BrandShelter

Single Sign-On (SSO) Implementation Guide

Introduction to SSO and Guide for Microsoft Azure Active Directory

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1 Introduction to Single Sign-On (SSO)

1.1 What is Single Sign-On?

Single Sign-On (SSO) enables users to log into multiple independent systems using just one set of login credentials. With SSO, users don't need to sign into each application separately nor maintain distinct login details for every application. They simply enter their login credentials once on a single page and gain access to all connected applications.

BrandShelter provides support for integration with other identity providers through SAML and OpenID Connect. These are two widely used standards for securely exchanging authentication and authorization information.

1.2 When is SSO a good fit for my company?

SSO may be a good fit for your company if:

- **Increased Security:** You are looking for the most secure way to log into BrandShelter by requiring employees to use your company's established authentication protocols.
- **Simplified User Management:** You want a user's access to BrandShelter dashboard to cease when a user is terminated & loses corporate system access
- **Enhanced User Experience:** You are looking to simplify the login process for users, allowing them to authenticate once and reducing the need for users to manage multiple sets of credentials.

1.3 How does SSO work?

BrandShelter's SSO feature works by leveraging Amazon Cognito as the identity provider. External identity providers are federated with Cognito via SAML or OpenID Connect. Depending on the Cognito user group and claims, federated users are

assigned to BrandShelter accounts with respective permissions. This enables a seamless and secure login experience for users, while also providing centralized management of user access control.

SSO Identity Provider for BrandShelter is AWS Cognito.

2 Pre-work checklist for a successful SSO Implementation

IMPORTANT: Admin(s) to confirm that all users have work emails in Account Center. If users don't have a work email, they will be locked out after SSO is activated. Work emails need to match the users' IdP-specific emails.

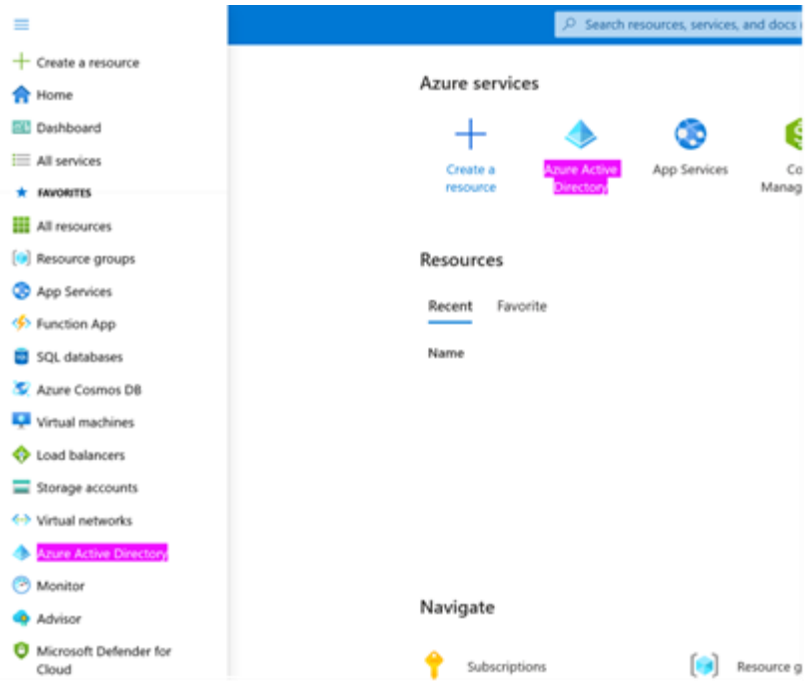
- Confirm that your organization uses a SAML 2.0 compliant IdP (e.g., Okta, Azure Active Directory).
- **Identify Admins:** Identify the Account Center admin for the BrandShelter dashboard and any relevant internal IT point of contact. To configure SSO, admins will need both IdP and BrandShelter dashboard access:
- IdP access: To arrange this, contact your IT or Security department (whoever has IdP admin/manager access), or your IdP service provider.
- BrandShelter dashboard admin access: The admin will need an "Admin Account" license to enable SSO. This can be done by either:
- Grant the license to your IdP Admin or Manager on the dashboard(s).
- Or, transfer relevant information from your IdP admin to a Dashboard admin for entry into Account Center.
- **OpenID Connect Integration:** BrandShelter integrates with Amazon Cognito via OpenID Connect. In cases where OpenID Connect scopes may not contain all required information, users will be prompted to complete a form to provide any missing required information. Users will also be asked to agree to our data processing agreement.

- **Required Data:** Request the following data from BrandShelter Support:
- Identifier (Entity ID)
- Reply URL
- **Communication:** Admins should inform teams about upcoming changes to their BrandShelter log-in. Refer to the sample email for guidance.

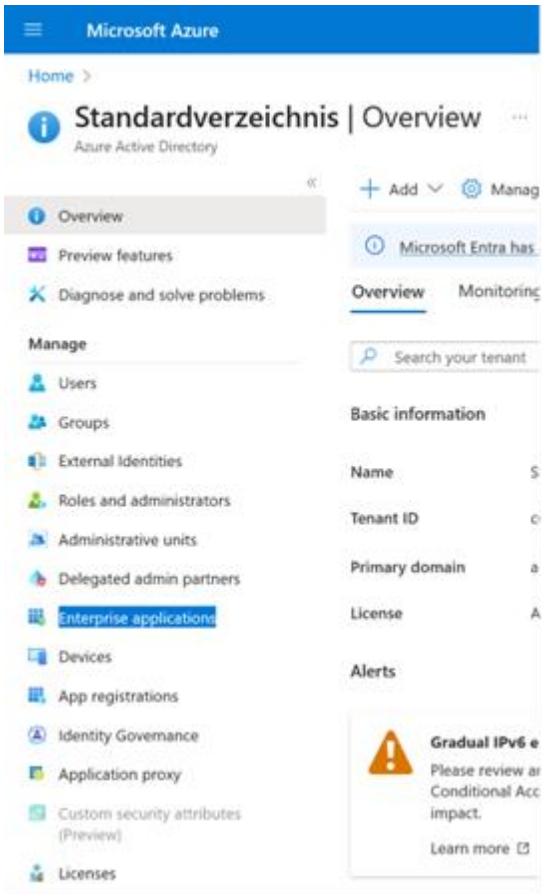
3 Steps to enabling SSO for Microsoft Azure Active Directory

3.1 Create an Azure AD enterprise application

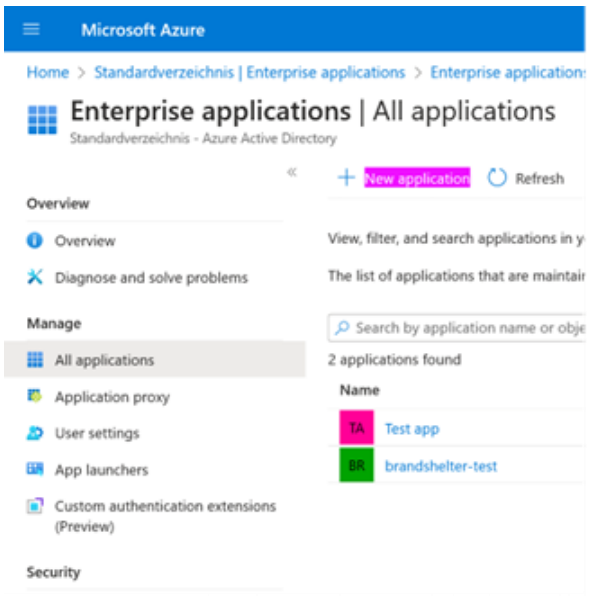
- Open the Microsoft Azure portal at https://portal.azure.com
- Choose “Azure Active Directory” in the navigation on the left side. If the service is not listed there, choose “All services” and type “Azure Active Directory” in the search bar t find the entry.



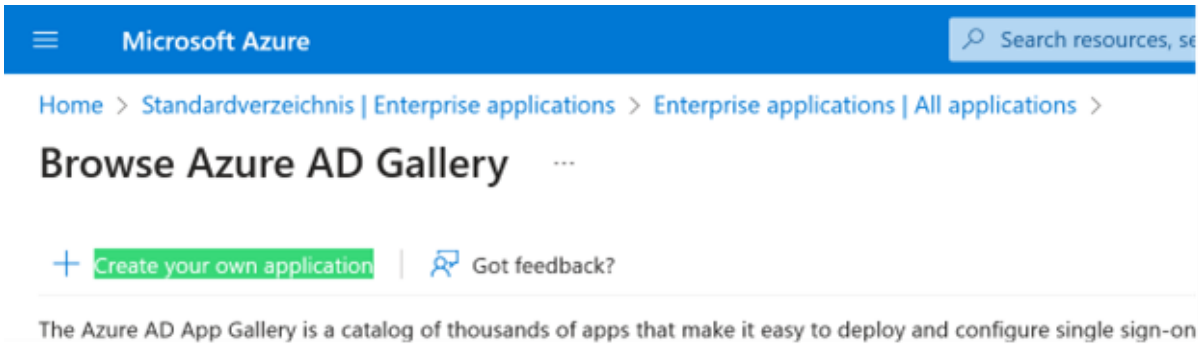
- Choose “Enterprise application” in the navigation on the left side



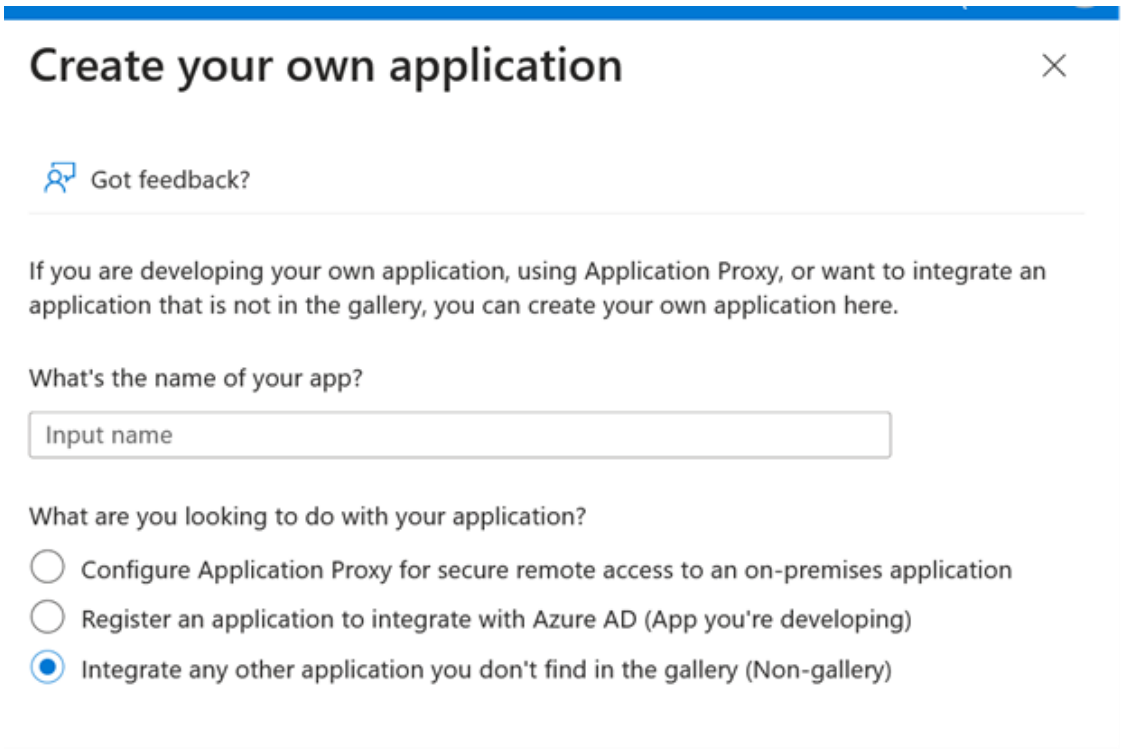
- Click “New Application” from the action menu at the top



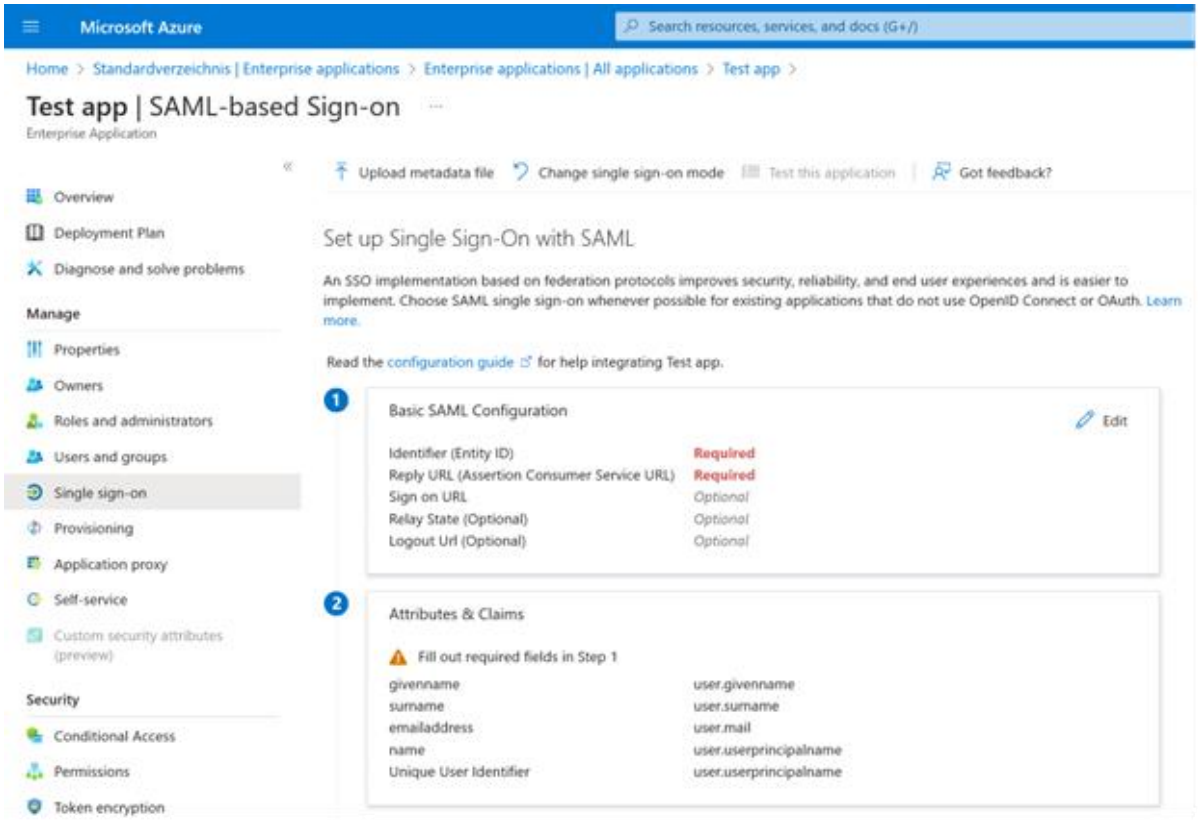
- Choose “Create your own application” from the action menu at the top



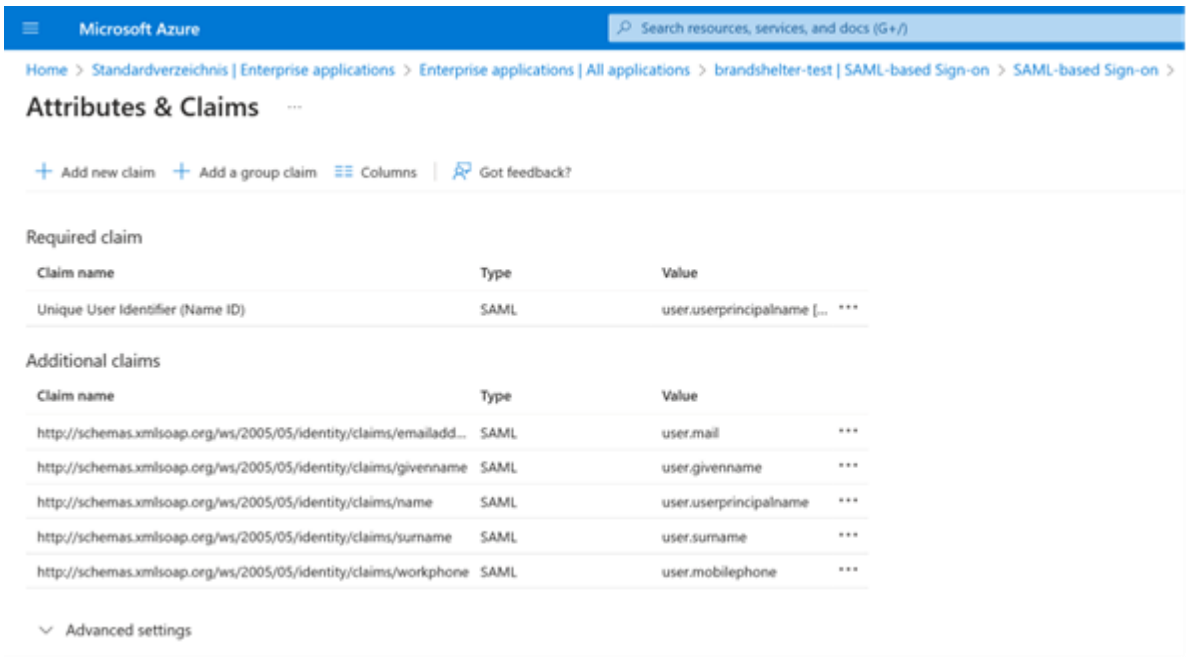
- Enter a name for your application
- Choose “Integrate any other application you don’t find in the gallery (Non-gallery)”



- You should now be on the overview page of your newly created application, choose "Single sign-on" from the navigation on the left
- Choose "SAML"



- In the “Basic SAML Configuration” section
- Click “Edit”
- Enter the “Identifier (Entity ID)” you got from BrandShelter
- Enter the “Reply URL (Assertion Customer Service URL)” you got from BrandShelter
- In the “Attributes & Claims” section
- Click “Edit”
- Click “Add a new claim”
- Enter http://schemas.xmlsoap.org/ws/2005/05/identity/claims/workphone as “Name”
- Choose “user.mobile phone” as the “Source attribute”
- Click “Save”



- In the “SAML Certificates” section
- Copy the “App Federation Metadata URL” and provide this URL to BrandShelter
- Choose “Users and groups” in the navigation on the left
- Add users and groups as you see fit
- Provide federation data to BrandShelter: At the end of the setup, you should have the federation metadata URL. BrandShelter needs this URL to finish the setup on their side. Once this has been done, the federation can be tested.

4 Setting Up SSO

To integrate Single Sign-On (SSO) between your identity provider (e.g., Microsoft Entra ID [formerly Azure Active Directory] or Okta) and BrandShelter, we support a standard SSO federation setup. Please note the following key points:

- **Sign-In Flow**: BrandShelter currently supports only *service provider-initiated* sign-in. This means users must start the sign-in process from the

BrandShelter portal. Features like Okta's "embed link" for IdP-initiated sign-in are not supported.

- **Setup Requirements**: You'll need to provide your IdP metadata (either as a URL or XML file). Share the email domains your users will use to sign in.
- **Configuration Support**: We'll provide the necessary configuration details and attribute mapping to help you complete the setup in your IdP.

4.1 Required Setup at the IdP

4.1.1 **Microsoft Entra ID (formerly Azure AD)**

The following data needs to be configured on Azure AD:

- **Identifier (Client ID) (mandatory)**
- **Reply URL (mandatory)**
- **Sign on URL (mandatory)**
- Relay State (optional)

4.1.2 **For the BrandShelter demo environment** demo.brandshelter.com

Client id: urn:amazon:cognito:sp:eu-central-1_ieAQ8aVrs

Reply URL: https://bs-ote-auth.auth.eu-central-1.amazoncognito.com/saml2/idpresponse

Sign on URL: https://demo.brandshelter.com/users/sign_in

Relay State (Optional): https://demo.brandshelter.com/

4.1.3 **For the BrandShelter production environment** secure.brandshelter.com

Client id: urn:amazon:cognito:sp:eu-central-1_FmcrLjcuB

Reply URL: https://bs-live-auth.auth.eu-central-1.amazoncognito.com/saml2/idpresponse

Sign on URL: https://secure.brandshelter.com/users/sign_in

Relay State (Optional): https://secure.brandshelter.com/

4.2 Okta (SAML)

4.2.1 **For the BrandShelter demo environment** demo.brandshelter.com

- Single Sign On URL: https://bs-ote-auth.auth.eu-central-1.amazoncognito.com/saml2/idpresponse
- Audience restriction: urn:amazon:cognito:sp:eu-central-1_ieAQ8aVrs
- Default Relay State: leave blank
- In Security/API/Trusted Origins, add https://bs-ote-auth.auth.eu-central-1.amazoncognito.com as a permitted "redirect"

4.2.2 **For the BrandShelter production environment** secure.brandshelter.com

- Single Sign On URL: https://bs-live-auth.auth.eu-central-1.amazoncognito.com/saml2/idpresponse
- Audience restriction: urn:amazon:cognito:sp:eu-central-1_FmcrLjcuB
- Default Relay State: leave blank

- In Security/API/Trusted Origins, add https://bs-live-auth.auth.eu-central-1.amazoncognito.com as a permitted "redirect"

4.3 Okta (OpenID Connect)

4.3.1 **For the BrandShelter demo environment** demo.brandshelter.com

- Single Sign On URL: https://bs-ote-auth.auth.eu-central-1.amazoncognito.com/oauth2/idpresponse
- In Security/API/Trusted Origins, add https://bs-ote-auth.auth.eu-central-1.amazoncognito.com as a permitted "redirect"

4.3.2 **For the BrandShelter production environment** secure.brandshelter.com

- Single Sign On URL: https://bs-live-auth.auth.eu-central-1.amazoncognito.com/oauth2/idpresponse
- In Security/API/Trusted Origins, add https://bs-live-auth.auth.eu-central-1.amazoncognito.com as a permitted "redirect"

4.4 Attribute Mapping

- By default, we process the following assertions to onboard users:

For SAML:

- http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress
- http://schemas.xmlsoap.org/ws/2005/05/identity/claims/givenname
- http://schemas.xmlsoap.org/ws/2005/05/identity/claims/surname
- http://schemas.xmlsoap.org/ws/2005/05/identity/claims/workphone

Scopes and attributes OIDC:

- “profile” scope for given_name and family_name
- “email” scope for email
- “phone” scope for phone_number

We are using the “URI Reference” name format ; and we assign user.email to both “name” and “emailaddress” attributes, but other mapping can work as well.

Example:

Name	Name Format	Value
http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress	URI Reference	user.email
http://schemas.xmlsoap.org/ws/2005/05/identity/claims/givenname	URI Reference	user.firstName
http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name	URI Reference	user.email
http://schemas.xmlsoap.org/ws/2005/05/identity/claims/surname	URI Reference	user.lastName

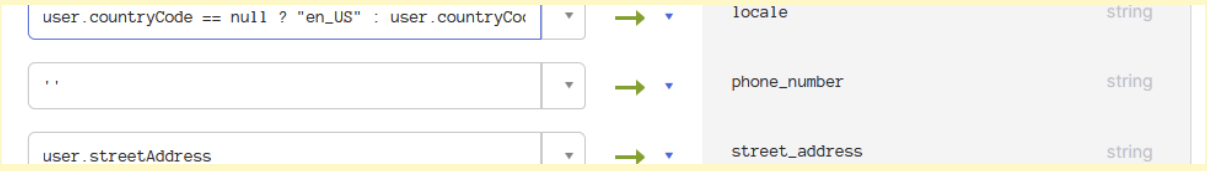
Other attributes can be mapped on request.

The above attributes are required, and we cannot change those requirements without recreating the user pool and breaking all existing federations.

Additionally, Cognito requires phone numbers to be given in a very specific format:

"Phone numbers must follow these format rules: A phone number must start with a plus (+) sign, followed immediately by the country code. A phone number can only contain the + sign and digits. Remove any other characters from a phone number, such as parentheses, spaces, or dashes (-) before you submit the value to the service. For example, a phone number based in the United States must follow this format: +14325551212."

If a client is unable to provide that format, please advise to map a blank attribute so users can enter that information during the onboarding process. For example in Okta, an administrator can simply map the empty string to the phone_number attribute for their BrandShelter application:



4.5 Provide federation data to BrandShelter

You must provide us with a metadata URL or document (XML file), as well as the mail domains used by their users for sign-in.

And specify the protocol used for the SSO federation, i.e. SAML or OIDC.

IMPORTANT: You can choose between 2 possible configurations for access to the BrandShelter portal after SSO activation.

1) Default Configuration 1 - BrandShelter + SSO Connection

The 2 connection methods coexist, direct connection and SSO:

- you can log in using BrandShelter direct login (username + password)
- or by using the SSO login which requires entering only your email address (or SSO username) in the "Username" field, then clicking on "Login" without entering the password to be redirected to the SSO form.

This configuration is intended to allow the addition and login of users who do not have an email address linked to SSO and who would therefore need a direct connection to the portal to access your account.

2) Configuration 2 to be enabled on demand - SSO single sign-on

We disable the BrandShelter direct connection (username + password) and only the SSO method is possible.

This makes SSO connection mandatory and inevitable to log in for all users of the account without exception.

Note 1: Each user with a username matching one of these hosts will be required to authenticate through Single Sign-On (SSO) (configuration 2). Any user of this account with a username which does not match one of these hosts will require their normal local credentials and will not be using SSO (default configuration 1). E.g. the hostname example.com will match usernames like name@example.com.

Note 2: Please note that BrandShelter **does not support** IdP-initiated sign-in. This means certain functionalities, such as the “embed link” provided by Okta, cannot be used for sign-in purposes, or through other authentication platforms, e.g., Azure's "My Applications" portal. All sign-ins must be initiated through the BrandShelter portal to ensure proper authentication and access.

Please ensure then that the users **always start** the login attempt on our portal.

Note 3 : A new user will still be redirected to BrandShelter's account creation page to fill in all the information not provided by their IdP. In addition, it is important to note that an existing portal user will be redirected to the account creation page

on BrandShelter to fill in and/or update all the information not provided by their IdP.

User experience after SSO activation:

A user visit the BrandShelter portal. If he is already authenticated with his corporate identity provider, he's immediately signed into BrandShelter and the process stops here.

If he's not yet authenticated, the user enters his login name into the BrandShelter sign-in form.
The user is redirected to the sign-in form of his company, this could be for example the Microsoft sign-in form. After entering his credentials, the user is redirected back to the BrandShelter portal and is signed-in there.

Additional information link:

Amazon Cognito FAQs

At the end of the setup, you should have the federation metadata URL. BrandShelter needs this URL to finish the setup on their side. Once this has been done, the federation can be tested.

4.6 Common Errors

4.6.1 "Required String parameter 'RelayState' is not present" on the Cognito-hosted page

Wait a few minutes after entering information. We managed to reproduce the error by changing the application in AAD and immediately initiating a sign-in, but did not get a solid reproduction.

4.6.2 "An error was encountered with the requested page." (no further info) on the Cognito-hosted page

This can happen when attempting to use IdP-initiated sign-in, e.g. through the "Test sign in" button in the Azure Portal, or the "My Application" portal. BrandShelter currently does not support this at the moment, but we are working on.

For the time being, please make sure to initiate sign-in through the BrandShelter portal or make sure to enter the correct sign-in URL as indicated in the preamble at the top of the page to make the IdP redirect users to our portal.

4.6.3 "Invalid relayState from identity provider" or "Invalid samlResponse or relayState from identity provider" on the Cognito-hosted page

This is another reaction to IdP-initiated sign-in, observed when attempting to use the Okta Embed Link.

4.6.4 "Invalid saml response received: client is not enabled for oauth2.0 flows " on the BrandShelter hosted login page

This indicates an incorrect reply URL. Make sure to use the URLs given at the top of the page.

This can also be caused by the Cognito client missing the *AllowedOAuthFlowsUserPoolClient* flag in the application client, which was an issue in older versions of the automated setup scripts. To rectify this, a developer can simply enter the application client edit page and save it without changes.

4.6.5 "Could not authenticate you from OpenIDConnect because "invalid 'state' parameter" on the BrandShelter hosted login page

Make sure that the user initiates sign-in on the same host that it will ultimately be forwarded to (and indicated in your SSO settings). A user in an account using, e.g.,

home.safebrands.com cannot initiate sign-in at secure.brandshelter.com. We are working so that this no longer has an impact and that the connection can be initiated from the 2 URLs.

4.6.6 "Your single sign-on user <email> is not assigned to any <brand> account"

Ensure that the user in question is assigned to the appropriate group for the application client in Cognito.

4.6.7 "Could not authenticate you from OpenIDConnect because "Invalid SAML response received: invalid phone number format."

Refer to the warning highlighted in yellow above in this page and check your SSO configuration: this message indicates an error in the attribute mapping of your SSO configuration, specifically on the format of the phone number.