### ADMIN CONSOLE $\rightarrow$ LOGGA IN MED SSO $\rightarrow$

# Microsoft Entra ID OIDC Implementation

View in the help center: https://bitwarden.com/help/oidc-microsoft-entra-id/

### **Microsoft Entra ID OIDC Implementation**

This article contains **Azure-specific** help for configuring Login with SSO via OpenID Connect (OIDC). For help configuring Login with SSO for another OIDC IdP, or for configuring Microsoft Entra ID via SAML 2.0, see OIDC Configuration or Microsoft Entra ID SAML Implementation.

Configuration involves working simultaneously within the Bitwarden web app and the Azure Portal. As you proceed, we recommend having both readily available and completing steps in the order they are documented.

#### Open SSO in the web vault

Log in to the Bitwarden web app and open the Admin Console using the product switcher:

Password Manager	All vaults			New 🗸	BW
🗇 Vaults	FILTERS		Name	Owner	:
🕼 Send					•
$\ll$ Tools $\sim$	Q Search vau	VISA	Company Credit Card Visa, *4242	My Organiz	:
₩ Reports	✓ All vaults		Devenuel Login		
🕸 Settings 🛛 🗸 🗸	My vault		myusername	Me	:
	+ New organization		Secure Note	Ме	:
	<ul> <li>✓ All items</li> <li>☆ Favorites</li> <li>⑦ Login</li> <li>□ Card</li> <li>☑ Identity</li> <li>□ Secure note</li> </ul>		Shared Login sharedusername	My Organiz	:
<ul> <li>Password Manager</li> <li>Secrets Manager</li> <li>Admin Console</li> <li> <sup>™</sup> Toggle Width     </li> </ul>	<ul> <li>Folders</li> <li>No folder</li> <li>Collections</li> <li>Default colle</li> <li>Default colle</li> <li>Trash</li> </ul>				

Product switcher

Select **Settings** → **Single sign-on** from the navigation:

#### Säker och pålitlig lösenordshanterare med öppen källkod för företag

<b>D bit</b> Warden	Single sign-on 🖩 🗧
<ul> <li>My Organization ∨</li> <li>Collections</li> <li>Members</li> <li>Groups</li> <li>Reporting ∨</li> </ul>	Use the require single sign-on authentication policy to require all members to log in with SSO.   Allow SSO authentication  Once set up, your configuration will be saved and members will be able to authenticate using their Identity Provider credentials.  SSO identifier (required) unique-organization-identifier  Provide this ID to your members to login with SSO. To bypass this step, set up Domain verification
🛱 Billing 🗸 🗸	Member decryption options
Settings	Master password
Organization info Policies	Trusted devices Once authenticated, members will decrypt vault data using a key stored on their device. The single organization policy, SSO required policy, and account recovery administration policy with automatic enrollment will turn on when this option is used.
Two-step login	C Type
Import data	OpenID Connect
Domain verification	OpenID connect configuration
Single sign-on	Callback path
Device approvals	- Signed out callback path
SCIM provisioning	

#### OIDC configuration

If you haven't already, create a unique **SSO identifier** for your organization. Otherwise, you don't need to edit anything on this screen yet, but keep it open for easy reference.

#### **⊘** Tip

There are alternative Member decryption options. Learn how to get started using SSO with trusted devices or Key Connector.

#### Create an app registration

In the Azure Portal, navigate to **Microsoft Entra ID** and select **App registrations.** To create a new app registration, select the **New registration** button:

≡ Microsoft Az	ure	Search resources, services, and docs (G+/)		0
Home >				
App registra	tions 🛷			$\times$
+ New registration	Endpoints	🧷 Troubleshooting 💍 Refresh 🞍 Download 🐼 Preview features 🗌	♡ Got feedback?	
All applications	Owned applicati	ons Deleted applications (Preview) Applications from personal accou	int	
Start typing a dis	play name to filter	these results Application (client) ID starts with $ imes$	+ Add filters	
2 applications found				

Create App Registration

Complete the following fields:

### Register an application

#### \* Name

The user-facing display name for this application (this can be changed later).

#### Supported account types

Who can use this application or access this API?

- Accounts in this organizational directory only (Default Directory only Single tenant)
- Accounts in any organizational directory (Any Microsoft Entra ID tenant Multitenant)
- Accounts in any organizational directory (Any Microsoft Entra ID tenant Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)

Personal Microsoft accounts only

Help me choose ...

#### Redirect URI (optional)

We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Select a platform 🗸 🗸		e.g. https://example.com/auth
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Register an app you're working on here. Integrate gallery apps and other apps from outside your organization by adding from Enterprise applications.

By proceeding, you agree to the Microsoft Platform Policies 🕝

Register

#### Register redirect URI

- 1. On the **Register an application** screen, give your app a Bitwarden-specific name and specify which accounts should be able to use the application. This selection will determine which users can use Bitwarden login with SSO.
- 2. Select Authentication from the navigation and select the Add a platform button.

3. Select the Web option on the Configure platforms screen and enter your Callback Path in the Redirect URIs input.

#### (i) Note

Callback Path can be retrieved from the Bitwarden SSO Configuration screen. For cloud-hosted customers, this is <a href="https://sso.bitwarden.eu/oidc-signin">https://sso.bitwarden.eu/oidc-signin</a>. For self-hosted instances, this is determined by your configured server URL, for example <a href="https://sso/oidc-signin">https://sso.bitwarden.eu/oidc-signin</a>. For self-hosted instances, this is determined by your configured server URL, for example <a href="https://sso/oidc-signin">https://sso.bitwarden.eu/oidc-signin</a>. For self-hosted instances, this is determined by your configured server URL, for example <a href="https://sso/oidc-signin">https://sso.bitwarden.eu/oidc-signin</a>.

#### **Create a client secret**

Select Certificates & secrets from the navigation, and select the New client secret button:

≡ Microsoft Azure 👂 s	earch resources, services, and docs (G+/) 🗵 🕞 🖓 🍪 ? 🔊
Home > App registrations > Bitwa	rden Login with SSO (OIDC)
	with 350 (OIDC)   Certificates & secrets 2 2 2
	« 🛇 Got feedback?
Overview	Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web addressable location (using an HTTPS scheme). For a higher level of assurance, we recommend using a certificate
Quickstart	(instead of a client secret) as a credential.
🚀 Integration assistant	Catification
Manage	Certificates
🔤 Branding	Certificates can be used as secrets to prove the application's identity when requesting a token. Also can be referred to as public keys.
Authentication	<b>—</b>
📍 Certificates & secrets	1 Upload certificate
Token configuration	Thumbprint Start date Expires Certificate ID
- API permissions	No certificates have been added for this application.
🙆 Expose an API	
u App roles	
A Owners	Client secrets
🚨 Roles and administrators   Preview	A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password
0 Manifest	
Support + Troubleshooting	+ New client secret
Troubleshooting	Description Expires Value Secret ID
Rew support request	No client secrets have been created for this application.

#### **Create Client Secret**

Give the certificate a Bitwarden-specific name, and choose an expiration timeframe.

#### Create admin consent

Select **API permissions** and click  $\checkmark$  **Grant admin consent for {your directory}**. The only permission needed is added by default, Microsoft Graph > User.Read.

#### Back to the web app

At this point, you have configured everything you need within the context of the Azure Portal. Return to the Bitwarden web app to configure the following fields:

Field	Description
Authority	Enter https://login.microsoftonline.com/ <tenant_id>/v2.0, where TENANT_ID is the Directory (tenant) ID value retrieved from the app registration's Overview screen.</tenant_id>
Client ID	Enter the App registration's <b>Application (client) ID</b> , which can be retrieved from the Overview screen.
Client Secret	Enter the <b>Secret Value</b> of the created client secret.
Metadata Address	For Azure implementations as documented, you can leave this field blank.
OIDC Redirect Behavior	Select either Form POST or Redirect GET.
Get Claims From User Info Endpoint	Enable this option if you receive URL too long errors (HTTP 414), truncated URLS, and/or failures during SSO.
Additional/Custom Scopes	Define custom scopes to be added to the request (comma-delimited).
Additional/Custom User ID Claim Types	Define custom claim type keys for user identification (comma-delimited). When defined, custom claim types are searched for before falling back on standard types.
Additional/Custom Email Claim	Define custom claim type keys for users' email addresses (comma-delimited). When defined, custom claim types are searched for before falling back on standard types.

Field	Description
Additional/Custom Name Claim Types	Define custom claim type keys for users' full names or display names (comma- delimited). When defined, custom claim types are searched for before falling back on standard types.
Requested Authentication Context Class Reference values	Define Authentication Context Class Reference identifiers (acr_values) (space-delimited). List acr_values in preference-order.
Expected "acr" Claim Value in Response	Define the <b>acr</b> Claim Value for Bitwarden to expect and validate in the response.

When you are done configuring these fields, **Save** your work.

#### **⊘** Tip

You can require users to log in with SSO by activating the single sign-on authentication policy. Please note, this will require activating the single organization policy as well. Learn more.

#### Additional custom claim types

If your SSO configuration requires custom claim types, additional steps are required in order for Microsoft Entra ID to recognize the nonstandard claims.

1. On Microsoft Entra ID, add a custom claim type by navigating to Enterprise applications -> App registrations -> Token configuration.

2. Select + Add optional claim and create a new optional claim with a selected value.

Home > Default Directory   App registrations >	Add optional claim	$\times$
Token configuration 🖉 🐇		
▷ Search     ◇ <td>Once a token type is selected, you may choose from a list of available optional cl</td> <td>aims.</td>	Once a token type is selected, you may choose from a list of available optional cl	aims.
<ul> <li>Branding &amp; properties</li> <li>Authentication</li> <li>Claim ↑↓</li> <li>Description</li> <li>No results.</li> </ul>	Token type Access and ID tokens are used by applications for authentication. Learn more core     ID     Access     SAML     Claim ↑↓ Description     pwo_urn A UKL that the user can visit to change their     sid Session ID, used for per-session user sign ou     tenant_ctry Resource tenant's country/region	passwora ut
<ul> <li>API permissions</li> <li>Expose an API</li> <li>App roles</li> <li>Owners</li> <li>Roles and administrators</li> <li>Manifest</li> <li>Support + Troubleshooting</li> </ul>	tenant_region_scope       Region of the resource tenant         upn       An identifier for the user that can be used w         verified_primary_email       Sourced from the user's PrimaryAuthoritativ         verified_secondary_email       Sourced from the user's SecondaryAuthoritativ         vnet       VNET specifier information         xms_cc       Whether the application can handle claims of xms_pdl         Add       Cancel	ith the user eEmail ItiveEmail

Microsoft Entra ID custom claim

- 3. On the Bitwarden SSO configuration screen, enter the fully qualified path for a custom claim field in the corresponding **custom claim types** field. For example: https://schemas.xmlsoap.org/ws/2005/05/identity/claims/upn.
- 4. Select **Save** once you have completed the configuration.

#### Test the configuration

Once your configuration is complete, test it by navigating to https://vault.bitwarden.com, entering your email address and selecting the Use single sign-on button:

	Log in to Bitwarden	
Email ac	Idress (required)	
	Continuo	
	Continue	
_	or	
	Solution Sector	
	🖻 Use single sign-on	

#### Log in options screen

Enter the configured organization identifier and select **Log In**. If your implementation is successfully configured, you will be redirected to the Microsoft login screen:

Microsoft	
Sign in	
Email, phone, or Skype	
Can't access your account?	
	Next
	Next
	Next

Azure login screen

After you authenticate with your Azure credentials, enter your Bitwarden master password to decrypt your vault!

#### (i) Note

Bitwarden does not support unsolicited responses, so initiating login from your IdP will result in an error. The SSO login flow must be initiated from Bitwarden.

#### Next steps

1. Educate your organization members on how to use login with SSO.