

Quest Recovery Manager for Active Directory
Forest Edition 10.1

Release Notes



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Quest® Recovery Manager for Active Directory Forest Edition 10.1

Release Notes

March 2020

These release notes provide information about the Quest® Recovery Manager for Active Directory Forest Edition 10.1 release.

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About Quest® Recovery Manager for Active Directory Forest Edition 10.1

Recovery Manager for Active Directory enables fast, online recovery. Comparison reports highlight what objects an attributes have been changed and deleted in Active Directory enabling efficient, focused recovery at the object or attribute level. Accurate backups and a quicker recovery enable you to reduce the time and costs associated with AD outages and reduce the impact on users throughout your organization.

Recovery Manager for Active Directory is based on patented technology.

Recovery Manager for Active Directory 10.1 is a maintenance release with new features and functionality. See [New features](#).

New features

New features and enhancements in Quest® Recovery Manager for Active Directory Forest Edition 10.1:

New Features

Phased restore This feature lets you perform the initial forest recovery during the first phase to make the forest function as soon as possible. The second phase can be postponed, and the full forest structure can be restored later.

New Features

Install AD and Reinstall AD recovery methods support read-only domain controllers and Install from Media (IFM) Now the Install AD and Reinstall AD recovery methods support installing a read-only DC using a backup created from a read-only DC, or installing a writable DC using a backup created from a writable DC.

Changes in supported SQL Server versions From this version, Recovery Manager for Active Directory supports SQL Server 2017 and SQL Server 2019.

Alternative backup path An alternative backup location can be specified on the DC storage tab of the Collection Properties in Recovery Manager Console.

Reset a password for domain users in privileged groups during forest recovery Recovery Manager for Active Directory now includes a new step "Reset Passwords" in the wizard after you start or resume a forest recovery. This step allows you to reset a password for domain users in privileged groups for security reasons.

Support ADVL for Windows Server 2019 domain controllers Recovery Manager for Active Directory supports ADVL for Windows Server 2019 domain controllers.

Resolved issues

General resolved issues

Resolved Issue	Issue ID
Now Recovery Manager for Active Directory opens the DIT database as Read/Write from backups made on other versions of the operating system.	RMADFE-2091
Online Restore Wizard does not work on Windows Server 2019 with LSA protection enabled.	RMADFE-2182
Recovery Manager Console may show empty license violation warning if licenses overused count is small.	RMADFE-2249
Unable to change the account name used for the restore operation.	RMADFE-2259
The specified port does not work for Offline Restore Agent.	RMADFE-2289
Now Recovery Manager for Active Directory does not show 'Boot Files' and 'IIS Metabase' backup components.	RMADFE-2343
Recovery Manager for Active Directory cannot process large .dit files.	RMADFE-2349
The Online Restore Wizard cannot accept long paths (longer than 22 symbols) to the Change Auditor database.	RMADFE-2567
Recovery Manager for Active Directory does not restore attributes because of matching them as cloud attributes.	RMADFE-2499
Recovery Manager for Active Directory cannot backup a DC if SYSVOL is placed on a deduplicated volume.	RMADFE-2582

Resolved Issue	Issue ID
List of registered backups opens with a delay in Online Restore Wizard.	RMADFE-2715
Recovery Manager for Active Directory cannot perform a lot of simultaneous backup sessions.	RMADFE-2732
Hybrid restore may not work on several versions of Azure AD Connect.	RMADFE-2750

Forest Recovery resolved issues

Resolved Issue	Issue ID
Settings verification may fail with "the same backup path specified" error while changing the recovery method from Install Active Directory from Media to Install/Reinstall/Uninstall Active Directory.	RMADFE-2137
NIC teaming is not supported in case of RMAD bare metal recovery to the same machine.	RMADFE-2139
Recovery Manager for Active Directory does not send the SMTP notification after the Verify settings operation is complete.	RMADFE-2181
In some cases, Forest Recovery may get stuck when BitLocker is enabled.	RMADFE-2420
The "No DNS servers specified in your recovery project" error might appear before starting recovery.	RMADFE-2482
Forest recovery may hang at the "Restart domain controller in normal mode" step with a disabled network adapter.	RMADFE-2546
Recovery with Install Active Directory or Install Active Directory from Media method may fail with the "Unable to check forest upgrade status" error at "Install Active Directory" step.	RMADFE-2552
Forest recovery for Read-only Domain Controller fails if the 'Install Active Directory' recovery method is used.	RMADFE-2568
Forest recovery for Read-only Domain Controller fails if the 'Reinstall Active Directory' recovery method is used.	RMADFE-2571
Automatic DNS configuration cannot handle loopback addresses in the DNS client settings.	RMADFE-2605
Automatic DNS selection can choose the wrong DNS server.	RMADFE-2633
Reboot to DSRM or reboot to Normal mode takes about 15 minutes doing nothing.	RMADFE-2655
Cannot recover Read-only DC using Reinstall Active Directory method on Windows Server 2012 R2 or higher systems.	RMADFE-2693
Cannot recover writable DC using Install Active Directory or Install From Media recovery method.	RMADFE-2703

Resolved Issue	Issue ID
Automatic DNS configuration can choose an unrestored DNS server.	RMADFE-2714
DNS delegation does not work if it was configured before the forest recovery.	RMADFE-2789

Known issues

General known issues

Known Issue	Issue ID
Cannot perform RMAD upgrade if the SQL Server Always On group is enabled for the reporting database.	RMADFE-1146
When a user cancels the data replication process by Ctrl + C, by logoff, etc, the status of the replication session is stuck at "Running".	RMADFE-1271
Customer can add a few instances of the same RMAD console (by domain name and by IP).	RMADFE-1276
Cannot disable replication schedule when there is no replication console (the replication console was deleted).	RMADFE-1283
Group Policy restore might fail with the error "Network access is denied" if you run the RMAD console under a local account, and this account has the same username and password as the domain account you use to restore Group Policy in the domain.	RMADFE-2162
Online Restore Wizard (agent-based restore) does not work on Windows Server 2016 with Local Security Authority (LSA) protection and Secure Boot enabled.	RMADFE-1996

Forest Recovery known issues

Known Issue	Issue ID
SYSVOL may not work correctly if a domain controller that was selected for the authoritative SYSVOL restore cannot be restored.	RMADFE-1111
Recovery Manager for Active Directory Forest Edition (Disaster Recovery Edition) does not check version of Forest Recovery Agent inside the ISO image file.	RMADFE-2220
The start type of Windows Defender Firewall service cannot be restored in Windows Server 2019.	RMADFE-2228

System requirements

Before installing Recovery Manager for Active Directory, ensure that your system meets the following minimum hardware and software requirements.

- NOTE** | • Recovery Manager for Active Directory supports only IPv4 or mixed IPv4/IPv6 networks.

Recovery Manager for Active Directory requirements

Processor

Minimum: 1.4 GHz

Recommended: 2.0 GHz or faster

Memory

Minimum: 1 GB

Recommended: 2 GB

These figures apply only if the Active Directory domains managed by Recovery Manager for Active Directory include 1 million objects or less. Increase RAM size by 512 MB for every additional 1 million objects.

Hard disk space

Full installation including the prerequisite software: 2.7 GB of free disk space

In case all the prerequisite software is already installed: 260 MB of free disk space

NOTE | Additional storage space is required for a backup repository, at least the size of the backed-up Active Directory database file (**Ntds.dit**) and the **SYSVOL** folder plus 40MB for the transaction log files.

Display

SVGA at 1024 x 768 or higher

Operating system

- NOTE** |
- Machine that hosts the Recovery Manager for Active Directory console must have same or higher version of Windows operating system than the processed domain controllers. Otherwise, the online compare and object search in a backup during the online restore operation may fail.
 - 32-bit operating systems are not supported.

Installation

- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows Server 2012 R2 with or without any Service Pack
- Microsoft Windows Server 2012 with or without any Service Pack
- Microsoft Windows Server 2008 R2 without Service Pack or with Service Pack 1
- Microsoft Windows Server 2008 x64 with Service Pack 1 or Service Pack 2
- Microsoft Windows 10 x64
- Microsoft Windows 8.1 x64 with or without any Service Pack
- Microsoft Windows 8 x64 with or without any Service Pack
- Microsoft Windows 7 x64 without Service Pack or with Service Pack 1
- Microsoft Windows Vista x64 with Service Pack 2

Targets for backup, restore, or compare operations

- Microsoft Windows Server 2019 including Server Core installation
- Microsoft Windows Server 2016 including Server Core installation

- Microsoft Windows Server 2012 R2 with or without any Service Pack (including Server Core installation)
- Microsoft Windows Server 2012 with or without any Service Pack (including Server Core installation)
- Microsoft Windows Server 2008 R2 without Service Pack or with Service Pack 1 (including Server Core installation)
- Microsoft Windows Server 2008 x64 with Service Pack 1 or Service Pack 2 (including Server Core installation)

Microsoft .NET Framework

Microsoft .NET Framework version 4.5.2 or higher

Microsoft SQL Server and its components

Microsoft SQL Server versions

One of the following version is required:

- Microsoft SQL Server 2019 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)
- Microsoft SQL Server 2017 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)
- Microsoft SQL Server 2016 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)

NOTE | For Microsoft Windows Server 2008 R2, you should manually install the appropriate version of SQL Server. This operation cannot be performed automatically using the Setup Wizard.

Microsoft SQL Server components

Microsoft System CLR Types for SQL Server 2012

If this component is not installed, it will be installed automatically by the RMAD setup.

Microsoft SQL Server Reporting Services

To display reports, Recovery Manager for Active Directory can integrate with Microsoft SQL Server Reporting Services (SRSS) 2012, 2014, 2016, and 2019.

Microsoft Windows PowerShell

Microsoft Windows PowerShell version 3.0 or later

Microsoft Windows Installer

Microsoft Windows Installer 4.5

Microsoft Management Console

Microsoft Management Console 3.0

Integration with ChangeAuditor for Active Directory

Supported versions of Change Auditor for Active Directory: from 6.x to 7.0.1.

If any prerequisite software is not installed, the Setup program automatically installs it for you before installing Recovery Manager for Active Directory. If the prerequisite software to be installed is not included in this release package, it is automatically downloaded.

Continuous recovery: From version 10.0.1, Recovery Manager for Active Directory together with Change Auditor can restore the deleted object(s) and continuously restores the last change (if any) that was made to the object attributes after creating the backup, using the data from the Change Auditor database.

Forest Recovery Agent requirements

Processor

450 MHz or faster

Memory

256 MB (1 GB recommended)

Hard disk space

2 GB or more

Operating system

One of the following operating systems:

- Microsoft Windows Server 2019 including Server Core installation
- Microsoft Windows Server 2016 including Server Core installation
- Microsoft Windows Server 2012 R2 with or without any Service Pack (including Server Core installation)
- Microsoft Windows Server 2012 with or without any Service Pack (including Server Core installation)
- Microsoft Windows Server 2008 R2 without Service Pack or with Service Pack 1 (including Server Core installation)
- Microsoft Windows Server 2008 x64 with Service Pack 1 or Service Pack 2 (including Server Core installation)

Prerequisite software

Microsoft Windows Installer 4.5 or later must be installed.

Active Directory Virtual Lab requirements

Microsoft System Center Virtual Machine Manager (SCVMM) 2012 without Service Pack or with Service Pack 1

Software that must be installed on the Active Directory Virtual Lab computer:

- Microsoft SCVMM Console (supplied with the SCVMM version you plan to use)

Software that is installed on the source computer by Active Directory Virtual Lab console:

- Microsoft SCVMM Agent

Supported operating systems for the Hyper-V host:

- Microsoft Windows Server 2008/2008 R2

Microsoft System Center Virtual Machine Manager (SCVMM) 2012 R2 or 2016

Software that must be installed on the Active Directory Virtual Lab computer:

- Microsoft SCVMM Console (supplied with the SCVMM version you plan to use)

Software that is installed on the source computer by Active Directory Virtual Lab console. For more details, see [here](#):

- Disk2vhd v2.01 utility

Supported operating systems for the Hyper-V host:

- Microsoft Windows Server 2012 or higher.

VMware vCenter/ESX Server 5.0, 5.1, 5.5, 6.0 and 6.5

- vCenter Converter 6.2 must be installed in your environment using the Client-Server installation setup option.
- vCenter Converter must be accessible to the Active Directory Virtual Lab.
- If the TLS 1.0 protocol is disabled on vCenter Converter and vCenter servers, then switch to TLS 1.2 on the ADVL server. For more details, see the following KB articles:
 - <https://kb.vmware.com/s/article/2145796>.
 - <https://docs.microsoft.com/en-us/security-updates/SecurityAdvisories/2015/2960358>

Recovery Manager Portal requirements

Processor

1 GHz or faster

Memory

512 MB or more

Hard disk space

- **x86 system:** 850 MB or more
- **x64 system:** 2 GB or more

Display

SVGA at 1024 x 768 or higher

Operating system

You can install the Recovery Manager Portal on a computer running one of the following operating systems (both x86 and x64 platforms are supported):

- Microsoft Windows Server 2019
- Microsoft Windows Server 2016
- Microsoft Windows Server 2012 R2 with or without any Service Pack
- Microsoft Windows Server 2012 with or without any Service Pack

- Microsoft Windows Server 2008 R2 with Service Pack 1 or later
- Microsoft Windows Server 2008 with Service Pack 2 or later

Web browser

To access the Recovery Manager Portal, you can use Microsoft Internet Explorer 8 or higher.

Microsoft .NET Framework

Microsoft .NET Framework version 4.5.2 or higher

Microsoft Internet Information Server (IIS)

Microsoft Internet Information Services (IIS) 8.5, 8.0, 7.5, or 7.0.

Microsoft SQL Server and its components

Microsoft SQL Server versions

One of the following versions is required:

- Microsoft SQL Server 2019 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)
- Microsoft SQL Server 2016 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)
- Microsoft SQL Server 2014 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)
- Microsoft SQL Server 2012 with or without any Service Pack (Enterprise, Business Intelligence, Standard, Express, Web, or Developer Edition)

Required Microsoft SQL Server components

- Microsoft System CLR Types for SQL Server 2012

If this component is not installed, it will be installed automatically by the RMAD setup.

Password and SIDHistory Recoverability Tool

You can only use the Password and SIDHistory Recoverability Tool if Microsoft's Active Directory Recycle Bin is not enabled in your environment.

Product licensing

The Recovery Manager for Active Directory license specifies the licensed number of user accounts in the Active Directory domains protected with the product. If the actual number of user accounts exceeds the licensed number, Recovery Manager for Active Directory does not stop functioning but displays a warning message each time you back up data. In this case, you need to purchase and install a new license key file allowing you to back up a greater number of user accounts or revoke licenses from the domains whose backups you no longer need.

To view information about and manage the installed license key file, you can use the License tab in the **About** dialog box: in the Recovery Manager Console, right-click the Recovery Manager for Active Directory console tree root, and then click **About**.

Installing license key file

You need to supply a valid license key file when installing Recovery Manager for Active Directory.

To install a license key file

1. In the Setup Wizard, on the **User Information** page, click **Browse license** to display the **Select License File** dialog box.
2. Locate the Quest license file (*.dlv) and click **Open**.

Updating license key file

If you have purchased a new license key file, use the Recovery Manager Console to update the license key file.

To update the license key file

1. In the Recovery Manager Console, right-click the **Recovery Manager for Active Directory** console tree root, and then click **About**.
2. In the **About** dialog box, click the **License** tab, and then click **Install License File**.
3. In the **Update License** dialog box, enter the path and name of the license key file, and then click **OK**.

Revoking licenses

When the actual number of user accounts exceeds the licensed number, Recovery Manager for Active Directory returns a warning message each time you back up data. In this case, you can revoke licenses from the domains whose backups you no longer need. The revoked licenses are returned to the pool of available licenses and you can allocate them to a different domain.

CAUTION | When you revoke licenses from a domain, all backups created by Recovery Manager for Active Directory for that domain get deleted. You should only revoke licenses from a domain if you no longer need backups created for that domain.

To revoke licenses from a domain

1. In the console tree, right-click the root node, and then click **About**.
2. In the About dialog box, click the **License** tab.
3. On the **License** tab, select the domain from the **License Usage** list, and then click **Revoke**.
4. In the confirmation message box, click **Yes**.

Getting started

Upgrade and installation instructions

NOTE | For Recovery Manager for Active Directory 10.1 or higher: Make sure that you use the Backup Agent version supplied with this release of Recovery Manager for Active Directory.

Starting from version 8.8, it is recommended to manually upgrade pre-installed Backup Agents to the latest version on every domain controller. For versions prior to 8.8, the upgrade of Backup Agents is required.

You have the option to perform the Forest Recovery operation using the latest product version together with Forest Recovery Agents version 8.8.1 without agents upgrade. To do this, take the following steps:

1. Set the **HKLM\SOFTWAREWow6432Node\Quest\Recovery Manager for Active Directory\DisableAgentVersionCheck (DWORD)** registry key to **1**.
2. Make sure that the NTLM authentication is enabled in your environment.
3. Switch the Forest Recovery Agents version 8.8.1 to the Negotiate authentication mode by removing the certificate (.pfx file) from the agent installation directory.
4. Restart the agents.

IMPORTANT

Upgrade from Recovery Manager for Active Directory version 8.6 is not supported due to specific installation and upgrade issues found in version 8.6. Those issues are resolved in versions since 8.6.1.

Therefore, if version 8.6 is installed, perform the following steps:

1. Export the necessary scheduled backup creation tasks.
2. Remove Recovery Manager for Active Directory 8.6 from your computer. Note that all your settings and data are preserved, except for scheduled backup creation tasks.
3. Install Recovery Manager for Active Directory 10.1.
4. Create new or import existing scheduled backup creation tasks.

Recovery Manager for Active Directory is fully compatible with FIPS-compliant algorithms: You can install the product on computers and use it to back up domain controllers that have FIPS-compliant algorithms enabled.

IMPORTANT

Recovery Manager for Active Directory 10.1 does not support encrypted backups of domain controllers that have FIPS algorithms enabled and were created by Recovery Manager for Active Directory version 8.5.2 or earlier. After upgrading to version 10.1, back up all such domain controllers again.

Additional resources

Additional information is available from the following:

- Online product documentation [Support Portal](#).
- Recovery Manager Community

<https://www.quest.com/community/products/recovery-manager/f/forum>

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. In this release, all product components should be configured to use the same or compatible character encodings and should be installed to use the same locale and regional options. 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.

Third-party contributions

This product contains the third-party components listed below. For third-party license information, go to <http://quest.com/legal/license-agreements.aspx>. Source code for components marked with an asterisk (*) is available at <http://opensource.quest.com>.

List of third-party contributions

Component	License or acknowledgment
7-ZIP 9.20	7-ZIP 9.20
AeroWizard 2.2.3	MIT 1.0
Boost 1.34.1	Boost 1.0
Fody 1.29.3	MIT
FontAwesome.WPF 4.7.0.9	MIT
Microsoft.Dism 2.1.4	MIT
RazorEngine 2.1	Apache 2.0
Newtonsoft.Json.dll 6.0.6	MIT
PropertyChanged.Fody 1.50.3	MIT
TaskScheduler 2.8.18	MIT
Task Scheduler Managed Wrapper 2.8.18	MIT
TimeSpan Helper Library 2.2	New BSD N/A
ZLib 1.1.4	zlib 1.2.3

zlib 1.2.3 License

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```
/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.3, July 18th, 2005
```

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*/

MinHook - The Minimalistic API Hooking Library for x64/x86

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