

# Rapid Recovery 6.2.1 Release Notes

## August 2018

These release notes provide information about the Rapid Recovery release, build 6.2.1.99.

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## About this release

Rapid Recovery software delivers fast backups with verified recovery for your VMs and physical servers, on-premises or remote. Rapid Recovery is software built for IT professionals who need a powerful, affordable, and easy-to-use [backup, replication, and recovery](#) solution that provides protection for servers and business-critical applications like Microsoft SQL Server, Oracle Database 12c, Microsoft Exchange, and Microsoft SharePoint. Using Rapid Recovery, you can continuously back up and protect all your critical data and applications from a single web-based management console.

Rapid Recovery 6.2.1 is a maintenance release, with some enhancements (see [Enhancements](#) for details). Some features, previously integrated software tools, or platforms are no longer supported. For more information, see [Deprecated features](#). This maintenance release primarily contains defect fixes. For more information on defect fixes and known issues, see [Resolved issues](#) and [Known issues](#), respectively.

For information relevant for any other release, please see the Release Notes edition specific to that release on the Quest [technical documentation](#) website.

# Repository upgrade advisory

Upgrading the Core software to release 6.2.1 from any version earlier than 6.2 (for example, Rapid Recovery 6.1.x, 6.0x, or AppAssure 5.x) changes the structure of your DVM repository. The updates let you use features introduced in release 6.2.x, such as application support for Oracle Database 12c, agentless protection, and so on.

After you change the structure of your DVM repository through an upgrade, you cannot downgrade the version of Core. Should you determine in the future that you want to use an earlier version of Core after upgrade to this release, you will need to archive the data in your repository. You could then uninstall the new version, re-install the older version, and then re-import the information manually from the archive, which can be a substantial effort.

# Automatic Update advisory

If upgrading from Rapid Recovery release 6.2, you can use the Automatic Update feature to upgrade to this release, if it is enabled in your Core.

Due to parameters introduced as part of GDPR compliance in Rapid Recovery release 6.2, customers using Rapid Recovery versions prior to 6.2 will not be able to use the Automatic Update feature to upgrade. You must manually upgrade instead. Once you have upgraded to Rapid Recovery Core release 6.2 or later, you can resume using the Automatic Upgrade feature.

# Linux Agent advisory for release 6.2

As described in knowledge base article 251154, "[Quest Rapid Recovery 6.2 Linux Agent Delayed](#)," the Rapid Recovery 6.2.0 release did not ship with an updated Rapid Recovery Agent. This maintenance release includes release 6.2.1 of the Rapid Recovery Linux Agent software.

For more information, see [Updated Rapid Recovery Agent for Linux](#).

If using Rapid Recovery Agent release 6.1.3 or earlier on your protected Linux machines, upgrade to release 6.2.1 to take advantage of the enhanced Agent features. If upgrading your Core to release 6.2.1, Quest recommends upgrading Rapid Recovery Agent on your protected Linux machines, to take advantage of recent improvements to consume less RAM and to support more Linux distributions.

For more information, see [Updated Rapid Recovery Agent for Linux](#) and [Additional Linux Agent operating systems supported](#), respectively.

# Context-sensitive help advisory

Rapid Recovery Core includes in-product context-sensitive help for each major release. The most recent version of in-product help was release 6.2.0. Help topics are derived from the *Rapid Recovery 6.2 User Guide*.

To view help topics in a web browser, from the Rapid Recovery Core Console, click [Help](#) or [?](#), and from the resulting drop-down menu, select [?](#) Help.

Since Rapid Recovery release 6.2, the "REST APIs" appendix appears only in the HTML and PDF versions of the *User Guide*. This topic, which describes how to download and work with Rapid Recovery REST APIs, does not appear in context-sensitive help. Likewise, as in previous releases, the help topic "Third-party contributions" appears only in context-sensitive help, or from the [?](#) **About** menu. This topic does not appear in HTML or PDF versions of the *User Guide*.

## 6.2.1: DL Appliance users upgrade using standard installers

As a reminder, the Recovery and Update Utility (RUU) is discontinued as of Rapid Recovery release 6.2.0. Users of a DL appliance who want to upgrade the Rapid Recovery software on their Core appliance to release 6.2.0 or release 6.2.1 are advised to use the standard Rapid Recovery Core installers. You can use either the Full Installer or the Web Installer.

# Rapid Recovery release designations

Rapid Recovery release designations consist of up to four parts. Each part consists of a set of numerals separated by a decimal point.

- **Major releases** are specified by the first numeral. These releases include dramatic changes to UI, the repository, or application behavior.
- **Minor releases** are specified by the numeral following the first decimal point. If this number is greater than 0, it is part of a minor release. Minor releases introduce new functionality that is smaller in scope than the types of changes included in major releases.
- **Maintenance releases** are specified by the numeral following the second decimal point. If this number is greater than 0, it is a maintenance release. Maintenance releases correct previously identified defects or behaviors. Maintenance releases may also reflect changes (additions and deprecations) in supported operating system or application platforms.
- **Build numbers** (typically between 3 and 5 digits) are specified by the fourth set of numerals. This part is used to differentiate versions of the software program generated during the development process.
  - For the Agent software, build numbers may differ between Windows and Linux versions. If the first three parts of the release number are identical, interoperability between the Core and Agent with different build numbers is not affected.
  - Updated builds of the same software release may be made available on to the within a release cycle. Therefore, if your Core is set to automatically update the Agent version on protected machines, you may see differences in build numbers for a single release. These differences will not negatively influence functionality.
  - Build numbers will differ between the Core and the Add-on for Kaseya component.
  - Difference in build numbers does not affect replication when the Core has the same or a more recent build installed than the replicated target machine.

For release 6.2.1.99, the first digit (6) is the major release. The second digit, if greater than 0, represents a minor release. The third digit, if greater than 0, indicates a maintenance release. The build number (99) is last and is generally only referenced in release notes. The build number for this release is identical between Core, Windows, and Linux Agents, and components such as the Local Mount Utility. Note that updates are sometimes made available afterward for the Linux Agent that results in a different build number.

# Support policy

The Rapid Recovery support policy is to provide technical support to customers with an active Support agreement for specific software versions under the following terms:

- Rapid Recovery software versions supported follow the **N-2 policy**.
  - **N** represents the major and minor release numbers (for example, 6.2, 6.1, 6.0, 5.4) of the most recent generally available software release. For more information about parsing a Rapid Recovery release number, see [Rapid Recovery release designations](#).
  - **N - 1** refers to the most recent prior release, considering major and minor versions only. For example, in release 6.2, N-1 refers to release 6.1.
  - **N - 2** refers to the penultimate major/minor release. For example, in release 6.2, N-2 refers to release 6.0.
- For each release, some versions are eligible for full support; some for limited support; and for some versions, support is discontinued.
  - The current version (N) and the most recent maintenance release (N-1) are fully supported.
  - For N-2 (6.0), the latest maintenance release (6.0.2) is in limited support. Patches or fixes are not written for releases in limited support; however, once identified and confirmed, software defects can be expected to be corrected in the most recent version of the software.
  - Support for all other versions is discontinued.

Quest Software Inc. strives to put resources behind the most recent product releases in order to continually improve and enhance the value of our products. Support for earlier maintenance releases is discontinued because viable, easy-to-upgrade alternatives are available. For example, users of release 6.2.0 can upgrade directly to release 6.2.1, which is fully supported. Users of release 6.1.0 can upgrade directly to release 6.1.3, which is fully supported. Users of 6.0.1 can upgrade to 6.0.2 (in limited support) or to 6.1.3 (in full support).
- Limited support can be offered to other versions by exception. As of the date of publication, no releases currently are supported by exception.

**i** **NOTE:** To see definitions of full, limited and discontinued support, see our Product Life Cycle (PLC) page on the Support website as follows:

1. Navigate to <https://support.quest.com/rapid-recovery/>
2. Click **Product Life Cycle & Policies**.
3. Scroll down to **Product Support Policies** and expand the link **Software Product Support Life Cycle Policy**.

## Enhancements

The following is a list of enhancements implemented in Rapid Recovery 6.2.1.

Topics include:

- [Updated Rapid Recovery Agent for Linux](#)
- [Additional Linux Agent operating systems supported](#)

# Updated Rapid Recovery Agent for Linux

This maintenance release includes the new Rapid Recovery Agent release 6.2.1 for Linux.

This version of the Agent includes a redesign of the block tree. The resulting product includes a significant reduction in the consumption of RAM in the kernel module (rapidrecovery-vss).

Improved support for the B Tree File System (BTRFS) in Agent 6.2.1 lets Rapid Recovery Core expand the kernels it can protect to include 3.7 and later. In release 6.1.3, BTRFS was supported for kernels 4.2 and newer. This lets Core protect SUSE 12 SP1 and 2. For additional Linux OS supported in this release, see [Additional Linux Agent operating systems supported](#).

## Additional Linux Agent operating systems supported

The following Linux operating system distributions are now supported for Rapid Recovery Agent:

- Version 6.9 is supported for CentOS Linux, Red Hat Enterprise Linux, and Oracle Linux.
- Version 9 is now supported for Debian Linux.
- Version 17.04 LTS and 18.04 LTS are now supported for Ubuntu Linux.
- Versions 12 SP1 and 12 SP2 of SUSE Linux Enterprise Server (SLES) are now supported.

For a full set of system requirements for Rapid Recovery release 6.2.1, see the *Rapid Recovery 6.2.1 System Requirements Guide*.

# Deprecated features

The following is a list of features that are no longer supported starting with Rapid Recovery 6.2.1, or are soon to be discontinued.

Topics include:

- [Linux operating system support changes](#)
- [Tiering repositories deprecated](#)
- [Kaseya VSA and Rapid Recovery Core integration is deprecated](#)
- [Rapid Recovery support for Azure Service Management is deprecated](#)
- [Rapid Recovery support for Exchange Server 2007 is deprecated](#)

## Linux operating system support changes

The following Linux operating system support changes apply to Rapid Recovery release 6.2 and later:

Ubuntu Linux 12.04 LTS, 12.10, 13.04, 13.10, 14.10, 15.04, 15.10. These OS distributions have reached end of life, and are therefore no longer tested. Agent, Agentless, and Live DVD support for these OS is therefore limited.

## Tiering repositories deprecated

A tiering repository is a secondary repository defined on your Core into which recovery points can be relocated from a primary DVM repository. Once they are moved, recovery points are deleted from your primary DVM repository. The Core continues to manage the relocated recovery points until they are eventually rolled up and deleted.

The tiering feature is expected to be discontinued in a future release of Rapid Recovery.

## Kaseya VSA and Rapid Recovery Core integration is deprecated

Kaseya integration with Rapid Recovery is deprecated. Release 6.2.x is the last release in which this integration is supported.

Kaseya Virtual System Administrator (VSA) is remote monitoring and management software used by IT professionals, including managed service providers. Quest provides a plug-in, the Rapid Recovery Add-on for Kaseya, to help Kaseya VSA users manage Rapid Recovery Cores from the Kaseya interface.

Rapid Recovery release 6.2 included a new Rapid Recovery Add-on for Kaseya. If using Kaseya to manage your release 6.2 Core, you should upgrade to the 6.2 version of the Add-on. The Add-on is backward compatible (you can run the 6.2 Add-on with older versions of Rapid Recovery Core). The reverse is not true. The version of Core must not be later than the Add-on for Kaseya version.

# Rapid Recovery support for Azure Service Management is deprecated

For some time, Microsoft supported two sets of APIs: the original Azure deployment technology, Azure Service Management (ASM, known as the Classic deployment model), and its replacement, Azure Resource Manager (ARM).

Microsoft announced that support for ASM is retired as of June 30, 2018. Accordingly, support for ASM within the context of Rapid Recovery is deprecated.

Rapid Recovery release 6.2.1 continues to support some features of ASM, such as virtual export to containers created in Azure using the classic deployment model.

Future releases of Rapid Recovery will exclusively support Azure Resource Manager, and will only support Azure containers created using ARM.

For more information, please see Microsoft blogs, knowledge base articles, and online Azure documentation, including the following:

- Microsoft's blog post [Deprecating Service Management APIs support for Azure App Services](#)
- MSDN Q&A topic, [Will removing Support to ASM on June 30 2018 also mean that a Cloud Service \(Classic\) cannot be deployed through PowerShell commands?](#)

# Rapid Recovery support for Exchange Server 2007 is deprecated

In April of 2017, Microsoft Exchange Server 2007 reached end of life. Microsoft no longer supports that version of Exchange Server.

Accordingly, Rapid Recovery support of Exchange 2007 is deprecated. In Rapid Recovery release 6.2.1, only limited support is provided for Exchange 2007. If customers encounter issues, Quest Data Protection Support will apply their best effort to provide known work-arounds or fixes. However, no coding effort will be applied to issues discovered in Exchange 2007 in relation to our software.

Quest recommends migrating to newer, supported versions of Exchange if you want to continue protecting your data using Rapid Recovery.

# Resolved issues

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

**Table 1: Core and Windows resolved issues**

Resolved Issue Description	Issue ID	Functional Area
Error message: "Oops.. Looks like something went completely wrong!" appeared when the Core was launched with non-default service port.	107175	Service Port. Service port, settings
There was no ability to change ESXi export timeouts either from GUI or from the Windows registry.	106784	Virtual export, vCenter/ESXi
The custom retention policy for a virtual machine on a Hyper-V cluster was not saved and rollup was not performed.	106088	Retention policy
Mount point folders were not deleted after dismount on a specific environment.	105714	Mount points
Encryption Key value became 'Not Encrypted' after machine was re-protected.	105412	Encryption keys
Mountability check job failed for some Exchange 2016 databases with error "Mail store 'dbname' is not mountable. Error: 'Database was not shutdown cleanly. Recovery must first be run to properly complete database operations for the previous shutdown.'"	105203	Exchange, mountability
Replication failed to start with incorrect RPFS file size error in a specific case.	105048	Replication
It was impossible to protect ESXi VMs agentlessly due to timeout error in Wizard if Core already had 100 or more VMs under protection.	102893	Agentless protection, vCenter/ESXi
Sometimes the Core failed to restore the configuration for some services during the remount volumes job that occurred after a factory reset, but the remount volumes job showed as successfully completed.	104043	Core
Reference counting checks failed when the index was greater than the maximum valid index.	103813	RRT
In the Spanish UI, agentless virtual machines did not appear on the virtual machines tab in the Spanish interface.	103782	Localization
In the Korean UI, there was no ability to boot from a RASR USB flash drive due to invalid information in the BCD file (0xc0000098).	103775	Localization
The Agent service crashes when trying to collect cluster SQL metadata of a database with the FileAttributes.ReparsePoint attribute.	103740	Agent
The status of a virtual machine exported to ESXi appears as "Disabled" or "Stopped" after editing the export configuration, which is expected.	103704	ESXi
Replication started outside of the scheduled time if the job was added to the queue.	103702	Replication
Restoring ReFS volumes did not work on Windows Server 2016.	103698	Restore



<b>Resolved Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
There was no ability to add a cloud account for Azure Government.	103683	Azure
Core performance got worse and used a lot of system resources while mounting a recovery point from an attached Azure archive.	103670	Azure
A connection to the MongoDB reporting database cannot be established due to insufficient free ports, which is expected.	103664	Reports
Restoring a Core configuration with a configuration backup file of a previous Core was not restricted.	103632	Core
A machine with a root on a RAID volume didn't boot after a successful export.	103558	Export
Resolving overlapped records failed with the error "Unable to find assembly 'Core.NativeWrapper, Version=1.0.6353.24371, Culture=neutral, PublicKeyToken=null'" when both types of records existed in the repository.	103556	RRT
The limitation for the maximum concurrent exports did not work correctly after specific steps.	103515	Core
The error "Placeholder mismatch with format string [Checking volume images by read {0} on {1} recovery point {2}] and arguments ..." appeared while performing an integrity check on a DVM repository, even though the check was successful.	103492	Repository
Resizing the Dedup Cache failed with the error "cache_io_engine: windows error 87" if the Dedup Cache was located on a disk with a sector size of 4 KB.	103469	Repository
When protecting a vCenter virtual machine, agentless protections fails with the error "An item with the same key has already been added."	103426	Agentless protection
A Core localized in Brazilian Portuguese failed to communicate with the License Portal, because the string was not recognized as a valid DateTime.	103371	Localization
While protecting a machine agentlessly, if the maximum number of permitted snapshots was exceeded, an incorrect error message displayed.	103334	Agentless protection
A transfer failed because there are no retries present on the CleanupSnapshotInternal stage, which is as designed.	103310	Transfers
There was a logic issue with the option "Include only the recovery in the date range..." when this option was used for a scheduled archive.	103283	Archiving
Sometimes the export postprocessing step took a lot of time, because there was incorrect dismount logic in the driver.	102742	Export
Sometimes there was no ability to protect a second cluster that had the same hostname as the first cluster, even though it was from a different domain.	102702	Protection
Incremental and Virtual Standby Hyper-V exports failed if the location or name for the exported virtual machine contained Chinese symbols.	102589	Localization
The warning "VSS full snapshot was taken with excluded VSS writers 'Microsoft Exchange Writer has state'" appeared about a non-existing writer on a protected machine (SQL or Exchange, depending on the instance installed) during log truncation.	102567	Protection
Azure Market Place Offer used "dell_software" in the URI.	102521	Azure
Incremental snapshots were slow for volumes with specific write activity.	102493	Protection
Deferred delete canceled after a rollup job on French operating systems.	102436	Localization

<b>Resolved Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
After an upgrade to 6.1.2, repository maintenance failed after restoring the provisioning configuration.	102340	Upgrade
When repository maintenance job was in progress, the Agent Settings page on the Rapid Recovery Core Console would hang.	102321	Repository, Maintenance Job, GUI
After several days, the AAFileFilter driver caused a blue screen to appear on a Hyper-V cluster running Windows Server 2012 R2 or Windows Server 2016.	102232	Agentless protection, server cluster, driver
A seed drive job automatically canceled due to a NullReferenceException.	101617	Seed drive
On Windows 2016, some drivers were blocked during an installation of the Agent software with the "Secure boot" option enabled.	101573	Agent installation
The VMwareProxy service crashed due to TCP/IP port exhaustion.	101485	VMware proxy
A remount job did not restore the locale of a Core.	101316	Localization
If a letter was assigned to a Recovery partition, the status of the volume displayed as "Not valid."	101224	
On a system test environment, ESXi virtual standby failed with the error "An entry with the same key already exists."	100868	ESXi
The VMM actions were available while the ESXi host was in maintenance mode.	35740	ESXi
There was an incorrect validation for the "Maximum connection pooling size" and the "Minimum connection pooling size" fields for the MongoDB connection.	35607	Reports
A base image was taken when the NTFS Boot Sector copy changed.	34981	NTFS
Virtual disk provisioning failed with Return Code 4 if the storage pool did not consistently have empty space, which is as designed.	34937	Virtual machines
Unexpected base images were taken of the ESX(i) virtual machines that had snapshots with quiescing enabled.	34916	ESXi
The Virtual Standby tab performance was slow.	34434	Exporting
The warning message "Information about allocated space for some volumes is unavailable..." appeared on the Summary tab for a protected virtual machine (VM) if that VM was located on an NFS datastore.	33551	Virtual machines
All running archive jobs failed with the error "There is not enough space on the disk" if more than one archive job was in progress at the moment when the target network storage ran out of space.	31827	Archiving
Rollback or export using SAN transport mode failed because one of the parameters had an invalid error in ESXi.	29508	Agentless

**Table 2: DL appliance resolved issues**

<b>Resolved Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
On a DL1000, sometimes launching FTBU would hang on the splash screen after a required reboot of the server during a configuration using the first wizard.	105114	FTBU
Some ESXi export jobs failed with the error "VddkApiException: You do not have access rights to this file."	105029	ESXi
If one of the physical disks on a DL1300 or DL1000 was offline, the FTBU would hang after the first wizard on the "Applying Settings ..." window.	103699	FTBU
On a DL1300 or DL4300 with FI#3.2.55, the ApplianceProvisioningConfiguration.xml file was present on the RECOVERY partition after configuring FTBU.	103389	FTBU
Sometimes the message "Internal Server Error" appeared on the Backup tab.	102379	RASR
Jobs failed with the error "System.OutOfMemoryException" on DL appliances after running for a period of time, which is as designed.	101246	Jobs
If a letter was assigned to a Recovery partition, the status of the volume displayed as "Not valid."	101224	Provisioning
Windows Backup could not be created because the necessary volume items for a backup could not be determined if the volume letters were changed.	100985	Windows Backup
If Windows Backup was forced on a server with old Winbackups of a 75 GB volume with no free space on the internal controller, the main appliance status was red and could not be resolved.	100887	Windows Backup
A restore of the provisioning configuration job failed with the uninformative error "Cannot mount volume to the folder 'I:\' because it contains files or folders," if the virtual disk has a letter that was already used before the remount.	35805	Provisioning
The behavior of the logic used to determine the provisioning size was incorrect.	35770	Provisioning
The GUI was not disabled immediately after confirming the remount process.	35579	Provisioning
The Start VM and Start Network Adapters buttons were not disabled when an ESXi or Hyper-V export of a machine was launched.	30989	Exporting

**Table 3: DocRetriever resolved issues**

<b>Resolved Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
DocRetriever failed to retrieve SharePoint hierarchy if a web application's port contained an extra space character.	105749	Restore
An incorrect username was displayed in the "Modified by" and "Modified" columns after restore of a file uploaded by another user. The file now shows the original username after restore.	105101	Restore
DocRetriever failed to open a SharePoint 2016 database with several sites that had similar IDs.	103710	SharePoint

<b>Resolved Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
DocRetriever did not restore "Content Editor" web parts in SharePoint 2013.	103241	Restore
The DocRetriever Agent did not work (all restore operations failed) on a machine with MOSS 2007 32-bit installed. Corrected for 6.1.2 and 6.1.3. 32-bit versions are no longer supported.	102522	Restore

**Table 4: Documentation resolved issues**

<b>Known Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
The components ANTLR 3.3.3 and ANTLR 4.0.2 previously appeared in the "Third-party contributions" topic found only within in-product help. These versions were not used in Rapid Recovery 6.1.3 and have been removed. The 6.2 version references ANTLR 3.4 and 4.0.2.	104031	Context-sensitive help
The component MongoDB 2.6 previously appeared in the "Third-party contributions" topic, even though it was not used in Rapid Recovery 6.1.3. For 6.2, the listing is updated to reference MongoDB 2.6.11.	104030	Context-sensitive help
The component Microsoft Windows Azure Storage 7.2.1 did not appear in the 6.1.3 third-party contributions topic. 6.2 uses version 8.2.0, which is included in the list.	102504	Context-sensitive help
The component DataGridViewImageAnimator 1.0 appeared in the 6.1.3 third-party contributions topic, even though it was not used in Rapid Recovery 6.1.3 and is no longer used. It has been removed in the current list.	102503	Context-sensitive help
The component SimpleRestServices 1.3.0.3 did not appear in the list of third-party contributions, whereas an outdated version had appeared. This version is included in the current list.	102502	Context-sensitive help
The component OpenStack.NET 1.4.0.2 did not appear in the list of third-party contributions, whereas an outdated version of the component appeared in its place. This version is included in the current list.	102501	Context-sensitive help
The component NLog 3.2.1 did not appear in the list of third-party contributions, whereas an outdated version of the component appeared in its place. The current list references version 4.4.1.2, which is used in release 6.2.	102500	Context-sensitive help
The component AWS SDK for .NET 3.3.1.2 did not appear in the list of third-party contributions, whereas an outdated version of the component appeared in its place. The current list references this version.	102499	Context-sensitive help

**Table 5: Linux resolved issues**

<b>Resolved Issue Description</b>	<b>Issue ID</b>	<b>Functional Area</b>
Snapshots and jobs for taking metadata failed for some Linux servers with RAID5 hardware. This was a specific environmental issue.	104919	Protecting
There was no ability to support LVM-based storage pools.	103488	LVM

Resolved Issue Description	Issue ID	Functional Area
Transfers from a Core failed on SLES 11.4 x32 with the following error: "The partition size is incorrect, please shrink the volume."	103300	SLES
There was an ability to select Linux system folders for a rollback restore, even though restoring to a system folder is not supported.	103178	Restore
The Agent service could not be started if it was installed on a machine that did not use the default init system, which is as designed.	35818	Agent
Specific volumes could not be mounted after the export of a Linux machine.	35288	Export

**Table 6: Mailbox Restore resolved issues**

Resolved Issue Description	Issue ID	Functional Area
MailboxRestore failed to perform restore to original location on specific environment due to wrong flags passed into OpenMsgStore MAPI method.	105755	Restore
Public folder permissions were not restored for empty folders.	105267	Restore
After opening an Exchange 2016 CU5 database in Mailbox restore, the Inbox folder was missing in some mailboxes.	104334	Restore
A security alert dialog did not display during a restore when the Exchange server used a self-signed certificate.	102765	Restore
A non-informative error message appears if the user was not found in GAL during a restore of permissions for a public folder.	102018	Restore

## Known issues

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

Third-party components are described in detail in our in-product help, which is refreshed only for major releases. In the interim, for legal compliance, updates to third-party components (and some accompanying licenses) are included in the [Documentation known issues](#) section.

**Table 7: DL Appliances known issues**

Known Issue Description	Issue ID	Functional Area
Retention policy settings becomes disabled on DL1000 and DL1300 after upgrade to 6.2.0. <b>Workaround:</b> Contact Quest Data Protection Support about this issue.	107303	Retention policy
In Rapid Recovery 6.0 and later, some non-English languages (namely French,	35031	DL

Known Issue Description	Issue ID	Functional Area
<p>Japanese, and Korean) use incorrect translations of the word "state" on the Backup page in the "Items Backed Up" section. The correct translation relates to the current condition.</p> <p><b>Workaround:</b> None.</p>	100061	appliance, Backups page

**Table 8: Core and Windows known issues**

Known Issue Description	Issue ID	Functional Area
<p>The Core service can crash with AccessViolationException when it is replicating and is running with a newer .Net library than the one included with Rapid Recovery.</p> <p><b>Workarounds:</b> Use one or both of the following options:</p> <ul style="list-style-type: none"> <li>• Reduce the workload of the Core.</li> <li>• Pause replication</li> <li>• Downgrade the .Net framework to the version included with Rapid Recovery, which is .Net 4.6.2.</li> </ul>	107708	Core
<p>On Core protecting Oracle server, snapshots fail and Oracle service crashes with error: "The VSS writer 'Oracle VSS Writer - &lt;database_name&gt;' failed during the 'DoSnapshotSet' phase with error 'WriterErrorNonRetryable'.The VSS writer state is 'FailedAtFreeze'." Oracle is supported only in ARCHIVELOG mode. In this mode, the VSS writer calls the Oracle service to archive the existing re-do logs and create a new archive log file. The re-do logs are archived to Oracle's <code>fast_recovery_area</code> folder. When all space allocated to this folder is fully consumed, this error results. This behavior demonstrates Rapid Recovery Core functioning as designed. If you encounter this error, continue to the workarounds below.</p> <p><b>Workaround:</b> (1) Truncate logs manually to clear up disk space, restore using RMAN or VSS backups, and set a log truncation policy to avoid repetition. (2) Optionally, in SQL*Plus you can view and extend the space allocated for logs: Query: "SHOW parameter db_recovery_file_dest;" Extension command (this example extends to 50GB): "ALTER system set db_recovery_file_dest_size = 50G SCOPE = both;" (3) Enable the "Log truncation for Oracle" nightly job using one of three deletion policies. You can truncate all jobs daily; or set a schedule to truncate them on a weekly or monthly basis; or retain a specified amount of new logs. For more information, see User Guide topics "About truncating Oracle logs" and "Manually truncating Oracle database logs."</p>	107627	Oracle protection, log truncation
<p>Data is lost on disk located on Scale Out File Server (SOFS) if you add some data to the disk and evict active SOFS cluster node.</p> <p><b>Workaround:</b> None.</p>	107568	Hyper-V, agentless protection, clusters
<p>When upgrading any Rapid Recovery release to release 6.2.x in languages other than English, the Compatibility informational message shows the wrong version in the message. The message should read: "Supported operating systems running Agent versions prior to 5.4.3 will be able to upgrade to 6.2.x automatically." The</p>	106545	Installer, localization

Known Issue Description	Issue ID	Functional Area
English version is correct. <b>Workaround:</b> None.		
Unexpected base images occur for cloned disks during Hyper-v agentless transfers. <b>Workaround:</b> None.	106296	Hyper-V, agentless protection
Relocate recovery points to Virtual DR fails with error 'Job fails with RDS service exception. Error code: 'ConnectionResetByPeer.' <b>Workaround:</b> None.	106200	Tiering
Customer request to decrease the number of events created during agentless backup on the vCenter. <b>Workaround:</b> None. This item is an enhancement request.	105997	Events
Rollup job does not merge replicated recovery points according to the retention policy if seed drive for older recovery points was not consumed. <b>Workaround:</b> None.	105830	Rollup jobs, replication, seed drive
Replication is not paused after upgrading Target Core from release 5.4.3 to release 6.2.x. <b>Workaround:</b> None.	105606	Replication
Not all disks are exported after the VirtualBox export of ESXi agentless VM based on Windows 8.1 x86 and Windows 8.1 x64. <b>Workaround:</b> None.	105560	Virtual exports
The Trustedinstaller process is called during every metadata request. <b>Workaround:</b> Contact Quest Data Protection Support for patch P-2281 to address this issue.	105445	Metadata
The RapidRecoveryCore service may be deleted during an upgrade of the Core if any Microsoft Management Console (MMC) windows are open. <b>Workaround:</b> Close all MMC windows before you begin upgrading the Core.	105282	Upgrading
It is impossible to set GDPR if the user tries to install Core using the Add-on for Kaseya. <b>Workaround:</b> After installing using the Kaseya add-on, set GDPR (set the "Agree to use of personal data" setting) using General Settings in the Core Console.	104812	Core settings, Privacy settings, GDPR, Kaseya VSA
Agentless backup fails with error: "Invalid URI: The hostname could not be parsed" when the shadow copy has the path "(\\?\Volume{fb3687e7-57b5-11e7-80c4-f48e38cee0fd}\diskc.vhdx)." <b>Workaround:</b> None.	104393	Agentless
After upgrade from release 5.4.3 to release 6.1 and later, all task events convert to service events.	103945	Upgrading

Known Issue Description	Issue ID	Functional Area
<p><b>Workaround:</b> None.</p>		
<p>If the Quest NetVault Backup with BMR plugin is installed on the same server as the Rapid Recovery Core, then ESXi exports fail.</p> <p><b>Workaround:</b> Copy the following DLLs from <code>Coreservice\vddk\bin</code> to the <code>Coreservice</code> folder, and then restart the Core service:</p> <ul style="list-style-type: none"> <li>• glib-2.0</li> <li>• gobject-2.0</li> <li>• gvmomi</li> <li>• iconv</li> <li>• intl</li> <li>• libcurl</li> <li>• libxml2</li> <li>• vixDiskLibVim</li> </ul>	103477	Virtual exports
<p>Dashboard Transfer Job widget doesn't track jobs which are expired in the queue.</p> <p><b>Workaround:</b> Review the status using other aspects of the Core Console UI, or using PowerShell scripts.</p>	103412	Dashboard widget
<p>A deploy to Azure fails if the cloud service name is specified in FQDN format.</p> <p><b>Workaround:</b> Specify only the hostname (without periods) in the <b>Cloud service name</b> text box. For example, instead of specifying <code>companycloudhost.cloudapp.net</code>, enter <code>companycloudhost</code>.</p>	102756	Azure
<p>Drive letters are not assigned on an exported machine that is identical to the original machine.</p> <p><b>Workaround:</b> Assign drive letters manually, or contact Support for a script to run on the exported machine that solves the issue.</p>	102390	Virtual exports
<p>Add menu for switching between pages with recovery points on the top of the Recovery Points page.</p> <p><b>Workaround:</b> None required since this is an enhancement request.</p>	101736	Recovery Points, GUI
<p>EC2 Export job fails with exception: 'Amazon.EC2.AmazonEC2Exception: The key pair '{key_name}' does not exist.' for replicated Agent from another region.</p> <p><b>Workaround:</b> None.</p>	100569	Virtual exports, Amazon E2C
<p>Volume letters are not assigned after BMR for GPT partitions of ESXi Agentless VM.</p> <p><b>Workaround:</b> Assign drive letters manually.</p>	97451	BMR, ESXi agentless
<p>Exported CentOS7 isn't bootable on ESXi when it has more than 6 system volumes and root volume with the 'xfs' filesystem.</p> <p><b>Workaround:</b> Perform VM export of 6 volumes; use restore for remaining volumes.</p>	97017	Virtual exports, Linux, XFS



Known Issue Description	Issue ID	Functional Area
An ESXi agentless Red Hat machine is not bootable after export to VirtualBox. <b>Workaround:</b> None.	31277 96616	ESXi, agentless protection, Linux
ESXi virtual export with automatic disk mapping using default configuration for the VM configuration location fails with unclear error. The Failure Reason is "Task 'ReconfigVM_Task' failed: Invalid configuration for device '0'." <b>Workaround:</b> Reduce the amount of concurrent exports.	27309 93141	Virtual exports, ESXi
The New License and Privacy Policy parameters are not rewritten during a Core installation if the Core was previously uninstalled without configurations. <b>Workaround:</b> In the Settings of the Core Console, set the Privacy Policy and License settings.	106243	Configuration
An export to Amazon EC2 fails if the Amazon account has few subnets. <b>Workaround:</b> None.	106107	Exporting
There is no ability to deploy and protect the machines if an older version of the Agent (release 5.4.3, 6.0.1, or 6.0.2) is installed on the Hyper-V server and you raise an error: "Unexpected end of file." <b>Workaround:</b> Manually upgrade the Agent on the Hyper-V server to release 6.2.	105500	Hyper-V agentless

**Table 9: Kaseya Add-On known issues**

Known Issue Description	Issue ID	Functional Area
Add-on for Kaseya displays only 10 Kaseya Agents within different tabs. <b>Workaround:</b> None.	104856	Kaseya Add-on
There is no ability to create Tiering repository using the Add-on for Kaseya. <b>Workaround:</b> Create a Tiering repository using the Rapid Recovery Core Console.	104825	Tiering, Kaseya

**Table 10: Linux known issues**

Known Issue Description	Issue ID	Functional Area
Exported CentOS 7 is not bootable on ESXi when it has more than 6 system volumes and root volume with the 'xfs' filesystem. <b>Workaround:</b> Perform VM export of 6 volumes; use restore for remaining volumes.	97017	Virtual exports, Linux, XFS
An ESXi agentless RedHat machine is not bootable after virtual export to VirtualBox. <b>Workaround:</b> None.	31277 96616	ESXi, agentless protection, Linux
Protection of volumes created with LVM-based storage pools fails. LVM functionality will be included in a future release. <b>Workaround:</b> Contact Support to request a patch that addresses this issue.	103488	Protection

Known Issue Description	Issue ID	Functional Area
<p>Agentlessly protected Linux machines are not bootable after BMR.</p> <p><b>Workaround 1:</b> Use the Rapid Recovery Agent on all supported Linux distributions instead of using agentless protection if BMR is required.</p> <p><b>Workaround 2:</b> To fix boot issues, engage a knowledgeable Linux administrator to update the volume, reinstalling grub and editing the content of /etc/fstab. Other steps may be required for individual distributions.</p>	31206	BMR bootability

**Table 11: Documentation known issues**

Known Issue Description	Issue ID	Functional Area
<p>The third-party contributions lists the wrong version of AWS SDK for .NET.</p> <p><b>Workaround:</b>Rapid Recovery release 6.2.1 uses AWS SDK for .NET 3.3.1.2.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component ANTLR is listed as version 3.3.3. Rapid Recovery release 6.2.1 uses ANTLR 3.4.</p>	N/A	3PC
<p>The license/copyright for the third-party component bash-completion 1.2 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The bash-completion 1.2 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a> . The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Bash-completion 1.2 uses the following copyright:</p> <p style="padding-left: 40px;">Copyright © 1989, 1991 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA</p> <p style="padding-left: 40px;">Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.</p>	N/A	3PC
<p>The license/copyright for the third-party component btrfs-tools 4.4-1 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The btrfs-tools 4.4-1 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Btrfs-tools 4.4-1 includes the following copyright:</p> <p>various</p> <p>Copyright © 2007-2012 Oracle &lt;<a href="http://www.oracle.com/">http://www.oracle.com/</a>&gt;</p> <p>see <a href="http://changelogs.ubuntu.com/changelogs/pool/main/b/btrfs-tools/btrfs-tools_4.4-1/copyright">http://changelogs.ubuntu.com/changelogs/pool/main/b/btrfs-tools/btrfs-tools_4.4-1/copyright</a> for details</p>	N/A	3PC
<p>The license/copyright for the third-party component ca-certificates 2016.10.04 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The ca-certificates 2016.10.04 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Ca-certificates 2016.10.04 includes the following copyright:</p> <p style="padding-left: 40px;"><a href="http://changelogs.ubuntu.com/changelogs/pool/main/c/ca-certificates/ca-">http://changelogs.ubuntu.com/changelogs/pool/main/c/ca-certificates/ca-</a></p>	N/A	3PC

Known Issue Description	Issue ID	Functional Area
<a href="#">certificates_20170717~16.04.1/copyright</a>		
<p>The license/copyright for the third-party component casper 1.376 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The casper 1.376 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="#">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Casper 1.376 includes the following copyright:</p> <p style="padding-left: 20px;">Copyright © 1999-2002 Aladdin Enterprises All rights reserved</p> <p style="padding-left: 20px;">Others, see <a href="http://changelogs.ubuntu.com/changelogs/pool/main/c/casper/casper_1.376/copyright">http://changelogs.ubuntu.com/changelogs/pool/main/c/casper/casper_1.376/copyright</a> for details</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component Castle Windsor is listed as version 2.5.2. Rapid Recovery release 6.2.1 uses Castle Windsor 2.5.3.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component Chromium is listed as version 43.0.2312. Rapid Recovery release 6.2.1 uses Chromium 57.</p>	N/A	3PC
<p>The license/copyright for the third-party component cURL 7.47.x does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The cURL 7.47.x component uses the Curl 1.0 license, which is available at <a href="http://www.quest.com/legal/license-agreements.aspx">http://www.quest.com/legal/license-agreements.aspx</a>. The component includes the following copyright:</p> <p style="padding-left: 20px;">Copyright 1996 - 2008, Daniel Stenberg</p>	N/A	3PC
<p>The license/copyright for the third-party component docutils 0.14 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The python minimal 2.7.7 component uses the Python 2.7 license, which is available at <a href="http://www.quest.com/legal/license-agreements.aspx">http://www.quest.com/legal/license-agreements.aspx</a>. The component includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 Python Software Foundation; All Rights Reserved</li> <li>• Copyright 1995-2001 Corporation for National Research Initiatives; All Rights Reserved"</li> <li>• Copyright 1991 - 1995, Stichting Mathematisch Centrum Amsterdam, The Netherlands. All rights reserved.</li> </ul>	N/A	3PC
<p>The license/copyright for the third-party component efibootmgr 0.12-4 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The efibootmgr 0.12-4 component uses the <a href="#">GPL (GNU General Public License) 2.0</a> license. This component is not actually used by our application, but it is provided with our product for our customers' convenience. It includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright: 2001-2009 Dell, Inc &lt;Matt_Domsch@Dell.com&gt; <ul style="list-style-type: none"> <li>• 2012-2014 Dell, Inc &lt;Jordan_Hargrave@Dell.com&gt;</li> <li>• 2013-2014 Peter Jones &lt;pjones@redhat.com&gt;</li> </ul> </li> </ul>	N/A	3PC

Known Issue Description	Issue ID	Functional Area
<ul style="list-style-type: none"> <li>• Copyright: 2001-2013 Bdale Garbee &lt;bdale@gag.com&gt; <ul style="list-style-type: none"> <li>• 2013 Steve McIntyre &lt;93sam@debian.org&gt;</li> <li>• 2014 Daniel Jared Dominguez &lt;Jared_Dominguez@Dell.com&gt;</li> </ul> </li> </ul>		
<p>The license/copyright for the third-party component fakeroot 1.20.2 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The fakeroot 1.20.2 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="#">GNU General Public License 3</a>. The component includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright © 1997, 1998, 1999, 2000, 2001 joost witteveen</li> <li>• Copyright © 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 Clint Adams</li> <li>• Copyright © 2009 Regis Duchesne</li> <li>• For details see <a href="http://changelogs.ubuntu.com/changelogs/pool/main/ff/fakeroot/fakeroot_1.20.2-1ubuntu1/copyright">http://changelogs.ubuntu.com/changelogs/pool/main/ff/fakeroot/fakeroot_1.20.2-1ubuntu1/copyright</a></li> </ul>	N/A	3PC
<p>The license/copyright for the third-party component gcc 4.5.3 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The gcc 4.5.3 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="#">GNU General Public License 3</a>The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Gcc 4.5.3 includes the following copyright:</p> <p style="padding-left: 40px;">Copyright © 1987, 1989, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012  Free Software Foundation, Inc.</p>	N/A	3PC
<p>The license/copyright for the third-party component gdisk 1.0.1 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The gdisk 1.0.1 component uses the <a href="#">GPL (GNU General Public License) 2.0</a> license. This component is not actually used by our application, but it is provided with our product for our customers' convenience. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component Google APIs Client Library for .NET is listed as version 1.9.2. Rapid Recovery release 6.2.1 uses Google APIs Client Library for .NET 1.32.2.</p>	N/A	3PC
<p>The license/copyright for the third-party component htop 2.0.1-1 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The htop 2.0.1-1 component uses the <a href="#">GPL (GNU General Public License) 2.0</a> license. This component is not actually used by our application, but it is provided with our product for our customers' convenience. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Htop 2.0.1-1 includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright: 2004-2016 Hisham Muhammad</li> <li>• Copyright: 2016 Daniel Lange</li> </ul>	N/A	3PC

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<ul style="list-style-type: none"> <li>• 2008-2016 Eugene V. Lyubimkin</li> <li>• 2004-2008 Bartosz Fenski</li> </ul>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component JavaScriptEngineSwitcher is listed as version 1.2.4. Rapid Recovery release 6.2.1 uses JavaScriptEngineSwitcher 2.0.0.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component jQuery is listed as version 1.8.2. Rapid Recovery release 6.2.1 uses jQuery 1.9.2.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component Json.NET is listed as version 4.5. Rapid Recovery release 6.2.1 uses Json.NET 9.0.1.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component jsTree is listed as version 1.0-rc3. Rapid Recovery release 6.2.1 uses jsTree 1.0.0.</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component libc is listed as version 2.11.3. Rapid Recovery release 6.2.1 uses libc 2.23.</p>	N/A	3PC
<p>The license/copyright for the third-party component libc6-dev 2.23 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The libc6-dev 2.23 component uses the LGPL (GNU Lesser General Public License) 2.1, which is available at <a href="http://www.quest.com/legal/license-agreements.aspx">http://www.quest.com/legal/license-agreements.aspx</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Libc6-dev 2.23 includes the following copyrights:            Copyright © 1991-2015 Free Software Foundation, Inc.            and others, see <a href="http://changelogs.ubuntu.com/changelogs/pool/main/g/glibc/glibc_2.23-0ubuntu10/copyright">http://changelogs.ubuntu.com/changelogs/pool/main/g/glibc/glibc_2.23-0ubuntu10/copyright</a></p>	N/A	3PC
<p>The license/copyright for the third-party component libc-dev-bin 2.23 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The libc-dev-bin 2.23 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Libc-dev-bin 2.23 includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright © 1991-2015 Free Software Foundation, Inc.</li> <li>• Copyright © 1991 Regents of the University of California.</li> <li>• All rights reserved.</li> <li>• Portions Copyright © 1993 by Digital Equipment Corporation.</li> <li>• Portions Copyright © 1996-1999 by Internet Software Consortium.</li> <li>• Copyright © 2010, Oracle America, Inc.</li> <li>• Copyright © 1991,1990,1989 Carnegie Mellon University</li> <li>• All Rights Reserved.</li> <li>• Copyright © 2000, Intel Corporation</li> <li>• All rights reserved.</li> </ul>	N/A	3PC

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<ul style="list-style-type: none"> <li>• Copyright © by Craig Metz</li> <li>• Copyright © 1992 Eric Young</li> <li>• Copyright © 2002, 2003, 2004, 2011 Simon Josefsson</li> <li>• Copyright © 1999, 2000 Tom Tromeey</li> <li>• Copyright 2000 Red Hat, Inc.</li> <li>• Copyright © The Internet Society (2003). All Rights Reserved.</li> <li>• Copyright © 1998 WIDE Project.</li> <li>• All rights reserved.</li> <li>• Copyright 1995 by Tom Lord</li> <li>• Copyright 1992, 1993, 1994, 1997 Henry Spencer. All rights reserved.</li> <li>• Copyright © 1997-2003 University of Cambridge</li> <li>• Copyright © 1993 by Sun Microsystems, Inc. All rights reserved.</li> <li>• Copyright © C E Chew</li> <li>• Copyright 2001 by Stephen L. Moshier &lt;moshier@na-net.ornl.gov&gt;</li> </ul>		
<p>The license/copyright for the third-party component libesedb 20150409 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The libesedb 20150409 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>.  Libesedb 20150409 includes the following copyright:  Copyright © 2009-2015, Joachim Metz &lt;joachim.metz@gmail.com&gt;</p>	N/A	3PC
<p>In the Rapid Recovery third-party contributions, the component libext2fs is listed as version 1.42.12. Rapid Recovery release 6.2.1 uses libext2fs 1.43.4.</p>	N/A	3PC
<p>The license/copyright for the third-party component libfakeroot 1.20.2 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The libfakeroot 1.20.2 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>.  Libfakeroot 1.20.2 includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright © 1997, 1998, 1999, 2000, 2001 joost witteveen</li> <li>• Copyright © 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 Clint Adams</li> <li>• Copyright © 2009 Regis Duchesne</li> </ul>	N/A	3PC
<p>The license/copyright for the third-party component libreadline5 5.2 does not appear in the list of third-party contributions list in the product.  <b>Workaround:</b> The libreadline5 5.2 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="http://www.gnu.org/licenses/gpl-3.0.html">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>.  Libreadline5 5.2 includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright © 1987-2009 Free Software Foundation, Inc.</li> </ul>	N/A	3PC

Known Issue Description	Issue ID	Functional Area
<ul style="list-style-type: none"> <li>• Copyright © 1999 Jeff Solomon (examples/excallback.c)</li> <li>• Copyright © 2003-2004 Harold Levy (examples/rl-fgets.c)</li> <li>• Copyright © 1993-2002 Juergen Weigert (examples/rlfe)</li> <li>• Copyright © 1993-2002 Michael Schroeder (examples/rlfe)</li> <li>• Copyright © 1987 Oliver Laumann (examples/rlfe)</li> </ul>		
<p>The license/copyright for the third-party component linux-libc-dev 4.4.0 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The linux-libc-dev 4.4.0 component uses the <a href="#">GPL (GNU General Public License) 2.0</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. This component is not actually used by our application, but it is provided with our product for our customers' convenience. Linux-libc-dev 4.4.0 includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Linux is copyrighted by Linus Torvalds and others.</li> <li>• Copyright © 2017 Redpine Signals Inc. All rights reserved.</li> <li>• See <a href="http://changelogs.ubuntu.com/changelogs/pool/main/l/linux/linux_4.4.0-116.140/copyright">http://changelogs.ubuntu.com/changelogs/pool/main/l/linux/linux_4.4.0-116.140/copyright</a> for details</li> </ul>	N/A	3PC
<p>The license/copyright for the third-party component lsscsi 0.27-3 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The lsscsi 0.27-3 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="#">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Lsscsi 0.27-3 includes the following copyrights:</p> <ul style="list-style-type: none"> <li>• Copyright: 2003-2005 Doug Gilbert &lt;dgilbert@interlog.com&gt;</li> <li>• Copyright: Copyright 2005 Matt Taggart &lt;taggart@debian.org&gt;</li> </ul>	N/A	3PC
<p>The license/copyright for the third-party component lupin-casper 0.57 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The lupin-casper 0.57 component uses the GNU General Public License (GPL) 3 license, which is available at <a href="#">GNU General Public License 3</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Lupin-casper 0.57 includes the following copyright:</p> <p>Copyright © 2007 Agostino Russo &lt;agostino.russo@gmail.com&gt;.</p>	N/A	3PC
<p>The license/copyright for the third-party component lvm2 2.02.167 does not appear in the list of third-party contributions list in the product.</p> <p><b>Workaround:</b> The lvm2 2.02.167 component uses the LGPL (GNU Lesser General Public License) 2.1, which is available at <a href="http://www.quest.com/legal/license-agreements.aspx">http://www.quest.com/legal/license-agreements.aspx</a>. The source code for this component can be found at <a href="http://opensource.quest.com">http://opensource.quest.com</a>. Lvm2 2.02.167 includes the following copyright:</p> <p>Copyright © 2008-2013 Red Hat, Inc. All rights reserved.</p>	N/A	3PC
<p>The license/copyright for the third-party component make 4.1 does not appear in the list of third-party contributions list in the product.</p>	N/A	3PC

Known Issue Description	Issue ID	Functional Area
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<p>A change was introduced in Rapid Recovery Core after the <i>Rapid Recovery 6.2 User Guide</i> was published and translated related to log truncation for Oracle databases. The "Log truncation for Oracle" nightly job is now disabled by default, to keep parity with default behavior of log truncation for other supported applications. Future editions of the User Guide will update topics "About</p>	106264	Technical documentation, nightly jobs, log truncation

Known Issue Description	Issue ID	Functional Area
<p>protecting Oracle database servers" and "About truncating Oracle logs" to note that the nightly job is disabled by default. Since archive logs can consume substantial space, the first topic will also be revised to include the requirement to implement a log truncation regime.</p> <p><b>Workaround:</b> Users are advised that log truncation for Oracle is disabled by default. Determine and implement a log truncation strategy. You can enable the "Log truncation for Oracle" nightly job to truncate logs automatically (using one of three deletion policies); you can manually truncate logs on demand; or you can include both options.</p>		
<p>The <i>Rapid Recovery User Guide</i> procedure "Deploying a virtual machine in Azure" for release 6.2 contains unnecessary steps 4 through 8. Future versions of documentation are to be modified accordingly.</p> <p><b>Workaround:</b> When following this procedure, disregard steps 4 through 8. After performing step 3, skip to step 9. This step is performed on the <i>Destination</i> page of the Deploy to Azure Wizard.</p>	101859	Azure export
<p>The <i>Rapid Recovery User Guide</i> procedure "Setting up continual export to Azure" for releases 6.1.x and 6.2.0 contains unnecessary steps 4 and 5. Future versions of documentation are to be modified accordingly.</p> <p><b>Workaround:</b> When following this procedure, disregard steps 4 and 5. Since you are defining ongoing continual export, you are not prompted to select a recovery point. After performing step 3, skip to step 6. Likewise, there is no <i>Summary</i> page at the end of the wizard. On the <i>Volumes</i> page of the wizard, click <b>Finish</b> (instead of <b>Next</b>).</p>	101858	Azure export
<p>Containers created in Azure are used to store virtual machines exported from the Rapid Recovery Core to your associated Azure account. If you create a specific container prior to performing virtual export, the Virtual Machine Export Wizard typically displays that container as one of the choices in the Container name field of the Destination window. If you create the container by typing a valid container name into the Container name field as part of the process of defining a virtual export, the container may not be immediately visible in the wizard. This behavior is not reflected in the appropriate procedures in the <i>Rapid Recovery 6.2 User Guide</i>.</p> <p><b>Workaround:</b> If you create a container from the Virtual Machine Export Wizard in Rapid Recovery Core release 6.1x or 6.2x, and that container is not accessible in the wizard UI, simply close the wizard, and launch it again, and you should then be able to access the newly created container. Azure Service Management (ASM, known as the Classic deployment model) is being de-supported by Microsoft. Accordingly, support for ASM is being replaced in a future release of Rapid Recovery Core exclusively with support for Azure Resource Manager, and will only support Azure containers created using ARM. When this change occurs, documentation will be modified accordingly.</p>	101853	Azure export
<p>When performing virtual export to Azure, the Rapid Recovery Core release 6.2.1 and earlier uses Azure storage and containers created using the Classic management model. Containers created in Azure using the newer Resource Manager deployment model are not recognized by the Core. The <i>Rapid Recovery 6.2 User Guide</i> procedure "Creating a container in an Azure storage account" does not specify that the Classic management model is required.</p>	101837	Azure export

**Workaround:** Use the Classic management model to create storage accounts and containers for virtual export. If you already have a storage account created using the Classic model, any new containers created for it will automatically use the correct model (Classic).

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Version 2.0, January 2004

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# System requirements

For every software release, Quest reviews and updates the system requirements for Rapid Recovery software and related components. This information is exclusively available in the release-specific *Rapid Recovery System Requirements Guide*. Use that document as your single authoritative source for system requirements for each release.

You can find system requirements and all other documentation at the technical documentation website at <https://support.quest.com/rapid-recovery/technical-documents/>.

**NOTE:** The default view of the [technical documentation](https://support.quest.com/rapid-recovery/technical-documents/) website shows documentation for the most recent generally available version of the Rapid Recovery software. Using the filters at the top of the page, you can view documentation for a different software release, or filter the view by document type.

# Product licensing

Before you use and manage any version of Rapid Recovery, AppAssure, or Quest DL series backup and recovery appliance, you must first obtain a software license. To purchase licenses, contact the Quest Sales team by completing the web form at <https://www.quest.com/register/95291/>. A Sales representative will contact you and arrange for the license purchase.

After each license purchase, you must activate the license on the Rapid Recovery License Portal. From this portal, you can then download your Rapid Recovery license files.

When you initially install Rapid Recovery Core, you are prompted to upload these license files the first time you open the Rapid Recovery Core Console.

Some users start with a trial license, which has limited capabilities. Once a trial period expires, the Rapid Recovery Core stops taking snapshots. For uninterrupted backups, upgrade to a long-term subscription or perpetual license before the trial period expires. If you purchase a license after backups are interrupted, performing this procedure resumes your backup schedule.

When using a software license in standard phone-home mode, the Rapid Recovery Core Console frequently contacts the Rapid Recovery License Portal server to remain current with any changes made in the license portal. This communication is attempted once every hour. If the Core cannot reach the license portal after a grace period (typically 10 days), the Core stops taking snapshots for non-trial licenses. The grace period (10 days by default) is configurable (from 1 to 15 days) in license group settings on the license portal.

If a Core does not contact the license portal for 20 days after the grace period, it is removed from the license pool automatically. If the Core subsequently connects to the license portal, the Core is automatically restored on the license portal.

Use of phone-home licenses requires Rapid Recovery users to accept a limited use of personal information, as described in the privacy policy shown when you install Core software. For more information, see the topic "General Data Protection Regulation compliance" in the *Rapid Recovery 6.2 User Guide*.

**i** **NOTE:** When registering or logging into the license portal, use the email address that is on file with your Quest Sales representative. If upgrading from a trial version, use the email address associated with the trial version. If you need to use a different email address, contact your Sales representative for assistance.

Complete the following steps to license your Rapid Recovery software.

1. **Open your registration email.** When you first purchase a license from Quest, you receive an email from the Quest licensing system. The email includes your license entitlements, expiration date (if relevant), registered email address, and 9-digit Questlicense number (in format 123-456-789).
2. **New users: Register for the Rapid Recovery License Portal.** If you have not previously created an account on the Rapid Recovery License Portal, then do the following:
  - a. **Sign up for an account.** In a web browser, access the license portal registration URL, <https://rapidrecovery.licenseportal.com/User/Register>. The *Sign Up* page appears.
  - b. **Complete the form.** Enter the information requested, review and accept the privacy policy and terms of use, and click **Sign Up**. The *Confirm Email* page appears.
  - c. **Verify your account information.** Check your email and verify your account information by clicking **Verify email address**. The *Add License Numbers* page appears.
  - d. **Proceed to step 4.**
3. **Existing users: Log into the Rapid Recovery License Portal.** If you previously registered a license portal account to use with AppAssure or Rapid Recovery, then do the following:
  - a. **Use existing credentials.** Log into the [Rapid Recovery License Portal](#).
  - b. **Open the License Numbers dialog box.** On the *Licensing* page, underneath your license pool information, click the **License Numbers** link. The *License Numbers* dialog box appears.
  - c. **Proceed to step 4.**
4. **Enter your license numbers.** For each nine-digit Quest license number included in your welcome email, click in the **License Number** text box and enter or paste your license number. Then click **+ Add License Numbers**. When satisfied, click **Close**. The *License Number* dialog box closes.
5. **Review updated license information.** Review license type and license pool information displayed on the *Licensing* page.

## Getting started with Rapid Recovery

These topics provide information you can use to begin protecting your data with Rapid Recovery.

Topics include:

- [Rapid Recovery Core and Agent compatibility](#)
- [Upgrade and installation instructions](#)
- [More resources](#)
- [Obtaining Rapid Recovery software](#)

## Rapid Recovery Core and Agent compatibility

The following table provides a visual guide of the interoperability between Core and Agent software versions. This table lists versions tested for release 6.2.1 .

**Table 12: Interoperability between Core and Agent versions**

	<b>AppAssure 5.4.3 Core<sup>1</sup></b>	<b>Rapid Recovery 6.0.2 Core</b>	<b>Rapid Recovery 6.1.3<sup>3</sup> Core</b>	<b>Rapid Recovery 6.2 Core</b>
AppAssure 5.4.3 Agent <sup>1,2</sup>	Fully compatible	Fully compatible <sup>3</sup>	Fully compatible <sup>3</sup>	Fully compatible <sup>3</sup>
Rapid Recovery 6.0.2 Agent	Not compatible	Fully compatible	Fully compatible <sup>3</sup>	Fully compatible <sup>3</sup>
Rapid Recovery 6.1.3 <sup>4</sup> Agent	Not compatible	Not compatible	Fully compatible	Fully compatible <sup>3</sup>
Rapid Recovery 6.2.1 Agent	Not compatible	Not compatible	Not compatible	Fully compatible

<sup>1</sup>While not supported for release 6.2 and later, AppAssure 5.4.3 is shown in this chart to convey interoperability. See note <sup>4</sup>.

<sup>2</sup> Protected machines with EFI partitions must be upgraded to release 6.0.x or later to successfully restore data, perform bare metal restore, or perform virtual export.

<sup>3</sup> Users can protect machines using older versions of the Agent software in a newer Core. Logically, newer features provided in more recent versions of are not available for machines protected with older versions of Agent installed.

<sup>4</sup> As shown in this chart, Rapid Recovery supports the current version, and the latest maintenance release of the last two major/minor versions (6.1.x and 6.0.x). Thus, as 6.2.1 is released, it becomes fully supported (along with versions 6.1.3 and 6.0.2), and release 6.2.0 goes into limited support. For detailed information, see the "Product Life Cycle and Policies" section of the support website at <https://support.quest.rapid-recovery/> .

The matrix shows releases that have been fully tested with this release, and represent fully supported releases. Other software versions in limited support status (such as releases 6.0.1, 6.1, 6.1.1, 6.1.2, and 6.2.0) have not been tested for interoperability, but are also expected to work.

Other factors affect interoperability. For example, the Rapid Snap for Virtual feature was first introduced in version 6.0, letting you protect VMware ESXi VMs agentlessly. release 6.1.0 expanded this support to host-based protection for Hyper-V VMs. Release 6.2 introduces agentless application support for protected machines running Exchange Server and SQL Server. Logically, users of Core version 5.4.3 cannot agentlessly protect any VMs. Users of Core version 6.0 cannot protect VMs on Hyper-V without installing the Agent software. And Cores earlier than release 6.2 have limited agentless support for Exchange and SQL Server, as detailed in the user guide topic "Understanding Rapid Snap for Virtual agentless protection" or "Understanding agentless protection" for each relevant release.

# Upgrade and installation instructions

Quest recommends users carefully read and understand the *Rapid Recovery 6.2 Installation and Upgrade Guide* before installing or upgrading. See the section "Installing Rapid Recovery" for a step-by-step general installation approach. The approach includes requirements for a software license and for an account on the Rapid Recovery License Portal; adherence to the system requirements; installing a Core; creating a repository; and protecting machines with the Agent software or agentlessly. It also suggests use of the QorePortal.

All existing users should read the section "Upgrading to Rapid Recovery." This content describes upgrading factors, provides an overview of upgrading, and includes procedures upgrading Core, and upgrading Agent on Windows and Linux machines.

Additionally, Quest requires users to carefully review the release notes for each release, and the Rapid Recovery system requirements for that release, prior to upgrading. This process helps to identify and preclude potential issues. System requirements are found exclusively in the *Rapid Recovery 6.2 System Requirements Guide*.

When planning an implementation of Rapid Recovery, for guidance with sizing your hardware, software, memory, storage, and network requirements, see knowledge base article 185962, "[Sizing Rapid Recovery Deployments](#)".

If upgrading from AppAssure Core release 5.4.3, or Rapid Recovery Core release 6.0.x, 6.1.x, or 6.2.x, then run the latest Core installer software on your Core server. If using replication, always upgrade the target Core before the source Core.

To protect machines running supported operating systems with the latest features, upgrade or install Rapid Recovery Agent on each.

**! CAUTION:** Ensure that you check system requirements for compatibility before upgrading. For protected machines with operating systems that are no longer supported, you can continue to run older supported versions of Agent. In some cases, you can protect those machines agentlessly.

You can use the same installer executable program (standard, or web installer) to perform a clean installation or to upgrade an existing version of Rapid Recovery Core, Rapid Recovery Agent, or the Local Mount Utility. If upgrading from versions earlier than release 5.4.3, you must first upgrade to 5.4.3 and then run a more recent installer on the same machine. For more information, see the *Rapid Recovery 6.2 Installation and Upgrade Guide*.

When upgrading a protected Linux machine from AppAssure Agent to Rapid Recovery Agent version 6.x, you must first uninstall AppAssure Agent. For more information and specific instructions, see the topic "Installing or upgrading Rapid Recovery Agent on a Linux machine" in the *Rapid Recovery 6.2 Installation and Upgrade Guide*.

You can also use the Rapid Snap for Virtual feature to protect virtual machines on supported hypervisor platforms agentlessly. Important restrictions apply. For more information on benefits or restrictions for agentless protection, see the topic "Understanding Rapid Snap for Virtual" in the *Rapid Recovery 6.2 User Guide*.

For information on downloading Rapid Recovery software, see [Obtaining Rapid Recovery software](#).

## License requirements

New Core users must purchase a long-term subscription or perpetual license to use Rapid Recovery.

Some Rapid Recovery Core users start with a trial license, which uses a temporary license key for the duration of the trial. After the trial period expires, you can continue to restore from existing backups, but cannot perform new backups or replication until you purchase a long-term subscription or perpetual license. You must then activate the license on the Rapid Recovery License Portal, download Rapid Recovery license files, and associate them with your Core.

For more information about licensing, see the following resources:

- For information about activating your new license and obtaining Rapid Recovery license files for your Core, see [Product licensing](#) in these release notes.
- For information about managing licenses from the Rapid Recovery Core, including uploading license files to associate them with the Core, see the topic "Managing licenses" in the *Rapid Recovery 6.2 User Guide* or the *Rapid Recovery 6.2 Installation and Upgrade Guide*.
- For information about managing license subscriptions and license groups on the license portal, see the *Rapid Recovery License Portal User Guide*.

## More resources

Additional information is available from the following:

- [Technical documentation](#)
- [Videos and tutorials](#)
- [Knowledge base](#)
- [Technical support forum](#)
- [Training and certification](#)
- [Rapid Recovery License Portal](#)
- [Quest Data Protection Portal](#)
- In-product help is available from the Rapid Recovery Core Console by clicking [?](#).

## Obtaining Rapid Recovery software

You can obtain Rapid Recovery software using the following methods:

- **Download from the QorePortal.** If you have an active maintenance agreement, you can log into the QorePortal at <https://dataprotection.quest.com/dashboard>. From the top menu, click **Settings**, and from the left navigation menu, select **Downloads**. Here you will have access to installers for various Rapid Recovery components, including Core, Agent, LMU, DR, and more.
- **Download from the License Portal.** If you have already registered Rapid Recovery in the Rapid Recovery License Portal, you can log into that portal at <https://licenseportal.com>. From the left navigation menu, click **Downloads**. and download the appropriate software.
- **Download trial software from the Rapid Recovery Support website.** To download trial software, navigate to the Rapid Recovery Support website at <https://support.quest.com/rapid-recovery> and from the left navigation menu, click **Software Downloads**. Here you can access trial versions of Rapid Recovery Core, Agent (for Windows or Linux), tools and utilities, and more. Trial versions function for 14 days, after which time you must purchase and register a subscription or perpetual license to continue using Rapid Recovery. To purchase a license, fill out the web form at <https://support.quest.com/contact-us/licensing> and select **Obtain a license for my product**.

# 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. It supports bidirectional writing (Arabic and Hebrew). The release supports Complex Script (Central Asia – India, Thailand). The release is localized to the following languages: Chinese (Simplified), French, German, Japanese, Korean, Portuguese (Brazil), Spanish.

This release has the following known capabilities or limitations:

- Logs and KB articles are in English only.
- The Add-On for Kaseya is in English only.
- QorePortal is in English only.
- Other than the *Rapid Recovery 6.2 User Guide* and these Release Notes, technical documentation is available in English only for this release.
- Rapid Recovery release 6.2.1 requires the Microsoft .NET Framework version 4.6.2. Earlier releases of Rapid Recovery used different versions of the .NET Framework. There is no downgrade option available. If you upgrade versions of Rapid Recovery to a release using a more recent version of the .NET Framework, and then subsequently decide to return to a prior version, you must perform a new installation of the appropriate Core and Agent software.

## About us

### We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build community-driven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation™.

### Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece — you — to the community, to the new Quest.



# Contacting Quest

For sales or other inquiries, visit [www.quest.com/contact](http://www.quest.com/contact).

## 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

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## Legend

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

 **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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