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Third-Party Software Acknowledgement

This document is intended to help users of Gemalto products when working with third-party software, such as Office 365.

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

Remote access poses both a security and a compliance challenge to IT organizations. The ability to positively identify users (often remote users) requesting access to resources is a critical consideration in achieving a secure remote access solution. Deploying remote access solution without strong authentication is like putting your sensitive data in a vault (the datacenter), and leaving the key (user password) under the door mat.

A robust user authentication solution is required to screen access and provide proof-positive assurance that only authorized users are allowed access.

PKI is an effective strong authentication solution to the functional, security, and compliance requirements.

SafeNet Authentication Client (SAC) is a public key infrastructure (PKI) middleware that provides a secure method for exchanging information based on public key cryptography, enabling trusted third-party verification of user identities. SafeNet’s certificate-based tokens provide secure remote access, as well as other advanced functions, in a single token, including digital signing, password management, network logon, and combined physical/logical access.

The tokens come in different form factors, including USB tokens, smart cards, and software tokens. All of these form factors are interfaced using a single middleware client, SafeNet Authentication Client (SAC). The SAC generic integration with CAPI, CNG, and PKCS#11 security interfaces enables out-of-the-box interoperability with a variety of security applications, offering secure web access, secure network logon, PC and data security, and secure email. PKI keys and certificates can be created, stored, and used securely with the hardware or software tokens.

SafeNet Authentication Manager (SAM) provides your organization with a comprehensive platform to manage all of your authentication requirements, across the enterprise and the cloud, in a single, integrated system. SAM enables management of the complete user authentication life cycle. SAM links tokens with users, organizational rules, and security applications to allow streamlined handling of your organization’s authentication infrastructure with a flexible, extensible, and scalable management platform.

SAM is a comprehensive token management system. It is an out-of-the-box solution for Public Certificate Authorities (CA) and enterprises to ease the administration of SafeNet’s hardware or software tokens devices. SAM is designed and developed based on the best practices of managing PKI devices in common PKI implementations. It offers robust yet easy to customize frameworks that meets different organizations’ PKI devices management workflows and policies. Using SAM to manage tokens is not mandatory, but it is recommended for enterprise organizations.

For more information, refer to the SafeNet Authentication Manager Administrator Guide.

Office 365 from Microsoft is a cloud-based service that is designed to help meet your organization’s needs for robust security, reliability, and user productivity.

This document provides guidelines for deploying certificate-based authentication (CBA) for user authentication to Office 365 using SafeNet tokens.

It is assumed that the Office 365 environment is already configured and working with static passwords prior to implementing SafeNet multi-factor authentication.
Office 365 can be configured to support multi-factor authentication in several modes. CBA will be used for the purpose of working with SafeNet products.

### Applicability

The information in this document applies to:

- **SafeNet Authentication Client (SAC)**—SafeNet Authentication Client is the middleware that manages SafeNet's tokens.

### Environment

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

- **SafeNet Authentication Client (SAC)**—Version 9.0
- **Office 365**—On Cloud
- **AD FS**—On Windows Server® 2012 R2

### Audience

This document is targeted to system administrators who are familiar with Office 365, and are interested in adding multi-factor authentication capabilities using SafeNet tokens.

### CBA Flow using SafeNet Authentication Client

The diagram below illustrates the flow of certificate-based authentication:

1. A user attempts to log on to Office 365. The user is redirected to AD FS proxy server (WAP) for authentication.
2. After successful authentication, user is redirected to SafeNet Authentication Client (SAC) for a secondary authentication. The user uses the SafeNet token on which his certificate resides, and, when prompted, enters the token password.
3. The SAC authentication reply is sent back to AD FS, which returns a response to Office 365, accepting or rejecting the user’s authentication request.
4. The user is granted or denied access to Office 365.
Prerequisites

Before implementing certificate-based authentication for Office 365 using SafeNet tokens, ensure the following:

- To use CBA, the Microsoft Enterprise Certificate Authority must be installed and configured. In general, any CA can be used. However, in this guide, integration is demonstrated using Microsoft CA.
- If SAM is used to manage the tokens, Token Policy Object (TPO) should be configured with MS CA Connector. For further details, refer to the section “Connector for Microsoft CA” in the SafeNet Authentication Manager Administrator’s Guide.
- Users must have a SafeNet token with an appropriate certificate enrolled on it.
- SafeNet Authentication Client (9.0) should be installed on all client machines.

Supported Tokens in SafeNet Authentication Client

SafeNet Authentication Client (SAC) supports a number of tokens that can be used as a second authentication factor for users who authenticate to Office 365.

SafeNet Authentication Client 9.0 (GA) supports the following tokens:

Certificate-based USB tokens
- SafeNet eToken PRO Java 72K
- SafeNet eToken PRO Anywhere
- SafeNet eToken 5100/5105
- SafeNet eToken 5200/5205
- SafeNet eToken 5200/5205 HID and VSR

Smart Cards
- SafeNet eToken PRO Smartcard 72K
- SafeNet eToken 4100

Certificate-based Hybrid USB Tokens
- SafeNet eToken 7300
- SafeNet eToken 7300-HID
- SafeNet eToken 7000 (SafeNet eToken NG-OTP)

Software Tokens
- SafeNet eToken Virtual
- SafeNet eToken Rescue

Configuring Office 365 and AD FS

Configuring Office 365 and AD FS requires the following:

- Enabling Office 365 Federated Domains, page 7
- Configuring the AD FS Authentication Policy, page 8
Enabling Office 365 Federated Domains

1. Log in to the AD FS server machine as a domain administrator.
3. At the command prompt, type `Connect-MsolService`, and then press Enter.
4. On the Enter Credentials window, enter your Azure AD administrator username and password, and then click OK.

5. At the command prompt, perform the following steps:
   a. Type `Set-MsolADFSContext -Computer <AD FS machine name>`, and then press Enter.
   b. Type `Convert-MsolDomainToFederated -DomainName <your domain name>`, and then press Enter.

6. Open the AD FS Management console.
7. In the left pane, under Console Root, click AD FS > Trust Relationships > Relying Party Trusts.

   In the right pane, Microsoft Office 365 Identity Platform should be listed as a trust.
Configuring the AD FS Authentication Policy

1. On the AD FS Management console, in the left pane, under AD FS, click Authentication Policies.
2. In the right pane, click Edit Global Primary Authentication.

3. On the Edit Global Authentication Policy window, on the Primary tab, ensure that Forms Authentication is selected for both Extranet and Intranet.

4. Click the Multi-factor tab and then perform the following steps:
   a. Under Users/Groups, add users and/or groups for which MFA will be required.
b. Under **Locations**, select **Extranet** and/or **Intranet**, according to your preferred configuration.

c. Select **Certificate Authentication** as an additional authentication method.

d. Click **OK**.

![Global Authentication Policy](image1)

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

### Running the Solution

#### Connecting to Office 365

1. Open the following URL in a web browser:
   
   [https://login.microsoftonline.com](https://login.microsoftonline.com)

2. On the **Office 365** login window, enter your AD user name (for example, Bob@safenetdemos.com), and then click **Sign in**.

![Office 365 Login](image2)

*(The screen image above is from Microsoft® software. Trademarks are the property of their respective owners.)*
3. You will be redirected to your organization’s login page. Enter your AD password, and then click **Sign in**.

![Login Page](image)

4. After your credentials are authenticated by your organization’s AD FS, you are redirected to the **Confirm Certificate** window. Click **OK**.

![Confirm Certificate](image)

_(The screen image above is from Microsoft® software. Trademarks are the property of their respective owners.)_

5. On the SafeNet Authentication Client login window, enter the token password, and then click **OK**.

![Token Login](image)
After successful authentication, you are granted access to the **Office 365 admin center** dashboard.

---

**Connecting to SharePoint in Office 365**

Users can connect to SharePoint in Office 365 using their AD credentials and smartcards. Administrator will provide SharePoint URLs to users.

Connecting to SharePoint in Office 365 requires:

- Getting SharePoint URLs, Page 11
- Connecting to SharePoint, Page 12

**Getting SharePoint URLs**

1. Log in to **Office 365 admin center** as an administrator.
2. In the left pane, click **Admin > SharePoint**.

---

(The screen image above is from Microsoft® software. Trademarks are the property of their respective owners.)
In the right pane, the Office 365 SharePoint URLs are listed.

3. Provide any or all of the SharePoint URLs to other users.

**Connecting to SharePoint**

1. In a web browser, open any of the Office 365 SharePoint URLs received from the administrator.
2. On the Office 365 login window, enter your AD user name (for example, Bob@safenetdemos.com), and then click Sign in.
3. You will be redirected to your organization’s login page. Enter your AD password, and then click **Sign in**.

4. After your credentials are authenticated by your organization’s AD FS, you are redirected to the **Confirm Certificate** window. Click **OK**.

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

5. On the **SafeNet Authentication Client** login window, enter the token password, and then click **OK**.
After successful authentication, the Office 365 SharePoint console is displayed.

Appendix: Configuring AD FS with CBA for Single Authentication

1. On the AD FS Management console, in the left pane, under AD FS, click Authentication Policies.
2. In the right pane, click Edit Global Primary Authentication.
3. On the **Edit Global Authentication Policy** window, on the **Primary** tab, ensure that **Certificate Authentication** is selected for both **Extranet** and **Intranet**.

![Edit Global Authentication Policy](image)

(The screen image above is from Microsoft® 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>
<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>
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