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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 Dell Wyse vWorkspace.

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 Manager (SAM) is a versatile authentication solution that allows you to match the authentication method and form factor to your functional, security, and compliance requirements. Use this innovative management service to handle all authentication requests and to manage the token lifecycle.

Dell Wyse vWorkspace provides a single, graphical console that helps you manage your virtual infrastructure and perform administrative tasks. Key features of Dell Wyse vWorkspace are

- Connection brokering
- Enterprise level management
- Optimized user experience

Dell Wyse vWorkspace allows management of your environment to be simplified. It supports multiple desktop virtualization technologies and combines them into a single console, a single point of access, and a single client. Dell Wyse vWorkspace also provides the richest and most intuitive user experience available on a variety of access devices.

This document describes how to:

- Deploy multi-factor authentication (MFA) options in Dell Wyse vWorkspace using SafeNet one-time password (OTP) tokens managed by SafeNet Authentication Manager.
- Configure Dell Wyse vWorkspace to work with SafeNet Authentication Manager in RADIUS mode.

It is assumed that the Dell Wyse vWorkspace environment is already configured and working with static passwords prior to implementing multi-factor authentication using SafeNet Authentication Manager, and that the SafeNet Authentication Manager OTP plug-in for Microsoft RADIUS Client was installed as part of the simplified installation mode of SAM. For more information on SafeNet Authentication Manager installation modes, refer to the SafeNet Authentication Manager 8.2 Administrator’s Guide.

Dell Wyse vWorkspace can be configured to support multi-factor authentication in several modes. RADIUS protocol will be used for the purpose of working with SafeNet Authentication Manager.

Applicability

The information in this document applies to:

- SafeNet Authentication Manager—A server version of SAM 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 Manager 8.2 HF 493**
- **Dell Wyse vWorkspace — Version 8.6**
- **Microsoft Windows Server 2008 R2**

Audience

This document is targeted to system administrators who are familiar with Dell Wyse vWorkspace, and are interested in adding multi-factor authentication capabilities using SafeNet Authentication Manager (SAM).

RADIUS-based Authentication using SafeNet Authentication Manager

SafeNet’s OTP architecture includes the SafeNet RADIUS server for back-end OTP authentication. This enables integration with any RADIUS-enabled gateway or application. The SafeNet RADIUS server accesses user information in the Active Directory infrastructure via SafeNet Authentication Manager (SAM).

SAM’s OTP plug-in for Microsoft RADIUS Client works with Microsoft’s IAS or NPS, providing strong authenticated remote access through the IAS or NPS RADIUS server.

When configured, users who access their network remotely using IAS or NPS are prompted for a token-generated OTP passcode for network authentication.

For more information on how to install and configure the SafeNet OTP plug-in for Microsoft RADIUS Client, refer to the *SafeNet Authentication Manager 8.2 Administrator’s Guide*.

RADIUS Authentication Flow using SafeNet Authentication Manager

SafeNet Authentication Manager (SAM) communicates with a large number of VPN and access-gateway solutions using the RADIUS protocol.
The image below describes the dataflow of a multi-factor authentication transaction for Dell Wyse vWorkspace.

1. A user attempts to log on to Dell Wyse vWorkspace using an OTP token.
2. Dell Wyse vWorkspace sends a RADIUS request with the user’s credentials to SafeNet Authentication Manager for validation.
3. The SAM authentication reply is sent back to Dell Wyse vWorkspace.
4. The user is granted or denied access to Dell Wyse vWorkspace based on the OTP value calculation results from SAM and is connected to Dell Wyse vWorkspace.

**RADIUS Prerequisites**

To enable SafeNet Authentication Manager to receive RADIUS requests from Dell Wyse vWorkspace, ensure the following:

- End users can authenticate from the Dell Wyse vWorkspace environment with a static password before configuring the Dell Wyse vWorkspace to use RADIUS authentication.
- Ports 1812/1813 are open to and from Dell Wyse vWorkspace.
- A shared secret key has been selected. A shared secret key provides an added layer of security by supplying an indirect reference to a shared secret key. It is used by a mutual agreement between the RADIUS server and RADIUS client for encryption, decryption, and digital signatures.

**Third-Party Prerequisites**

- Dell Wyse vWorkspace is up and running.
- Active Directory Roles must be installed in the same machine which Dell Wyse vWorkspace is to be configured.
- Create AD user, assign, and provide the permissions to the user to access the Manage Applications on Dell Wyse vWorkspace.
- Ensure that all services and roles are configured in Dell Wyse vWorkspace.

**Configuring SafeNet Authentication Manager**

The deployment of multi-factor authentication using SafeNet Authentication Manager with Dell Wyse vWorkspace using the RADIUS protocol requires the following:

- Synchronizing Users Stores to SafeNet Authentication Manager, page 7
- Configuring SafeNet Authentication Manager’s Connector for OTP Authentication, page 7
Synchronizing Users Stores to SafeNet Authentication Manager

SafeNet Authentication Manager (SAM) manages and maintains OTP token information in its data store, including the token status, the OTP algorithm used to generate the OTP, and the token assignment to users. For user information, SAM can be integrated with an external user store. During the design process, it is important to identify which user store the organization is using, such as Microsoft Active Directory.

If the organization is not using an external user store, SAM uses an internal (“stand-alone”) user store created and maintained by the SAM server.

SAM 8.2 supports the following external user stores:

- Novell eDirectory
- Microsoft ADAM/AD LDS
- OpenLDAP
- Microsoft SQL Server 2005 and 2008
- IBM Lotus Domino
- IBM Tivoli Directory Server

Configuring SafeNet Authentication Manager’s Connector for OTP Authentication

SafeNet Authentication Manager (SAM) is based on open standards architecture with configurable connectors. This supports integration with a wide range of security applications, including network logon, VPN, web access, one-time password authentication, secure email, and data encryption.

If you selected the Simplified OTP-only configuration, SafeNet Authentication Manager is automatically configured with a typical OTP configuration, providing a working SafeNet Authentication Manager OTP solution.

The Simplified OTP-only configuration is as follows:

- **Connectors**—SAM Connector for OTP Authentication is installed
- **SAM Back-end Service**—Activated on this server; scheduled to operate every 24 hours

In addition, the SAM default policy is set as follows:

- OTP support (required for OTP) is selected in the Token Initialization settings.
- The **SAM Connector for OTP Authentication** is set, by default, to enable enrollment of OTP tokens without requiring changes in the Token Policy Object (TPO) settings. For more information on how to install and configure the SafeNet Authentication Manager for simplified installation, refer to the SafeNet Authentication Manager 8.2 Administrator’s Guide.
Assigning a Token in SafeNet Authentication Manager

SafeNet Authentication Manager (SAM) supports a number of OTP authentication methods that can be used as a second authentication factor for users authenticating through Dell Wyse vWorkspace.

The following tokens are supported:

- eToken PASS
- eToken NG-OTP
- SafeNet GOLD
- SMS tokens
- MobilePASS
- SafeNet eToken Virtual products
- MobilePASS Messaging
- SafeNet Mobile Authentication (iOS)
- SafeNet eToken 3400
- SafeNet eToken 3500

Tokens can be assigned to users as follows:

- **SAM Management Center**—Management site used by SAM administrators and helpdesk personnel for token enrollment and lifecycle management.
- **SAM Self-Service Center**—Self-service site used by end users for managing their tokens.
- **SAM Remote Service**—Self-service site used by employees not on the organization's premises as a rescue website to manage cases where tokens are lost or passwords are forgotten.

For more information on SafeNet's tokens and service portals, refer to the *SafeNet Authentication Manager 8.2 Administrator's Guide*.

Adding Dell Wyse vWorkspace as a RADIUS Client in IAS/NPS

For Windows Server 2003, the Windows RADIUS service is Internet Authentication Service (IAS). The IAS is added as the RADIUS server in Dell Wyse vWorkspace.

For Windows Server 2008 and above, the Windows RADIUS service is the Microsoft Network Policy Server (NPS). The NPS server is added as the RADIUS server in Dell Wyse vWorkspace.

Dell Wyse vWorkspace must be added as a RADIUS client on the IAS/NPS server so that IAS/NPS will authorize Dell Wyse vWorkspace for authentication.

**NOTE:** This document assumes that IAS/NPS policies are already configured and working with static passwords prior to implementing multi-factor authentication using SafeNet Authentication Manager.

The details below refer to NPS, and are very similar to IAS.
2. On the Network Policy Server web console, expand RADIUS Clients and Servers, right-click RADIUS Clients and then click New.

![Network Policy Server](image)

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

3. On the New RADIUS Client window, on the Settings tab, complete the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable this RADIUS client</td>
<td>Select this option.</td>
</tr>
<tr>
<td>Friendly name</td>
<td>Enter a RADIUS client name.</td>
</tr>
<tr>
<td>Address (IP or DNS)</td>
<td>Enter the Dell Wyse vWorkspace IP address or DNS.</td>
</tr>
<tr>
<td>Shared secret</td>
<td>Enter the shared secret for the RADIUS client. This entry must match the shared secret that was used when the RADIUS server was configured in Dell Wyse vWorkspace.</td>
</tr>
<tr>
<td>Confirm shared secret</td>
<td>Re-enter the shared secret to confirm it.</td>
</tr>
</tbody>
</table>
4. Click OK.

Dell Wyse vWorkspace is added as a RADIUS client in NPS.

**Configuring SafeNet Authentication Manager’s OTP Plug-In for Microsoft RADIUS Client**

RADIUS protocol is used for authentication and authorization. The SafeNet OTP solution supports the Microsoft IAS service (used in Windows 2003) and Microsoft NPS service (used in Windows 2008 and later) as Windows services running a RADIUS server. These services may be extended by adding plug-ins for the authentication process.

SafeNet Authentication Manager’s OTP plug-in for Microsoft RADIUS Client works with Microsoft’s IAS or NPS to provide strong, authenticated remote access through the IAS or NPS RADIUS server. When configured, users who access their network remotely using IAS or NPS are prompted for a token-generated OTP passcode for network authentication.

For more information on how to install and configure the SafeNet Authentication Manager OTP plug-in, refer to the *SafeNet Authentication Manager 8.2 Administrator’s Guide*. 
Configuring Dell Wyse vWorkspace

Configure Dell Wyse vWorkspace application portal for AD as the primary authentication and RADIUS as the secondary authentication.

1. On the server machine, open the Dell Wyse vWorkspace console.


(The screen image above is from Dell™. Trademarks are the property of their respective owners.)
3. In the right pane, under **vWorkspace Farm Web Access**, select the default website that you created (for example **vWorkspace**), and then click **Properties**. The **Web Access Site Properties** window is displayed.

   ![Web Access Site Properties](image1)
   
   *(The screen image above is from Dell™. Trademarks are the property of their respective owners.)*

4. On the **Web Access Site Properties** window, in left pane, under **Domain\Login Settings**, click **User Domains**.

   ![User Domains](image2)

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

5. In the right pane, under **User Domains**, perform the following steps:
   a. In the **Domain** field, enter the AD domain name (for example, **safenetdemos1**), and then click **Add**.
b. Select the **Allow user to select a domain** option.

c. Click **OK**.

![Web Access Site Properties](image)

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

6. In the left pane, under **Domain/Login Settings**, select **Two-Factor Authentication**.

![Web Access Site Properties](image)

*(The screen image above is from Dell™. Trademarks are the property of their respective owners.)*
7. In the right pane, under **Two-Factor Authentication**, select **Enable two-factor authentication**, and then perform the following steps:
   a. Select the **RADIUS (Quest Defender, RSA ACE/Server, Secure Computing RemoteAccess)** option.
   b. In the **Servers** field, enter the SAM RADIUS IP Address, and then click **Add**.
   c. In the **Port** field, enter **1812**.
   d. In the **Secret Key** field, enter the SAM RADIUS Shared Secret that you entered earlier in step 5 of “Synchronizing Users Stores to SafeNet Authentication Manager” on page 7.
   e. Select **Use separate OTP field**.
   f. Select **Unencrypted (PAP)** as the **Authentication type**.
   g. Click **OK**.

(The screen image above is from Dell™. Trademarks are the property of their respective owners.)
8. The Web Access Site Properties window is displayed. For applying settings, select the Contact the Web Access site directly and update its configuration option, and then click OK.

![Web Access Site Properties Window](image)

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

9. A success message is displayed. Click OK.

![Configuration Saved Successfully](image)

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

**Running the Solution**

You will use Dell Wyse vWorkspace Application Portal to securely access the configured application. In this solution, the SafeNet MobilePASS+ is used as the enrolled OTP token.

1. In a web browser, enter the following URL to access Dell Wyse vWorkspace:
   
   `https://FQDN of Dell Wyse vWorkspace Management console or IP Address/vWorkspace`

2. On the login window, complete the following fields, and then click Login.

<table>
<thead>
<tr>
<th>User name</th>
<th>Enter your AD username.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>Enter your AD password.</td>
</tr>
<tr>
<td>Passcode</td>
<td>Enter the OTP passcode that you generated using the SafeNet MobilePASS+ token.</td>
</tr>
</tbody>
</table>

After successful authentication, in the web browser, you are logged into the Dell Wise vWorkspace.

(The screen image above is from Dell™. Trademarks are the property of their respective owners.)
Appendix – Configuration Two Factor Authentication without Using a Separate OTP Field

1. On the Web Access Site Properties window, in the left pane, under Domain/Login Settings, click Two-Factor Authentication.

2. In the right pane, perform the following steps:
   a. Clear the Use separate OTP field option.
   b. Under Password structure, select AD Password/OTP or OTP/AD Password based on your preferred configuration.
   a. In the OTP length field, enter the length of OTP based on your preferred configuration.
   b. Click OK.

(The screen image above is from Dell™. 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>
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<th>Contact Method</th>
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<tr>
<td><strong>Address</strong></td>
<td>Gemalto</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>
</tbody>
</table>

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