SafeNet Authentication Service
Integration Guide

Using SafeNet Authentication Service as an Identity Provider for AirWatch
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Third-Party Software Acknowledgement

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

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.

AirWatch is the leading enterprise mobility management provider. AirWatch continues to develop solutions that empower companies to focus on innovative uses of mobile technology rather than dealing with the complexities of managing mobility.

Read more at: http://www.air-watch.com/company/about-us/

This document describes how to:

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

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

AirWatch 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)** — Mention only if SAS-PCE is relevant. Add version number to the SAS-PCE.
- **AirWatch**
Audience

This document is targeted to system administrators who are familiar with AirWatch, 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 Flow 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 AirWatch.
1. A user attempts to log on to AirWatch. The user is redirected to SafeNet Authentication Service. SAS collects and evaluates the user’s credentials.

2. SAS returns a response to AirWatch, accepting or rejecting the user’s authentication request.

**SAML Prerequisites**

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

**Configuring AirWatch**

To add SafeNet Authentication Service (SAS) as an Identity Provider in AirWatch:

1. Log in to AirWatch.

2. In the upper left corner, click Menu > Configuration > System Configuration.

*(The screen image above is from AirWatch software. Trademarks are the property of their respective owners.)*
3. On the **System Configuration** window, click **System > Enterprise Integration**.

![System Configuration Window](image1.png)

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

On the **Enterprise Integration** window, click **Directory Services**.

![Directory Services Window](image2.png)

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

4. On the **Directory Services** window, on the **Server** tab, under **Current Setting**, select **Override**.

![Current Setting Override](image3.png)

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

The LDAP options have been enabled.

![LDAP Configuration](image4.png)
5. In **Directory Type** field, select **None**.

6. Select the **Use SAML For Authentication** option.

7. On the **SAML Settings** window, complete the following fields:

<table>
<thead>
<tr>
<th>Service Provider (AirWatch) ID</th>
<th>Enter a unique AirWatch ID to be identified in the SAS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity Provider ID</td>
<td>Copy and paste the Entity ID value displayed in the SAS console.</td>
</tr>
<tr>
<td>Request</td>
<td>Select Redirect.</td>
</tr>
<tr>
<td>Identity Provider Single Sign On Url</td>
<td>Copy and paste the Identity Provider HTTP-Redirect login URL value displayed in the SAS console.</td>
</tr>
<tr>
<td>NameID Format</td>
<td>Select <strong>Unspecified</strong>.</td>
</tr>
<tr>
<td>Authentication Request Security</td>
<td>Select <strong>None</strong>.</td>
</tr>
<tr>
<td>Response</td>
<td>Select <strong>Post</strong>.</td>
</tr>
<tr>
<td>Authentication Response Security</td>
<td>Select <strong>None</strong>.</td>
</tr>
<tr>
<td>Certificates</td>
<td>Choose to upload the identity provider certificate. Select the certificate that was downloaded from the SAS console.</td>
</tr>
</tbody>
</table>
8. Click **Save**. The following is an example of the completed fields in the AirWatch console.

![AirWatch console screenshot](image.png)

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

9. Click **Export Service Provider Settings** and save the AirWatch metadata file (it will be needed later for SAS configuration).

10. Change the top tab to **User**.

11. On the **User Options** window, in the **Username** field, change the value to the following:

    `http://schemas.microsoft.com/ws/2008/06/identity/claims/uid`

12. Click **Save**.

SafeNet Authentication Service is now set as an identity provider in AirWatch.
Configuring SafeNet Authentication Service

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

- Synchronizing Users Stores to SafeNet Authentication Service, page 10
- Assigning an Authenticator in SafeNet Authentication Service, page 10
- Adding AirWatch as a Service Provider (SP) in SafeNet Authentication Service, page 11
- Enabling SAML Services in SafeNet Authentication Service, page 15

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 AirWatch.

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.


**Adding AirWatch 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 AirWatch. You will need the metadata of AirWatch which was downloaded on Configuring AirWatch section on page 6 step 9.

**To add AirWatch 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](image1)

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

![SAML 2.0 Settings](image2)

4. Click **Add**.

![Add SAML 2.0 Settings](image3)
5. Under **Add SAML 2.0 Settings**, complete the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Friendly Name</strong></td>
<td>Enter the AirWatch name.</td>
</tr>
<tr>
<td><strong>SAML 2.0 Metadata</strong></td>
<td>Select <strong>Upload Existing Metadata File</strong>. Click the <strong>Choose File</strong> button, select the Service Provider’s metadata file, and then click <strong>Open</strong>.</td>
</tr>
</tbody>
</table>

![Add SAML 2.0 Settings](image)

**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**: http://www2.safenet-inc.com/sas/implementation-guides/sas-on-prem/SAS-QS-SAML.pdf
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>

AirWatch is added as a service provider in the system.
Enabling SAML Services in SafeNet Authentication Service

After AirWatch 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.

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

3. Click the appropriate user in the User ID column.
4. Click **SAML Services**.

5. Click **Add**.

6. Under **Add SAML Service**, do the following:
   a. From the **Service** menu, select the AirWatch 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 AirWatch in the response.
   c. Click **Add**.
The user can now authenticate to AirWatch using SAML authentication.

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.

4. Click **New Rule**.

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

<table>
<thead>
<tr>
<th><strong>Rule Name</strong></th>
<th>Enter a name for the rule.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User is in container</strong></td>
<td>Users affected by this rule must be in the selected container.</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td>The <strong>Virtual Server groups</strong> 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><strong>Parties</strong></td>
<td>The <strong>Relying Parties</strong> 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><strong>SAML Login ID</strong></td>
<td>Select <strong>E-mail</strong>. The <strong>E-mail</strong> will be returned to the service provider in the SAML assertion.</td>
</tr>
</tbody>
</table>
Running the Solution

After configuring AirWatch to use SAS as its Identity Provider and SAS to use AirWatch as a SAML Service Provider, you can log in to AirWatch with the following steps:

1. Browse to the following URL: \texttt{https://<AirWatch\_service\_URL>/airwatch/login?GID=<Group\_ID>}
   - Replace \texttt{<AirWatch\_service\_url>} with the URL of your AirWatch service.
   - Replace \texttt{<Group\_ID>} with the group ID of your organization (this can be found using the Admin console: Menu > Configuration > Organization Group > Group ID field).

2. You will be redirected to the SafeNet Authentication Service Login page.

3. Enter your SAS credentials and then click Login. You will be logged in to the AirWatch account.

\textit{(The screen image above is from AirWatch software. 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>
</table>
| **Address**                    | Gemalto, Inc.  
|                                | 4690 Millennium Drive  
|                                | Belcamp, Maryland  21017 USA                                                        |
| **Phone**                      | United States  1-800-545-6608                                                      |
|                                | International  1-410-931-7520                                                      |
| **Technical Support Customer Portal** | [https://serviceportal.safenet-inc.com](https://serviceportal.safenet-inc.com) |
|                                | 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. |