

Quest® Recovery Manager for Active Directory 10.0.1

Release Notes

December 2019

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

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About Recovery Manager for Active Directory

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 10.0.1 is a maintenance release with new features and functionality. See [New features](#).

New features

New features and enhancements in Recovery Manager for Active Directory 10.0.1:

New Features

Support for Microsoft Windows Server 2019

This release can be installed on computers running Windows Server 2019, and domain controllers running Windows Server 2019 can be targets for backup and restore operations.

Continuous recovery (Change Auditor integration)

Recovery Manager for Active Directory restores a deleted object and the last change (if any) that was made to the object properties after the backup creation using data from the Change Auditor database.

Support for restore of Group Policy Objects in non-trusted domains

Domain access credentials can be explicitly specified in Group Policy Restore Wizard.

Support for Azure Files as a backup storage

Recovery Manager for Active Directory can work with backups stored in the Azure Files share.

Separate accounts to access the backup storage and the Backup agent

Now a user can access backup storage share under specified account, which is not the same as an account used to access the backup agent.

Resolved issues

Table 1: General resolved issues

Resolved Issue	Issue ID
Now Backup Agent retries to connect to the LDAP server if it is not functional during start of the backup creation process.	RMADFE-1954
RMAD console may hang during startup on Windows Server 2016 with some updates.	RMADFE-2006
Now log information about backup creation sessions is written to the text file specified on the Alerts tab of the collection properties.	RMADFE-2025
Recovery Manager Console could show misleading "agent is up to date" message when the version of Backup agent did not match the console version.	RMADFE-2054
Recovery Manager for Active Directory can open a DIT database as Read/Write from backups made on other versions of operating system.	RMADFE-2091
Now we show the warning during the backup session if the agent is not up to date.	RMADFE-2096
Now Recovery Manager Console starts with no MMC errors.	RMADFE-2097
Now the error is shown if an AD component is copied incompletely from the VSS snapshot.	RMADFE-2127
MSA/gMSA accounts now can be used for scheduled backups on localized Windows operating systems.	RMADFE-2145
Support for RMAD backup and restore operations for Windows Server 2019 domain controllers.	RMADFE-2168
Unable to uncheck two options on the Components tab of the collection properties: "When backing up Global Catalog servers, collect group membership information from all domains within the Active directory forest" and "Collect Forest recovery metadata".	RMADFE-2183
Support for RMAD backup and restore operations for Windows Server 2019 Core domain controllers.	RMADFE-2211
In some cases, a license violation warning may appear in Recovery Manager Console.	RMADFE-2249
Unable to change access credentials during the Agent-less Online Restore when the "Require trusted path for credential entry" policy is enabled.	RMADFE-2259
Unable to change access credentials during the Agent-based Online Restore when the "Require trusted path for credential entry" policy is enabled.	RMADFE-2306
Now 'Boot Files' and 'IIS Metabase' backup components are hidden.	RMADFE-2343
Recovery Manager cannot process large .dit files.	RMADFE-2349
When specifying the port for the Offline Restore Agent on the Ports tab of the Recovery Manager Console Settings, Recovery Manager for Active Directory still connects via a random	RMADFE-2289

Resolved Issue	Issue ID
port.	
Recovery Manager for Active Directory does not restore some attributes in the hybrid configuration because of incorrect attribute matching.	RMADFE-2499
The Online Restore Wizard did not accept long paths to the Change Auditor database.	RMADFE-2567
Recovery Manager cannot backup a DC if SYSVOL is placed on a deduplicated volume.	RMADFE-2582

Known issues

The following is a list of issues, including those attributed to third-party products, known to exist at the time of release.

Table 2: Recovery Manager for Active Directory known issues

Known Issue	Issue ID
Online Restore Wizard (agent-based restore) does not work on Windows Server 2019 with Local Security Authority (LSA) protection enabled.	RMADFE-2182
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
Cannot perform RMAD upgrade if the SQL Server Always On group is enabled for the reporting database.	RMADFE-1146
You may encounter the following unexpected behavior on the Backup Data Preparation step of the Online Restore Wizard: The wizard may not respond to any user action while it is processing a backup. WORKAROUND: Wait until the backup processing is finished.	167416
When you select the "Backup Agent Management" node in the Recovery Manager Console, you may observe the following issue: The Recovery Manager Console stops responding, showing the status "Discovering Backup Agent instances, please wait". WORKAROUND: Wait until the Backup Agent discovery completes.	183965
Unexpected behavior on the Reporting Options step in the Online Restore Wizard: When you select the "Include ChangeAuditor data in reports" check box, select a ChangeAuditor database, and click Next, you may encounter the error "Unable to connect to the ChangeAuditor database: <database>. Details: Login failed for user '<current user>'." This error shows up if the current user account does not have sufficient permissions to access the ChangeAuditor database. The expected behavior in the described situation is that the Online Restore Wizard should prompt you for credentials to access the ChangeAuditor database. WORKAROUND: Run the Online Restore Wizard under an account that has sufficient permissions to access the target ChangeAuditor database.	192269
You may encounter the following unexpected behavior while using the "Backup Agent Management" view in the Recovery Manager Console to view a list of Backup Agents: The list of Backup Agents may be incomplete. The cause of this behavior is that when you apply a filter on one or more columns in the "Backup Agent Management" view, there is no indication that the filter is applied. WORKAROUND: Check to see if a filter is applied on any columns in the "Backup Agent Management" view. Remove the filter if necessary.	200274
A compare operation performed in the Online Restore Wizard may take a significant time to complete (30+ minutes). Also, the compare operation may consume a significant amount of RAM. This issue only occurs if the number of objects being compared is 100,000+.	340796

Known Issue	Issue ID
WORKAROUND: Wait for the compare operation to complete.	
<p>The Online Restore Wizard cannot find an object if the object name contains 1-9 digits when searching by the full object name, but can find it by the common mask, for example: 'u01' object can be found by 'u' and cannot by 'u01'.</p> <p>This issue may arise if the operating system version of a domain controller is greater or different from the RMAD Console machine operating system.</p> <p>WORKAROUND: Copy the esent.dll file from the domain controller where the backup was created to the product installation folder on the Recovery Manager Console machine.</p>	88020172
<p>You may receive the "ASR Error: Fail to exclude disk#1" error when performing the Backup or Restore operation on Windows Server 2008/2008R2-based domain controller.</p> <p>WORKAROUND: This error can be safely ignored because it does not affect the backup or restore process.</p>	91020268
<p>After the upgrade on the network isolated machine, the Recovery Manager Console is loaded too slowly.</p> <p>WORKAROUND: Uncheck the Check for publisher's certificate revocation option on the Advanced tab in the Internet Option dialog in Microsoft Internet Explorer.</p>	92444398
<p>Pre-installed Backup Agent can be upgraded during the backup creation.</p> <p>WORKAROUND: Do not upgrade Backup Agent if the backup operation is not finished.</p>	91682822
<p>When a user cancels the data replication process by Ctrl + C, by logoff, etc, the status of the replication session is stuck at "Running".</p>	RMADFE-1271
<p>Customer can add a few instances of the same RMAD console (by domain name and by IP).</p>	RMADFE-1276
<p>Cannot disable replication schedule when there is no replication console (the replication console was deleted).</p>	RMADFE-1283
<p>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.</p>	RMADFE-2162

Table 3: Recovery Manager Portal known issues

Known Issue	Issue ID
<p>Unexpected behavior when you use the Recovery Manager Portal to delegate restore or undelete permissions to a user or group that is not assigned any role in the Recovery Manager Portal: The delegation operation completes successfully. The expected behavior in this situation is that the Recovery Manager Portal should not allow you to delegate permissions to a user or group that has not been assigned any role in the portal.</p> <p>WORKAROUND: Before delegating restore or undelete permissions, ensure that the target user or group is assigned the appropriate role in the Recovery Manager Portal. For more information about assigning roles to portal users, see the "Using Recovery Manager Portal" chapter in the User Guide.</p>	308044

Known Issue	Issue ID
<p>The Recovery Manager Portal fails to show the result of a restore or undelete operation if while the restore or undelete is still running you switch to some other tab, and then return to the Recovery tab.</p> <p>WORKAROUND:</p> <p>To ensure that all objects have been successfully restored or undeleted:</p> <ol style="list-style-type: none"> 1. On the Recovery tab, click the button with the name of the operation you have just performed. 2. See the "Objects to restore" or "Objects to undelete" list. This list contains the objects whose restore has failed. 	317314
<p>When selecting a backup the Recovery Manager Portal, you may encounter the error "No backup found for the last backup session." This issue occurs if the backup is located on the domain controller and in the Recovery Manager Console its storage location is specified using a UNC path.</p> <p>WORKAROUND: Select a backup stored locally on the Recovery Manager for Active Directory computer.</p>	340814
<p>Cannot access the Recovery Manager Portal if the portal is installed in the child domain.</p> <p>WORKAROUND: In the portal settings file C:\Program Files (x86)\Quest\Recovery Manager Portal\Enterprise.Portal.Console\bin\EnterprisePortalSettings.xml <add key="SimulateLogonForWebDelegation" value="false" /> (default = true)</p>	91616200

System requirements

Before installing Recovery Manager for Active Directory 10.0.1, ensure that your system meets the following minimum hardware and software requirements.



NOTE:

- Recovery Manager for Active Directory can backup and restore domain controllers that are running on virtual machines in Amazon Web Services (AWS) or Microsoft Azure. Note that such domain controllers cannot be restored with the Bare Metal Active Directory Recovery method because there is no way to boot them from an ISO image.

Recovery Manager for Active Directory requirements

Table 4: Recovery Manager for Active Directory system requirements

Requirement	Details
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	x86 system Full installation including the prerequisite software: 1.5 GB of free disk space In case all the prerequisite software is already installed: 200 MB of free disk space x64 system Full installation including the prerequisite software: 2.7 GB of free disk space In case all the prerequisite software is already installed: 210 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 1366 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

Requirement**Details**

than the processed domain controllers. Otherwise, the online compare and object search in a backup during the online restore operation may fail.

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 with Service Pack 1 or Service Pack 2
- Microsoft Windows 10
- Microsoft Windows 8.1 with or without any Service Pack
- Microsoft Windows 8 with or without any Service Pack
- Microsoft Windows 7 without Service Pack or with Service Pack 1
- Microsoft Windows Vista 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 with Service Pack 1 or Service Pack 2 (including Server Core installation)

The Windows Server Backup feature is supported for Windows Server 2008 R2 or higher. Make sure that the feature is installed on all domain controllers in your environment.

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:

Requirement	Details
	<ul style="list-style-type: none"> 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) <p>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.</p> <p>Microsoft SQL Server Reporting Services To display reports, Recovery Manager for Active Directory can integrate with Microsoft SQL Server Reporting Services (SRSS) 2012, 2014 and 2016.</p>
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	To provide information on who modified particular Active Directory objects, Recovery Manager for Active Directory can integrate with ChangeAuditor for Active Directory from version 6.0 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.

Recovery Manager Portal requirements

Table 5: Component requirements

Requirement	Details
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

Requirement	Details
	<p>of the following operating systems (both x86 and x64 platforms are supported):</p> <ul style="list-style-type: none"> • 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	<p>Microsoft SQL Server versions</p> <p>One of the following versions is required:</p> <ul style="list-style-type: none"> • 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) <p>Required Microsoft SQL Server components</p> <ul style="list-style-type: none"> • 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

Recovery Manager for Active Directory 10.0.1 supports upgrade from version 8.6.1 or higher.

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.

i **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 10.0.1.
4. Create new or import existing scheduled backup creation tasks.

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.

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Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.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
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

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>.

Table 6: List of third-party contributions

Component	License or acknowledgment
7-ZIP 9.20	7-ZIP 9.20
Boost 1.34.1	Boost 1.0
Group Controls 1.5.3	Apache 2.0 Copyright Notice - Group Controls 1.5.3
MinHook 1.3.2.1	MinHook 1.0 Copyright 2009 Tsuda Kageyu All rights reserved.
Newtonsoft.Json.dll 5.0.8	MIT
RazorEngine 2.1	Apache 2.0
TaskScheduler 2.5.23	MIT
Task Scheduler Managed Wrapper 2.5.23	MIT
TimeSpan Helper Library 2.1.5	New BSD
ZLib 1.1.4	zlib 1.2.3

zlib 1.2.3 License

License

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

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Jean-loup Gailly jloup@gzip.org
Mark Adler madler@alumni.caltech.edu
*/

MinHook - The Minimalistic API Hooking Library for x64/x86

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Legend

WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death.

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

An information icon indicates supporting information.

Recovery Manager for Active Directory Release Notes

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