

One Identity Active Roles 7.6

Release Notes

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These release notes provide information about the changes, enhancements, and known or resolved issues of Active Roles 7.6. For the most recent documents and product information, and for the release notes and documentation of earlier product releases, see the [online Active Roles technical documentation](#) on the One Identity Support Portal.

About this release

Active Roles 7.6 is a minor release with new features, enhancements and resolved issues.

- For more information on the new features, see [New features](#).
- For more information on the enhancements, see [Enhancements](#).
- For more information on the list of resolved issues, see [Resolved issues](#).
- For more information on the list of known issues, see [Known issues](#).

New features

New features in Active Roles 7.6 include the following:

- **Linked mailboxes for on-premises users:** Active Roles 7.6 introduces support for linked mailboxes (that is, configuring an Exchange mailbox for an on-premises user in organizations where the user accounts and the mailboxes are managed in different Active Directory (AD) forests).

Based on the Exchange Resource Forest Management (ERFM) feature, Active Roles can automate provisioning linked mailboxes by automatically creating the shadow accounts and the associated Exchange mailboxes (both for new on-premises users, and for existing users without mailboxes).

For more information, see *Configuring linked mailboxes with Exchange Resource Forest Management* in the *Active Roles Administration Guide*.

- **Remote mailboxes for on-premises users:** Active Roles 7.6 introduces support for linked mailboxes (that is, assigning existing cloud Exchange Online mailboxes to existing on-premises users). Configuring cloud mailboxes for on-premises users allows your organization to store user mailboxes and mailbox data in the Exchange Online cloud, even if the user accounts in your organization are not hybrid or cloud-only user accounts.

For more information, see *Configuring remote mailboxes for on-premises users* in the *Active Roles Administration Guide*.

- **Generic SCIM Connector for Active Roles Synchronization Service:** Active Roles 7.6 adds a new connector to Active Roles Synchronization Service. With the **Generic SCIM Connector**, you can configure inbound data synchronization connections for the following SCIM 2.0-based One Identity Starling Connect connectors:
 - SuccessFactors HR version 8.0
 - ServiceNow version 2.0

NOTE: Consider the following when planning to configure a SCIM-based data synchronization connector:

- One Identity tested the **Generic SCIM Connector** for compatibility only with the SuccessFactors HR 8.0 and ServiceNow 2.0 connectors. Nevertheless, the **Generic SCIM Connector** may work with other SCIM 2.0-based Starling Connect connectors (that have attribute query semantics compatible with the SuccessFactors HR 8.0 and ServiceNow 2.0 connectors on a network level).
- To configure a connection to the PingOne or Workday HR connectors of Starling Connect, use the older **SCIM Connector** of Active Roles Synchronization Service. For more information, see *Configuring data synchronization with the SCIM Connector* in the *Active Roles Synchronization Service Administration Guide*.

For more information on the **Generic SCIM Connector**, see *Configuring data synchronization with the Generic SCIM Connector* in the *Active Roles Synchronization Service Administration Guide*.

- **Cloud-only shared mailboxes:** Active Roles 7.6 introduces support for cloud-only shared mailboxes, allowing you to create, view, modify or delete Exchange Online shared mailboxes via the Active Roles Web Interface.

For more information about managing cloud-only shared mailboxes in Active Roles, see *Managing cloud-only shared mailboxes* in the *Active Roles Administration Guide*.

For more information about shared mailboxes, see [Shared mailboxes in Exchange Online](#) in the *Microsoft Exchange Online documentation*.

- **Cloud-only distribution groups:** Active Roles 7.6 introduces support for cloud-only distribution groups, allowing you to create, view, modify or delete Exchange Online distribution groups via the Active Roles Web Interface.

For more information about how to create, modify or delete distribution groups, see *Managing cloud-only distribution groups* in the *Active Roles Administration Guide*.

For more information about distribution groups, see [Manage distribution groups](#) in the *Microsoft Exchange Online documentation*.

Deprecated features

Active Roles 7.6 no longer supports the following feature:

- **Starling Two-Factor Authentication (2FA):** Starting from Active Roles 7.6, Starling 2FA is no longer supported and has been removed from Active Roles. For more information, see [Upgrade and version compatibility](#).

Enhancements

The following is a list of enhancements implemented in Active Roles 7.6.

Table 1: Active Roles Web Interface enhancements

Enhancement	Issue ID
Previously, when managing Azure users or Azure guest users, the Azure Properties > Job Info > Change the manager setting listed only Azure users. This setting has been improved, so that you can now also assign Azure guest users as managers.	297351
Starting from Active Roles 7.6, you can improve the performance of the Active Roles Web Interface by setting the timespan of an Azure PowerShell memory cache to shorten the waiting time when using any of the Azure and/or Exchange Online functions under the Azure node. To set the timespan of the memory cache, modify the value of the following registry key: HKEY_LOCAL_MACHINE\Software\One Identity\Active Roles\Configuration\Service\AzurePowershellMemoryCacheTimeInSec The default value is 30 seconds. Setting the value to 0 disables memory caching.	308691

Enhancement	Issue ID
For the changes to take effect, after modifying the registry key, restart the Active Roles Administration Service. If you modify the timespan of the memory cache, the changed duration will only be visible after a timeout.	

Table 2: Active Roles Synchronization Service enhancements

Enhancement	Issue ID
Improved the performance of the Microsoft Office 365 Connector by processing group membership status only if the Member attribute is included in the Update rules of the workflow.	305240
Improved the compatibility of the Salesforce Connector by updating the Salesforce API version it uses from version 19 (retired in the Summer '22 Salesforce release) to version 46.	293374

Resolved issues

The following is a list of issues addressed in this release.

Table 3: Resolved Issues – Active Roles Configuration Center

Resolved issue	Issue ID
Previously, the Starling Join process did not work, and resulted in an error. The issue was caused by Starling no longer supporting Internet Explorer, but the Active Roles Configuration Center still used it to display the Starling web site. The issue has been fixed, and the Starling Join or Unjoin process works properly again.	312515

Table 4: Resolved Issues – Active Roles Console (MMC Interface)

Resolved issue	Issue ID
Previously, starting from Active Roles 7.5, Azure licenses and Office 365 roles could not be updated via custom Active Roles change workflows. This issue was a result of the retirement of Azure Graph API, and its subsequent replacement with Microsoft Graph API introduced in Active Roles 7.5. This issue is now fixed, and you can update Azure licenses and O365 roles again with change workflows.	307467

Table 5: Resolved Issues – Active Roles Installer

Resolved issue	Issue ID
<p>Previously, if you used PowerShell in AllSigned mode (Set-ExecutionPolicy - ExecutionPolicy AllSigned), you could not run unsigned or unvalidated PowerShell scripts, for example scripts that were not digitally signed by a trusted publisher, or scripts that were signed but not validated by the installed certificates.</p> <p>The issue has been resolved: if your organization requires you to use AllSigned mode instead of the default Remote signed mode, in the Active Roles Setup, you can install the optional One Identity certificate during the Active Roles installation process.</p>	308955

Table 6: Resolved Issues – Active Roles Synchronization Service

Resolved issue	Issue ID
<p>Previously, when configuring Azure BackSync by matching an Azure security group with an on-premises group, and assigning a license to that Azure security group, mapping of the group objects failed with an Unexpected character encountered while parsing value: licenseProcessingState error message.</p> <p>The issue was caused by compatibility issues with Microsoft Graph API, and has been fixed by updates in the group model.</p>	310441
<p>Previously, in the Active Roles Synchronization Service, when setting up an Update workflow connection between two connectors, the Process delta from last run setting did not work for the Microsoft Active Directory Connector if it was set to remote mode.</p> <p>The issue has been resolved and now delta processing works for the Microsoft Active Directory Connector in remote mode.</p>	308526
<p>Previously, after performing an in-place upgrade of Active Roles, and reconfiguring Active Roles Synchronization Service, opening a previously configured Microsoft Azure AD Connector connection or workflow resulted in a DLL load exception.</p> <p>The issue was caused by an error in updating the Microsoft Azure AD Connector configuration files after an upgrade, and has been fixed.</p>	303354
<p>Previously, password synchronization operations did not work with the Oracle Database User Accounts Connector.</p> <p>The issue was caused by incorrect attribute formatting, and has been fixed.</p>	301942
<p>Previously, when configuring a Microsoft Azure AD Connector connection, the connection test completed successfully even if you specified invalid credentials (for example, an invalid Client secret), and you could save the configuration with incorrect connection settings.</p>	301065

Resolved issue	Issue ID
This issue has been fixed, so that you can save a configured Microsoft Azure AD Connector connection only if the specified credentials are correct.	

Table 7: Resolved Issues – Active Roles Web Interface

Resolved issue	Issue ID
<p>Previously, in a multi-tenant deployment, removing an Azure tenant in the Active Roles Configuration Center and then restarting the Active Roles Administration Service resulted in the remaining Azure tenant(s) appearing empty, with none of their sub-containers visible in the Active Roles Web Interface.</p> <p>This issue has been fixed.</p>	311654, 312513
<p>Previously, when managing multiple Azure tenants in your organization, listing the Azure room mailboxes in a specific tenant, and then listing the room mailboxes of another Azure tenant resulted in the room mailboxes of this second opened Azure tenant listed in every Azure tenant. After that, switching too many times between the existing Azure tenants resulted in the Resource Mailbox listing of the Azure tenants appearing blank.</p> <p>This issue was caused by a caching problem in the Active Roles Web Interface, and has been fixed by ensuring that Azure tenant resources are cached separately in a multi-tenant deployment.</p>	310311
<p>Previously, if cloud-only Azure room mailboxes were also included in a quick or advanced search, the searches were slower than normal.</p> <p>This issue has been fixed, so listing Azure room mailboxes takes less time now.</p>	310227
<p>Previously, when selecting multiple Azure users or Azure guest users in quick succession, the Active Roles Web Interface might show the list of actions available for the first selected user, instead of the bulk operations that you could perform on all selected users.</p> <p>As Active Roles could list the bulk operations applicable to multiple users faster than the longer list of actions available for the first selected user, this issue was caused by Active Roles refreshing the list of actions applicable to multiple users with that of the first selected user.</p> <p>The issue has been fixed by implementing an additional check to prevent replacing the list of bulk operations with those of the first selected user when multiple users (or guest users) are selected.</p>	308413
<p>Previously, when opening the Azure Properties window of any Azure user or Azure guest user, the Identity > User Principal Name field was empty.</p> <p>This issue was caused by a UI population error, and has been fixed.</p>	307479
<p>Previously, attempting to create a new hybrid Azure user in the Active Roles</p>	307327

Resolved issue**Issue ID**

Web Interface could result in a Value does not fall within the expected range error.

This issue was caused by a request error, and has been fixed.

Previously, trying to reset the password of an Azure user in the Active Roles Web Interface returned an Insufficient privileges to complete the operation error. 293601

The issue was caused by a Microsoft Graph API-related problem, and has been fixed by adding the User administrator directory role to the Active Roles Azure application.

Previously, when opening an Office 365 group via the **Azure > <azure-tenant-name> > Office 365 Groups** node of the Active Roles Web Interface, the **Properties** step of the selected Office 365 group did not contain the **Alias** property. 279806

This issue has been fixed, and the **Alias** property now appears.

Previously, when a group policy was applied to an Organization Unit (OU), for example to allow administrators to create only certain types of groups in the OU, the Active Roles Web Interface identified existing groups moved from another OU incorrectly, resulting in the following issues: 270156

- Opening the **General Properties** of an existing group moved from another OU displayed the type of the moved group as the policy-enforced group type, even if the moved group had a different group type. For example, a security group moved from another OU appeared as a distribution group if the group policy of the OU allowed administrators to create distribution groups only.
- Clicking **Save** in the **General Properties** window of that group modified the type of the group to the policy-enforced group type.

These issues have been solved so that the Active Roles Web Interface displays the correct group information for each group in the OU, and enforces the group policy only for newly-created groups.

Previously, in the Active Roles Web Interface, you could experience slow performance if you disabled inbound and outbound TCP ports **7465 (HTTP)** and **7466 (HTTPS)**. 216315

This issue was caused by the notification system that displays Starling-related notifications under the **Notifications** (bell) icon. The notification system uses these ports for communication, so disabling these ports resulted in slow performance.

The issue has been resolved by updating the Active Roles Web Interface to support disabling Starling-related notifications. To do so, navigate to **Customization > Global Settings** and clear **Enable Starling promotion**.

NOTE: If your Active Roles deployment is connected to One Identity Starling, One Identity recommends enabling Starling promotion. To ensure that notifications work, enable inbound and outbound TCP ports **7465 (HTTP)** and **7466 (HTTPS)** in your environment.

Known issues

The following is a list of issues known to exist at the time of release.

Table 8: General known issues

Known Issue	Issue ID
Activating the EnableAntiForgery key (<add key="EnableAntiForgery" value="true"/> in web.config) may cause the following error message:	91977

Session timeout due to inactivity. Please reload the page to continue.

Workaround

Update the **IgnoreValidation** key in the <appSettings> section by adding a property value in lowercase:

1. Open the IIS Manager.
2. In the left pane, under **Connections**, expand the tree view to **Sites > Default Web Site**.
3. Under **Default Web Site**, click on the Active Roles application (ARWebAdmin by default).
4. Double-click **Configuration Editor**.
5. From the **Section** drop-down, select **appSettings**.
6. Find the **IgnoreForValidation** key.
7. Append the comma-separated value to **IgnoreForValidation**, for example: **lowercasecontrolname**.
8. In the right pane, under **Actions**, click **Apply**.
9. Recycle the App pool.

Table 9: Known Issues – Active Roles Configuration Center

Known Issue	Issue ID
When configured for Group and Contacts, the Office 365 and Azure Tenant Selection policy displays additional tabs.	229031
Tenant selection supports selecting only a single tenant.	229030
In the Starling Connect Connection Settings link, clicking Next displays progress, but the functionality is not affected, so the button is not required.	126892

Table 10: Known Issues – Active Roles Console (MMC Interface)

Known Issue	Issue ID
Automation workflow with Office 365 script fails, if multiple workflows share the same script and the script is scheduled to execute at the same time. Workaround One Identity recommends scheduling the workflows with different scripts or at a different time.	200328
When a workflow is copied from built-in workflows, it may not run as expected.	153539
Azure Group Properties are not available if they are added to the Office 365 Portal or Hybrid Exchange Properties from the forwarding address attribute of Exchange online users.	98186
In Active Roles with the Office 365 Licenses Retention policy applied, after deprovisioning the Azure AD user, the Deprovisioning Results for the Office 365 Licenses Retention policy are not displayed in the same window. Workaround To view the Deprovisioning Results after deprovisioning the Azure AD user: <ul style="list-style-type: none"> • In Active Roles MMC Console, right-click and select Deprovisioning Results. • In the right pane of the Active Roles Web Interface, click Deprovisioning Results. • To refresh the form, press F5. 	91901

Table 11: Known Issues – Active Roles Installer

Known Issue	Issue ID
After upgrading Active Roles, the pending approval tasks are not displayed in the Active Roles Web Interface.	91933

Table 12: Known Issues – Active Roles Synchronization Service

Known Issue	Issue ID
<p>In the Active Roles Synchronization Service, the following new attributes of the Microsoft Azure AD Connector are currently not supported and cannot be queried via the Microsoft Graph API:</p> <ul style="list-style-type: none">• user attributes:<ul style="list-style-type: none">• aboutMe• birthday• hireDate• interests• mySite• officeLocation• pastProjects• preferredName• responsibilities• schools• skills• contacts• group attributes:<ul style="list-style-type: none">• allowExternalSenders• autoSubscribeNewMembers• hideFromAddressLists• hideFromOutlookClients• isSubscribedByMail• unseenCount• acceptedSenders• membersWithLicenseErrors• rejectedSenders• hasMembersWithLicenseErrors	304074
<p>This means that although these attributes are visible, they cannot be set in a mapping rule.</p>	
<p>After running the get-qcworkflowstatus cmdlet in the Synchronization Service, the workflow status is not accurate.</p>	125768

Table 13: Known Issues – Active Roles Web Interface

Known Issue	Issue ID
<p>In the Active Roles Web Interface, when you click Azure > Resource Mailboxes to query room mailboxes after being idle for approximately 15-20 minutes, the Active Roles Web Interface will not list any room mailboxes.</p> <p>Workaround</p> <p>Restart the Administration Service.</p>	293380
<p>In the Active Roles Web Interface, Azure roles are not restored automatically after performing an Undo Deprovision action on a user.</p> <p>Workaround</p> <p>After the Undo Deprovision action is completed, assign the Azure roles to the user manually.</p>	172655
<p>Active Roles does not support creating Azure groups for existing groups.</p>	117015
<p>Active Roles Web Interface does not support setting the Exchange Online Property of the ProhibitSendQuota value in Storage Quotas.</p>	91905

System requirements

Before installing Active Roles 7.6, ensure that your system meets the following minimum hardware and software requirements.

NOTE: When setting up a virtual environment, carefully consider the configuration aspects such as CPU, memory availability, I/O subsystem, and network infrastructure to ensure the virtual layer has the necessary resources available. Please consult [One Identity's Product Support Policies](#) for more information on environment virtualization.

Before installing Active Roles 7.6, ensure that your system meets the following minimum hardware and software requirements, and install the following required software:

NOTE: To run these PowerShell commands, use the 64-bit version of Windows PowerShell.

Requirement	Details
Exchange Online PowerShell V2 module 2.0.3	You must install Exchange Online PowerShell V2 module version 2.0.3 (or newer) on the computer(s) running Active Roles Administration Service. For installation instructions, see Install and maintain the EXO V2 module in the <i>Microsoft Azure Exchange PowerShell documentation</i> .
Azure AD PowerShell module	You must install the latest version of the Azure Active Directory (AD) PowerShell module on the computer(s) running Active Roles Administration Service. For installation instructions, see Installing the Azure

Requirement Details

	AD Module in the <i>Microsoft Azure PowerShell documentation</i> .
Az.Accounts PowerShell module 2.5.3	You must install Az.Accounts PowerShell module version 2.5.3 (or older) on the computer(s) running Active Roles Administration Service and Active Roles Synchronization Service. For installation instructions, see Az.Accounts 2.5.3 in the <i>Microsoft PowerShell Gallery</i> .
Microsoft Teams PowerShell module 2.3.1	You must install Microsoft Teams PowerShell module version 2.3.1 on the computer running Active Roles Administration Service. For installation instructions, see Install Microsoft Teams PowerShell in the <i>Microsoft Teams documentation</i> . NOTE: To apply Teams-specific configurations or changes using Microsoft 365 workflows or scripts in Active Roles workflows, you must install Microsoft Teams PowerShell module 2.3.1. Active Roles supports Microsoft Teams PowerShell module version 2.3.1 only due to an issue with app-only authentication in later versions. You cannot use later versions of this module until Microsoft addresses the app-only authentication issue.
SharePoint Online Management Shell - x64	You must install SharePoint Online Management Shell on the computer running Active Roles Administration Service. For installation instructions, see Get started with SharePoint Online Management Shell in the <i>Microsoft SharePoint PowerShell documentation</i> .
Microsoft Edge WebView2 Runtime	You must install Microsoft Edge WebView2 Runtime on the computer running Active Roles Administration Service. For more information, see Introduction to Microsoft Edge WebView2 in the <i>Microsoft Edge Developer documentation</i> .
(Optional) One Identity certificate	If your organization enforces the AllSigned execution policy, you must install the One Identity certificate during the installation of Active Roles.

For the system requirements of each Active Roles component, see the following sections:

- [Administration Service requirements](#)
- [Web Interface requirements](#)
- [Console requirements](#)
- [Management Tools requirements](#)
- [Synchronization Service requirements](#)
 - [Synchronization Service Capture Agent](#)

Hardware requirements

Table 14: Hardware requirements

Requirement	Details
CPU	<p>For Administration Service, Web Interface, and Synchronization Service, any of the following:</p> <ul style="list-style-type: none"> • Intel 64 (EM64T) • AMD64 • Minimum 2 cores • CPU speed: 2.0 GHz or faster. <p>NOTE: For Synchronization Service, One Identity recommends using a multi-core CPU for the best performance.</p> <hr/> <p>For Console and Management Tools, any of the following:</p> <ul style="list-style-type: none"> • Intel x86 • Intel 64 (EM64T) • AMD64 • CPU speed: 1.0 GHz or faster.
RAM	<p>Administration Service: A minimum of 4 GB of RAM.</p> <hr/> <p>Web Interface, Synchronization Service: A minimum of 2 GB of RAM.</p> <hr/> <p>Console, Management Tools: A minimum of 1 GB of RAM.</p>
Hard disk space	<p>Administration Service, Web Interface, Console, Management Tools: A minimum of 100 MB of free disk space.</p> <hr/> <p>Synchronization Service: A minimum of 250 MB of free disk space.</p> <p>NOTE: If SQL Server and Synchronization Service are installed on the same computer, the amount required depends on the size of the Synchronization Service database.</p>
Operating system	<p>You can install any of the Active Roles components on a computer running:</p>

Requirement	Details
<p>NOTE: Active Roles is not supported on Windows Server Core mode setup.</p>	<ul style="list-style-type: none"> • Microsoft Windows Server 2022 • Microsoft Windows Server 2019 • Microsoft Windows Server 2016 <p>Active Roles supports the Standard or Datacenter edition of these operating systems.</p> <p>In addition, you can install the Active Roles Console and Management Tools on a computer running:</p> <ul style="list-style-type: none"> • Microsoft Windows 10, Professional or Enterprise edition, 32-bit (x86) or 64-bit (x64). • Microsoft Windows 8.1, Professional or Enterprise edition, 32-bit (x86) or 64-bit (x64).

Administration Service requirements

This section lists the system requirements of Active Roles Administration Service.

All Active Roles components require:

- Microsoft .NET Framework 4.7.2. For more information, see [Installing .NET Framework for developers](#) in the *Microsoft .NET documentation*.
- Visual C++ 2017 Redistributable.

Table 15: Administration Service requirements

Requirement	Details
SQL Server	<p>You can host the Active Roles database on the following SQL server versions:</p> <ul style="list-style-type: none"> • Microsoft SQL Server 2019, any edition. • Microsoft SQL Server 2017, any edition. • Microsoft SQL Server 2016, any edition. • Microsoft SQL Server 2014, any edition, 32-bit (x86) or 64-bit (x64), with or without any Service Pack. • Azure SQL hosted databases. <p>To connect Active Roles to a Microsoft SQL Server deployment, the following driver is required:</p> <ul style="list-style-type: none"> • Microsoft OLE DB Driver for SQL Server (MSOLEDBSQL).

Requirement	Details
Windows Management Framework	Windows Management Framework 5.1 (available for download) is required on all supported operating systems.
Operating system on domain controllers	Active Roles retains all features and functions when managing Active Directory on domain controllers running any of these operating systems, any edition, with or without any Service Pack: <ul style="list-style-type: none"> • Microsoft Windows Server 2022 • Microsoft Windows Server 2019 • Microsoft Windows Server 2016 <p>NOTE: Active Roles deprecates managed domains with the domain functional level lower than Windows Server 2008 R2. One Identity recommends that you raise the functional level of the domains managed by Active Roles to Windows Server 2008 R2 or higher.</p>
Exchange Server	Active Roles is capable of managing Exchange recipients on: <ul style="list-style-type: none"> • Microsoft Exchange Server 2019 • Microsoft Exchange Server 2016 • Microsoft Exchange Server 2013 <p>NOTE: Microsoft Exchange 2013 CU11 is not supported. For more information, see Knowledge Base Article 202695.</p>

Web Interface requirements

This section lists the system requirements of the Active Roles Web Interface.

All Active Roles components require:

- Microsoft .NET Framework 4.7.2. For more information, see [Installing .NET Framework for developers](#) in the *Microsoft .NET documentation*.
- Visual C++ 2017 Redistributable.

Table 16: Web Interface requirements

Requirement	Details
Internet Services	Active Roles Web Interface requires the Web Server (IIS) server role with the following role services: <ul style="list-style-type: none"> • Web Server/Common HTTP Features/ • Default Document • HTTP Errors

Requirement Details

- Static Content
- HTTP Redirection
- Web Server/Security/
- Request Filtering
- Basic Authentication
- Windows Authentication
- Web Server/Application Development/
- .NET Extensibility
- ASP
- ASP.NET
- ISAPI Extensions
- ISAPI Filters
- Management Tools/IIS 6 Management Compatibility/
- IIS 6 Metabase Compatibility

Configure Internet Information Services (IIS) to provide **Read/Write** delegation for the following features:

- Handler Mappings
- Modules
- Use **Feature Delegation** in Internet Information Services (IIS) Manager to confirm that these features have their delegation set to **Read/Write**.

Web browser You can access Active Roles Web Interface using:

- Mozilla Firefox 36 (or newer) on Windows.
- Google Chrome 61 (or newer) on Windows.
- Microsoft Edge 79 (or newer), based on Chromium on Windows 10.

You can use a later version of Firefox and Google Chrome to access Active Roles Web Interface. However, the Active Roles Web Interface was tested only with the browser versions listed above.

Minimum screen resolution

Active Roles Web Interface is optimized for screen resolutions of 1280x800 or higher.

The minimum supported screen resolution is 1024x768.

Console requirements

This section lists the system requirements of Active Roles Console (also known as MMC Interface).

All Active Roles components require:

- Microsoft .NET Framework 4.7.2. For more information, see [Installing .NET Framework for developers](#) in the *Microsoft .NET documentation*.
- Visual C++ 2017 Redistributable.

Table 17: Console (MMC Interface) requirements

Requirement	Details
Web browser	Active Roles Console requires Microsoft Edge 79 (or newer), based on Chromium.

Management Tools requirements

Active Roles Management Tools is a composite component that includes the Active Roles Management Shell, ADSI Provider, and SDK. On a 64-bit (x64) system, Active Roles Management Tools also includes the Active Roles Configuration Center component.

This section lists the system requirements of Active Roles Management Tools.

All Active Roles components require:

- Microsoft .NET Framework 4.7.2. For more information, see [Installing .NET Framework for developers](#) in the *Microsoft .NET documentation*.
- Visual C++ 2017 Redistributable.

Table 18: Management Tools requirements

Requirement	Details
Windows Management Framework	Windows Management Framework 5.1 (available for download) is required on all supported operating systems.
Remote Server Administration Tools (RSAT)	To manage Terminal Services user properties by using Active Roles Management Shell, Active Roles Management Tools requires Remote Server Administration Tools (RSAT) for Active Directory. For more information on installing the RSAT version applicable to your operating system, see Remote Server Administration Tools (RSAT) for Windows in the <i>Microsoft Windows Server documentation</i> .

Synchronization Service requirements

This section lists the system requirements of Active Roles Synchronization Service.

All Active Roles components require:

- Microsoft .NET Framework 4.7.2. For more information, see [Installing .NET Framework for developers](#) in the *Microsoft .NET documentation*.
- Visual C++ 2017 Redistributable.

Table 19: Synchronization Service requirements

Requirement	Details
SQL Server	<p>You can host the Active Roles Synchronization Service database on:</p> <ul style="list-style-type: none">• Microsoft SQL Server 2019, any edition.• Microsoft SQL Server 2017, any edition.• Microsoft SQL Server 2016, any edition.• Microsoft SQL Server 2014, any edition, 32-bit (x86) or 64-bit (x64), with or without any Service Pack. <p>NOTE: Active Roles Synchronization Service does not support Azure SQL hosted databases.</p>
Windows Management Framework	<p>Windows Management Framework 5.1 (available for download) is required on all supported operating systems.</p>
Supported connections	<p>Active Roles Synchronization Service can connect to the following data systems:</p> <ul style="list-style-type: none">• Microsoft Active Directory Domain Services (AD DS) with the domain or forest functional level of Windows Server 2016 or higher.• Microsoft Active Directory Lightweight Directory Services (AD LDS) running on any Windows Server operating system supported by Microsoft.• The following Microsoft Exchange Server versions:<ul style="list-style-type: none">• Microsoft Exchange Server 2019• Microsoft Exchange Server 2016• Microsoft Exchange Server 2013<p>NOTE: Microsoft Exchange 2013 CU11 is not supported. For more information, see Knowledge Base Article 202695.</p>• Microsoft Lync Server version 2013 with limited support.• Microsoft Skype for Business 2019, 2016 or 2015.

Requirement Details

- Microsoft Windows Azure Active Directory using Microsoft Graph API version 1.0.
- Microsoft Office 365 directory.
- Microsoft Exchange Online service.
- Microsoft Skype for Business Online service.
- Microsoft SharePoint Online service.
- Microsoft SQL Server, any version supported by Microsoft.
- Microsoft SharePoint 2019, 2016, or 2013.
- Active Roles version 7.4.3, 7.4.1, 7.3, 7.2, 7.1, 7.0, and 6.9.
- One Identity Manager version 7.0 (D1IM 7.0).
- One Identity Manager version 8.0.
- Support for Generic LDAP Connector, MySQL Connector, Open LDAP Connector, IBM Db2 Connector, Salesforce Connector, Service now Connector, and IBM RACF Connector.
- Support for SCIM-based data import operations.
- Support for Oracle Database, Oracle Database User Accounts, Oracle Unified Directory, Micro Focus NetIQ Directory, and IBM AS/400 connectors.
- Data sources accessible through an OLE DB provider.
- Delimited text files.

Legacy Active Roles ADSI Provider	To connect to Active Roles version 6.9, see the Active Roles ADSI Provider of <i>Quick Start Guide</i> for the appropriate Active Roles version.
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One Identity Manager API	To connect to One Identity Manager 7.0, install One Identity Manager Connector on the computer running Active Roles Synchronization Service. This connector works with the RESTful web service and no SDK installation is required.
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Internet Connection	To connect to cloud directories or online services, the machine running Active Roles Synchronization Service must have a reliable Internet connection.
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Synchronization Service Capture Agent

To synchronize passwords from an Active Directory (AD) domain to some other connected data system, you must install Active Roles Synchronization Service Capture Agent on all domain controllers (DCs) in the source AD domain.

This section lists the system requirements of Active Roles Synchronization Service Capture Agent.

All Active Roles components require:

- Microsoft .NET Framework 4.7.2. For more information, see [Installing .NET Framework for developers](#) in the *Microsoft .NET documentation*.
- Visual C++ 2017 Redistributable.

Table 20: Synchronization Service Capture Agent requirements

Requirement	Details
Operating system	<p>The DCs on which you install Active Roles Synchronization Service Capture Agent must run one of the following operating systems with or without any Service Pack (both x86 and x64 platforms are supported):</p> <ul style="list-style-type: none">• Microsoft Windows Server 2022• Microsoft Windows Server 2019• Microsoft Windows Server 2016 <p>For more information, see the <i>Active Roles Synchronization Service Administration Guide</i>.</p>

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Use of this software is governed by the Software Transaction Agreement found at www.oneidentity.com/legal/sta.aspx. This software does not require an activation or license key to operate.

The product usage statistics can be used as a guide to show the scope and number of managed objects in Active Roles.

Upgrade and version compatibility

| NOTE: You must run the Active Roles installer with administrator privileges.

CAUTION: Starting from Active Roles 7.6, Starling Two-Factor Authentication (2FA) is no longer supported and has been removed from Active Roles. If you use Starling with Starling 2FA enabled, before upgrading to Active Roles 7.6, disable Starling 2FA to remove it from your Starling configuration. Upgrading from an earlier Active Roles 7.x version to Active Roles 7.6 with Starling 2FA enabled can result in Active Roles not working as intended.

1. To disable Starling 2FA, in the Active Roles Configuration Center, navigate to Starling > Starling 2FA and clear the Enable Starling 2FA check box.
2. (Optional) To unjoin Starling, in the Active Roles Configuration Center, navigate to Starling, and click Unjoin One Identity Starling.

You can upgrade any 7.x version of Active Roles to Active Roles 7.6.

For instructions on how to upgrade from an earlier version of Active Roles, see the *Active Roles Quick Start Guide*.

NOTE: Consider the following before upgrading to a new version of Active Roles:

- Components of an earlier Active Roles version may not work with the components of the new version you are upgrading to.
- Custom solutions (scripts or other modifications) that rely on Active Roles features may fail to work after an upgrade due to compatibility issues. Therefore, before starting the upgrade, test your existing solutions with the new version of Active Roles in a lab environment to verify that your custom solutions will continue to work.

TIP: When upgrading to a new Active Roles version, One Identity recommends upgrading the Active Roles Administration Service first, and the client components (Active Roles Console and Active Roles Web Interface) afterwards.

Upgrade and installation instructions

For instructions on how to upgrade from an earlier version of Active Roles or how to install and initially configure Active Roles, see the *Active Roles Quick Start Guide*.

For special considerations regarding the installation of Active Roles 7.6, see the following information.

Changes related to Azure tenants

NOTE: If your organization has any Azure tenants that are managed with Active Roles, you need to reauthenticate and reauthorize them after installing Active Roles 7.6. Otherwise, Active Roles will not receive the required permissions for managing existing Azure tenants, and tenant administration in Active Roles 7.6 will not work correctly. For more information, see *Reconfiguring Azure tenants during upgrade configuration* in the

Changes related to Active Roles Synchronization Service

NOTE: Active Roles 7.5 introduced support for Modern Authentication in Azure BackSync workflows of the Active Roles Synchronization Service. After upgrading to Active Roles 7.5 or 7.6 from an earlier version, if you previously had an Azure BackSync workflow configured, you will be prompted to reconfigure it in the Active Roles Synchronization Service Console.

⚠ CAUTION: If you previously had an Azure BackSync workflow configured in Active Roles Synchronization Service, and you use more than one Azure Active Directory (Azure AD) service in your deployment, you must specify the Azure AD for which you want to configure Azure BackSync. Failure to do so may either result in directory objects not synchronized at all, or synchronized to unintended locations.

For more information on how to specify the Azure AD used for back-synchronization, see *Configuring automatic Azure BackSync in the Active Roles Synchronization Service Administration Guide*.

More resources

Additional information is available from the following resources:

- Online product documentation (<https://support.oneidentity.com/active-roles/>)
- Active Roles community (<https://www.oneidentity.com/community/active-roles>)

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release is Unicode-enabled and supports any character set. It supports simultaneous operation with multilingual data. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan.

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