Copyright 2022 One Identity LLC.
ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of One Identity LLC.

The information in this document is provided in connection with One Identity products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of One Identity LLC products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, ONE IDENTITY ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL ONE IDENTITY BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF ONE IDENTITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. One Identity makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. One Identity does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

One Identity LLC.
Attn: LEGAL Dept
4 Polaris Way
Aliso Viejo, CA 92656

Refer to our Web site (http://www.OneIdentity.com) for regional and international office information.

Patents
One Identity is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at http://www.OneIdentity.com/legal/patents.aspx.

Trademarks
One Identity and the One Identity logo are trademarks and registered trademarks of One Identity LLC. in the U.S.A. and other countries. For a complete list of One Identity trademarks, please visit our website at www.OneIdentity.com/legal. All other trademarks are the property of their respective owners.

Legend

⚠️ WARNING: A WARNING icon highlights a potential risk of bodily injury or property damage, for which industry-standard safety precautions are advised. This icon is often associated with electrical hazards related to hardware.

⚠️ CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

SAS ARS Integration Pack ARS IP Administration Guide
Updated - 19 May 2022, 11:43
Version - 2.5.0.568
Contents

About this guide .................................................................................................................. 5
Prerequisites ....................................................................................................................... 5
About ActiveRoles Server ..................................................................................................... 6
About Safeguard Authentication Services ............................................................................ 6
Key Features of the Integration Pack
  Access Templates ............................................................................................................... 7
  Managed Units .................................................................................................................... 8
  Policies ............................................................................................................................... 8
  Web Interface Extensions ................................................................................................. 9
Deploying the Integration Pack ............................................................................................ 10
Installing the Integration Pack ............................................................................................. 10
Upgrading the Integration Pack ........................................................................................... 11
Uninstalling .......................................................................................................................... 12
Administration Tasks ......................................................................................................... 13
  Provisioning Unix Users .................................................................................................... 13
    Deleting Policy Objects .................................................................................................. 14
  De-provisioning Unix Users .............................................................................................. 14
  Provisioning Unix Groups ................................................................................................ 15
  De-provisioning Groups .................................................................................................... 16
  Delegating Rights to Manage Unix Objects ..................................................................... 17
  Locating Unix Objects ...................................................................................................... 18
Using the Web Interface Extensions ................................................................................... 19
  Configure New Web Sites for the Web Interface .............................................................. 19
  Publish Web Interface Extensions .................................................................................. 20
  Unix-Enable a User .......................................................................................................... 20
  Unix-Disable a User ........................................................................................................ 21
    Clear Unix Attributes ..................................................................................................... 21
  Unix-Enable a Group ........................................................................................................ 22
  Unix-Disable a Group ...................................................................................................... 22
Troubleshooting .................................................................................................................. 23
No Application Configuration Found for Authentication Services ........................................ 23
Unix Properties Menu Not Visible in Web Interface ...................................................... 23
The Customization Link is Not Available in Web Interface ........................................ 24
Web Interface Extension Changes Are Not Saved ....................................................... 24
Restoring Integration Pack Web Interface Configuration ......................................... 24
Repairing Integration Scripts ..................................................................................... 25
Delegated User Unable to Modify Unix Attributes ..................................................... 25

About us ..................................................................................................................... 26
Contacting us ........................................................................................................... 27
Technical support resources ..................................................................................... 28
Index ......................................................................................................................... 29
About this guide

The [[Undefined variable CommonVariables.SAS_ARS]] Administration Guide is intended for (missing or bad snippet), (missing or bad snippet), Linux, and Mac system administrators, network administrators, consultants, analysts, and any other IT professionals installing the Integration Pack for the first time.

**NOTE:** To perform the exercises described in this guide, One Identity assumes you have the necessary permissions to manage users or groups.

The [[Undefined variable CommonVariables.SAS_ARS]] integrates ActiveRoles Server and Safeguard Authentication Services. This chapter explains the key features of the Integration Pack and summarizes how it provides value by lowering costs and simplifying management.

Prerequisites

This version of the [[Undefined variable CommonVariables.SAS_ARS]] has been updated to take advantage of the latest features of both Safeguard Authentication Services and ActiveRoles Server.

You must install the following software on the computer where you will install the Integration Pack:

- ActiveRoles Server 7.0 or higher, including the Administration Service, Web interface, and ActiveRoles Server console.
- Safeguard Authentication Services 4.1.0 or higher.

You must install the Integration Pack on a computer running the ActiveRoles Server Administration Service. The Administration Service must be running to make all the necessary changes to ActiveRoles Server.

**NOTE:** For older versions of ActiveRoles Server or Safeguard Authentication Services, install the Safeguard Authentication Services Support Pack for ActiveRoles Server Web Interface 2.0.5.
About ActiveRoles Server

ActiveRoles Server offers a practical approach to automated user provisioning and administration, for maximum security and efficiency. It provides total control of user provisioning and administration for Active Directory.

ActiveRoles Server can help you manage, automatically provision, re-provision and, more importantly, de-provision users quickly, efficiently and securely in Active Directory, AD LDS (formerly ADAM) and beyond. ActiveRoles Server provides strictly enforced role-based security, automated group management, change approval and easy-to-use Web interfaces for self service to achieve practical user and group lifecycle management for the (missing or bad snippet) enterprise.

About Safeguard Authentication Services

Safeguard Authentication Services integrates native (missing or bad snippet) and Linux authentication and identity subsystems with Active Directory. It eliminates key vulnerabilities and end-user downtime, to minimize risk and lower costs.

At its core Safeguard Authentication Services provides centralized authentication for Unix, Linux, and Mac systems to Active Directory (AD). With more than 500 current customers and 3 million seats, Safeguard Authentication Services is the clear market leader in Active Directory integration.

Key Features of the Integration Pack

The [Undefined variable CommonVariables.SAS_ARSS] extends the capabilities of the ActiveRoles Server Web interface to include the management of Unix and Linux identities such as Unix-enabled users and groups. You define all management operations by means of the ActiveRoles Server console. Then when managing the users and groups in the Web interface, the defined provisioning and security policies will be followed.

You can also use the ActiveRoles Server change-tracking features, such as management history, to monitor changes made to Unix-related data. ActiveRoles Server gives you a clear log, which documents the changes made to a given identity, such as a Unix-enabled user account. The log includes entries detailing actions performed, success or failure of the actions, as well as which properties were changed.

The Integration Pack provides ActiveRoles policy types that enable automatic provisioning and de-provisioning of Unix account attributes for users and groups. You can incorporate these provisioning actions into custom work flows.

The following sections describe these Integration Pack components:
Access Templates

You use standard ActiveRoles Server functionality to delegate management tasks on Unix data. You implement a delegation scheme by applying Access Templates included with the integration pack. For example, to delegate all Unix-related management tasks on (missing or bad snippet) user accounts, link the **Users - Modify All Unix Properties** template to a certain organizational unit and select the appropriate group as Trustee. As a result, any member of that group is authorized to perform the tasks on any user account held in that organizational unit.

To locate the Access Templates provided by the Integration Pack, in the ActiveRoles Server Console, navigate to **Configuration | Access Templates | Safeguard Authentication Services Integration v2.1.x**.

The following table summarizes the Access Templates included with the Integration Pack.

**Table 1: Access templates included with the integration pack**

<table>
<thead>
<tr>
<th>Access template</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups-Modify All Unix Properties</td>
<td>Permissions to view and modify these Unix-related properties of (missing or bad snippet) groups:</td>
</tr>
<tr>
<td></td>
<td>• Unix name</td>
</tr>
<tr>
<td></td>
<td>• Group ID</td>
</tr>
<tr>
<td>Users-Modify All Unix Properties</td>
<td>Permissions to view and modify these Unix-related properties of Windows user accounts:</td>
</tr>
<tr>
<td></td>
<td>• Unix name</td>
</tr>
<tr>
<td></td>
<td>• User ID</td>
</tr>
<tr>
<td></td>
<td>• Primary Group ID</td>
</tr>
<tr>
<td></td>
<td>• Comments (GECOS)</td>
</tr>
<tr>
<td></td>
<td>• Home Directory</td>
</tr>
<tr>
<td></td>
<td>• Login Shell</td>
</tr>
</tbody>
</table>
Managed Units

Managed Units allow you to locate the Unix users and groups in your ActiveRoles Server managed environment.

You use standard ActiveRoles Server functionality to provide administrative views of user and group accounts with Unix attributes.

To locate the Managed Units provided by the Integration Pack, in the ActiveRoles Server Console, navigate to Configuration | Managed Units | Safeguard Authentication Services Integration v2.1.x.

The following table summarizes the Managed Units included with the Integration Pack.

Table 2: Managed units included with the integration pack

<table>
<thead>
<tr>
<th>Managed unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unix-enabled groups</td>
<td>Administrative view of all Unix-enabled groups that exist in the domains registered with ActiveRoles Server (managed and unmanaged domains).</td>
</tr>
<tr>
<td>Unix-enabled users</td>
<td>Administrative view of all Unix-enabled users that exist in the domains registered with ActiveRoles Server (managed and unmanaged domains)</td>
</tr>
</tbody>
</table>

Policies

Use standard ActiveRoles Server functionality to provide Unix data management policies. You can create custom policy objects based on the policy types provided to allow for automated Unix account provisioning and de-provisioning.

To locate the Policy Types provided by the Integration Pack, in the ActiveRoles Server Console, navigate to Configuration | Server Configuration | Policy Types | Safeguard Authentication Services Integration v2.1.x.

The following table summarizes the Policy Types included with the Integration Pack.

Table 3: Policy types included with the integration pack

<table>
<thead>
<tr>
<th>Policy type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deprovision Unix Group</td>
<td>Enables automatic de-provisioning of Unix attributes when group objects are de-provisioned.</td>
</tr>
<tr>
<td>Deprovision Unix User</td>
<td>Enables automatic de-provisioning of Unix attributes when users are de-provisioned.</td>
</tr>
<tr>
<td>Provision Unix</td>
<td>Enables automatic provisioning of Unix attributes when new group</td>
</tr>
<tr>
<td>Policy type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Group</td>
<td>objects are provisioned.</td>
</tr>
<tr>
<td>Provision Unix User</td>
<td>Enables automatic provisioning of Unix attributes when new user objects are provisioned</td>
</tr>
</tbody>
</table>

Refer to Administration Tasks for procedures on how to enable automatic provisioning and de-provisioning of Unix account attributes for users and groups.

## Web Interface Extensions

The integration pack extends the ActiveRoles Server Web interface to include pages and commands that allow you to perform management tasks.

Tasks specific to Unix user accounts:
- Enable or disable Unix account
- View or modify Unix account properties
- Clear all Unix attributes

Tasks specific to Unix groups:
- Enable or disable Unix group
- View or modify Unix properties
- Clear all Unix attributes

The Integration Pack uses Access Templates to delegate these tasks.

**NOTE:** The Integration Pack installation process configures the Web interface extensions. To remove the Web interface extensions after the Integration Pack is installed and functioning, click Customization | Restore in the Web interface. To regain the Web interface extension functionality, run the ActiveRoles Integration Configuration Wizard from the Start menu.
Deploying the Integration Pack

The Integration Pack consists of a single (missing or bad snippet) .msi installer. This installer checks that the necessary prerequisite software is installed on the local machine before it installs the Integration Pack.

There are two steps to deploying the Integration Pack:

1. Install the Integration Pack configuration modules and Web Interface extensions.
2. Configure ActiveRoles Server.

Installing the Integration Pack

To install the Authentication Services ActiveRoles Integration

1. Click arsqas-2.1.x.msi file to start the InstallShield Wizard.
2. At the Welcome page, click Next.
3. At the Licence Agreement page, accept the terms in the license and click Next.
4. At the Ready to Install page, click Install.
5. When the InstallShield Wizard completes, leave the Launch setup wizard option selected and click Finish.
   Wait while the ActiveRoles Integration Configuration Wizard starts.
6. Select the ActiveRoles Server web sites that you want to extend for Safeguard Authentication Services and click Continue.

NOTE: You can manage your ActiveRoles Server web sites using standard ActiveRoles Server functionality. From the Start menu, navigate to All Programs | Quest Software | Safeguard Authentication Services | ActiveRoles Integration | ActiveRoles Integration Configuration Wizard to start the wizard which will help you configure web sites including newly created web sites for the ActiveRoles Server web interface.
NOTE: Every time you create and configure a new web site for the ActiveRoles Server Web Interface, you must run the ActiveRoles Integration Configuration Wizard.

7. When the configuration setup wizard completes, click **Restart ActiveRoles Now**.

8. When it becomes active, click the **Close** button and wait for a minute while ActiveRoles Server loads the startup information.

NOTE: Once the service restarts, wait a few minutes before you open the ActiveRoles Server console.

9. There are two ways to start the ActiveRoles Server Console:
   
   a. From the **Start** menu, navigate to **All Programs | Quest Software | ActiveRoles Server | ActiveRoles Server Console**.
   
      OR
   
   b. You can also access the ActiveRoles Server Console from the Safeguard Authentication Services Control Center. Navigate to **Start | All Programs | Quest Software | Quest Safeguard Authentication Services | Safeguard Authentication Services Control Center**.

Once the console is open, look for the **Safeguard Authentication Services Integration Pack v2.1.x** folder under these nodes:

- Access Templates
- Managed Units
- Policies | Administration
- Script Modules
- Server Configuration | Policy Types
- Applications

### Upgrading the Integration Pack

The Integration pack is not meant to be upgraded. Each version of the Integration Pack installs its policy objects, access templates, scripts and managed units into a version-specific container to isolate the data objects for each version. However, the Integration Pack shares Web interface modifications between all versions. For this reason, One Identity recommends that you uninstall the previous version before installing the new version.

When upgrading from one version of the Integration Pack to another, any customizations to Integration Pack data objects will be lost. To preserve Integration Pack customizations, One Identity recommends that you backup the modified objects before you uninstall the previous version. That is, copy or move the Access Templates, Policy Objects, Script Modules, or Virtual Attributes created by the old version of the Safeguard Authentication Services Support Pack for ActiveRoles Server Web Interface to a new location using
ActiveRoles Server management console. These objects are located in the ActiveRoles Server configuration container.

Uninstalling

To uninstall the Authentication Services ActiveRoles Integration

1. Navigate to the Control Panel | Programs | Programs and Features.
2. Right-click Safeguard Authentication Services ActiveRoles Integration and choose uninstall.
3. Click Yes on the Programs and Features dialog to confirm your decision.
4. When prompted,
   a. Click Yes to remove the ActiveRoles Server configuration.
      This removes the server and Web interface extensions from ActiveRoles Server.
   b. Click No to uninstall the Integration Pack but retain the ActiveRoles Server configuration.
      This leaves the ActiveRoles Server integration extensions in the console.
Administration Tasks

The Integration Pack enables you to automate the provisioning and de-provisioning of (missing or bad snippet) account attributes. You can also delegate rights to manage Unix accounts that reside in Active Directory. Managed Units allow you to locate the Unix users and groups in your ActiveRoles Server managed environment. This chapter explains how to accomplish these tasks with the Integration Pack.

To access the ActiveRoles Server Console

1. From the Start menu, navigate to Program Files | Quest Software | ActiveRoles Server | ActiveRoles Server Console.

Provisioning Unix Users

You can automatically Unix-enable users that are provisioned in ActiveRoles Server.

To automatically Unix-enable users

1. From the ActiveRoles Server Console, navigate to Configuration | Policies | Administration.
2. From the Action menu, select New | Provisioning Policy.
3. When the New Provisioning Policy Object Wizard starts, click Next.
4. On the Name and Description page, enter Unix-enable new users in the Name box and click Next.
5. On the Policy to Configure page, locate the Safeguard Authentication Services Integration Pack and select the Provision Unix User policy type and click Next.
6. On the Policy Parameters page, select the AutoUnixEnable parameter and click Edit.
7. On the Edit Parameter page, open the Value: drop-down menu, select True and click OK.
8. On the Policy Parameters page, click Next.
9. On the Enforce Policy page, click the Add button.
10. On the Select Objects page, click Browse, select Active Directory (to apply this policy to all new Active Directory users), and click OK.

11. On the Select Objects page, select the Active Directory item at the top of the list, click Add and then click OK.


13. Click Finish to create the new policy object.

14. On the ActiveRoles Server dialog, click OK to return to the ActiveRoles Server Console.

When you provision a new user account, the Integration Pack automatically Unix-enables that account. That is, it populates the user’s Unix attributes.

**Deleting Policy Objects**

*To delete policy objects*

1. From the ActiveRoles Server Console, navigate to Configuration | Policies | Administration.

2. Right-click a Policy Object and choose Policy Scope.
   This displays the links in which the Policy Object occurs.

3. Select the link, click Remove, Yes, OK, and then OK again.
   This deletes the links to the policy object.

4. Right-click the policy object and click Delete.

5. Click Yes to confirm your decision.

**De-provisioning Unix Users**

You can automatically disable Unix accounts when users are de-provisioned in ActiveRoles Server.

*To de-provision Unix users*

1. From the ActiveRoles Server Console, navigate to Configuration | Policies | Administration.

2. From the Action menu, select New | Deprovisioning Policy.

3. When the New Deprovisioning Policy Object Wizard starts, click Next.

4. On the Name and Description page, enter Disable Unix accounts for deprovisioned users in the Name box and click Next.

5. On the Policy to Configure page, locate the Safeguard Authentication Services Integration Pack and select the Deprovision Unix User policy type and click Next.
6. On the Policy Parameters page, select the UnixDisable parameter and click Edit.
7. On the Edit Parameter page, open the Value: drop-down menu, select True and click OK.
8. On the Policy Parameters page, select the PrimaryGidNumber parameter and click Edit.
9. On the Edit Parameter page, specify an integer value for the Primary GID number and click OK.
11. On the Enforce Policy page, click the Add button.
12. On the Select Objects page, click Browse, select Active Directory (to apply this policy to all new users), and click OK.
13. On the Select Objects page, select the Active Directory item at the top of the list, click Add and then click OK.
15. Click Finish to create the new policy object and close the wizard.
   When you de-provision a user account, the Integration Pack automatically disables the user's Unix attributes.

Provisioning Unix Groups

To automatically Unix-enable groups
1. From the ActiveRoles Server Console, navigate to Configuration | Policies | Administration.
2. From the Action menu, select New | Provisioning Policy.
3. When the New Provisioning Policy Object Wizard starts, click Next.
4. On the Name and Description page, enter Unix-enable new groups in the Name box and click Next.
5. On the Policy to Configure page, locate the Safeguard Authentication Services Integration Pack and select the Provision Unix Group policy type and click Next.
6. On the Policy Parameters page, select the AutoUnixEnable parameter and click Edit.
7. On the Edit Parameter page, open the Value: drop-down menu, select True and click OK.
8. On the Policy Parameters page, click Next.
9. On the Enforce Policy page, click the Add button.
10. On the Select Objects page, click Browse, select Active Directory (to apply this policy to all new Active Directory groups), and click OK.
11. On the Select Objects page, select the Active Directory item at the top of the list, click Add and then click OK.


13. Click Finish to create the new policy object.

14. On the ActiveRoles Server dialog, click OK to return to the ActiveRoles Server Console.

When you provision a new group account, the Integration Pack automatically Unix-enables the users associated with that account. That is, it populates the user’s Unix attributes.

### De-provisioning Groups

You can automatically disable Unix accounts when groups are de-provisioned in ActiveRoles Server.

**To de-provision Unix groups**

1. From the ActiveRoles Server Console, navigate to Configuration | Policies | Administration.

2. From the Action menu, select New | Deprovisioning Policy.

3. When the New Deprovisioning Policy Object Wizard starts, click Next.

4. On the Name and Description page, enter Disable Unix accounts for deprovisioned groups in the Name box and click Next.

5. On the Policy to Configure page, locate the Safeguard Authentication Services Integration Pack and select the Deprovision Unix Group policy type and click Next.

6. On the Policy Parameters page, select the UnixDisable parameter and click Edit.

7. On the Edit Parameter page, open the Value: drop-down menu, select True and click OK.

8. On the Policy Parameters page, click Next.

9. On the Enforce Policy page, click the Add button.

10. On the Select Objects page, click Browse, select Active Directory (to apply this policy to all new groups), and then click OK.

11. On the Select Objects page, select the Active Directory item at the top of the list, click Add and click OK.


13. Click Finish to create the new policy object and close the wizard.

When you de-provision a group account, the Integration Pack automatically clears the group’s Unix attributes rendering it Unix-disabled.
Delegating Rights to Manage Unix Objects

Use Access Templates to grant permissions to users and groups. When you add a user to an Access Template, you add all the attributes and permissions of that template to that user. When you apply Access Templates to a folder, you configure the permission settings to propagate from the folder to its child objects, down the directory structure.

You implement a delegation scheme by applying Access Templates included with the Integration Pack. For example, to delegate all Unix-related management tasks on (missing or bad snippet) user accounts, link the Users - Modify All Unix Properties Access Template to a certain organizational unit and select the appropriate group as Trustee. As a result, any member of that group is authorized to perform the tasks on any user account held in that organizational unit.

To delegate rights to manage Unix objects

1. From the ActiveRoles Server Console, navigate to Active Directory.
2. From the Action menu, choose Delegate Control
4. When the Delegation of Control Wizard starts, click Next.
   The Delegation of Control Wizards helps you delegate control of directory objects. Grant permission to manage users, groups, computers, organizational units, and other objects administered with ActiveRoles Server.
5. On the Users or Groups page, click Add
6. On the Select Objects page, click the link to display the objects.
7. Select objects, click Add and then OK.
8. On the Users or Groups page, click Next.
9. On the Access Templates page, expand Safeguard Authentication Services Integration v2.x and select Group or User or both and click Next.
10. On the Inheritance Options page, specify whether you want child objects to inherit the permission settings from the selected Access Templates and click Next.
11. On the Permissions Propagation page, leave the Propagate permissions to Active Directory option unselected and click Next.
12. On the "Complete" page, click Finish if you are satisfied with the delegation of control.
13. On the Access Template links page, click OK to return to the console

Users or groups with delegated rights to manage Unix objects can enable, disable, or change Unix attributes on users and groups in either the ActiveRoles Server Console or the Web interface.

**NOTE:** Each delegated user must have read access to the application configuration.
Locating Unix Objects

Managed Units allow you to locate the Unix users and groups in your ActiveRoles Server managed environment.

To locate Unix objects

1. From the ActiveRoles Server Console, navigate to Configuration | Managed Units | Safeguard Authentication Services Integration v2.x.
2. Right-click either Unix-enabled Groups or Unix-enabled Users and choose Find....
3. You use standard ActiveRoles Server functionality to search for objects of different types. For details on using the Find Users, Contacts, and Group dialog, open the Help menu, choose Help Topics, and open the Finding Objects topic.
Using the Web Interface Extensions

Safeguard Authentication Services provides Microsoft Management Console (MMC) extensions that support the ActiveRoles Server web interface allowing you to:

- Enable, disable, or clear the Unix properties for a (missing or bad snippet) user account
- View or modify Unix-related properties of a Windows user account
- Enable or clear the Unix group properties for a Windows group
- View or modify Unix-related properties of a Windows group

After you install the Integration Pack, you must publish the Web interface extensions.

Configure New Web Sites for the Web Interface

Every time you create and configure a new Web site for the ActiveRoles Server Web Interface, you must run the ActiveRoles Integration Configuration Wizard.

To configure new Web sites for the Web interface

1. From the Start menu, navigate to All Programs | Quest Software | Authentication Service ActiveRoles Integration | ActiveRoles Integration Configuration Wizard to start a wizard that will help you configure newly created Web sites for the ActiveRoles Server Web interface.
2. When the configuration setup wizard completes, click Restart ActiveRoles Now.
3. When it becomes active, click the Close button and wait for a minute while ActiveRoles Server loads the startup information.

| NOTE: | Once the service restarts, wait a few minutes before you open the ActiveRoles Server console. |
Publish Web Interface Extensions

Installing and then publishing the Web interface extensions adds a number of pages and commands to the ActiveRoles Server Web interface, enabling the management of Unix-specific information in Active Directory.

These pages and commands include:

- Unix Properties on User Account.
  View or modify Unix-related properties of a (missing or bad snippet) user account.
- Unix Properties on Group.
  View or modify Unix-related properties of a Windows group.

To publish Web interface extensions

1. Start the ActiveRoles Server Web interface in Windows Internet Explorer.
   
   | NOTE: The PROD.NAME only works with Internet Explorer. |
   a. Start Internet Explorer.
   b. Navigate to the following URL:
      http://<IP Address>/ARServerAdmin
   c. At the login screen, enter your user name and password.
2. From the Customization menu on the main page of the ActiveRoles Server Web Interface, choose the Reload option.
   
   | NOTE: If you do not see the Customization link on the ActiveRoles Server Web interface on Windows 2008 R2, run the browser with elevated privileges. |

Unix-Enable a User

You can manage the Unix-specific information for a (missing or bad snippet) user account from the ActiveRoles Server web interface.

To Unix-enable a user

1. Click the Directory Management link on the home page of the ActiveRoles Server.
2. From the ActiveRoles Server directory tree, navigate to Active Directory and select the Users folder under your managed domain.
3. In the details pane, click a user name link.
4. From the drop-down menu, select Unix Properties.
5. On the Unix Account tab, select the Unix Enabled option.
6. Modify any of the Unix-related properties.

   The **UID Number** is the unique identifier for a Unix user. Ideally, each Windows user is assigned a unique UID number. By default the Integration Pack generates a unique ID automatically. If you change the User ID, the Integration Pack checks to ensure the specified value is unique among Unix-enabled users.

   **NOTE:** The **Primary Group** box displays the Domain Name of the group corresponding to the Primary Group ID. You can click **Change** to browse Unix-enabled groups to find the Primary Group by name.

7. Click **Save** to commit your changes.

### Unix-Disable a User

**To Unix-disable a user**

1. Click the **Directory Management** link on the home page of the ActiveRoles Server.
2. From the ActiveRoles Server directory tree, navigate to **Active Directory** and select the **Users** folder under your managed domain.
3. In the details pane, click a user name link.
4. From the drop-down menu, select **Unix Properties**.
5. On the **Unix Account** tab, deselect the **Unix Enabled** option.
6. Click **Save** to commit your changes.

Unix-disabling a user changes his login shell to `bin/false`.

### Clear Unix Attributes

After you Unix-disable a user, you may want to clear that user's Unix attributes.

**To clear Unix attributes**

1. Click the **Directory Management** link on the home page of the ActiveRoles Server.
2. From the ActiveRoles Server directory tree, navigate to **Active Directory** and select the **Users** folder under your managed domain.
3. In the details pane, click a user name link.
4. From the drop-down menu, select **Unix Properties**.
5. Clear the text of each Unix-related property and click **Save**.

   **NOTE:** When you click **Save**, if there is a Unix property in any of the fields, the Integration Pack makes no changes to the user's Unix properties.
Unix-Enable a Group

You can manage the Unix-specific information for a (missing or bad snippet) user account from the ActiveRoles Server web interface.

To Unix-enable a group

1. Click the Directory Management link on the home page of the ActiveRoles Server.
2. From the ActiveRoles Server directory tree, navigate to Active Directory and select the Users folder under your managed domain.
3. In the details pane, click a group name link.
4. From the drop-down menu, select Unix Properties.
5. On the Unix Account tab, select the Unix Enabled option.
6. Modify any of the Unix-related properties.
   The GID Number is the unique identifier for a Unix group. Ideally, each Windows group is assigned a unique Group ID number. By default the Integration Pack generates a unique ID automatically. If you change the GID Number, the Integration Pack checks to ensure the specified value is unique among Unix-enabled groups.
7. Click Save to commit your changes.

Unix-Disable a Group

To Unix-disable a group

1. Click the Directory Management link on the home page of the ActiveRoles Server.
2. From the ActiveRoles Server directory tree, navigate to Active Directory and select the Users folder under your managed domain.
3. In the details pane, click a group name link.
4. From the drop-down menu, select Unix Properties.
5. On the Unix Account tab, deselect the Unix Enabled option.
6. Click Save to commit your changes.

Unix-disabling a group clears the GID.
Troubleshooting

To help you troubleshoot, One Identity recommends the following resolutions to some of the common problems you might encounter as you deploy and use the [[[[Undefined variable CommonVariables.SAS_ARSS]]].

No Application Configuration Found for Authentication Services

The Integration Pack must have an Safeguard Authentication Services Application Configuration available for each managed forest. During the Safeguard Authentication Services Integration Setup for ActiveRoles Server, if you do not have an application configuration in list of domains, the ActiveRoles Integration Configuration Wizard displays an error message that says, "No Application Configuration Found for Safeguard Authentication Services".

To make the Safeguard Authentication Services Application Configuration available to the Integration Pack

1. Using standard ActiveRoles Server functionality, add the Active Directory domain in which the Safeguard Authentication Services Application Configuration resides to the list of domains managed by ActiveRoles Server.

-OR-

2. Delete the Safeguard Authentication Services Application Configuration from its current location and re-create it in the domain where ActiveRoles Server resides.

Unix Properties Menu Not Visible in Web Interface

After installing the Integration Pack, whenever you select a user or group in the ActiveRoles Server Web interface, a new menu entry appears called Unix Properties. If you do not see
this menu entry, ensure that you configured the web site for Safeguard Authentication Services ActiveRoles Integration.

To configured the web site for Safeguard Authentication Services ActiveRoles Integration

1. From the Start menu on the machine where the Integration Pack is installed, navigate to All Programs | Quest Software | Safeguard Authentication Services ActiveRoles Integration | ActiveRoles Integration Configuration Wizard to start the wizard.

If you still do not see the Unix Properties extension

1. Start the ActiveRoles Server Web interface in (missing or bad snippet) Internet Explorer.
2. From the Customization menu on the main page of the ActiveRoles Server Web Interface, choose the Reload option.

The Customization Link is Not Available in Web Interface

To see the Customization link on the ActiveRoles Server web interface on Windows 2008 R2, run the browser with elevated privileges.

Web Interface Extension Changes Are Not Saved

The Web interface extensions for the Integration Pack are based on ActiveRoles virtual attributes. This allows the Unix attributes to map to the correct LDAP attributes in Active Directory based on the Safeguard Authentication Services configuration. However, if the virtual attribute maps to a read-only LDAP attribute then any changes to the virtual attribute will not be propagated to the directory. User and group objects from unmanaged domains are read-only.

Restoring Integration Pack Web Interface Configuration

To restore the Safeguard Authentication Services ActiveRoles Integration extensions to the Web interface, run ActiveRoles Integration Configuration Wizard from the Start menu on
the ActiveRoles Server. This tool allows you to re-configure the Web interface extensions.

⚠️ **CAUTION:** Do not select Customization | Restore Default in the ActiveRoles Server web interface unless you want to uninstall the Integration Pack. If you select Customization | Restore Defaults, all extensions are removed and the web interface is reset to the defaults.

## Repairing Integration Scripts

If you modify an Safeguard Authentication Services ActiveRoles Integration script and it becomes corrupt, causing errors when it is run, you can repair it.

**To repair integration scripts**

From the command line, run:

```
"C:\Program Files\Quest Software \Safeguard Authentication Services Integration 2.1.x\SetupUi.exe" -force
```

## Delegated User Unable to Modify Unix Attributes

To be able to manage Unix users within his delegated domain, you must assign a delegated user read permissions to the Application Configuration.

**Problem:** Even though a user or group has a Unix Account tab, when you select the tab, the Unix attributes do not display. Instead you see a message that says, "The Configuration Setting for Safeguard Authentication Services could not be found in Active Directory" even though there is a configuration in the forest. At times a user is delegated permission to manage Unix attributes for users and/or groups within an organizational unit but that user does not have read access to other containers in the domain.

**Solution:** You must delegate permission to the user by means of ActiveRoles Server so he can list and read the Safeguard Authentication Services Application Configuration. For more information about the Safeguard Authentication Services Application Configuration see **Configure Active Directory for Safeguard Authentication Services** in *Safeguard Authentication Services Installation Guide.*
One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.
Contacting us

For sales and other inquiries, such as licensing, support, and renewals, visit https://www.oneidentity.com/company/contact-us.aspx.
Technical support resources

Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at https://support.oneidentity.com/.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to videos at www.YouTube.com/OneIdentity
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product
Index

A
Access Template
  how to apply 17
access templates
  described 7
  use to delegate 9
ActiveRoles Server web interface
  accessing 19
administration tasks 13
administrative views
  how to provide 8
delegate management tasks
  how to 7
delegate rights to manage Unix accounts
  in AD 13
delegate rights to manage Unix objects 17
delete policy objects 14

I
installation procedures 10

L
link Access Template to an ou 17
locate Unix users and groups in managed environment 13

M
managed units
  described 8

P
policy objects
  deleting 14
policy types
  defined 6
  described 8
prerequisites 5
provisioning and de-provisioning Unix account attributes 13
provisioning Unix groups 15

C
change-tracking features
  defined 6

D
de-provisioning groups 16
de-provisioning Unix users 14
provisioning Unix users 13

Web interface extensions
  publish 20

T
TERM
  sub-term 18
Troubleshooting
  Customization link not available in
    Web interface 23-24
  Delegated User Unable to Modify Unix
    Attributes 25
  No Application Configuration Found
    for Authentication Services 23
  repairing integration scripts 25
  restore Web interface
    configuration 24
  Unix properties menu not visible in
    Web interface 23
  Web interface extension changes are
    not saved 24

U
  uninstalling procedures 12
  Unix-disable a group 22
  Unix-disable a user 21
  Unix-enable a group 22
  Unix-enable a user 20
  upgrading procedures 11

W
  web interface
    defined 6
    tasks 9
  web interface extensions
    how to remove 9