

# Quest® Migrator for GroupWise 4.7.1

## Release Notes

September 2019

These release notes provide information about the Quest® Migrator for GroupWise release.

Topics:

- [About this release](#)
- [New features](#)
- [Resolved issues](#)
- [Known issues](#)
- [System requirements](#)
- [Product licensing](#)
- [Installation instructions](#)
- [More resources](#)
- [Globalization](#)
- [About us](#)

## About this release

Migrator for GroupWise (MFG) is a set of coordinated software applications designed to facilitate a variety of migration strategies for organizations moving from a Novell GroupWise server, with GroupWise clients, to a Microsoft Exchange environment with Outlook clients. MFG can migrate either to a proprietary Exchange environment, or to a hosted Exchange service like Microsoft's Office 365.

MFG 4.7.1 is a minor release, with new features and functionality. See [New features](#) and [Resolved issues](#).

## New features

New features in Migrator for GroupWise 4.7.1:

- Support for Exchange 2019 as migration target.

See also:

- [Resolved issues](#)

# Resolved issues

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

**Table 1. Resolved issues**

Resolved issue	Issue ID
An error occurred while opening Self Service Desktop Migrator.	MFG-231
Broken download links for MSOL Sign-In Assistant and PowerShell Cmdlets (x64) in the installer.	MFG-224

# Known issues

Most of the known issues and limitations of any migration process are due to feature differences between the source and target environments. That is, features in the GroupWise environment simply cannot be migrated to a target environment that does not offer the same or comparable features. Other limitations are due to feature incompatibilities, where similar features are available in both the source and target environments, but their implementations are so different that the migration may be impractical. In any case, most administrators regard these sorts of limitations as trivial or incidental to an overall migration project.

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

**Table 2. General known issues**

Known issue	Issue ID
MFG may add multiple entries to the proxy access list for the same user with the same access rights, or cannot remove an entry from the list when setting or removing proxy for GroupWise client 12.0.4. In this case, other versions of GroupWise client are recommended to avoid this issue.	704756
When the Source SMTP Domain is different from the Target SMTP Domain, MFG cannot resolve the email address in ACLs in Office 365 GAL for contacts or users in Office 365 that do not have a secondary proxy address with the Source SMTP domain. Office 365 should be configured to generate appropriate secondary SMTP addresses with the Source SMTP domain.	586882

# System requirements

Before installing or upgrading Migrator for GroupWise 4.7.1, ensure that your system meets the following minimum hardware and software requirements. Migrator for GroupWise also requires certain permissions and configurations in addition to these basic hardware and software requirements, as documented in the *Quick Start Guide* and *Pre-Migration Planning Guide*.

# GroupWise server(s)

Table 3. GroupWise server requirements

Requirement	Details
Supported GroupWise source environments	<p>Novell GroupWise version 6.0–7.0.4, or 8.0.0–8.0.3, GroupWise 2012 to SP4 (12.0.1 through 12.0.4), GroupWise 2014, and GroupWise 18</p> <ul style="list-style-type: none"><li>• GroupWise 2012 client is required when you migrate from GroupWise 2014 or 18.</li><li>• Migration from a pre-2012 GroupWise source via an MFG migration server running Windows 7 or Win Server 2008 requires a source GroupWise version that supports a connection from a GroupWise 2012 client (which is required on an MFG migration server running on Windows 7 or Win Server 2008).</li></ul>
Configuration requirements	<p>An admin account must be defined with admin rights to the GroupWise server and the ability to add trusted API keys.</p> <p>If GroupWise Internet Addressing is not enabled, GroupWise Internet Agent LDAP Service must be configured to automate the creation of the Address Translation Table. See: <a href="http://support.novell.com/docs/Tids/Solutions/10007372.html">http://support.novell.com/docs/Tids/Solutions/10007372.html</a></p>
Required for ACL migration	<p>ACL migration is supported only from a GW 2012 source. A GroupWise 6, 7 or 8 source requires [General] ACLs=0 in MFG's gwmigapp.ini and/or gwdtapp.ini.</p>

# Microsoft Exchange server(s)

Table 4. Microsoft Exchange server requirements

Requirement	Details
Supported target environments	<ul style="list-style-type: none"><li>• Proprietary Exchange 2019 (RTM)</li><li>• Proprietary Exchange 2016 (RTM)</li><li>• Proprietary Exchange 2013 (RTM or SP1)</li><li>• Proprietary Exchange 2010 (RTM, SP1, SP2 or SP3)</li><li>• Microsoft Office 365</li></ul>
Recommended throttling policy for proprietary Exchange	<p>The following action is not applicable to Exchange 2013 and above.</p> <p>To migrate mailboxes to an on-premises Exchange, Quest recommends setting a throttling policy on Exchange similar to the typical throttling settings used for Blackberry and/or Cisco Unity. The optimum throttling value varies, but start by setting RCAPercentTimeInAD=200, and then adjust to suit your local environment.</p> <p>Apply this new policy to the user account that serves as the intermediary between Exchange and Groupwise—typically called something like GWMigrate. You can also apply this policy to the migration workstation's computer account—typically called GWMigrateServer or something similar. For example, to set RCAPercentTimeInAD to 200 for these sample account names, you would execute this PowerShell command on the Exchange server:</p> <pre>\$b = Get-ThrottlingPolicy "Groupwise Throttling Policy"; Set-Mailbox GWMigrateServer\$ -ThrottlingPolicy \$b; Set-Mailbox GWMigrate -ThrottlingPolicy \$b;</pre> <p>Stop and start the Exchange Transport Service to activate the updated settings.</p>

# Active Directory server

Table 5. Active Directory server requirements

Requirement	Details
Requirements	<p><b>NOTE:</b> LDAP policy can be configured to accommodate more than 1000 OUs in Active Directory, by adjusting the max items returned by ADSI interface. Refer to Microsoft website for LDAP policies and how to view and set LDAP policy.</p> <p>If your AD is configured for a resource forest and a user forest:</p> <ul style="list-style-type: none"><li>• In the resource forest, MFG requires the permissions cited in the Pre-Migration Planning Guide (in chapter 1, under Account permissions for migration to Office 365). In the user forest, MFG requires an account with read permissions to the AD, such as a domain user. MFG doesn't make any changes to the user forest; it only performs searches.</li></ul>

# MFG admin migration server(s)

**Table 6. MFG admin migration server requirements**

Requirement	Details
Operating system	<ul style="list-style-type: none"> <li>• Windows Server 2016 * ***</li> <li>• Windows Server 2012 R2 *</li> <li>• Windows Server 2012 *</li> <li>• Windows Server 2008 R2 *</li> <li>• Windows Server 2008 *</li> <li>• Windows Server 2003 R2 x86 SP2</li> <li>• Windows Server 2003 x86 SP2</li> <li>• Windows 10 * ***</li> <li>• Windows 8.1 *</li> <li>• Windows 8 or 7 *</li> <li>• Windows Vista Enterprise Edition x86 SP1 or SP2 **</li> <li>• Windows XP x86 SP3</li> </ul>

**NOTE:**

\* For Windows Server 2016, 2012 R2, 2012, 2008 R2 or 2008, or Windows 10, 8.1, 8 or 7: ACL migration is supported only from a GW 2012 source. A GroupWise 6, 7 or 8 source requires [General] ACLs=0 in MFG's gwmigapp.ini.

\*\* Windows Vista Caution: Heap corruption may occur (rarely) when using MFG running on Windows Vista to migrate ACLs. If this becomes a problem in your environment, set [General] ACLs=0 in MFG's gwmigapp.ini.

- MFG requires the English-language edition OS/PowerShell on the admin workstation.
- To accelerate large-scale migrations, MFG may be run on multiple migration servers running in parallel.
- Code page associated with the runtime locale must be identical to the encoding for each mailbox being migrated. The GroupWise APIs used to retrieve the data do not support retrieval of data from outside the current code page. For example, if the migration server were configured on a German machine (using code page 1252) and used to migrate a mailbox containing Polish data (using code page 1250), data would be lost during the migration.

\*\*\* In Windows Server 2016 and Windows 10, currently you will be prompted to enter the Administrator user name and password of your target Exchange after you click **Next** on the **Select Destination Exchange Server** screen in Administrator-Driven Batch Migrator.

**Table 6. MFG admin migration server requirements**

<b>Requirement</b>	<b>Details</b>
Workstation hardware	<p>Must be a separate machine from the Exchange server, but a member of the same domain as AD and Exchange.</p> <p>May be a virtual machine, but a dedicated "actual" machine will likely yield better migration performance.</p> <p>Minimum hardware requirements:</p> <ul style="list-style-type: none"><li>• 1+ GHz processor, 1 GB memory, 20 GB free disk space.</li></ul> <p>Recommended for improved performance, especially for high-volume migrations:</p> <ul style="list-style-type: none"><li>• 3+ GHz processor, 2 GB memory.</li><li>• 1 Gbps NIC, and 1 Gbps or faster network connections among all migration servers and the Exchange and GroupWise servers.</li></ul>
Order of installation	<p>A migration requires an unusual combination of tools, developed by different vendors, all installed on this single migration server, and the combination can cause compatibility problems on some machines. To minimize these conflicts, Quest recommends that you install the applications in this particular order:</p> <ol style="list-style-type: none"><li>1 GroupWise client</li><li>2 Outlook client</li><li>3 Microsoft PowerShell</li><li>4 Novell client</li></ol>
Antivirus software	<p>Prior to running any Quest admin application: Any antivirus software must be configured to not scan the Quest program files directory or %temp% directory, or may be simply turned off (and may be restored after the program runs). If an antivirus scan misinterprets an MFG temporary file as a threat, it will try to "clean" the file, which will generate an error when the MFG program call fails.</p>

**Table 6. MFG admin migration server requirements**

Requirement	Details
Required for all Exchange targets, including Office 365	<ul style="list-style-type: none"><li>• All MFG admin applications must be run “as an administrator,” to accommodate Windows’ User Account Control (UAC) security protocols.</li><li>• Must have a directory with write/execute permissions for the Administrator components of the Quest software, and must have a directory with read/execute permissions for the user components of the software.</li><li>• The Novell client for NetWare must be installed (client version 2 SP3 IR6 or IR9, or version 4.7 or higher, 4.91 SP2 recommended). When migrating from GroupWise 7 running on a SUSE Linux server, the NetWare client must be logged into eDirectory. If migrating from a Netware server, the NetWare client must be logged into NetWare.</li><li>• <a href="#">Microsoft .NET Framework 4.7</a> must be installed.</li><li>• <a href="#">Windows Management Framework 2.0</a> must be installed.</li><li>• Windows PowerShell 4.0 or 2.0 (a component of Windows Management Framework, required as noted above) must be installed. Note: Depending on your environment, you may need to run this command to enable the PowerShell layer using remote PowerShell: <pre>get-executionpolicy   set-executionpolicy unrestricted</pre></li><li>• A GroupWise client (version 6.0–7.0.4 or 8.0.0–8.0.3 or GroupWise 2012) must be installed, and a Novell GroupWise profile must be set as the default profile. Note: A GroupWise 2012 client is required if running Windows Server 2016, 2012 R2, 2012, 2008 R2, 2008, or Windows 10, 8.1, 8 or 7.</li><li>• An Outlook client is required, as specified below.</li></ul>

**Table 6. MFG admin migration server requirements**

Requirement	Details
Required Outlook client on MFG admin server	<p>Outlook 2016, 2013, 2010, 2007 or 2003 (32-bit versions only) must be installed. The Admin Account Pooling Utility requires Outlook 2016, 2013, 2010 or 2007 (not 2003). For an Exchange 2016 or 2013 target, Microsoft requires the Outlook client be one of:</p> <ul style="list-style-type: none"> <li>• Outlook 2016</li> <li>• Outlook 2013 (15.0.4420.1017)</li> <li>• Outlook 2010 SP1 w/Nov 2012 update (14.0.6126.5000)</li> <li>• Outlook 2007 SP3 w/Nov 2012 update (12.0.6665.5000)</li> </ul> <p>The Outlook profile for the migration:</p> <ul style="list-style-type: none"> <li>• Must be defined with Receive As permission to each mail store.</li> <li>• Must not be in cached mode.</li> <li>• Must be configured to always prompt for credentials.</li> </ul> <p>When the Outlook profile uses MAPI over HTTP in a migration to a local Exchange:</p> <ul style="list-style-type: none"> <li>• Ensure that the Exchange certificate is trusted on the migration server and that there are no certificate errors, especially when you access the URLs configured on the MAPI virtual directory.</li> <li>• An admin account other than “administrator” must be defined to perform the migration.</li> <li>• The user account used to create the profile to perform the migration must not be the current Windows Logon User.</li> </ul> <p><b>IMPORTANT:</b> The MAPI DLLs required to perform a migration must be those that are part of Outlook, not the downloadable Exchange 2007 “server” MAPI.</p> <p>Outlook Anywhere may be used as the required Outlook client on the admin workstation, but if migrating to a proprietary Exchange target:</p> <ul style="list-style-type: none"> <li>• For MAPI access: Use PowerShell to set RCAMaxConcurrency, RCAPercentTimeInAD, RCAPercentTimeInCAS and RCAPercentTimeInMailboxRPC to 100.</li> <li>• For RPC over HTTPS: Run the PowerShell command EWSSMaxConcurrency.</li> <li>• For RPC over HTTPS to Exchange 2010 and earlier targets: Run the PowerShell commands EWSPercentTimeInAD, EWSPercentTimeInCAS and EWSPercentTimeInMailboxRPC.</li> </ul>

**Table 6. MFG admin migration server requirements**

Requirement	Details
Required for Admin Account Pooling feature (for O365 target; see Admin Guide chapter 6)	<p>MFG's Account Pool Utility uses Microsoft Office 365 cmdlets to issue commands to Office 365, and these cmdlets must be installed before MFG can use account pooling. Note these requirements before you can install the cmdlets:</p> <ul style="list-style-type: none"><li>• Windows PowerShell 3 or 4, and .NET Framework 4.7 or later must be enabled.</li><li>• You must install the Microsoft Online Sign-in Assistant. Download and install either the <a href="#">32-bit version</a> or <a href="#">64-bit version</a> from the Microsoft Download Center.</li><li>• If you install the cmdlets on a Windows 7 SP1 or Windows Server 2008 R2 SP1 computer, the computer also must have:<ul style="list-style-type: none"><li>• Microsoft .NET Framework 4.7</li><li>• Windows Management Framework 3.0 or 4.0</li></ul></li></ul> <p><b>To install the cmdlets:</b></p> <ol style="list-style-type: none"><li>1 Download the Microsoft Online Module for Windows Powershell: <a href="#">32-bit version</a> or <a href="#">64-bit version</a>.</li><li>2 Double-click the msoidcli_32.msi or msoidcli_64.msi file.</li></ol> <p>The installer adds the program to your Start menu, and adds a shortcut to your desktop.</p>
Required for migration from GroupWise 7.x to Windows XP SP2 or later	<p>GroupWise versions 7.x are incompatible with the DEP (Data Execution Prevention) security feature in Windows XP SP2 and later versions, so MFG's admin components can run only if the GroupWise app is added to Windows' DEP list of exceptions (on the admin workstation). Otherwise, when MFG tries to call a GroupWise function, MFG will crash and report a C++ runtime error.</p> <p><b>To add GroupWise to the DEP list of exceptions:</b></p> <ol style="list-style-type: none"><li>1 In the Control Panel, open the System tools and click on the Advanced tab.</li><li>2 Under Performance, click Settings, and then click the Data Execution Prevention tab.</li><li>3 Select Turn on DEP for all programs and services except those I select.</li><li>4 Click the Add button, then browse to the GroupWise program and click Open to select it.</li></ol> <p>Back on the DEP tab, click OK to save these changes.</p>

# On end-user desktops (if running the SSDM)

Table 7. On end-user desktop requirements

Requirement	Details
Operating system	<ul style="list-style-type: none"> <li>• Windows Server 2016 *</li> <li>• Windows Server 2012 R2 *</li> <li>• Windows Server 2012 *</li> <li>• Windows Server 2008 R2 *</li> <li>• Windows Server 2008 *</li> <li>• Windows Server 2003 R2 x86 SP2</li> <li>• Windows Server 2003 x86 SP2</li> <li>• Windows 10 *</li> <li>• Windows 8.1 *</li> <li>• Windows 8 or 7 *</li> <li>• Windows Vista Enterprise Edition x86 SP1 or SP2 **</li> <li>• Windows XP x86 SP3</li> </ul> <p><b>NOTE:</b></p> <p>* For Windows Server 2016, 2012 R2, 2012, 2008 R2 or 2008, or Windows 10, 8.1, 8 or 7: ACL migration is supported only from a GW 2012 source. A GroupWise 6, 7 or 8 source requires [General] ACLs=0 in MFG's gwdtapp.ini.</p> <p>** Windows Vista Caution: Heap corruption may occur (rarely) when using MFG running on Windows Vista to migrate ACLs. If this becomes a problem in your environment, set [General] ACLs=0 in MFG's gwdtapp.ini.</p>
Other requirements	<p>GroupWise client version 6.0 - 7.0.4, or 8.0.0 - 8.0.3, or GroupWise 2012. Outlook 2016, 2013, 2010, 2007 or 2003 (32-bit versions only) must be installed. For an Exchange 2016 or 2013 target, Microsoft requires the Outlook client be one of:</p> <ul style="list-style-type: none"> <li>• Outlook 2016</li> <li>• Outlook 2013 (15.0.4420.1017)</li> <li>• Outlook 2010 SP1 w/Nov 2012 update (14.0.6126.5000)</li> <li>• Outlook 2007 SP3 w/Nov 2012 update (12.0.6665.5000)</li> </ul>

# Upgrade and compatibility

## Upgrading from MFG 4.x to 4.7.1

There is no need to uninstall a previous 4.x version before installing a new version. The upgrade installation and setup will preserve any data already migrated, so you may simply resume the migration process from wherever you left off with the previous version.

- NOTE:** MFG 4.7.1 requires .NET Framework 4.7 or above. Upgrade .NET Framework to 4.7 or later versions before you upgrade MFG.

## Upgrading from MFG 3.x to 4.7.1

There is no direct upgrade path from MFG 3.x to MFG 4.7.1.

### **To upgrade from 3.x to 4.7.1:**

- 1 Uninstall MFG 3.x. Use Windows' Add/Remove Programs feature in the Control Panel.
- 2 Upgrade .NET Framework to 4.7 or later versions.
- 3 Install MFG 4.7.1, as described in [Installation instructions](#).

This process will rebuild the MFG Address Translation Table, but the program's configuration and .csv files are preserved.

- IMPORTANT:** If upgrading from any version of this product earlier than 4.5, you must also contact a Quest Software sales representative to request a new license key, due to the product name change that became effective with version 4.5.0.

# Product licensing

Migrator for GroupWise is a metered-use product that requires the application of a valid license key. Quest sells license keys for particular numbers of users to be migrated. When the limit is reached the software continues to function nominally for users that have already been migrated, but will not migrate additional users. The same license is used for all product functions for a particular user. That is, when any feature of any MFG component is applied to a particular user, then all features of all components can be applied to the same user under the same license. Moreover, users can be re-migrated (if necessary) using the original license; remigration does not require an additional license.

You can obtain your first or a subsequent license key by contacting a Quest Software sales representative. For either a trial or perpetual license, the key takes the form of a file GroupWiseMgrEX\_4-###-#####.asc (where ###-##### represents your unique license number) attached to an email sent to you from Quest Licensing.

The product will install without a license key, but will prompt you to apply a license key the first time you try to run the software. You will be prompted to find and specify the license key file that Quest provided.

### **To install an MFG license key (or upgrade/extend an existing license key):**

- 1 Copy to your Desktop, or to some other convenient location, the license file (GroupWiseMgrEX\_4-###-#####.asc) sent to you by email from Quest Licensing.
- 2 If you have not yet installed Quest Migrator for GroupWise, run the Setup program to install the software.
- 3 Once the software is installed, run the Admin-Driven Batch Migrator program. The Welcome screen shows any previously installed licenses. To install a new license (or upgrade/extend a previously installed license), click **Update your license**.

- 4 In the License Update dialog box, use the Browse feature to locate and specify the Quest license file you want to install. Select the file in the list, and click **OK**.

## About Evaluation (or Trial) Licenses

An Evaluation (or Trial) License is intended to let you try the MFG software in your own environment, with your own data, to help you determine whether MFG's capabilities are suitable to your needs. Under an Evaluation/Trial license, therefore, the program stamps a "MIGRATION EVALUATION" prefix into the Subject of every migrated message, and also imposes these limitations:

- Calendar items more than two weeks into the future are not migrated.
- When migrating personal address books, only five contacts and five groups are migrated per PAB.

## Installation instructions

### To install Migrator for GroupWise:

- 1 Download the Migrator for GroupWise zip folder from the Quest.com website, and extract all files into an installation folder. Then run Autorun.exe from the installation folder.

(You could instead insert an MFG product CD/DVD, which runs the Autorun utility automatically.)

Windows then launches the Autorun utility, where you can browse product information including the Prerequisites and all MFG Documentation before installing the product.

- 2 Verify that your environment conforms to the System requirements specified above. Several of the required third-party components may be downloaded from links on the Autorun **Prerequisites** tab.
- 3 When you are ready to install, select the Autorun Install tab.
- 4 Select the Migrator for GroupWise product name, and click **Next**.
- 5 Review the Welcome screen, and click **Next**.
- 6 Follow the remaining instructions and prompts in the MFG Installer.

**i** | **NOTE:** MFG includes a wizard for scanning the environment and determining whether it conforms to the system requirements for the MFG applications. The MFG Prerequisites Checker looks for required software and settings, connectivity, permissions, and access rights. The wizard can be launched automatically from the exit page of the MFG installer, by marking a checkbox before clicking the installer's Finish button:

Launch the Prerequisite Checker when setup exits:

For On-premises Exchange Target.

For Migration to Office 365.

You may check either target option, or neither, but not both.

Mark the appropriate checkbox if you want to run the wizard (recommended). If your migration server is configured with an antivirus product other than:

System Center Endpoint Protection

Avast! • AVG Antivirus • Symantec Antivirus

... see Specifying antivirus software for the MFG Prerequisites Checker in the MFG Quick Start Guide for information about how to specify an alternate antivirus checker.

**i** | **NOTE:** The checker can also be run independently from your Windows Start menu, in the **Quest | Migrator for GroupWise** group. The Prerequisites Checker log file is written to %SystemDrive%\ProgramData\Quest\.

- 7 Click Finish from the last screen to complete the installation. The MFG Installer then exits, and returns you to the Autorun utility, on the Install tab. If you have marked a Prerequisites Checker checkbox, that wizard now runs (in a separate window).
- 8 If you like, you may browse the other Autorun tabs.
- 9 When you are finished browsing other Autorun tabs, click the Close box ([X] in the top-right corner of the window) to close the Autorun utility.

Be sure to see Product licensing above before trying to configure or run any MFG component.

## More resources

Information about MFG, including all product documentation, is available from Quest support portal at: <https://support.quest.com/>

## Visit our Migration Online Community

The Migration Online Community is an interactive online community dedicated to issues relating to:

- Migration of email, identity and applications to the Windows Exchange platform, either on-premises or hosted Exchange platforms like Office 365—including migrations from Exchange, GroupWise, and Notes.
- Active Directory migrations.
- Migrations from GroupWise application and Exchange public folders to SharePoint.
- Coexistence strategies and tools.

The community is designed to foster collaboration between Quest Migration experts and users. It's a place where you can:

- Learn about product releases and betas before anyone else.
- Get access to Quest product leaders and subject matter experts on migration and coexistence.
- Participate in discussion forums, share insights and ideas, and get common questions answered.

You can browse around the forums and the library, but to take full advantage of the community, post new threads, respond to messages from others, and rate our documents and downloads, you must Join the community. If you already have a Quest account or are a member of another Quest community, simply Sign in. The Sign in and Join features are both available from links near the top-right corner of the page at the Quest Windows Management and Migration Community.

## 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 supports any single-byte or multi-byte 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.

This release has the following known capabilities or limitations: Some limitations of 3rd party products (Novell GroupWise).

# About us

Quest provides software solutions for the rapidly-changing world of enterprise IT. We help simplify the challenges caused by data explosion, cloud expansion, hybrid datacenters, security threats, and regulatory requirements. We are a global provider to 130,000 companies across 100 countries, including 95% of the Fortune 500 and 90% of the Global 1000. Since 1987, we have built a portfolio of solutions that now includes database management, data protection, identity and access management, Microsoft platform management, and unified endpoint management. With Quest, organizations spend less time on IT administration and more time on business innovation. For more information, visit [www.quest.com](http://www.quest.com).

## Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.

## Third-party contributions

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

Table 8. List of third-party contributions

Component	License or acknowledgment
Apache Lucene 2.4.1	Apache 2.0
AutoMapper 3.2.1	MIT License
Google APIs Client Library for .NET 1.15.0.580	Apache 2.0 License
Google APIs Client Library for .NET 1.8.2	Apache 2.0 License
Google Data API SDK (1.8.0.0) Setup 1.8	Apache 2.0 License
Google Data API SDK(2.2.0.0) Setup 2.2.0.0	Apache 2.0 License
Log4Net 1.2.13	Apache 2.0 License
SQLite 3.6.23	<a href="https://www.sqlite.org/copyright.html">https://www.sqlite.org/copyright.html</a>

**Table 8. List of third-party contributions**

<b>Component</b>	<b>License or acknowledgment</b>
TZ4Net Library 3.9.4	This product includes software developed by Zbigniew Babiej ( <a href="mailto:zbabiej@yahoo.com">zbabiej@yahoo.com</a> , <a href="http://www.hilversoft.com">http://www.hilversoft.com</a> ).
ZimbraCSharpClient 5.0.96.0	Mozilla Public License (MPL) 1.1

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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.