eagle Eye Networks account with the same email.
3. Click the Application you created and you will be redirected to the application.

Troubleshooting

Various error messages may appear when setting up SSO. This section provides an overview of the most common ones and suggests solutions. If you encounter any new errors, please report them to api_support@een.com so we can add them to this document for reference.

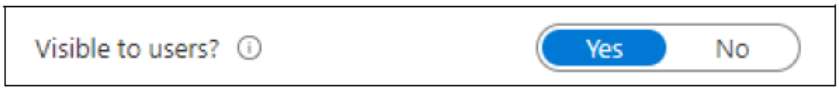
Known errors:

1. Microsoft Error: There is a different configured IDP for this user, the user can only be authenticated by configured IDP.

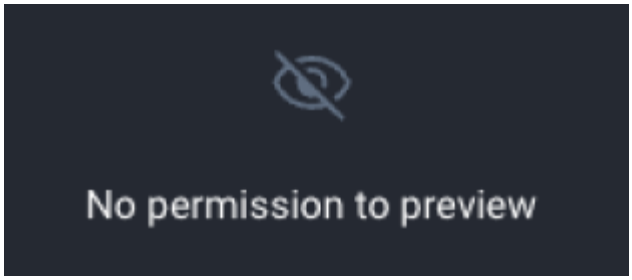


Solution: Users are trying to use the **Continue with Microsoft** button while they should login via https://myapplications.microsoft.com. This button is only for personal accounts.

2. Microsoft Error: Newly created app does not show on my application page:
   Solutions:
   a. Ensure the user is added to the enterprise application.
   b. Ensure the application is visible:

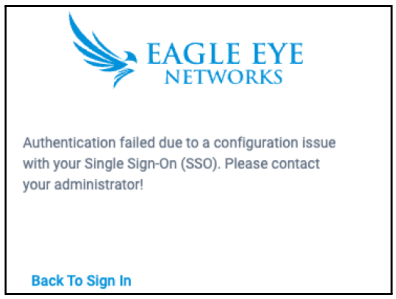


3. Microsoft Error: Newly created users see : “No permissions to preview”



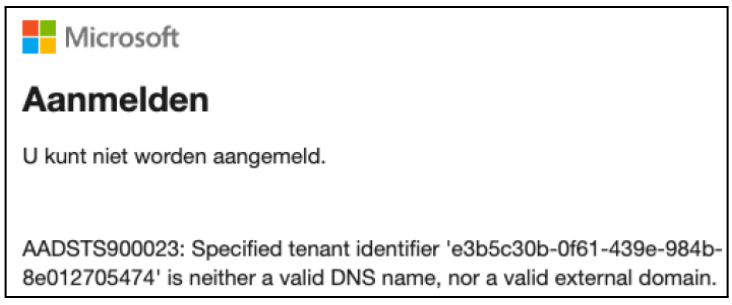
Solution: New users do not have any default permissions added. These must be granted by the admin from within the Cloud VMS.

4. Microsoft Error: Authentication failed due to a configuration issue with your Single Sign-On (SSO). Please contact your administrator!



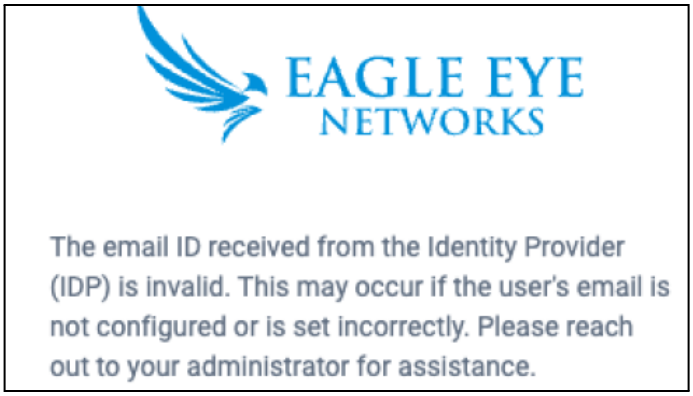
Solution: Verify the Client ID and the Client Secret entered the Cloud VMS.

5. Microsoft Error: Unable to login, tenant identifier is invalid:



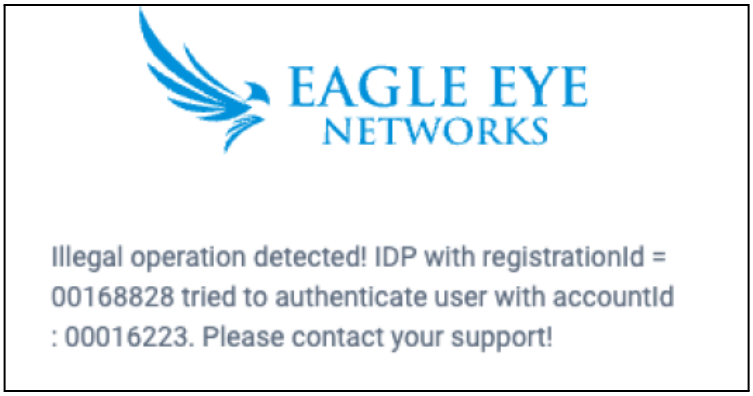
Solution: Verify the Tenant ID is entered correctly with a valid id.

6. Microsoft Error: The email ID received from the Identity Provider (IDP) is invalid:



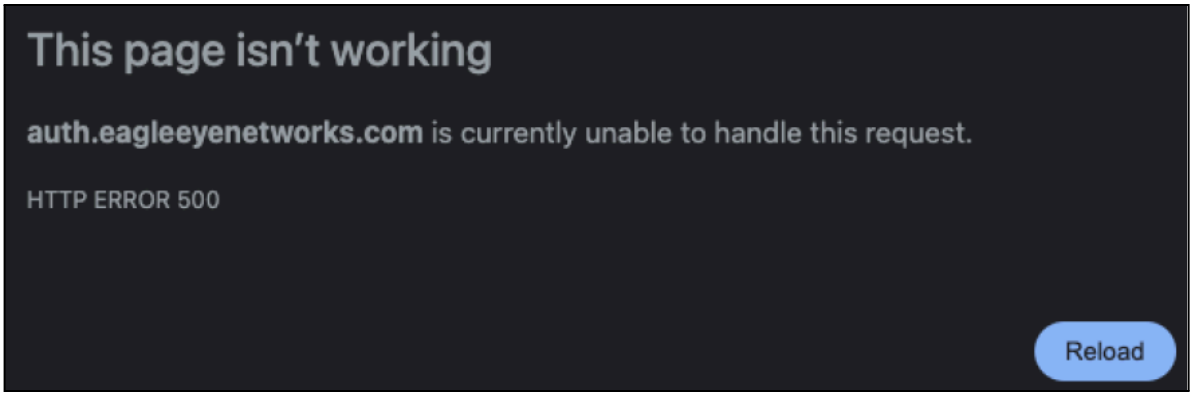
Solution: Configure the user with a valid email address on the Azure portal.

7. Microsoft Error: Illegal operation detected! Wrong registrationId:



Solution: The user trying to sign in is already added under a different Cloud VMS account. Create a separate account, or remove the old one in order to login.

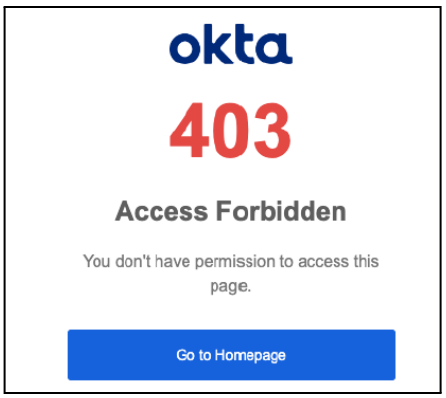
8. Microsoft Error: HTTP ERROR 500:



Solution: Verify the redirectURI this should be looking like this where the issues = account id and the target_link_uri = webapp.eagleeyenetworks.com or <branding>.webapp.eagleeyenetworks.com : https://auth.eagleeyenetworks.com/sso?issuer=00032511&target_link_uri=https%3A//web

app.eagleeyenetworks.com

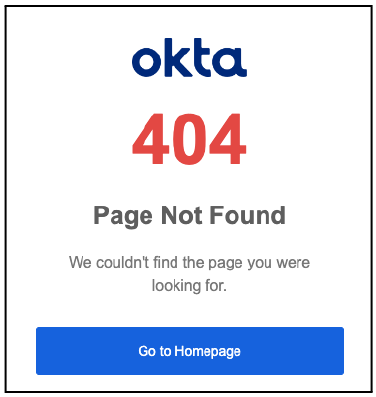
9. Okta Error: 403 Access forbidden



Solution: Verify the following settings are correct in the Cloud VMS:

a. Okta is the selected Identity Provider
b. Client ID
c. Client Secret
d. Issuer URL (example Okta url: https://<subdomain>.okta.com)

10. Okta Error : 404 Page not found:



Solution: Verify the issuer URL is correct:

a. https://trial-7462771.okta.com/ < correct one (example)
b. https://trial-7462771-admin.okta.com/ < wrong one (example)
^ This is a link to the Okta admin panel instead of the Okta user dashboard.

11. Unable to authenticate the user:

Solution: Check the redirect uri.

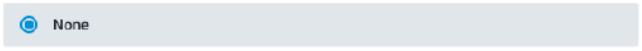
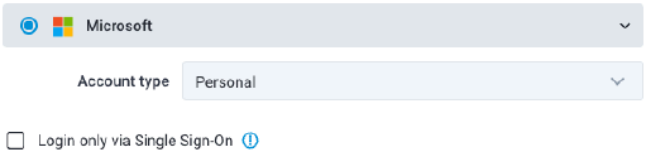
a. Redirect uri is wrong:

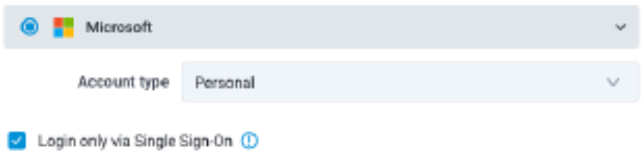
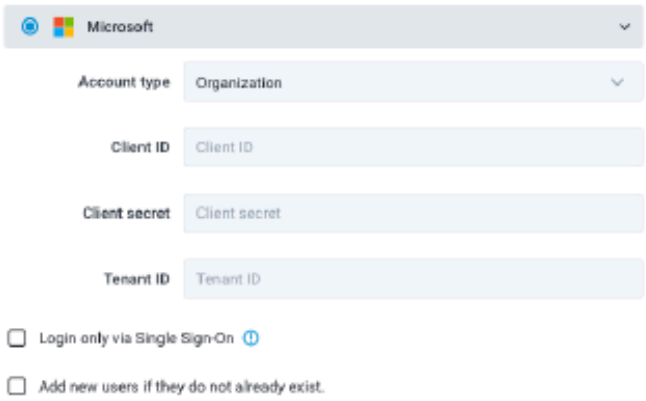
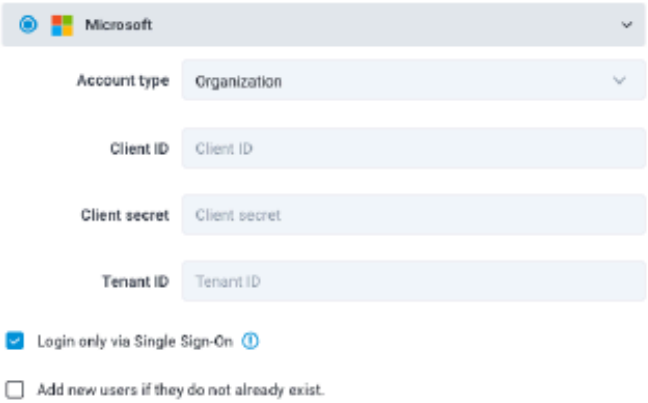
https://auth.eagleeyenetworks.com/sso?issuer=00170929&target_link_uri=webapp.eagleeyenetworks.com
Instead of:
https://auth.eagleeyenetworks.com/sso?issuer=00170929&target_link_uri=https%3A//webapp.eagleeyenetworks.com

b. Make sure the target link is formatted correctly with https%3A//instead of https://

Troubleshooting: SSO Configurations

This overview shows all possible SSO configurations and the available options that accompany them:

SSO Configuration	Available options
	**No SSO selected** • Login via Username and password ✅ • SSO login by entering Email ID ❌ • Login via Microsoft button✅ • Login via Google button✅ • Login via IDP-initiated flow ❌ • SSO user provisioning ❌
	**Microsoft, Personal** • Login via Username and password ✅ • SSO login by entering Email ID ❌ • Login via Microsoft button✅ • Login via Google button❌ • Login via IDP-initiated flow ❌ • SSO user provisioning ❌

	**Microsoft, Personal, only SSO** • Login via username and password ❌ • SSO login by entering Email ID ✅ • Login via Microsoft button✅ • Login via Google button❌ • Login via IDP-initiated flow ❌ • SSO user provisioning ❌
	**Microsoft, Organization** • Login via username and password ✅ • SSO login by entering Email ID ❌ • Login via Microsoft button❌ • Login via Google button❌ • Login via IDP-initiated flow ✅ • SSO user provisioning ❌
	**Microsoft, Organization, SSO Only** • Login via username and password ❌ • SSO login by entering Email ID ✅ • Login via Microsoft button❌ • Login via Google button❌ • Login via IDP-initiated flow ✅ • SSO user provisioning ❌