# Metalogix® Backup for SharePoint 6.12

## **Release Notes**

# August 2023

These release notes provide information about the Metalogix® Backup for SharePoint 6.12 which is a minor release.

- What's New
- Resolved issues
- Known Issues
- Version History
- Notes and Notices
- System Requirements
- Product Licensing
- Third Party Contributions

## What's New

Metalogix Backup for SharePoint has

• added support for SharePoint Subscription Edition

AND

• deprecated support for SharePoint 2010.

## **Resolved Issues**

Description	Work Item	Case No.
An Object Reference is raised in an All in One environment after an attempt is made to back up a Content/config DB and service applications	531853	
MB4SP [W] restore failed A problem occurred retrieving the source and target node. of ".	531669	CR-43167

Description	Work Item	Case No.
TCP error occurs when performing a granular restore.	539000	CR-54950

## **Known Issues**

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

#### Farm backup and restore issues

If you use a scheduled farm backup with differential backups to back up a SharePoint component and also use another product that uses Microsoft Volume Shadow Copy Service (VSS) to perform a backup of the same component, the Metalogix SharePoint Backup differential backups succeed, but cannot be used to perform a restore. This happens because use of the third-party product invalidates the data that VSS uses to create differential backups.

In the same way, if the other product supports differential backups and you perform a full backup with Metalogix SharePoint Backup, you may interfere with the other product.

If you use multiple products to perform backups, you should only use full-farm backups in Metalogix SharePoint Backup.

Description	Reference No.
An incorrect error message appears when adding a farm on a SharePoint Server that does not have the minimum .Net framework installed.	399800
The primary backup service uses more memory than the secondary backup service.	396998
Changing the name of a discussion board list in the restore wizard during an in-place and/or out-of-place restore operation restores the items selected for a discussion board but does not update the name of the board.	123487, 122993
It is not possible to mount a content database from BAK files with multiple passwords.	122473
The default backup location of SQL Management Studio console is being removed after executing a Farm backup operation.	122465
SQL Server BAK files cannot be used to mount and link a content database.	122327
Backup content is displayed empty when MDF and LDF files of a non-content database are selected in the browse option of Mount and Link CDB wizard.	122303
Workflow creates an incorrect task type after a restore operation in SharePoint 2013.	122264
The background image of a custom theme is not restored on SharePoint 2013.	121763

Description	Reference No.
Differential backups are escalated to full backups if other VSS snapshots are taking place against the same DBs.	120859
When a site collection containing another language is restored, the left pane with links and other fields is restored to that language rather than the primary one.	120501
Issue where disk space information cannot be retrieved by the management console when the Amazon or Azure backup sets are marked as the primary backup set.	120450
When a site collection is restored and the "Copy Site quota" option has been selected, the quota for the restored site is different than the quota of the original site.	531730
When the Backup Service is configured for HCP 9.0 or higher, an <i>invalid credentials</i> error is generated.	531819
NOTE: Metalogix Backup does not currently support HCP version 9.0 or higher.	

#### **General** issues

Description	Reference No.
SharePoint Backup 5.0 does not prevent users from mounting a BAK file more than once, allowing for the creation of additional mounted content database of the same BAK file.	120486
The System Account is not restored if objects being restored have unique permissions.	120462
Information related to workflows is lost when restoring a Site Collection or a Sub Site.	120434
User may be unable to verify account during Configuration Wizard because the user account provided in the Configuration Wizard is on a different Organizational Unit (OU) than users contained in the Active Directory (AD). Additionally, this user account does not have read permissions in the Users container.  Workaround: Make sure that this user account has at least read permission in the Users container.	115640

## **Granular backup and restore considerations**

You rely on the backup and restore solution that you select to safeguard the data that is stored in your SharePoint farm. For you to trust the backup solution that you use, you need to fully understand the abilities and limits of the tool that you select. Metalogix is committed to giving you the information that you need to know about Metalogix SharePoint Backup.

Metalogix SharePoint Backup can back up both SharePoint farm components and granular SharePoint objects. Farm component backups and granular backups work differently, and have different advantages and limitations. Your needs and your SharePoint environment may call for you to use one of the backup methods and not the other.

Description	Reference No.
News feed loses the content after performing a granular restore operation on SharePoint 2013.	116340
Folder permissions are restored when a list or library is restored with the <i>Copy Folder Permissions</i> option unchecked.	485254
All major and minor versions are restored into a library that is configured to display only major versions	466880
The 'Complete w/warnings' status is displayed for site collections and sub-sites when the <i>Preserve Items Managed Metadata</i> option is checked and a granular restore in performed.	467345

#### **Recommended solutions**

The Quest Knowledge Base contains recommend solutions to known issues listed below, and can be accessed from the Community Portal at <a href="https://www.quest.com/community/quest/metalogix-backup-for-sharepoint">https://www.quest.com/community/quest/metalogix-backup-for-sharepoint</a>

Description	Reference No.
What ports are used by Metalogix SharePoint Backup?	00004100
Metalogix SharePoint Backup Management Console constantly displays the "Loading" message when you attempt a backup or restore.	00003666
Users receive 'Access is Denied' or '403 Forbidden' error while sites are being backed up with Metalogix SharePoint Backup.	00003762
Warning during backup, "Unable to export the XML for web part."	00004099
Error when configuring WFE for Metalogix SharePoint Backup, "Unable to retrieve the configuration database connection string."	00003433

# **Version History**

Resolved issues from previous versions are listed below.

#### Version 6.11

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

Description	Work Item	Case No.
Metalogix Backup; [G] Prod backup set grooming is failing, backup sets are NOT being deleted	519025	CR-42147
Metalogix Backup [G]; granular restore failed, no full farm backup sets available for selection	520011	CR-42148
Metalogix Backup; [W] ghost servers in Configuration list, License does not appear to be valid	519024	CR-41838
Could not mount and link Content Database Backup file	518335	5138620
Timeout errors while navigating the contents of a backup	521866	5092829-1
Metalogix Backup [G] license error 'Insufficient licenses for installed farm servers'	530015	CR-44744
Differential backup completes with errors, description shows that they get upgraded to full farm backups with Isn mismatch error	528923	CR-44098
The issue with granular restore failing for a checked out document has been resolved.	505824	CR-42058

## Version 6.10

The following is a list of new features, enhancements or deprecations in this release.

Transaction Log Support - Transaction log backups (.ldf) are now available as an enhancement to use with differential backups in the Restore interface. The transaction log backup must be scheduled in the SQL management Studio. After the restoration, the LDFs can be shrunk in SQL management Studio. For more information on SQL transaction logs, please see The Transaction Log (SQL Server) -SQL Server | Microsoft Docs.

Description	Work Item	Case No.
Metalogix Backup; Backup Set configuration is missing or duplicated intermittently	502831	4914246-1

Description	Work Item	Case No.
Metalogix Backup [W]; Management Service screen is greyed out	503363	4919576-1
Met Backup [W]; Backup Set config is missing or duplicated intermittently	507413	4960192-1
One cluster node has been all of the sudden switched to a different backup set. No manual interaction from user's end.	507909	4978170-1
SharePoint Registry Backup Error	499120	4999751-1

## Version 6.9

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

Description	Work Item	Case No.
Could not expand the hierarchy of a mounted backup	483694	4788849-1
A connection attempt to an Azure bucket throws an error	485755	4836777-1

## Version 6.8

Description	Work Item
Users are unable to do a full backup of a SharePoint 2010 farm	433428
Due to locale issues with the deployment, the loading screen hangs	445918
When a user attempts to restore from a backup set, the following error message appears: The requested object does not exist.	447118
The time displayed for the backup set is incorrect when a Full Backup set is mounted from the Mount and Link wizard > Backup Objects tab	454006
Backup errors on selected databases with stream too long	456618

Description	Work Item
Backups fail when SharePoint components cannot be found	458216, 466787
The SharePoint Search Service application remains unresponsive after a restore	458232
A differential backup is successful but a full backup fails and the IIS Configuration gets deselected on all WFEs	458234
A sub-site restore failed when a custom template was used and the sub-site content was corrupted	460080
PBBackupService performs a RegSetValue oeration on a registry key and the REG_BINARY length increases to max 64K	461839
Backup Failing with error	466787
After grooming old backups from TSM are not marked as inactive	407788

## Version 6.7

There were no issues that were addressed in this release.

## Version 6.6

Description	Work Item
Resolved incompatibility issues between Metalogix Backup for SharePoint and Microsoft SharePoint version 16.0.4822.1000.	424331
Resolved issue during restore operation which results in the error Exception: Invalid object name 'Connections'.	425620

## Version 6.5.1

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

Description	Work Item
Resolved issue where the backup operation of content database in a SharePoint farm failed when the SQL Server that hosted the SharePoint farm was migrated to another SQL Server.	361899
Resolved issue where a mount operation failure message indicated that there is no backup service installed on the farm server even though a backup service was present.	378244 380715
Resolved issue where a scheduled backup job starts a large number of cloned instances of the backup job.	392533
Resolved issue where it was not possible to restore an element from a sub-site, site collection, library or list, because the reference to the element pointed to another sub-site, site collection, library or list.	395345
Resolved issue where groomed scheduled backup operations remain in the backup set location.	389875
Resolved issue where the the restore operation failed when the Zone setting in Alternate Access Mapping Collection of a SharePoint farm was set to any other value other than Default.	361314 385563

## Version 6.4

Description	Work Item
Resolved issue where errors beginning with the text <b>No such host is known</b> keeps appearing frequently in the Application Event logs.	347052
Resolved issue with backup sets not being available in the Content Database Mount and Link Wizard.	352163
Resolved issue with some URLs in Link lists that were not being restored even though the restore operation succeeds.	382706

# Version 6.3.082.2

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

Description	Work Item
Resolved issue where SharePoint Backup was not able to determine the required full backup for the current selection when trying to mount a SQL differential BAK file or a SQL Transactional Log file.	291460
Resolved issue with the inability to restore Nintex workflows.	305971
Resolved issue with the Restore wizard timeout errors for both in-place and out-of-place restore wizard when attempting to enumerate more than five thousand site collections.	314057
Resolved issue with SharePoint Backup Set time stamp that does not match with the time stamp displayed in the mount drop-down list for the same backup set.	336405
Resolved issue where errors beginning with the text <b>No such host is known</b> keeps appearing frequently in the Application Event logs.	347052
Resolved issue with SharePoint Backup compatibility for both 32-bit and 64-bit versions of Tivoli Storage Manager 7.x	347358

## Version 6.2.44438.0

Description	Work Item
Resolved issues during SharePoint Backup service install that prevented the use of correct drive permissions.	242776, 265194, 283220
Resolved issues to prevent in-place granular restore of items from two or more different sites to a single site. A message will appear to indicate that a prohibited restore operation is being attempted.	273382
Resolved issues where references to deleted scheduled operations are deleted completely from the SharePoint Backup repository.	274748
Resolved issue where SharePoint Backup was unable to activate trial licenses acquired from the Metalogix web site.	278738
Resolved issue where SharePoint Backup could not recognize <i>MinRoles</i> from SharePoint 2016 Feature Pack 1.	281196
Resolved issue where SharePoint Backup would timeout after 10 minutes even though the timeout value was set to more than 10 minutes.	284473

# Version 6.2.19794.0

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

Description	Work Item
Resolved issue where the backup service was not able to back up databases of multiple farms that share the same SQL Server.	124302
Resolved issue where the grooming operation does not remove backup sets if a data range is specified.	124586
Resolved issue where the configuration view does not load all farm servers when one of them is not available anymore.	225919
Resolved issue where specific sites collection or sites were not showing in the restore tree view.	228961
Resolved issue where only databases (not components of WFE and application servers) were included in the scheduled backup operation when the <i>CopyOnly</i> option was selected.	238732

## Version 6.1.12033.0

Description	Work Item
Resolved issue where user is unable to mount differential backups or transactional logs using the "Browse Directly to Backup files" option using long backup file names.	216076
Resolved issue where SharePoint Backup cannot retrieve Farm components when using language other than English for the Operating System.	218234
Resolved issue where farm restore out of place operation hangs and then backup service restarted service when the backup set folder over TSM does not have the required SharePoint components when using a fully qualified domain name.	220168
Resolved issue where VSS writer failed at time to retrieve Nintex database components.	220409
Resolved issue where Scheduled Backup of just SharePoint databases cannot be edited because of validation in the wizard preventing it from saving.	220835
Resolved issue where unhandled exception causes the backup service to restart and backup process fails.	220836

Description	Work Item
Resolved issue where no list items are showing in a mounted content database on SharePoint 2010 Foundation or SharePoint Search Service Express Edition 2010.	220962
Resolved issue where items cannot be restored if file was deleted by user other than the backup service account, but the item is still on 'Deleted from end user Recycle Bin'.	222673
Resolved issue where mounted content database displays same content twice when the lists and document library have same name/letters but one has punctuation at the end.	222983

# Version 6.0.7042.0

Description	Work Item
Resolved issue where the presence of special characters in the environment variable for a SharePoint root component was causing the backing up of its Filesystem directory structure to fail.	124920
Resolved issue where restore wizard was unable to validate the site collection administrator account from a trusted domain.	182799
Resolved issue where the Application Services folder created as part of a backup operation for the Application Service components over TEMP does not delete upon completion of the backup, causing the folder to remain without an owner, which in turn causes further backups to fail.	210695
Resolved issue where users were unable to delete a backup set as a result of the backup service not containing the required permissions.	211212
Resolved issue where the Management Console displays a timeout message during the deletion of a backup sets, expanding of granular content, or during the mount and link content database wizard.	212540, 215578, 216731
Resolved issue where backup operation fails over TSM backup set location because there is an error with TSM API internals.	212681
Resolved issue where user was unable to delete mounted content databases.	212694
Resolved issue where the document item of a document library is restored to a default location when the document library is inside of a custom folder.	206427

## Version 6.0.5011.0

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

Description	Work Item
Resolved issue where SharePoint Backup was unable to mount multiple files using the "Browse Directly to Backup Files" option when mounting a content database from a BAK source.	188407
Resolved issue where SharePoint servers were not able to get correct Backup Service status if they were listed with FQDN as their name in SharePoint Central Administration.	203297
Resolved issue where Backup Content does not display any Site Collections content inside the site collection in the granular restore view.	204569, 204591
Resolved issue where Management Console was not able load and was instead displaying the Configuration Wizard after restarting the management service.	204585
Resolved issue where SharePoint Backup was unable to search SQL Backups for non-US date/time formats.	197991
Resolved issue where SharePoint Backup was unable to mount content databases that were upgraded from a previous version.	204674
Resolved issue where Differential Backups were not being sent to the Queue.	205668
Resolved issue where Differential backups were failing with an error, stating that the primary backup server could not communicate with SQL Server using the server name.	205532
Resolved issue where the Farm Backup operations were being canceled because the writer metadata for the SharePoint VSS writer was not being retrieved.	203309
Resolved issue of false alert in the Backup Console which stated that the console is "unable to check disk space".	205045

## Version 6.0.3412.06

Description	Work Item
Implemented the capability to not escalate a differential backup operation if the LSN value of one or all content database were changed between full and deferential backup.	116100

Description	Work Item
Implemented an option to auto include newly created databases in scheduled backups if the schedule job is to backup all content databases.	116455
Implemented ability to store backup sets in Azure and Amazon.	115858
Implemented new pre-installation checks for the installation wizards.	117051
Implemented the ability to backup and restore service applications.	118549
Implemented the ability for several farms to be handled by one management service.	115909
Improved the Granular Restore view by adding a list view to the tree view of the backup content, as well as the ability to see and access the corresponding URL of each element.	118625
Improved the performance of the Management Console, including load time, as well as the time it takes changes to take effect between views.	122872
Implemented complete Nintex support, including the Nintex configuration database.	116664
Resolved issue where Backup was restoring elements with their metadata columns empty or was unable to restore granular elements that contained multiple versions of a list or document library with Metadata columns.	163094, 182808
Resolved issue where user was receiving an error message when mounting from a Metalogix Full Farm Backup set, when the primary Backup Set Location was a TSM location.	124311
Resolved issue where Managed metadata was not being restored to the managed metadata column.	182808
Resolved issue where the local administrator check was failing on the Farm Configuration Wizard.	190692

# Version 5.1.4509.03

Description	Work Item
Resolved issue where backup was having issues restoring granular components in place when using Host Named Site collections.	LID 48593
Resolved issue with backing up search index components.	LID 48594

## Version 5.1.4509.0

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

Description	Work Item
Resolved issue where Management Console does not display some of the subsites in the Granular Restore, when they contained SharePoint applications.	LID 47227
Resolved issue where Backup was unable to restore list items which contained attachments.	LID 47309

## Version 5.1.4051.06

Description	Work Item
Extended the existing import and mount functionality to include SQL differential and transaction log backups.	LID 24495
Added the option to include or exclude PowerShell commands in Backup for the "View Farm Configuration" functionality.	LID 25759
Updated documentation to new format, including better overview and screenshots.	LID 39435
Added ability to define the staging path for native .BAK mounts.	LID 24471
Resolved issue where the license was required to be manually updated on upgrades.	LID 24660
Resolved issue where scheduled backups were completing with the exception of the Search index on the Primary Backup Service machine.	LID 32610
Resolved issue where the workflow was creating incorrect task types post-restore on SharePoint 2010.	LID 19802
Resolved issue where users were receiving an error message when they were expanding a website that has a managed path.	LID 23889
Resolved issue where users were receiving the following error when backing up SQL Server components: "Unable to retrieve differential base LSN".	LID 23454
Resolved issue where the granular restore failed for documents located in folders with lists that had versioning enabled.	LID 23082

Description	Item
Resolved issue where Granular restore of sites did not include theme changes for SharePoint 2010.	192

## Version 5.1.3614.0

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

Description	Work Item
Resolved issue where web parts were not being restored on SP2013 when the primary backup service was not hosting the Central Administration service.	LID 23059
Resolved issue where volume was not being exposed when backing up databases where the mapped drives do not exactly match the drive path where the database files are located.	LID 23285
Resolved issue where mount operation was not being performed when it has a long mount name.	LID 23486

## Version 5.0.3530.0

Description	Work Item
Implemented new feature that now allows users to remove content database files available on staging directory after deleting a mounted database.	LID 19811
Resolved issue where differential backups completed with a warning due to certain database components failing to back up.	LID 5335
Resolved issue where the mounted database was not being rendered in the tree for site collections that contained web applications on SharePoint 2013.	LID 19158
Resolved issue where the primary backup service was unable to deliver status information to the management service during farm backup operation.	LID 20824
Resolved issue where the prepare-for-mount operation was being given the incorrect path when SQL server was being defined by FQDN.	LID 20736
Implemented support for the performing of backups when other 3rd party VSS backup providers are installed and running their own backups.	LID 21006

## Version 5.0.2822.0

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

Description	Work Item
Implemented capability to expose the Volume Shadow Copies used for farm backup operation over a path other than the %SystemRoot%\TEMP folder. It is now possible to use the folder path configured in the configuration file of Management Service or to use environment variables. Contact Metalogix Technical Support for further details.	LID 19145
Resolved issue where pages stored at the root directory of a host-named site collection were not being restored.	LID 19296
Resolved issue where Backup was unable to mount data files from a Windows 2008 R2 clustering server.	LID 18503
Resolved issue where the custom Web Part that allows to upload a file was not being restored.	LID 19250
Resolved issue where database backups fail if the databases files are located on non-standard file path definitions.	LID 19160
Resolved issue where items from List Template Gallery were not being restored.	LID 18327
Resolved issue where Master pages from Master Page Gallery and that are used by default were not being restored.	LID 18325
Resolved issue where custom Home Page with custom Web Parts is not restored during granular restore operation.	LID 16153, LID 18157, LID 18160

## Version 5.0.2678.0

Description	Work Item
Implemented new feature which allows Backup to perform backup and restore operations over SharePoint with a SQL Alias server without having to configure hostnames or DNS records for the SQL Alias server.	LID 17309
Implemented new feature which allows for the automatic restart of Backup's services in the event that services crash.	LID 18098

Description	Work Item
Implemented the ability to mount content databases in SQL 2008 or lower versions.	LID 17366
Implemented support for Tivoli 7.x.	LID 15016
Resolved issue where scheduled backups (full or differential) were not being queued when another full or differential backup was already running.	LID 18454
Resolved the issue where a custom Master page selected on the "Master Page Settings" page was not being restored.	LID 18325
Resolved issue where alert notifications for the preparation of mounting databases were registering as Canceled instead of Successful.	LID 17155
Resolved issue where the content from a host-named site collection was not being displayed.	LID 17850, LID 18390
Resolved issue of object reference error displaying when attempting to get the language from the source site collection.	LID 17987
Resolved issue where a canceled operation was not disposing of VSS shadows.	LID 15544
Resolved issue where scheduled differential farm backups were not starting.	LID 17719
Resolved issue related to the inability to restore Out-Of-Place for differential farm backups.	LID 17701
Resolved issue where SharePoint Databases, located inside the folder of a Mounted Volume, were not able to be backed up.	LID 17693
Resolved issue where a backup set, located in a TSM server, could not be deleted the first time.	LID 13747
Resolved issue where mounting content databases through the Full Farm Wizard failed if the full farm backup was backed up in a TSM server.	LID 16891

## Version 5.0.2163.0

Description	Work Item
Reworking of the Granular Restore section. For this release we removed the ability to new granular backups, but users can still work with granular backup sets taken on previous versions. Backup now provides the option to Mount or Link Content	LID 13730

Description	Work Item
Databases in order to get SharePoint content to perform a Granular Restore using the Metalogix Framework.	
New feature which allows users to Mount Content Databases after completing a Full Farm Backup operation that backed up a Content Database.	LID 14459
Resolved issue related to Full Farm Backup over SharePoint Farms that have their databases over Availability Group (SQL AlwaysOn Feature), so from this release SharePoint Backup supports Full Farm Backups of databases over Availability Groups.	LID 14159 LID 14163
Resolved issue during a Farm Restore of databases over SQL Servers that are registered in Central Administrator with a FQDN name.	LID 14173

### **Notes and Notices**

#### **Upgrade Considerations**

The Metalogix Backup for SharePoint Service uses a staging location to backup SharePoint data. During installation, the default location is configured as

C:\Users\<username>\AppData\Local\Temp\

which is insufficient for a successful backup operation. You must specify a UNC path for the staging location. For more information see the topic Upgrading Metalogix Backup for SharePoint in the Metalogix Backup for SharePoint User Guide.

You can install Metalogix Backup for SharePoint on any computer that meets or exceeds the hardware, software, and permission requirements. When you install multiple components on a single host computer, the computer should meet or exceed all of the requirements for the components.

Consider the following requirements when you install Metalogix Backup for SharePoint in a typical environment:

- SharePoint Requirements
- Management Console requirements
- Management Service requirements
- Backup Repository requirements
- Backup Service Requirements
- Self-Service Recovery requirements

## **SharePoint requirements**

To use Metalogix Backup for SharePoint, you must have at least one Microsoft SharePoint farm installed and configured. The farm can be any of the following versions:

• Microsoft SharePoint Foundation 2013

- Microsoft SharePoint Server 2013
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2019
- Microsoft SharePoint Server Subscription Edition

## **Management Console requirements**

You can install the Management Console alone or in concert with the other components.

The computer where you install the Management Console must meet the following minimum requirements:

- 2.0 GHz or faster CPU.
- 2 GB or more memory. The required memory size varies, depending on the size of the SharePoint objects you back up.
- 50 MB free hard disk space.
- Microsoft .NET framework 4.5.2
- Monitor capable of displaying 16-bit or more colors at a resolution of 1024 X 768 or higher.
- One of the following Windows 64-bit versions:
  - o Windows Server 2012
  - Windows Server 2012 R2
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022
  - o Windows 10

NOTE: If you install the Management Console with any other Metalogix Backup for SharePoint components, you must use a version of Windows Server that is compatible with the SharePoint version. Windows 10 can host only the Management Console.

The Management Console user does not need to be a member of the local Administrators group.

## **Management Service requirements**

You install the Management Service automatically when you install the other components. The computer that hosts the Management Service always hosts the Management Console.

The computer where you install the Management Service must meet the following minimum requirements:

• 2.0 GHz or faster CPU.

- 2 GB or more memory. The required memory size varies, depending on the size of the SharePoint objects you back up.
- 50 MB free hard disk space.
- Microsoft .NET framework 4.5.2
- Monitor capable of displaying 16-bit or more colors at a resolution of 1024 X 768 or higher.
- One of the following Windows versions:
  - Windows Server 2012
  - Windows Server 2012 R2
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022

#### **Permission requirements**

The user account that you specify for the Management Service must have the following permissions:

- Must be a local Administrators on the computer that hosts the Management Service.
- Must be a member of the db\_owner role for the repository database.
- To perform farm backups of SharePoint 2013, 2016, 2019 or Subscription Edition farms, the account must be a member of the SharePoint farm administrators group.

You specify the database to use as the repository database when you install the Management Services.

In addition, when you install Metalogix Backup for SharePoint, the installer also assigns the permissions required to access the Microsoft Volume Shadow Copy Service (VSS) to the farm account and to the account that you specify for the Backup Service.

For more information about the VSS permissions, see the Microsoft article Security Considerations for Requesters at: <a href="http://msdn.microsoft.com/en-us/library/aa384604(VS.85).aspx">http://msdn.microsoft.com/en-us/library/aa384604(VS.85).aspx</a>.

## **Backup Repository requirements**

The Management Service stores preferences and other information in a repository database. You specify the Microsoft SQL Server host for the database when you install the Metalogix Backup for SharePoint components. The SQL Server host that you select should be compatible with the installed SharePoint version, as described in the following table.

SharePoint Version	Supported SQL Server Versions
SharePoint 2013	Microsoft SQL Server 2012
	Microsoft SQL Server 2014
	Microsoft SQL Server Express

SharePoint Version	Supported SQL Server Versions
	(optional) Latest version of SQL 2012 native client if TLS 1.2 or 1.1 connections are used.
SharePoint 2016	Microsoft SQL Server 2014
	Microsoft SQL Server 2016
	Microsoft SQL Server 2017
	SQL Server 2019
	SQL Server 2022
	(optional) Latest version of SQL 2012 native client if TLS 1.2 or 1.1 connections are used.
SharePoint 2019	Microsoft SQL Server 2016
	Microsoft SQL Server 2019
	Microsoft SQL Server 2022
	(optional) Latest version of SQL 2012 native client if TLS 1.2 or 1.1 connections are used.
SharePoint Subscription Edition	Microsoft SQL Server 2019 Cumulative Update 5 (CU5) or later
	Microsoft SQL Server 2022
	(optional) Latest version of SQL 2012 native client if TLS 1.2 or 1.1 connections are used.

NOTE: If the Metalogix Backup for SharePoint Repository will be located on a SQL Alias then the SQL Alias registry should be created for both 32-bit and 64-bit operation with the respective versions of the cliconfg.exe tool. Otherwise there could be a SQL server connection error problem.

## **Metalogix Backup for SharePoint Service requirements**

Install the Backup Service on every SharePoint Web front end (WFE) server and database server in the SharePoint 2013, 2016, 2019 or Subscription Edition farms that you back up.

# What are the hardware and software requirements for the Backup Service?

Any server that hosts the Backup Service must meet the following requirements:

- 2.0 GHz or faster CPU
- 2 GB or more memory. The required memory size varies, depending on the size of the SharePoint objects you back up
- 50 MB free hard disk space
- Microsoft .NET framework
  - Version 4.0 for SharePoint 2013
  - o Version 4.5 for SharePoint 2016
- One of the following Windows versions, either 32-bit or 64-bit:
  - o Windows Server 2012
  - o Windows Server 2012 R2
  - o Windows Server 2016
  - o Windows Server 2019
  - o Windows Server 2022

# What are the permission requirements for the Backup Service user account?

When you install the Backup Service, you specify a user account that the Backup Service uses to access the farm.

The Backup Service account that you specify requires the following permissions to perform backups and restores:

#### Windows permissions

The Backup Service account must have **write** permissions to the installation folder on the WFE and to the folder where you store backup sets. To perform Farm Backups of SharePoint 2013, 2016, 2019 or Subscription Edition farms, the Backup Service account must be a member of the local Administrators group on the server that hosts the Backup Service.

On SharePoint 2013, 2016, 2019 or Subscription Edition farms, the Backup Service user account must also be able to perform Microsoft Volume Shadow Copy Service (VSS) operations on the computer that hosts the Backup Service. Normally, members of the local Administrators group have these permissions, but they can be removed by a group policy setting. If your group policy settings make changes to the local Administrators group privileges, you should ensure that the Backup Service user has the following privileges:

- Act as part of the operating system
- Backup files and directories
- Create a token object
- Log on as a service

- Manage auditing and security log
- · Restore files and directories
- Take ownership of files and other objects

#### **SharePoint permissions**

If the SQL Server is a part of the farm, the Backup Service account must be a member of the SharePoint farm administrators group.

If the farm uses a standalone SQL Server, there is no SharePoint farm administrators group on the server.

#### **SQL Server permissions**

Metalogix Backup for SharePoint needs access to all SharePoint databases to perform farm content backups.

You should manually grant these permissions for the Admin Content and SharePoint Config databases to the Backup Service user account before you install the Backup Service.

For all other databases, you can manually grant these permissions, or the Backup Service timer job can grant the permission automatically.

When it runs, the Backup Service creates a SharePoint timer job. The job is named Metalogix Backup for SharePoint Confirm Backup Service Permissions. The Backup Service queues the job immediately when it creates the job. In addition, the timer job is scheduled to run at the beginning of every hour. Depending on the state of your timer job queue, execution of the timer job may be delayed. If desired, you can use the SharePoint Central Administration page to check the job status.

The timer job assigns the db\_owner role on every SharePoint database to the Backup Service user account that you specify. In addition, the timer job assigns the Full Control policy for every Web application in the farm to the Backup Service user account.

The timer job ensures that the Backup Service can access every SharePoint database to perform backups. Normal SharePoint operations, including creating a new Web application or a service application, can create new databases. If you disable the job, you must manually assign permissions for the new databases or backups can fail.

When you perform an operation that creates a new database, you can use the SharePoint 2013, 2016, 2019 or Subscription Edition timer job controls to manually start the job. You can also wait until the start of the next hour for the job to run on schedule.

# **Self-Service Recovery requirements**

The Metalogix Backup for SharePoint Self-Service Recovery feature lets site collection administrators restore the backed-up content for which they are responsible.

To restore content, the user must currently be a site collection administrator. In addition, the user must have site collection administrator privileges for the content before the backup occurs.

You can deploy the feature to any Web front end (WFE) in your SharePoint farm. When you configure Metalogix Backup for SharePoint for your farm, you can automatically deploy the feature to the farm. For more information about restore permission requirements, see Understanding the granular restore process.

# **Product Licensing**

Metalogix Backup for SharePoint comes is available for a free trial. The free trial is valid for 30 days (date of first login + 29 more days).

- 1. Go to https://www.guest.com/products/metalogix-backup-for-sharepoint
- 2. Click the **Download Free Trial** button.
- 3. Fill and submit the **Download Your Free Trial** form.
- 4. Download the installer from the link in the email you receive from Quest.
- 5. Verify the System Requirements and install Sensitive Content Manager.

#### Steps to activate your license online

The first time that you open the Metalogix Backup for SharePoint Management Console, you will be prompted to activate a license key. Follow the steps below to activate your license key online.

- 1. In the Activate License window, enter the license key.
- 2. Select **Activate Online.** If your computer is behind a firewall, click the **Proxy Configuration** link. In the *Proxy Setup* window that opens, follow the steps below:
  - a. Select **Enable Proxy**.
  - b. In the **Server Name** field, enter the name of your proxy server.
  - c. In the **Port Number** field, enter the port number of the proxy server.
  - d. If your proxy server requires explicit login credentials, select **Use Credentials** and choose the credentials of the logged in user or provide credentials of another user.
  - e. Click **Save** to preserve the information or click **Close** to cancel changes and return to the *Activate License* window.
- 3. Click **Activate**. Metalogix Backup for SharePoint displays a message with the status of your activation.

# **Third Party Contributions**

This product contains the following third-party components.

Component	License or Acknowledgement
AlphaVSS 1.0.9156.0	Use of this copyright is governed by the MIT license. Copyright © 2008-2011 Peter Palotas. All rights reserved.
AlphaVSS 1.3	Use of this copyright is governed by the MIT license. Copyright © 2008-2011 Peter Palotas. All rights reserved.
AWS SDK for .NET 2.3.25	Use of this copyright is governed by the Apache.2.0 license.
Bamboo.Prevalence 1.4.4.4	Use of this copyright is governed by the MIT license. Copyright © Rodrigo B. de Oliveira. All rights reserved.
Lapointe.PowerShell.MamlGenerator 1.0	Use of this copyright is governed by the MIT 1.0 license. Copyright © 2007 – 2017 Falchion Consulting, LLC All rights reserved.  License Notice
	Absolutely no portions of this websites content in text, images and or digital media format may be reproduced or re-transmitted in any form or media without the express written consent of Gary Lapointe.
	This license governs use of the accompanying software. If you use the software, you accept this license. If you do not accept the license, do not use the software.
	Definitions
	The terms "reproduce," "reproduction," "derivative works," and "distribution" have the same meaning here as under U.S. copyright law. A "contribution" is the original software, or any additions or changes to the software. A "contributor" is any person that distributes its contribution under this license. "Licensed patents" are a contributor's patent claims that read directly on its contribution.

Component	License or Acknowledgement
	Grant of Rights
	(A) Copyright Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free copyright license to reproduce its contribution, prepare derivative works of its contribution, and distribute its contribution or any derivative works that you create.
	(B) Patent Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free license under its licensed patents to make, have made, use, import, and/or otherwise dispose of its contribution in the software or derivative works of the contribution in the software.
	Conditions and Limitations (A) Reciprocal Grants-For any file you distribute that contains code from the software (in source code or binary format), you must provide recipients the source code to that file along with a copy of this license, which license will govern that file. You may license other files that are entirely your own work and do not contain code from the software under any terms you choose. (B) No Trademark License- This license does not grant you rights to use any contributors' name, logo, or trademarks. (C) If you bring a patent claim against any contributor over patents that you claim are infringed by the software, your patent license from such contributor to the software ends automatically. (D) If you distribute any portion of the software, you must retain all copyright, patent, trademark, and attribution notices that are present in the software. (E) If you distribute any portion of the software in source code form, you may do so only under this license by including a complete copy of this license with your distribution. If you distribute any portion of the software in compiled or object code form, you may only do so under a license that complies with this license. (F) The software is licensed "as-is." You bear the risk of using it. The contributors give

Component	License or Acknowledgement
	no express warranties, guarantees, or conditions. You may have additional consumer rights under your local laws which this license cannot change. To the extent permitted under your local laws, the contributors exclude the implied warranties of merchantability, fitness for a particular purpose and non-infringement. (G) You may not sell or offer for sale any portion of the software in source or binary form.
Lucene.NET 2.9.1.2	Use of this copyright is governed by the Apache  1.1 license. This product includes software developed by the Apache Software Foundation (http://www.apache.org). Copyright © 2000 The Apache Software Foundation. All rights reserved. The snowball stemmers in contrib/Snowball.Net/Snowball.Net/SF/Snowball were developed by Martin Porter and Richard Boulton. The full snowball package is available from http://snowball.tartarus.org/
Microsoft Azure Configuration Manager 1.7	Use of this copyright is governed by the Apache.2.0 license.
Microsoft Windows Azure Storage 6.0.0	Use of this copyright is governed by the Apache.2.0 license.
TracerX 6.1	Use of this copyright is governed by the <u>Code</u> <u>Project Open License (CPOL)</u> license. Copyright (c) 2007-2012 Mark A. Lauritsen
	Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:
	The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

Component	License or Acknowledgement
	THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

## **Third-Party License Information**

License details of selected third-party licenses are reproduced here for your convenience. For more third-party license information, see <a href="https://www.quest.com/legal/third-party-licenses.aspx">https://www.quest.com/legal/third-party-licenses.aspx</a>.

#### Apache Software License, Version 1.1

Copyright © 2000 The Apache Software Foundation. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment: "This product includes software developed by the Apache Software Foundation (http://www.apache.org/)." Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.
- 4. The names "Apache" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.
- 5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see http://www.apache.org/.

Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.

### **Apache Software License, Version 2.0**

January 2004 (http://www.apache.org/licenses/)

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

#### 1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

- 2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
- 3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims that can be licensed by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
- 4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
- (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
- (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
- (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

- 5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
- 6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
- 7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
- 8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- 9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

**END OF TERMS AND CONDITIONS** 

## The Code Project Open License (CPOL) 1.02

THE WORK (AS DEFINED BELOW) IS PROVIDED UNDER THE TERMS OF THIS CODE PROJECT OPEN LICENSE ("LICENSE"). THE WORK IS PROTECTED BY COPYRIGHT AND/OR OTHER APPLICABLE LAW. ANY USE OF THE WORK OTHER THAN AS AUTHORIZED UNDER THIS LICENSE OR COPYRIGHT LAW IS PROHIBITED.

BY EXERCISING ANY RIGHTS TO THE WORK PROVIDED HEREIN, YOU ACCEPT AND AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE. THE AUTHOR GRANTS YOU THE RIGHTS CONTAINED HEREIN IN CONSIDERATION OF YOUR ACCEPTANCE OF SUCH TERMS AND CONDITIONS. IF YOU DO NOT AGREE TO ACCEPT AND BE BOUND BY THE TERMS OF THIS LICENSE, YOU CANNOT MAKE ANY USE OF THE WORK.

#### 1. Definitions.

- a. "Articles" means, collectively, all articles written by Author which describes how the Source Code and Executable Files for the Work may be used by a user.
- b. "Author" means the individual or entity that offers the Work under the terms of this License.
- c. "Derivative Work" means a work based upon the Work or upon the Work and other pre-existing works.
- d. "Executable Files" refer to the executables, binary files, configuration and any required data files included in the Work.
- e. "Publisher" means the provider of the website, magazine, CD-ROM, DVD or other medium from or by which the Work is obtained by You.
- f. "Source Code" refers to the collection of source code and configuration files used to create the Executable Files.
- g. "Standard Version" refers to such a Work if it has not been modified, or has been modified in accordance with the consent of the Author, such consent being in the full discretion of the Author.
- h. "Work" refers to the collection of files distributed by the Publisher, including the Source Code, Executable Files, binaries, data files, documentation, whitepapers and the Articles.
- i. "You" is you, an individual or entity wishing to use the Work and exercise your rights under this License.
- 2. Fair Use/Fair Use Rights. Nothing in this License is intended to reduce, limit, or restrict any rights arising from fair use, fair dealing, first sale or other limitations on the exclusive rights of the copyright owner under copyright law or other applicable laws.
- 3. License Grant. Subject to the terms and conditions of this License, the Author hereby grants You a worldwide, royalty-free, non-exclusive, perpetual (for the duration of the applicable copyright) license to exercise the rights in the Work as stated below:
  - a. You may use the standard version of the Source Code or Executable Files in Your own applications.
  - b. You may apply bug fixes, portability fixes and other modifications obtained from the Public Domain or from the Author. A Work modified in such a way shall still be considered the standard version and will be subject to this License.
  - c. You may otherwise modify Your copy of this Work (excluding the Articles) in any way to create a Derivative Work, provided that You insert a prominent notice in each changed file stating how, when and where You changed that file.
  - d. You may distribute the standard version of the Executable Files and Source Code or Derivative Work in aggregate with other (possibly commercial) programs as part of a larger (possibly commercial) software distribution.

- e. The Articles discussing the Work published in any form by the author may not be distributed or republished without the Author's consent. The author retains copyright to any such Articles. You may use the Executable Files and Source Code pursuant to this License but you may not repost or republish or otherwise distribute or make available the Articles, without the prior written consent of the Author.
- f. Any subroutines or modules supplied by You and linked into the Source Code or Executable Files of this Work shall not be considered part of this Work and will not be subject to the terms of this License.
- 4. Patent License. Subject to the terms and conditions of this License, each Author hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, import, and otherwise transfer the Work.
- 5. Restrictions. The license granted in Section 3 above is expressly made subject to and limited by the following restrictions:
  - a. You agree not to remove any of the original copyright, patent, trademark, and attribution notices and associated disclaimers that may appear in the Source Code or Executable Files.
  - b. You agree not to advertise or in any way imply that this Work is a product of Your own.
  - c. The name of the Author may not be used to endorse or promote products derived from the Work without the prior written consent of the Author.
  - d. You agree not to sell, lease, or rent any part of the Work. This does not restrict you from including the Work or any part of the Work inside a larger software distribution that itself is being sold. The Work by itself, though, cannot be sold, leased or rented.
  - e. You may distribute the Executable Files and Source Code only under the terms of this License, and You must include a copy of, or the Uniform Resource Identifier for, this License with every copy of the Executable Files or Source Code You distribute and ensure that anyone receiving such Executable Files and Source Code agrees that the terms of this License apply to such Executable Files and/or Source Code. You may not offer or impose any terms on the Work that alter or restrict the terms of this License or the recipients' exercise of the rights granted hereunder. You may not sublicense the Work. You must keep intact all notices that refer to this License and to the disclaimer of warranties. You may not distribute the Executable Files or Source Code with any technological measures that control access or use of the Work in a manner inconsistent with the terms of this License.
  - f. You agree not to use the Work for illegal, immoral or improper purposes, or on pages containing illegal, immoral or improper material. The Work is subject to applicable export laws. You agree to comply with all such laws and regulations that may apply to the Work after Your receipt of the Work.
- 6. Representations, Warranties and Disclaimer. THIS WORK IS PROVIDED "AS IS", "WHERE IS" AND "AS AVAILABLE", WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OR GUARANTEES. YOU, THE USER, ASSUME ALL RISK IN ITS USE, INCLUDING COPYRIGHT INFRINGEMENT, PATENT INFRINGEMENT, SUITABILITY, ETC. AUTHOR EXPRESSLY DISCLAIMS ALL EXPRESS, IMPLIED OR STATUTORY WARRANTIES OR CONDITIONS, INCLUDING WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY, MERCHANTABLE QUALITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF TITLE OR NON-INFRINGEMENT, OR THAT THE WORK (OR ANY

- PORTION THEREOF) IS CORRECT, USEFUL, BUG-FREE OR FREE OF VIRUSES. YOU MUST PASS THIS DISCLAIMER ON WHENEVER YOU DISTRIBUTE THE WORK OR DERIVATIVE WORKS.
- 7. Indemnity. You agree to defend, indemnify and hold harmless the Author and the Publisher from and against any claims, suits, losses, damages, liabilities, costs, and expenses (including reasonable legal or attorneys' fees) resulting from or relating to any use of the Work by You.
- 8. Limitation on Liability. EXCEPT TO THE EXTENT REQUIRED BY APPLICABLE LAW, IN NO EVENT WILL THE AUTHOR OR THE PUBLISHER BE LIABLE TO YOU ON ANY LEGAL THEORY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF THIS LICENSE OR THE USE OF THE WORK OR OTHERWISE, EVEN IF THE AUTHOR OR THE PUBLISHER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### 9. Termination.

- a. This License and the rights granted hereunder will terminate automatically upon any breach by You of any term of this License. Individuals or entities who have received Derivative Works from You under this License, however, will not have their licenses terminated provided such individuals or entities remain in full compliance with those licenses. Sections 1, 2, 6, 7, 8, 9, 10 and 11 will survive any termination of this License.
- b. If You bring a copyright, trademark, patent or any other infringement claim against any contributor over infringements You claim are made by the Work, your License from such contributor to the Work ends automatically.
- c. Subject to the above terms and conditions, this License is perpetual (for the duration of the applicable copyright in the Work). Notwithstanding the above, the Author reserves the right to release the Work under different license terms or to stop distributing the Work at any time; provided, however that any such election will not serve to withdraw this License (or any other license that has been, or is required to be, granted under the terms of this License), and this License will continue in full force and effect unless terminated as stated above.
- d. Publisher. The parties hereby confirm that the Publisher shall not, under any circumstances, be responsible for and shall not have any liability in respect of the subject matter of this License. The Publisher makes no warranty whatsoever in connection with the Work and shall not be liable to You or any party on any legal theory for any damages whatsoever, including without limitation any general, special, incidental or consequential damages arising in connection to this license. The Publisher reserves the right to cease making the Work available to You at any time without notice

#### 10. Miscellaneous

- a. This License shall be governed by the laws of the location of the head office of the Author or if the Author is an individual, the laws of location of the principal place of residence of the Author.
- b. If any provision of this License is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this License, and without further action by the parties to this License, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.
- c. No term or provision of this License shall be deemed waived and no breach consented to unless such waiver or consent shall be in writing and signed by the party to be charged with such waiver or consent.

d. This License constitutes the entire agreement between the parties with respect to the Work licensed herein. There are no understandings, agreements or representations with respect to the Work not specified herein. The Author shall not be bound by any additional provisions that may appear in any communication from You. This License may not be modified without the mutual written agreement of the Author and You.

#### **MIT License**

Copyright © Rodrigo B. de Oliveira

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

#### **MIT License**

Copyright © Peter Palotas

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

#### MIT 1.0 license

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Quest creates software solutions that make the benefits of new technology real in an increasingly complex IT landscape. From database and systems management, to Active Directory and Office 365 management, and cyber security resilience, Quest helps customers solve their next IT challenge now. Around the globe, more than 130,000 companies and 95% of the Fortune 500 count on Quest to deliver proactive management and monitoring for the next enterprise initiative, find the next solution for complex Microsoft challenges and stay ahead of the next threat. Quest Software. Where next meets now. For more information, visit <a href="https://www.quest.com">www.quest.com</a>.

## **Contacting Quest**

For sales or other inquiries, visit 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 <a href="https://support.quest.com">https://support.quest.com</a>

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