



Quest Recovery Manager for Active Directory  
Disaster Recovery Edition 10.4

## **Release Notes**



© 2026 Quest Software Inc.

**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 Quest Software Inc.

The information in this document is provided in connection with Quest Software 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 Quest Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE 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 QUEST SOFTWARE 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 QUEST SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software 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. Quest Software 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:

Quest Software Inc.

Attn: LEGAL Dept

20 Enterprise, Suite 100

Aliso Viejo, CA 92656

Refer to our Web site (<https://www.quest.com>) for regional and international office information.

## **Patents**

Quest Software 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 <https://www.quest.com/legal>.

## **Trademarks**

Quest, the Quest logo, and Join the Innovation are trademarks and registered trademarks of Quest Software Inc. For a complete list of Quest marks, visit <https://www.quest.com/legal/trademark-information.aspx>. All other trademarks and registered trademarks are property of their respective owners.

Updated – February 2026

# Contents

<b>Quest® Recovery Manager for Active Directory Disaster Recovery Edition 10.4.....</b>	<b>5</b>
Release Notes.....	5
About Quest® Recovery Manager for Active Directory Disaster Recovery Edition 10.4.....	5
<b>New Features and Enhancements.....</b>	<b>6</b>
Major Features .....	6
Standby Forest Provisioning.....	6
New Operation History View.....	6
SQL Server Requirement Removed.....	6
Recovery Persistence.....	6
Fault Tolerance Deprecation .....	6
Improved Recovery Plan and Recovery Reports .....	6
Improved Online Comparison and Restore Reports .....	7
New Authentication Support for Azure Cloud Storage and AWS S3 Storage.....	7
Support restore of LDAPS certificates.....	7
General .....	7
Forest Recovery Edition .....	9
Disaster Recovery Edition .....	10
<b>Resolved Issues .....</b>	<b>12</b>
General Resolved Issues .....	12
Forest Recovery Resolved Issues .....	14
Disaster Recovery Resolved Issues .....	16
<b>Security Information .....</b>	<b>18</b>
<b>Known Issues .....</b>	<b>19</b>
Upgrade Known Issues .....	19
General Known Issues .....	19
Forest Recovery Known Issues .....	20
<b>System Requirements .....</b>	<b>20</b>
Recovery Manager for Active Directory requirements .....	21
Antivirus software that is supported for backup antimalware checks.....	22
Supported server management systems.....	22
Forest Recovery Agent requirements.....	22
Secure Storage Server requirements.....	23
Cloud Storage requirements.....	23
Password and SIDHistory Recoverability Tool.....	24

<b>Product Licensing</b> .....	<b>24</b>
Installing license key file .....	24
Updating license key file .....	24
Revoking licenses .....	25
<b>Getting Started</b> .....	<b>25</b>
Upgrade and installation instructions .....	25
Additional resources .....	25
<b>Globalization</b> .....	<b>26</b>
<b>Third-Party Contributions</b> .....	<b>26</b>
<b>About us</b> .....	<b>29</b>

# Quest® Recovery Manager for Active Directory Disaster Recovery Edition 10.4

## Release Notes

These release notes provide information about the Quest® Recovery Manager for Active Directory Disaster Recovery Edition 10.4 release.

- [New Features and Enhancements](#)
- [Resolved Issues](#)
- [Security Fixes](#)
- [Known Issues](#)
- [System Requirements](#)
- [Product Licensing](#)
- [Getting Started with Recovery Manager for Active Directory](#)
- [Globalization](#)
- [Third-Party Contributions](#)

## About Quest® Recovery Manager for Active Directory Disaster Recovery Edition 10.4

Recovery Manager for Active Directory enables fast, online recovery. Comparison reports highlight what objects and 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 10.4 is a release with new features and functionality. See [New Features and Enhancements](#).

# New Features and Enhancements

This section covers new features and enhancements in Quest® Recovery Manager for Active Directory 10.4.

## Major Features

### Standby Forest Provisioning

Standby Forests are pre-created virtual machines in Azure that are ready to use and were provisioned from the latest Active Directory backups. Each Standby Forest consists of an Azure Resource Group containing virtual machines and other resources, and represents a source AD forest at a given time. You can start virtual machines in any standby forest at any time, bringing your forest back online quickly.

### New Operation History View

A new session panel is available in the Forest Recovery Console to view history of all verification and recovery tasks that have been run for the selected forest recovery project. This is particularly useful for viewing the statuses and details of scheduled verification and recovery tasks, but it can also be useful for manual verifications and recoveries.

### SQL Server Requirement Removed

Recovery Manager for Active Directory 10.4 and above no longer uses Microsoft SQL Server® for reporting and recovery persistence. Instead, SQLite databases managed by the product are used.

### Recovery Persistence

The Recovery Persistence feature, that provides protection from an inadvertent shutdown of the Forest Recovery Console, has been updated to use a SQLite database, no longer requiring the installation of Microsoft SQL Server®. Recovery Persistence is now enabled by default.

### Fault Tolerance Deprecation

The Recovery Fault Tolerance feature, which allowed interrupted forest recovery to continue from the Forest Recovery Console installed on another machine, is being deprecated and will be removed fully in a future release.

### Improved Recovery Plan and Recovery Reports

Improved the Recovery reports by removing the usage of Microsoft SQL Server® Reporting Services (SSRS). The recovery reports are now generated as HTML files, which can be viewed in browser or results exported as an XML or HTML files.

Report templates are available and can be customized by the user.

# Improved Online Comparison and Restore Reports

Changed objects and attributes in Comparison Reports are now stored in a SQLite database. Comparison reports are now generated as HTML files, which can be viewed in browser or results exported as an XML or HTML files.

Additionally the installation of Microsoft 2015 Report Viewer is no longer part of the product installer.

# New Authentication Support for Azure Cloud Storage and AWS S3 Storage

Support available for additional authentication methods for cloud storage. Azure Cloud storage supports Azure Blob Storage with connection string, System Assigned Managed Identity, User Assigned Managed Identity and the usage of a service principal. Amazon S3 authentication methods available are IAM User, EC2 Instance IAM role and Assumed IAM role.

# Support restore of LDAPS certificates

The backup and restore of LDAPS certificates and associated Certificate Services Databases is support in Recovery Manager for Active Directory 10.4. To backup the LDAPS certificates, the **Encrypt and protect backups with passwords option** needs to be set to ensure that the LDAPS certificates are secure.

## General

Enhancement	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.4</b>		
Change retention policy to delete backups from alternate backup location	N/A	358877
The Full Replication mode should replicate hybrid configuration settings (ODR integration settings)	N/A	503067
Configurable Setting in RMAD console for license warning - add Do not warn me again	N/A	544685
Add logging for script execution (ConsoleSideScripting.wsf)	N/A	556592
Review and correct documentation for minimum permissions for Online Restore	N/A	558261
Add computer dialog should allow to add DC to new/empty site	N/A	570480
Support for Exchange Server SE	N/A	582300
<b>Recovery Manager for Active Directory 10.3.2</b>		
Increase event viewer logging for console actions	N/A	234185

Enhancement	ID (old)	Azure DevOps
INTEGRITY CHECKS: Backups on remote storage must be checked by the backup agent	N/A	445485
Allow multi-select when using "Register Backup File" in RMAD and FR consoles	N/A	463748
Password Complexity Check on Backup Encryption Password	N/A	473827
Replication engine should enforce backup retention policy	N/A	500287
DNS forwarder zone information is lost when reading backup computer info	N/A	533935
Allow for blank backup access credentials when backup is located on DC	N/A	539083
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 3</b>		
Use different method other than SMB for "Get information about computer from backup" during recovery	N/A	506275
Support restore from backup in no NTLM environment when backup stored on DC	N/A	506551
<b>Recovery Manager for Active Directory 10.3.1</b>		
Create new PowerShell cmdlet - Remove-RMADSession cmdlet	N/A	370687
Email notifications during integrity checks	N/A	395979
Allow to add a folder path for Forest Recovery projects to be included in backup	N/A	396047
Add support for US government GCC high accounts in exchange Oauth2 notifications	N/A	402135
Add collection Name/Id to PowerShell script parameters	N/A	410125
Allow to ignore missing/malfunctioning VSS writers	N/A	412323
Deprecate SCOM	N/A	416078
Diagnostic log BackupAgent64 - Allow for threshold on file size and overwrite	N/A	418052
Use remote storage credentials to access the backup storage when running integrity check for backups located on a domain controller	N/A	421517
Add an option to disable automatic checking of manual and scheduled backups	N/A	429365
Remove Support for 2012 and 2012 R2 from supported operating systems and SQL Server 2012	N/A	437548
Support using of LocalSystem account in scheduled backup	N/A	437699
<b>Recovery Manager for Active Directory 10.3</b>		
Salting mechanism for forest recovery project password hashes	N/A	412667
Show AD tombstone lifetime settings somewhere in a product UI	N/A	353685
Allow for password complexity	N/A	253917

Enhancement	ID (old)	Azure DevOps
BackupAgent does not respect global logging setting 'Create a new set of log files: Never' on the DC side.	N/A	381957
TLS 1.2 - Enforce in Hybrid Connect Service for communication to On Demand	N/A	384624

## Forest Recovery Edition

Enhancement	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.4</b>		
Support single label domains (SLD) in FE/DRE	N/A	248562
Forest Recovery: Ability to reset password of privileged group members	N/A	544684
Restore report export has issues (blank pages)	N/A	558259
Email notification doesn't include error message	N/A	560825
Improvements to Recovery Report export	N/A	573742
Unhide the DC isolation options from the Tools menu	N/A	582817
<b>Recovery Manager for Active Directory 10.3.2</b>		
User should be able to recovery on second phase (Repromotion) without running Phase 1	RMADFE-2618	242096
Reinstall DC on 2nd phase may fail if DC metadata retained in AD	RMADFE-2642	242099
Reuse (cache) backup already copied to DC between several Verify attempts, and especially between Verify and Recovery	N/A	253786
Allow user to specify the Replication DC used to Promote DC or join the domain from FR Console	N/A	260108
Ability to provision a new DC in Forest Recovery Project (using IFM or Install AD for provisioning a new DC)	N/A	364379
Add last modified date for computer collections	N/A	386967
Show console configuration backups stored on secure storage server in RMAD console	N/A	413892
Assign registry forwarder to primary forest root DNS server for all other DNS servers in forest	N/A	493179
Allow forest recovery without prior project verification	N/A	514577
<b>Recovery Manager for Active Directory 10.3.1</b>		

Enhancement	ID (old)	Azure DevOps
Verify setting should warn if target windows version doesn't match backup windows version	N/A	370842
FR Console - Allow Integrity Check to be optional for backups during Verify Settings	N/A	400616
Deprecate ADVL	N/A	414943
Extend Collect Diagnostic Data Feature: Usage of Forest Recovery Agent instead of Separate Process	N/A	417491
<b>Recovery Manager for Active Directory 10.3 Hotfix 1</b>		
Allow for password complexity on forest recovery project files	N/A	253917
Soften default FR project password complexity rules; make them customizable via config file.	N/A	422735
<b>Recovery Manager for Active Directory 10.3</b>		
Forest level option to Resume all DC's without selecting them during recovery while paused in DSRM mode	N/A	367808
Have the Forest project files replicated using the RMAD replication feature	N/A	374869
Malware Remediation button to also include global malware scanning option	N/A	369597
Detect DNS server based on server capabilities	RMADFE-2242	242068
Implement primary DNS approach as default option for Automatic DNS selection	N/A	358394
Support multizone DNS delegation restore	N/A	363514
Automatic DNS selection on Repromotion phase should select restored DNS server on Recovery phase	N/A	259424

## Disaster Recovery Edition

Enhancement	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.4</b>		
Clean OS VM Creation: Unable to login to DC after recovery when local account specified	N/A	534844
Support restore of LDAPS certificates for Clean OS - exportable certificates only	N/A	537084
Infrastructure Settings: VMWare Add sorting to all dropdowns	N/A	561850

Enhancement	ID (old)	Azure DevOps
Failed copy to Secure Storage should be considered warning not failed backup	N/A	570678
Ensure BMR recovery media reliably boots physical servers with Secure Boot enabled	N/A	583565
<b>Recovery Manager for Active Directory 10.3.2</b>		
Azure VM Creation: Support Azure Zone restrictions with Virtual machine size selection	N/A	436655
Support VMWare vSphere with Restore CleanOS	N/A	443708
Clean OS restore to Azure: Install only required Az Powershell modules	N/A	455726
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 1</b>		
Validate version of Secure Storage agent from Secure Storage node	N/A	473444
Restore NETBIOS name during Clean OS recovery	N/A	264188
<b>Recovery Manager for Active Directory 10.3.1</b>		
Avoid install DNS server in case of external DNS used for Restore to Clean OS - Multi Tree Forest	RMADFE-2413	242083
Azure VM Creation: Do not create VMs with Public IPs	N/A	352419
Warning and information about required workaround: MSFT issue: BMR recovery on 2019 may fail with WinRE crash	N/A	378305
PreInstall windows features required for Clean OS	N/A	408824
Have restore Clean OS option to use Domain account for accessing clean machine if possible	N/A	420196
Send email notifications (alerts) on a failed backup upload to the cloud storage	N/A	428425
Support credentials that have access to multiple tenants	N/A	437052
Add support for Secure Storage agent on Windows Server Core	N/A	444928
<b>Recovery Manager for Active Directory 10.3 Hotfix 1</b>		
Allow to specify a region for Amazon S3 cloud storage	N/A	423903
<b>Recovery Manager for Active Directory 10.3</b>		
Display status of secure storage server when hardened with exceptions	N/A	372705
Azure VMs created in different Resource Group to Network Infrastructure	N/A	352418
Support shared Access Signature (SAS) for accessing Azure Storage	N/A	388808
Provide ability to export list of cloud storage and list of secure storage servers	N/A	318697

# Resolved Issues

## General Resolved Issues

Resolved Issues	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.4</b>		
Apply temporary DNS settings step may fail with vague error message	N/A	517939
Unable to verify that the gMSA account is a member of the local Administrators group	N/A	522998
Replication of collection items may result in the account being locked out	N/A	555030
Comparison report issue: A data source instance has not been supplied for the data source 'Report Header'	N/A	559598
DC recovered with BMR method may have old A record on primary DNS server	N/A	588835
Install DNS server option of Install AD recovery method may fail in some DNS environments	N/A	606527
DNS cleanup doesn't work for some DNS configuration	N/A	606584
<b>Recovery Manager for Active Directory 10.3.2 Hotfix 1</b>		
Improved performance of search results using Online Restore wizard with mix of operating system versions	N/A	443388
RazorEngine.dll has critical vulnerability and needs to be upgraded to latest version	N/A	562026
Online Restore Wizard fails to connect to the agent because it takes some time for the firewall rules to start working	N/A	552299
Support backup and recovery of symbolic link to a folder (NetIQ)	N/A	552565
Backup replication should not validate the accessibility of backups on the source console	N/A	554238
<b>Recovery Manager for Active Directory 10.3.2</b>		
Performance difference between local and remote storage	N/A	370691
IFM method store temporary extracted backup on C:\ drive instead of Temp folder	N/A	488677
Log rotation interval not working as expected with logs found in root log folder	N/A	515418
Intermittent backup failures with error: Failed to connect to backup agent: Access is denied	N/A	532286
The DIT Database component cannot be backed up because the NTDS VSS writer is unavailable or does not work properly	N/A	539934
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 3</b>		

Resolved Issues	ID (old)	Azure DevOps
Change "Full" to "AD" in "Retain recent backups"	N/A	513320
Domain recovery deletes DNS conditional forwarder to root domain	N/A	519110
RMAD Console "The server threw an exception" when accessing computer collection settings Advanced Run Scripts after moving database to a new host	N/A	523958
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 2</b>		
DNS should cleanup all non-relevant NS records	N/A	487775
Handle null values which can be returned from Change Auditor database query	N/A	498663
Static Analysis Security Issue: Out-of-bounds read/access for ud3convert	N/A	498947
Hybrid Restore Service: Time zone settings set to UTC - (negative offset) causes ODR restore objects fail with "No results received from the agent".	N/A	504110
Hybrid Restore Service: Issue with database upgrade when upgrading RMAD product	N/A	505343
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 1</b>		
Hybrid Restore Service: Timezone and region settings set to UTC+ causes ODR Diff restore objects to hang on "Synchronizing object changes with Azure AD"	N/A	444355
Expand-RMADBackup crashes when it's executed simultaneously for multiple backups	N/A	465177
Poor performance of backup replication in Full Mode	N/A	472789
Invalid Version String in the rmad.db3 crashes the Console	N/A	478037
Correct User Guide about permissions required for online restore	N/A	480678
Disable IPv6 loopback for AD integrated DNS server	N/A	487979
Child domain forest-wide DNS zone gets wrong IP address	N/A	487991
<b>Recovery Manager for Active Directory 10.3.1</b>		
FSMO roles doesn't removed from non-recovered DC	N/A	408607
OnlineRestoreAgent.msi uninstalls Backup agent on DC if Backup agent exists. Backup agent also uninstalls ORA on DC if exists before install Backup Agent.	N/A	421201
Perform integrity check after scheduled backup' option works incorrectly	N/A	430626
GPO Comparison Report error: "Uncaught Reference Error: Enumerator is not defined"	N/A	431908
Using Online Restore Wizard, any GPO Comparison Reports do not show the changes/differences because the information is hidden	N/A	434960
Do not store user account credential in the task for scheduled console config backup	N/A	437559
Too long replication in full mode	N/A	438621

Resolved Issues	ID (old)	Azure DevOps
Restore-RMADDeletedObject cmdlet throws "Invalid Password Cannot decrypt data" when backup is not accessible - improve error message	N/A	440174
DC side PowerShell script account requires SeInteractiveLogonRight, or the logon will fail.	N/A	444542
Get information about computer from Backup takes too long to fail if backup access credentials are incorrect	N/A	448638
When forest domain is forest-wide replicated all DCs in forest should use its DC as primary DNS server	N/A	468637
Email notifications: SMTP authentication long password truncated after saving and reopening Recovery Manager Settings dialog	N/A	470665

## Forest Recovery Resolved Issues

Resolved Issue	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.4</b>		
FR console: connection to FR-agent is lost when an invalid 'Target computer' is specified	N/A	546176
Forest recovery with forest wide root domain DNS zone may fail to restore relation links between servers	N/A	609372
<b>Recovery Manager for Active Directory 10.3.2</b>		
Console configuration backup fails when password contains double quotes.	N/A	443231
Scheduled verify task succeeds when frproj has validation issues	N/A	476407
Open-RMADFEPProject cmdlet does not work with relative path	N/A	523257
Console configuration backups do not support passwords containing spaces	N/A	539417
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 3</b>		
Invalid password. Cannot decrypt data at GetComputerInfoFromBackup step	N/A	490646
Forest Recovery should reset GC occupancy level to original value	N/A	505147
FRAgent crashes on DSRM reboot step	N/A	510813
Recovery report doesn't show quarantined files if the recovery was crashed/interrupted	N/A	511476
Error on FR console open: Unable to sort because the IComparer.Compare() method returns inconsistent results	N/A	511477

Resolved Issue	ID (old)	Azure DevOps
Recovery Report: Data retrieval fail for the subreport, 'DCReport', located at: DCReport. Please check the log files for more information	N/A	518248
Remove obsolete NS records for forest replicated zones	N/A	520205
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 2</b>		
Recovery project verification may fail with "Invalid password. Cannot decrypt data" error	N/A	506570
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 1</b>		
Azure VM Creation: Unable to verify settings on the cloned Azure infrastructure template	N/A	483661
LSA protection enabled and online restore gets access denied on Windows 2022	N/A	486528
Selected network adapter is not applied during HyperV/VMWare VM creation	N/A	492184
Invalid default subnetwork selected when configuring new resource group for Azure VM creation	N/A	493636
Unable to connect Azure to configure the infrastructure with Az 12.0 or Az.Accounts 3.0 modules	N/A	494885
"The term Get-AzLocation is not recognized..." error is displayed when configuring Azure infrastructure template	N/A	495398
<b>Recovery Manager for Active Directory 10.3.1</b>		
Avoid install DNS server in case of external DNS used for Restore to Clean OS - Multi Tree Forest	RMADFE-2413	242083
Unable to Retry All operation for failed DC after FRC process restarted	N/A	422083
Backup access failed with user unfriendly error message	N/A	422251
Verify setting and recovery should show error if target windows version older than version in the backup	N/A	432655
Domain Removal during recovery leaves Trust account	N/A	449224
"Do Not Recover" checkbox state is not synced between "Advanced Actions" and "Configure Advanced Actions" dialogs	N/A	450812
Retry last fails with: "Object reference not set to an instance of an object" after canceling DC on SetPrefferedDns then close/reopen FR console to resume recovery	N/A	456538
Forest Recovery Console crashes after project verification or forest recovery if email notification throws an error	N/A	467130
FR console crashes with Alerts configured after Verify Settings or Recovery if notification "From address" is invalid	N/A	467637

# Disaster Recovery Resolved Issues

Resolved Issue	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.4</b>		
Changing Recovery Method from BMR to Clean OS after verification error at Check logical disks configuration: "At least one required logical disk is not found on the target machine"	N/A	413271
Cancel resuming recovery leaves FRC in inconsistent state	N/A	492520
After upgrading to RMAD DRE v10.3.2.45365, "Storage agent operation failed. Error code is '2'"	N/A	582854
Integrity check for scheduled Secure Storage backups does not work when remote storage is configured	N/A	601407
<b>Recovery Manager for Active Directory 10.3.2 Hotfix 1</b>		
Clean OS recovery should restore external forwarders	N/A	554439
Old IP addresses of domain controller remain in DNS after Clean OS recovery with IP address changes	N/A	547231
HyperV VM creation fails with "WinRM cannot process the request" error	N/A	549263
The 'Configure DNS server' step in Restore Active Directory on Clean OS fails with the error: 'Value cannot be null'.	N/A	551102
"Error occurred during Windows features changing" error occurs during CleanOS restore on Windows 2025	N/A	552224
"The value of parameter securityProfile.securityType is invalid" error when creating Azure VM	N/A	552438
"A remote session might have ended" error occurs when creating Hyper-V VM during CleanOS recovery	N/A	555962
RMAD Console crashes when Cloud Storage is deleted	N/A	556790
BMR restore takes too long to apply network setting to NIC team adapter	N/A	558579
Issue with selection of VM Size	N/A	560619
CleanOS recovery fails to create VMWare VM if source AD component was stored on D drive	N/A	564328
"Unable to initialize disks" error when creating Azure VM	N/A	565581
<b>Recovery Manager for Active Directory 10.3.2</b>		
"Cannot index into a null array" error on adding secure storage server. Secure storage server status when SMB registry configuration is corrupted.	N/A	316435
Secure Storage: Blank FRConsoleSettings.xml causes "The type initializer for 'QuestSoftware.RecoveryManager.FR.Settings.Settings' threw an exception."	N/A	443993

Resolved Issue	ID (old)	Azure DevOps
Verify for "Restore from BMR backup" recreate ISO for every new backup	N/A	476409
Restore on Clean OS fails if DSRM password contains special characters	N/A	476438
Any backup on Secure Storage that was created while the Secure Storage server was added by Name, will not appear if you remove the Secure Storage Server and add it again by IP address	N/A	480487
Command injection is possible when adding secure storage server	N/A	482729
Previous backups are not shown when secure storage server name has been changed	N/A	499695
Secure Storage Agent version check ignores build number	N/A	501169
Validate user input for Secure Storage Host name to mitigate command injection risks	N/A	520906
RMAD console crashes after migrating product databases and re-entering the cloud storage connection string	N/A	540068
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 3</b>		
When FR project was created from a backup (BMR or CleanOS), FSMO role owners after recovery do not reflect original FSMO roles distribution	RMADFE-1997	242050
Correct User Guide around Secondary Storage and Secure Storage/Cloud Storage	N/A	477761
Remove confusing message about excessive network traffic when copying backups to secure storage	N/A	513325
"Failed to negotiate key exchange algorithm." error when automatically booting iDrac server	N/A	517423
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 2</b>		
Hyper-V: Blue screen during Bare Metal Recovery at Restart domain controller in normal mode step if D: volume contains AD files such as NTDS.dit Stop code: 0xc00002e2	N/A	286589
Cloud-Storage AWS: Console does not accept IAM user without access to all containers.	N/A	490737
Registering backups from secure storage server corrupts backup paths if PowerShell profile script contains custom output	N/A	495345
Replicated Secure Storage backups disappear on subsequent replications	N/A	501520
"Failed to connect to backup agent: Unable to perform request (101)." error when copying backup to secure storage	N/A	504006
Cloud Storage all stuck in Queued state and sending out massive amounts of failure emails	N/A	504712

Resolved Issue	ID (old)	Azure DevOps
Secure Storage engine should not use the FE/DRE Fault Tolerance connection strings	N/A	509301
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 1</b>		
Azure VM Creation: Unable to verify settings on the cloned Azure infrastructure template	N/A	483661
LSA protection enabled and online restore gets access denied on Windows 2022	N/A	486528
Selected network adapter is not applied during HyperV/VMWare VM creation	N/A	492184
Invalid default subnetwork selected when configuring new resource group for Azure VM creation	N/A	493636
Unable to connect Azure to configure the infrastructure with Az 12.0 or Az.Accounts 3.0 modules	N/A	494885
"The term Get-AzLocation is not recognized..." error is displayed when configuring Azure infrastructure template	N/A	495398
<b>Recovery Manager for Active Directory 10.3.1</b>		
Backup file might be failed to be copied when secure storage option is set for collection	N/A	375340
"Last Integrity Check" column doesn't get updated in secure storage node	N/A	425603
Improve error message for verify settings Clean OS	N/A	438269
Fix integrity check settings for BMR backups	N/A	445484
Pulling backups from servers in NTLM restriction environment is not supported.	N/A	447207
Clean OS recovery failed when Sysvol path match NTDS path	N/A	461548
Cloud Storage: For some reason the backup/upload process doesn't cleanup the shares it maps every once in a while	N/A	464935

## Security Information

Recovery Manager for Active Directory fully supports Transport Layer Security (TLS) 1.2. It is recommended that you upgrade to TLS 1.2 for secure communications.

Security Resolved Issue	ID (old)	Azure DevOps
<b>Recovery Manager for Active Directory 10.3.2 Hotfix 1</b>		
RazorEngine.dll has critical vulnerability and needs to be upgraded to latest version - <a href="#">CWE-2021-46703</a>	N/A	562026
<b>Recovery Manager for Active Directory 10.3.1 Hotfix 3</b>		
Insecure SSL/TLS: bad certificate verifier - <a href="#">CWE-295</a> , <a href="#">CWE-296</a> , <a href="#">CWE-300</a>	N/A	498948
<b>Recovery Manager for Active Directory 10.3</b>		
Salting mechanism for forest recovery project and ADVL project password hashes	N/A	412667
Enforce password complexity on Forest Recovery project	N/A	253917
TLS 1.2 - Enforce in Hybrid Connect Service for communication to On Demand	N/A	384624

## Known Issues

### Upgrade Known Issues

Known Issue	ID (old)	Azure DevOps
When upgrading to RMAD 10.3.2, if an older version of SQL Server Express is already installed and the database exists, the version of SQL Server Express will not be upgraded by the installer. The existing database will be upgraded.	N/A	546861

### General Known Issues

Known Issue	ID (old)	Azure DevOps
Backups may contain invalid FQDNs that are registered automatically, so they cannot be selected in the Forest Recovery Console. <b>Workaround:</b> Use the Active Directory browse method to add the DCs to a collection when creating backups, or perform backup creation for the DCs (with correct FQDN) directly. To use the Active Directory® browse method, click <b>All Domain Controllers</b> in the console tree, right-click a domain controller on the right pane and press <b>Add to Collection</b> .	RMADFE-2851	220570
Recovery Manager for Active Directory does not show changes to GPO administrative templates in the GPO comparison report.	RMADFE-805	220632

Known Issue	ID (old)	Azure DevOps
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	226664

## Forest Recovery Known Issues

Known Issue	ID (old)	Azure DevOps
When running a BMR project <b>Verify Settings</b> , it succeeds, but when running the actual restore task, the VMs are created, but after running for a while the VMs will blue screen and go into automatic repair mode. A procedure to assist with this issue has been included in the Use Guide in the section, <b>Bare metal recovery requirements and limitations</b> .	N/A	378305
Recovery Manager for Active Directory Forest Edition (Disaster Recovery Edition) does not check version of Forest Recovery Agent inside the ISO image file.	N/A	226671
The start type of Windows Defender Firewall service cannot be restored in Windows Server® 2019.	N/A	226672
Recovery Manager for Active Directory does not support the use of MSA/gMSA for verification of forest recovery projects by schedule	RMADFE-3063	350182
Recovery Manager for Active Directory does not support the use of MSA/gMSA for PowerShell custom scripts on console	N/A	363891
Cannot create an encrypted BMR backup if 'Enforce drive encryption type on fixed data drives' policy is set to 'Full encryption' on the domain controller	N/A	346181
Console configuration backup fails when password contains double quotes.	N/A	443231
Pulling backups from servers in NTLM restricted environment is not supported. Secure Storage copy backup will result in error "Network Path is not found".	N/A	472556

# 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.

**NOTE**

Recovery Manager for Active Directory Forest Edition 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

## Processor

**Minimum:** 2.0 GHz

**Recommended:** 2.0 GHz or faster

## CPU Cores

**Minimum:** 2 CPU cores

**Recommended:** 4 CPU cores

## Memory

**Minimum:** 4 GB

**Recommended:** 8 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 512MB 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 40 MB for the transaction log files.

## 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® 2025, 2022, 2019, and 2016

Targets for backup, restore, or compare operations

- Microsoft Windows Server® 2025, 2022, 2019, and 2016 (including Server Core installation)

## Microsoft .NET Framework

Microsoft .NET Framework version 4.8 or higher is needed on the console system.

**NOTE** Microsoft .NET 4.8 is not required to be installed on the systems where the Forest Recovery and Backup agents are to be installed. The Secure Storage Agent does use .NET and it is recommended to install 4.8 on the Secure Storage system, but the agent will work with older versions.

## Microsoft Windows PowerShell

Microsoft Windows PowerShell® version 5.0 or later

## Integration with Change Auditor for Active Directory

Supported versions of Change Auditor for Active Directory: from 6.x to 7.x.

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.

## Antivirus software that is supported for backup antimalware checks

The anti-virus checks are performed on the Forest Recovery Console machine running Windows Server 2016 or higher by means of antivirus software installed on the machine.

- Microsoft Defender
- Symantec™ Endpoint Protection 14.x
- Broadcom Endpoint Security (former name: Symantec™ Endpoint Protection 15)

## Supported server management systems

- Integrated Dell™ Remote Access Controller (iDRAC) 8 and 9
- HPE® ProLiant® iLO Management Engine (iLO) 3, 4 and 5
- VMware vCenter® / VMware ESX® Server 6.0, 6.5, 6.7, 7.0 and 8.0
- Microsoft Hyper-V® Server 2016 or higher

## Forest Recovery Agent requirements

### Memory

1 GB (2 GB recommended)

## Hard disk space

2 GB or more

## Operating system

One of the following operating systems:

- Microsoft Windows Server® 2025, 2022, 2019, and 2016 (including Server Core installation)

# Secure Storage Server requirements

## Processor

**Minimum:** 2.0 GHz

**Recommended:** 2.0 GHz or faster

## CPU Cores

**Minimum:** 2 CPU Cores

**Recommended:** 4 CPU Cores

## Memory

**Minimum:** 4 GB

**Recommended:** 8 GB

- Operating system: Microsoft Windows® 2016 or higher (including Server Core installation).
- A stand-alone server to be used as your Secure Storage server. This server should be a workgroup server and not joined to an Active Directory domain.
- An account that will be used to deploy the Storage Agent on the Secure Storage server. This account must also be a local Administrator on the Secure Storage server.
- Physical access to the Secure Storage server. Once the server is hardened access with regular methods will be disabled.
- Sufficient storage space on the Secure Storage server for all backup files. For one backup file, the space required is at least the size of the backed-up Active Directory® database file (Ntds.dit) and the SYSVOL folder plus 40 MB for the transaction log files.

# Cloud Storage requirements

- Internet access available on the Recovery Manager for Active Directory console. A standard outbound HTTPS port 443 is used to upload data to Azure® Blob and Amazon S3 Storage.
- Azure and Amazon S3 subscription(s) to create and manage Azure and Amazon S3 Storage accounts and containers.
- A method of creating and managing Azure and Amazon S3 Storage accounts, containers, and policies for the storage account (lifecycle, immutability and replication policies).

## VMware vCenter® / VMware ESX® Server 6.0, 6.5, 6.7, 7.0 and 8.0

- VMware vCenter® Converter™ 6.2 must be installed in your environment using the Client-Server installation setup option.
- If the TLS 1.0 protocol is disabled on VMware vCenter® Converter™ and VMware vCenter® servers, then switch to TLS 1.2. For more details on TLS 1.2, see the following KB article:
  - [Microsoft Security Advisory 2960358](#)

## 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(RMAD) 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, RMAD 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 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.

Recovery Manager for Active Directory (RMAD) supports a direct upgrade from version 10.1 and higher. If you have an earlier version of RMAD, the best practice is to upgrade the product to any of the supported versions, and then upgrade it to the latest version.

Alternatively, you can install the latest version of RMAD on a new clean machine and perform a full replication. The Full replication feature allows you to create a full copy of the primary Recovery Manager console settings on the new console instance. This option is supported starting from Recovery Manager for Active Directory version 9.0.1. For details, see the *Full Replication* section in User Guide.

For Recovery Manager for Active Directory Disaster Recovery Edition, after upgrade of Recovery Manager for Active Directory, upgrade the Secure Storage agent on the Secure Storage server to the same version. With a hardened Secure Storage server, Recovery Manager for Active Directory does not automatically upgrade the agent and this must be completed with console (physical) access to the server.

**NOTE** | You can review a complete list of sub-processors and our privacy policy at <https://support.quest.com/subprocessor>.

## 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/ff/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 <https://www.quest.com/legal/third-party-licenses.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
AeroWizard 2.2.3	MIT 1.0 Copyright (c) 2013 David Hall
AWSSDK.Core 4.0.0.11	Apache 2.0
AWSSDK.S3 4.0.1.7	Apache 2.0
Awssdk.securitytoken 4.0.0.9	Apache 2.0
Azure.Core 1.41.0	MIT Template 2020
Azure.Core.Amqp 1.3.1	MIT Template 2020
Azure.Identity 1.12.1	MIT Template 2020
Azure.Messaging.ServiceBus 7.18.1	MIT Template 2020
Azure.ResourceManager 1.12.0	MIT Template 2020
Azure.ResourceManager.Authorization 1.1.3	MIT Template 2020

Component	License or acknowledgment
Azure.ResourceManager.Compute 1.5.0	MIT Template 2020
Azure.ResourceManager.Network 1.8.0	MIT Template 2020
Azure.ResourceManager.Storage 1.3.0	MIT Template 2020
Azure.Storage.Blobs 12.21.0	MIT Template 2020
Azure.Storage.Common 12.20.0	MIT Template 2020
EntityFramework 6.4.4	Apache 2.0
Fody 4.2.1	MIT N/A
FontAwesome.WPF 4.7.0.9	MIT N/A
Group Controls 1.8	Apache 2.0
Microsoft .Net Framework 4.8	Microsoft .Net Framework 4.8
Microsoft.AspNet.Razor 3.3.0	Microsoft .NET Library 1.0
Microsoft.Azure.Amqp 2.6.9	MIT Template 2020
Microsoft.Bcl.AsyncInterfaces 9.0.2	MIT Template 2020
Microsoft.Dism 2.0.20	MIT N/A
Microsoft.Extensions.DependencyInjection.Abstractions 9.0.2	MIT Template 2020
Microsoft.Extensions.Logging.Abstractions 9.0.2	MIT Template 2020
Microsoft.Graph 4.54.0	MIT N/A
Microsoft.Graph.Core 2.0.15	MIT Template 2020
Microsoft.identity.client 4.65.0	MIT Template 2020
Microsoft.identitymodel.abstractions 6.35.0	MIT Template 2020
Microsoft.PowerShell.3.ReferenceAssemblies 1.0.0	MIT N/A
Microsoft.PowerShell.5.ReferenceAssemblies 1.1.0	MIT N/A
Microsoft.Xaml.Behaviors.Wpf 1.1.19	MIT N/A
MinHook 1.3.3	BSD - MinHook 1.0 Copyright 2009 Tsuda Kageyu All rights reserved.
Newtonsoft.Json 13.0.3	MIT Template 2020
PDFsharp-MigraDoc-wpf 6.2.2	MIT Template 2020
PropertyChanged.Fody 2.6.1	MIT N/A
SharpZipLib 1.4.2.13	MIT Template 2020

Component	License or acknowledgment
SQLiteCodeFirst 1.7.0.34	Apache 2.0
SSH.Net 2024.0.0 2024.0.0	MIT N/A
System.Buffers 4.6.0	MIT N/A
System.ClientModel 1.3.0	MIT Template 2020
System.Data.SQLite 1.0.116.0	System.Data.SQLite N/A
System.data.sqlite.core 1.0.116.0	Microsoft Public License (Ms-PL) 1.0 - October 12, 2006
System.Data.SQLite.EF6 1.0.116.0	System.Data.SQLite N/A
System.Data.SQLite.Linq 1.0.116.0	System.Data.SQLite N/A
System.Diagnostics.DiagnosticSource 9.0.2	MIT Template 2020
System.IO.Hashing 6.0.0	MIT Template 2020
System.IO.Pipelines 9.0.2	MIT Template 2020
System.Management.Automation 6.2.3	MIT Template 2020
System.Memory 4.5.5	MIT 1.0
System.Memory.Data 9.0.2	MIT 1.0
System.Numerics.Vectors 4.6.0	MIT 1.0
System.Runtime.CompilerServices.Unsafe 6.1.0	MIT Template 2020
System.Text.Encodings.Web 9.0.2	MIT Template 2020
System.Text.Json 9.0.2	MIT Template 2020
System.Threading.Channels 9.0.2	MIT Template 2020
System.Threading.Tasks.Extensions 4.6.0	MIT 1.0
System.ValueTuple 4.5.0	MIT 1.0
TaskScheduler 2.8.18	MIT
Task Scheduler Managed Wrapper 2.8.18	MIT N/A
TimeSpan2 2.2.0	New BSD N/A
Windows Installer XML Toolset (aka WiX) 6.0.0	Microsoft Reciprocal License (MS-RL) N/A

Quest Software creates technology and solutions that build the foundation for enterprise AI. Focused on data management and governance, cybersecurity and platform modernization, Quest helps organizations address their most pressing challenges and make the promise of AI a reality. Around the globe, more than 45,000 companies including over 90% of the Fortune 500 count on Quest Software. For more information, visit [www.quest.com](http://www.quest.com) or follow Quest Software on X (formerly Twitter) and LinkedIn.

## 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.