SafeNet Authentication Service
Integration Guide

Using SafeNet Authentication Service as an Identity Provider for DropBox
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Contents

Third-Party Software Acknowledgement ........................................................................................................4
Description ........................................................................................................................................................4
Applicability ....................................................................................................................................................4
Environment ....................................................................................................................................................5
Audience ........................................................................................................................................................5
SAML Authentication using SafeNet Authentication Service Cloud ...............................................................5
SAML Authentication using SafeNet Authentication Service-SPE and SafeNet Authentication Service-PCE5
SAML Authentication Flow using SafeNet Authentication Service ...............................................................6
SAML Prerequisites ........................................................................................................................................6
Configuring DropBox .......................................................................................................................................6
   Downloading the SafeNet Authentication Service Metadata ................................................................. 8
   Download the SafeNet Identity Provider Certificate ............................................................................. 8
Configuring SafeNet Authentication Service .................................................................................................8
   Synchronizing Users Stores to SafeNet Authentication Service .......................................................... 8
   Assigning an Authenticator in SafeNet Authentication Service .......................................................... 8
   Adding DropBox as a Service Provider (SP) in SafeNet Authentication Service ............................... 9
   Enabling SAML Services in SafeNet Authentication Service .............................................................12
Running the Solution .....................................................................................................................................18
Support Contacts .............................................................................................................................................19
Third-Party Software Acknowledgement

This document is intended to help users of SafeNet products when working with third-party software, such as Dropbox.

Material from third-party software is being used solely for the purpose of making instructions clear. Screen images and content obtained from third-party software will be acknowledged as such.

Description

SafeNet Authentication Service delivers a fully automated, versatile, and strong authentication-as-a-service solution.

With no infrastructure required, SafeNet Authentication Service provides smooth management processes and highly flexible security policies, token choice, and integration APIs.

Dropbox is a file hosting service operated by Dropbox, Inc., that offers cloud storage, file synchronization, personal cloud, and client software.

Dropbox allows users to create a special folder on their computers, which Dropbox synchronizes so that it appears to be the same folder (with the same contents) regardless of which computer is used to view it. Files placed in this folder are also accessible via the Dropbox website and mobile apps.

This document describes how to:

- Configure SAML authentication in Dropbox using SafeNet Authentication Service as an identity provider.

It is assumed that the Dropbox environment is already configured and working with static passwords prior to implementing multi-factor authentication using SafeNet Authentication Service.

DropBox can be configured to support multi-factor authentication in several modes. The SAML authentication will be used for the purpose of working with SafeNet Authentication Service.

Applicability

The information in this document applies to:

- **SafeNet Authentication Service (SAS)**—SafeNet's cloud-based authentication service
- **SafeNet Authentication Service – Service Provider Edition (SAS-SPE)**—A server version that is used by Service providers to deploy instances of SafeNet Authentication Service
- **SafeNet Authentication Service – Private Cloud Edition (SAS-PCE)**—A server version that is used to deploy the solution on-premises in the organization
Environment

The integration environment that was used in this document is based on the following software versions:

- SafeNet Authentication Service – Private Cloud Edition (SAS-PCE)
- DropBox

Audience

This document is targeted to system administrators who are familiar with DropBox, and are interested in adding multi-factor authentication capabilities using SafeNet Authentication Service.

SAML Authentication using SafeNet Authentication Service Cloud

SafeNet Authentication Service (SAS) Cloud provides a service for SAML authentication that is already implemented in the SAS Cloud environment and can be used without any installation.

SAML Authentication using SafeNet Authentication Service-SPE and SafeNet Authentication Service-PCE

In addition to the pure cloud-based offering, SafeNet Authentication Service (SAS) comes with two on-premises versions:

- SafeNet Authentication Service – Service Provider Edition (SPE)—An on-premises version of SafeNet Authentication Service targeted at service providers interested in hosting SAS in their data center.
- SafeNet Authentication Service – Private Cloud Edition (PCE)—An on-premises version of SafeNet Authentication Service targeted at organizations interested in hosting SAS in their private cloud environment.

For both on-premises versions, SAS can be integrated with the Shibboleth infrastructure, which uses a special on-premises agent called SafeNet Authentication Service Agent for Shibboleth.

For more information on how to install and configure the SafeNet Authentication Service Agent for Shibboleth, refer to the SafeNet Support Portal.
SAML Authentication Flow using SafeNet Authentication Service

SafeNet Authentication Service (SAS) communicates with a large number of service providers and cloud-based services solutions using the SAML protocol.

The image below describes the dataflow of a multi-factor authentication transaction for DropBox.

1. A user attempts to log on to DropBox. The user is redirected to SafeNet Authentication Service. SAS collects and evaluates the user’s credentials.
2. SAS returns a response to DropBox, accepting or rejecting the user’s authentication request.

SAML Prerequisites

To enable SafeNet Authentication Service (SAS) to receive SAML authentication requests from DropBox, ensure that the end users can authenticate from the DropBox environment with a static password.

Configuring DropBox

To add SafeNet Authentication Service (SAS) as an Identity Provider in DropBox:
1. Log in to DropBox.
2. On the DropBox main window, in the left pane, click Admin Console.

(The screen image above is from DropBox. Trademarks are the property of their respective owners.)
3. On the Administrator console, in the left pane, click **Authentication**, and then in the right pane, perform the following steps:
   a. Select **Enable single sign-on**.
   b. Select **Optional** or **Required** according to your preferred configuration.
   c. In the **Sign in URL** field, enter `<HTTP-Redirect login URL>?entityid=<Dropbox entity ID>`.
      - `<HTTP-Redirect login URL>` is available in the SAS metadata you downloaded earlier (refer to "Error! Reference source not found." on page Error! Bookmark not defined.).
      - `<Dropbox entity ID>` is available on the Administrator console.
   
   ![Authentication page](image)

   *(The screen image above is from DropBox. Trademarks are the property of their respective owners.)*

   d. Click **X.509 certificate** and upload the SafeNet identity provider certificate that you downloaded earlier (refer to "Download the SafeNet Identity Provider Certificate" on page 8).
   
   e. Click **Save changes**.

   ![Authentication page](image)

   *(The screen image above is from DropBox. Trademarks are the property of their respective owners.)*
Download the SafeNet Authentication Service Metadata

Browse to the https://idp1.cryptocard.com/idp/shibboleth URL. The SafeNet Authentication Service metadata will automatically download. Save it locally on your machine.

Download the SafeNet Identity Provider Certificate

Browse to the https://cloud.safenet-inc.com/console/cert/idp.crt URL. The SafeNet identity provider certificate will automatically download. Save it locally on your machine.

Configuring SafeNet Authentication Service

The deployment of multi-factor authentication using SafeNet Authentication Service (SAS) with DropBox using SAML authentication requires:

- Synchronizing Users Stores to SafeNet Authentication Service, page 8
- Assigning an Authenticator in SafeNet Authentication Service, page 8
- Adding DropBox as a Service Provider (SP) in SafeNet Authentication Service. page 9
- Enabling SAML Services in SafeNet Authentication Service, page 12

Synchronizing Users Stores to SafeNet Authentication Service

Before SafeNet Authentication Service (SAS) can authenticate any user in your organization, you need to create a user store in SAS that reflects the users that would need to use multi-factor authentication. User records are created in the SAS user store using one of the following methods:

- Manually, one user at a time using the Create User shortcut
- Manually, by importing one or more user records via a flat file
- Automatically, by synchronizing with your Active Directory/LDAP server using the SAS Synchronization Agent

For further details on importing users to SafeNet Authentication Service, refer to “Creating Users” in the SafeNet Authentication Service Subscriber Account Operator Guide:


All SafeNet Authentication Service documentation can be found on the SafeNet Knowledge Base site.

Assigning an Authenticator in SafeNet Authentication Service

SafeNet Authentication Service (SAS) supports a number of authentication methods that can be used as a second authentication factor for users authenticating through DropBox.

The following authenticators are supported:

- eToken PASS
- RB-1 keypad token
• KT-4 token
• SafeNet GOLD
• SMS tokens
• MP-1 software token
• GrIDsure
• MobilePASS

Authenticators can be assigned to users in two ways:

• **Manual provisioning**—Assign an authenticator to users one at a time.
• **Provisioning rules**—The administrator can set provisioning rules in SAS so that the rules will be triggered when group memberships and other user attributes change. An authenticator will be assigned automatically to the user.

Refer to “Provisioning” in the *SafeNet Authentication Service - Subscriber Account Operator Guide* to learn how to provision the different authentication methods to the users in the SAS user store.


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**Adding DropBox as a Service Provider (SP) in SafeNet Authentication Service**

Add a service provider entry in the SafeNet Authentication Service (SAS) **SAML Service Providers** module to prepare it to receive SAML authentication requests from DropBox. You will need the Entity ID and assertion consumer URL location of DropBox.

**To add DropBox as a Service Provider in SafeNet Authentication Service:**

1. Log in to the SafeNet Authentication Service console with an Operator account.
2. Click the **COMMS** tab, and then click **SAML Service Providers**.

![COMMS tab and SAML Service Providers](image)

3. In the **SAML Service Providers** module, click the **SAML 2.0 Settings** link.

![SAML Service Providers module](image)

4. Click **Add**.

![Add SAML 2.0 Settings](image)

5. Under **Add SAML 2.0 Settings**, complete the following fields:

<table>
<thead>
<tr>
<th><strong>Friendly Name</strong></th>
<th>Enter the DropBox name.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAML 2.0 Metadata</strong></td>
<td>Select <strong>Create New Metadata File</strong>.</td>
</tr>
<tr>
<td><strong>Entity ID</strong></td>
<td>Enter the DropBox entity ID same as entered in step 4 of &quot;Error! Reference source not found.&quot; on page Error! Bookmark not defined..</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Enter <a href="https://www.dropbox.com/saml_login">https://www.dropbox.com/saml_login</a>.</td>
</tr>
</tbody>
</table>
NOTE: The remaining options are used to customize the appearance of the logon page presented to the user. For more information on logon page customization, refer “Configure SAML Service” in the SAML Configuration Guide:

Under **Return Attributes**, add the following attributes, and then click **Apply**:

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress">http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress</a></td>
<td>According to ThirdParty Product Requirements</td>
</tr>
<tr>
<td><a href="http://schemas.xmlsoap.org/claims/EmailAddress">http://schemas.xmlsoap.org/claims/EmailAddress</a></td>
<td>According to ThirdParty Product Requirements</td>
</tr>
<tr>
<td><a href="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name">http://schemas.xmlsoap.org/ws/2005/05/identity/claims/name</a></td>
<td>According to ThirdParty Product Requirements</td>
</tr>
<tr>
<td><a href="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/givenname">http://schemas.xmlsoap.org/ws/2005/05/identity/claims/givenname</a></td>
<td>According to ThirdParty Product Requirements</td>
</tr>
<tr>
<td><a href="http://schemas.xmlsoap.org/claims/CommonName">http://schemas.xmlsoap.org/claims/CommonName</a></td>
<td>According to ThirdParty Product Requirements</td>
</tr>
<tr>
<td><a href="http://schemas.xmlsoap.org/ws/2005/05/identity/claims/nameidentifier">http://schemas.xmlsoap.org/ws/2005/05/identity/claims/nameidentifier</a></td>
<td>According to ThirdParty Product Requirements</td>
</tr>
<tr>
<td>principal</td>
<td>According to ThirdParty Product Requirements</td>
</tr>
</tbody>
</table>
DropBox is added as a service provider in the system.

Enabling SAML Services in SafeNet Authentication Service

After DropBox has been added to SafeNet Authentication Service (SAS) as a service provider, the users should be granted permission to use this service provider with SAML authentication.

There are two methods to enable the user to use the service provider:

- Manually, one user at a time, using SAML Services module
- Automatically, by defining groups of users, using SAML Provisioning Rules
Using the SAML Services Module

Manually enable a single user to authenticate against one or more configured SAML Service providers.

1. Log in to the SafeNet Authentication Service console with an Operator account.

![Console Screenshot](image1)

2. Click the **ASSIGNMENT** tab, and then search for the required user.

![Search User](image2)

3. Click the appropriate user in the **User ID** column.

![Search User](image3)
4. Click **SAML Services**.

5. Click **Add**.

6. Under **Add SAML Service**, do the following:
   a. From the **Service** menu, select the DropBox service provider.
   b. In **SAML Login ID** field, select the type of login ID (User ID, E-mail, or Custom) to be sent as a UserID to DropBox in the response.
   c. Click **Add**.
The user can now authenticate to DropBox using SAML authentication.

<table>
<thead>
<tr>
<th>Index</th>
<th>Service</th>
<th>User ID</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Dropbox</td>
<td><a href="mailto:evid495group@saafenet-inc.com">evid495group@saafenet-inc.com</a></td>
<td>Active</td>
</tr>
</tbody>
</table>

**Using SAML Provisioning Rules**

Use this module to enable groups of users to authenticate to SAML service providers.

1. Log in to the SafeNet Authentication Service console with an Operator account.

2. Click the **POLICY** tab, and then click **Automation Policies**.
3. Click the **SAML Provisioning Rules** link.

![Image](image1.png)

4. Click **New Rule**.

![Image](image2.png)

5. Configure the following fields, and then click **Add**:

<table>
<thead>
<tr>
<th>Rule Name</th>
<th>Enter a name for the rule.</th>
</tr>
</thead>
<tbody>
<tr>
<td>User is in container</td>
<td>Users affected by this rule must be in the selected container.</td>
</tr>
<tr>
<td>Groups</td>
<td>The Virtual Server groups box lists all groups. Click the user groups that will be affected by the rule, and then click the right arrow to move it to the <strong>Used by rule</strong> box.</td>
</tr>
<tr>
<td>Parties</td>
<td>The Relying Parties box lists all service providers. Click the service providers that the groups of users will authenticate to, and then click the right arrow to move it to <strong>Rule Parties</strong> box.</td>
</tr>
<tr>
<td>SAML Login ID</td>
<td>Select E-mail. The E-mail will be returned to the service provider in the SAML assertion.</td>
</tr>
</tbody>
</table>
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Using SafeNet Authentication Service as an Identity Provider for DropBox
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Running the Solution

1. Open the following URL in a web browser:
   https://www.dropbox.com/sso/<companyID>
   Where, <companyID> is a number that is set by DropBox for your personal authentication link.

2. You are redirected to the SafeNet Authentication Service login window. Enter your user name and password, and then click **Login**.

3. After successful authentication, the **Dropbox** account window is displayed.

   (The screen image above is from DropBox. Trademarks are the property of their respective owners.)
Support Contacts

If you encounter a problem while installing, registering, or operating this product, please make sure that you have read the documentation. If you cannot resolve the issue, contact your supplier or Gemalto Customer Support. Gemalto Customer Support operates 24 hours a day, 7 days a week. Your level of access to this service is governed by the support plan arrangements made between Gemalto and your organization. Please consult this support plan for further information about your entitlements, including the hours when telephone support is available to you.

<table>
<thead>
<tr>
<th>Contact Method</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address</strong></td>
<td>Gemalto, Inc.</td>
</tr>
<tr>
<td></td>
<td>4690 Millennium Drive</td>
</tr>
<tr>
<td></td>
<td>Belcamp, Maryland 21017 USA</td>
</tr>
<tr>
<td><strong>Phone</strong></td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>1-800-545-6608</td>
</tr>
<tr>
<td></td>
<td>International</td>
</tr>
<tr>
<td></td>
<td>1-410-931-7520</td>
</tr>
<tr>
<td><strong>Technical Support</strong></td>
<td><a href="https://serviceportal.safenet-inc.com">https://serviceportal.safenet-inc.com</a></td>
</tr>
<tr>
<td><strong>Customer Portal</strong></td>
<td>Existing customers with a Technical Support Customer Portal account can log in to manage incidents, get the latest software upgrades, and access the Gemalto Knowledge Base.</td>
</tr>
</tbody>
</table>