Quest™

Spotlight® on SQL Server 11.7.1

Release Notes

December 2016

These release notes provide information about the Spotlight on SQL Server Enterprise release.

Topics:

About this release

Spotlight on SQL Server is a powerful database diagnostic and resolution tool. Its unique user interface provides you with an intuitive, visual representation of the activity on a SQL server. Graphical flows illustrate the rate at which data is moving between server components. Icons display the value of key statistics and alarms. Alarms inform you of bottlenecks and other potential problems. Drilldowns show detailed information on all parts of your SQL Server.

Spotlight integrates data from various sources into a single display. It seamlessly combines data from SQL Server system tables, SQL commands, performance monitor counters, and the Windows registry. Spotlight diagnoses not just your SQL Server, but also the Windows Server that SQL Server is running on.

With Spotlight, diagnostic data can be collected continuously, even when Spotlight is not open on the desktop. A Diagnostic Server can perform data collection continuously from a middleware machine, ready for Spotlight to display whenever Spotlight is started on any client machine.

Business benefits include:

- Data collected and alarms evaluated on a 24x7 basis, even when no Spotlight clients are running.

- Identical data and alarms provided to all users, providing a consistent view across the enterprise.

- Diagnostic data is saved in one place (on the Diagnostic Server), avoiding unnecessary replication of data.

- Diagnostic Server reduces load on databases and operating systems by collecting data once and sharing it between all connected Spotlight clients.

- Long-term historical data can be stored in a repository for future analysis and planning purposes. SQL Server professionals can report off the data for a deeper understanding of their performance issues.

- Diagnostic Server configuration is centralized and applied to all connections. Individual connections can then be customized as required.

- SQL Analysis captures SQL from a SQL Server based on a collection filter you specify and allows you to quickly get a picture of the most expensive SQL running on the server both from real-time and historical perspectives.

- Operating System data is collected only once, even if multiple instances are being monitored on that particular host.

  - Spotlight on SQL Server Enterprise 11.7.1 is a patch release,

  - with no new functionality. See Resolved issues.

New features

New features in Spotlight on SQL Server Enterprise 11.7:

- **Template Apply** - You can now select individual alarm and schedule configurations to apply.
- **Federation** - Use the Federate Diagnostic Servers dialog to determine the number of connections monitored by each Spotlight Diagnostic Server and the number of connections monitored by the federation.

Note that the Deadlocks, Wait Events and Workload Analysis features in Spotlight on SQL Server Enterprise make use of Extended Events. Spotlight will continue to use Extended Events in the development of the product's features.

See also:

- Enhancements
- Resolved issues

Enhancements

The following is a list of enhancements implemented in Spotlight on SQL Server Enterprise11.7.1.

Table 1: General enhancements

Enhancement	Issue ID
If configured to upload to the Spotlight Cloud then the collections now being uploaded allow for monitoring connection drilldowns on the web site once corresponding development of the web site is complete.	6077
Enhanced monitoring and diagnosis of connections with over 2000 active sessions.	5697
Reporting and Trending: The RDL files have moved to the SSRS folder in the Spotlight Client installation folder.	6214

The following is a list of enhancements implemented in Spotlight on SQL Server Enterprise 11.7.

Table 2: General enhancements

Enhancement	Issue ID
Spotlight now monitors Windows Server 2016 and Windows 10 in a Hyper-V virtualized environment.	5986
When the alarm severity is normal and that alarm is listed in the Alarm log and actioned as an email, the corresponding alarm message for normal severity is displayed.	5939
The dialogs to configure an alarm and configure a schedule have been enhanced to make it clearer that a Factory Settings Template cannot be edited.	6007
Configure | Connections - The Connection Type is now selectable from a drop down menu; in place of the old button / scroll menu.	5830

Deprecated features

The following is a list of features that are no longer supported.

- Starting with Spotlight on SQL Server Enterprise11.7.1 the SQL Server Diagnostics CPU and IO drilldowns have been deprecated in favor of the SQL Server \| Workload Analysis drilldown CPU Resource and the SQL Server Wait Events drilldown \| IO Category.

- Starting with Spotlight on SQL Server Enterprise 11.7, Reporting and Trending \| Spotlight Views have been deprecated. They are now available as printable Spotlight Reports.

Spotlight is deprecating Enterprise Views post this release. We recommend taking advantage of the new Connection Views to monitor your SQL Server instances in groups.

Resolved issues

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

Table 3: General resolved issues 11.7.1

Resolved Issue	Issue ID
Corrected a problem with the Spotlight Connection Manager where on request to delete a connection and the name of that connection was used by multiple connection types, Spotlight Connection Manager sometimes selected the wrong connection type to delete.	6097
Corrected a problem connecting to the Spotlight Diagnostic Server where the error was: "SSR CLeaner - SSR Cleaner: failed to run".	6071
Corrected a problem where if the blocking duration was more than 1,000,000 milliseconds, the values reported on the homepage and the blocking drilldown were different.	5584
Corrected a problem with the Deadlock List Report where the content was limited.	5468
Corrected a problem when monitoring a SQL failover cluster, SQL 2005 and SQL 2008 instances, in an environment other than English, and the "At least one cluster node is unavaiable" alarm failed to clear.	5235
Corrected a problem where an XDL file created by Extended Events could not be opened in SQL Server Management Studio.	4686
The Performance health drilldown ignores wait type 'RESOURCE_QUEUE.	3177
Corrected a problem where SQL Server Wait Events and Workload Analysis drilldowns showed no data.	DS-420
Corrected a problem deleting a monitored entity.	DS-419

Table 4: General resolved isues 11.7

Resolved Issue	Issue ID
Problems experienced collecting SQL Server Replication data have been resolved by reverting to use the RMO library (now marked as deprecated by Microsoft) while a more robust long term solution is found.	5964
Corrected a problem where the variable "DistributorDB.Name" is empty in replication scripts by reverting the SQL Server Replication data collection to use the RMO library.	5926
Corrected a problem with the Alarm Action "Execute a Powershell sript". Scripts containing a back tick character now work as expected.	5842
Corrected a problem where Spotlight failed to collect performance data from a localized (language other than-English) Hyper-V installation.	5649

Known issues

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

Table 5: General known issues

Known Issue	Issue ID
If the Spotlight Client looses connection to the Spotlight Diagnostic Server then after a period of days the Spotlight Client will develop a minor memory leak. Workaround: Restart the Spotlight Client.	5433
The Spotlight Client can experience performance issues (opening the home page, acknowledging and snoozing alarms) when a large number of alarms are raised against the one connection.	2651
Manual refresh is required on some drilldowns. Right click the data in the grid and select **Restore Default Settings | Restore**. The grid shows "Loading". Click **Refresh** to populate the grid.	11333 11406

Table 6: known issues with installation and upgrade

Known Issue	Issue ID
Installing other Spotlights. Do not install other Spotlights into the Spotlight on SQL Server folder. You will be unable to run Spotlight on SQL Server if you do this. When installing other Spotlights you must install them into a different folder.	N/A
Remote installation. Remote installation of Spotlight on SQL Server fails if the user has both a domain account and a local account with the same user name.	N/A

Table 7: known issues with the Spotlight Diagnostic Server

Known Issue	Issue ID
Federation. If you remove and then re-add a Spotlight Diagnostic Server to the federation, the Spotlight Connections from the "re-added" Spotlight Diagnostic Server will display in the Spotlight Client as if disabled (color gray). Workaround: Restart the Spotlight Client.	5432
System time changes. Stop the Diagnostic Server service before changing the system time on the Diagnostic Server machine.	N/A
Moving a Diagnostic Server. If you want to move your Diagnostic Server to a different host machine and continue to use the current Spotlight Statistics Repository, you will not be able to report on data collected across the original and moved Diagnostic Servers. Contact Quest Support for assistance if you want to report on data collected by the original Diagnostic Server after the move.	4178
Renaming the Diagnostic Server. The Diagnostic Server host cannot be renamed without reinstalling the Diagnostic Server. To conserve configuration and history, migrate the Diagnostic Server to another host before the machine is renamed.	3052
Diagnostic Server user privileges. The minimum Windows privilege level required to run the Diagnostic Server is Power User. During runtime, the Diagnostic Server requires write access to folders in the install directory. Without the appropriate privileges, the Diagnostic Server cannot run.	206558

Table 8: known issues using playback

Known Issue	Issue ID
History Browser and Playback mode. Playback data is collected at scheduled intervals, in response to some alarms, and also while viewing a drilldown using the Spotlight client. This means that history data may not be available for a drilldown in Playback mode. To change the rate at which data is collected, go to **Configure	Scheduling**.	N/A

Table 9: known issues using the Spotlight Statistics Repository

Known Issue	Issue ID
Documentation of the Collections used by Reports - All reports source their data from the collections stored in the Spotlight Statistics Repository. The direct relationship between report component and spotlight collection is documented in the Spotlight help for a subset of the available reports.	5258
Unable to select connections for views and reports - The Spotlight Statistics Repository may have corrupted on upgrade. Perhaps connection to the Spotlight Statistics Repository was lost during creation; leaving the database in an inconsistent state. *Workaround* - Drop the Spotlight Statistics Repository database. From the Spotlight Client, Configure	Diagnostic Server	Configure the Spotlight Statistics Repository to create a new Spotlight Statistics Repository.	5216
Collection scheduling and Reporting and Trending. Scheduling a collection to run at different time periods for two or more monitored servers can cause gaps in the Reporting and Trending charts for multi-server views.	6362
Storing statistics in the Spotlight Statistics Repository. The Store statistics in the Spotlight Statistics Repository option applies to both the SQL Server connection and its equivalent Windows connection. If you change this option for a SQL Server connection, the change is also applied to the equivalent Windows connection.	N/A

Table 10: known issues configuring Spotlight

Known Issue	Issue ID
Planned Outages - Where the Spotlight Client is installed on a Windows 2008 Server VM - The Planned Outage dialog disappears on Configure	Planned Outage	Add. Workaround: Apply patch to .NET 4 - Software Update KB2468871v2 See also own *Known issues monitoring SQL Server connections 3606.*	3606
Configuring Alarms and **Alarm Actions** - blank text boxes for collecting additional data and alarm action rule description. Workaround: Either disable Internet Explorer Enhanced Security or add the site "about:security_Spotlight.exe" to the trusted sites in Internet Explorer.	2553
Spotlight **Alarm Actions** - The links in Alarm Actions might not work when Internet Explorer Enhanced Security Configuration is enabled.	2893

Known Issue	Issue ID
Spotlight **Alarm Actions** does not have an action to kill a block process. Workaround: Write a SQL Query to return the SPID and kill the process; put the SQL into the Execute a SQL Script action.	2669

Unable to send email
 	
This is a known issue under the following circumstances
 	
    ● Symantec Endpoint Protection is installed on the Spotlight Diagnostic Server and
 	
    ● The Spotlight Diagnostic Server is installed on a 64 bit machine and
 	
    ● The Spotlight Diagnostic Server installation is 64-bit.
 	
Workaround: "disable the Internet Email Auto-Protect option" in Symantec Endpoint Protection. See also: http://www.symantec.com/business/support/index?page=content&id=TECH95093 and http://www.symantec.com/connect/forums/sep-121-internet-email-auto-protect-and-ccnet-mail-issues
	2266

Spotlight Cloud - On the Configure | Spotlight Cloud page the links to "Read more" and "Register now" are missing when Microsoft Windows is configured to run in "Windows Classic" mode. The links open the web site: https://www.spotlightessentials.com	2922
Cap on collections. To limit Spotlight's load and memory consumption, a cap of 10000 rows is placed on most collections. To modify this cap, edit the following text in file ..\agent\bin\SpotlightDiagnosticServer.ini: `"-Dcom.quest.adk.rowLimit=10000"`	11685

Monitoring Connections

Table 11: known issues monitoring SQL Server Analysis Services

Known Issue	Issue ID
GMT Time Zone: The Diagnostic Server shows the wrong time. The **Activity** drilldown, **Connections** page may show the wrong time in the GMT Time Zone by incorrectly adjusting for DST.	10433

Table 12: known issues monitoring SQL Server

Known Issue	Issue ID
Home Page - An unexpected error occurs the first time the SQL Server home page is opened in the Spotlight client session. **+ Performance Health / Wait Events / Workload Analysis** - These drilldowns show no data. Workaround: Apply patch to .NET 4 - Software Update KB2468871v2	3606

Known Issue	Issue ID
See also own *Known issues configuring Spotlight 3606.*	
SQL Server 2012 and above - Spotlight does not support Analysis Services in Tabular and Sharepoint modes.	
Workload Analysis drilldown - SQL Server 2012 and above - When monitoring a failover cluster the Physical Reads value is 0 / No Data.	3688
SQL Server 2012 and **SQL Server 2008 R2** - "Using dbghelp.dll version 4.0.5" entries in the SQL Server Error Log. The source of these entries can be traced back to a known issue (Microsoft) when a statement or job executes the sys.fn_xe_file_target_read_file stored procedure. Refer to http://support.microsoft.com/kb/2878139 The Spotlight SQL Server | Performance Health feature uses XEvents sessions which may execute the sys.fn_xe_file_target_read_file stored procedure.	2927
In the SQL Server Error Log, entries "SQL Trace was started" and "SQL Trace was stopped." repeat every 10 minutes while Spotlight is monitoring the connection. These entries are added by Microsoft; Spotlight on SQL Server uses SQL Trace to monitor for deadlocks.	3582
Monitoring SQL Server 2008 RTM. The Deadlocks page (SQL Activity drilldown) may not show data when monitoring a SQL Server 2008 RTM database. **Workaround:** Upgrade to SQL Server 2008 SP1	7495
Access errors when connecting to SQL Server 2005. If an access error related to xp_cmdshell occurs and the user changes the SQL Server configuration to allow access to xp_cmdshell, the SQL Server documentation states that you must disconnect and reconnect. To disconnect in Spotlight on SQL Server, you must disable monitoring and enable monitoring for that SQL Server. In the Spotlight Browser, right-click the SQL Server connection and select **Properties**. On the Monitoring page, clear the **Monitor this server** option and click **OK**. Open the Monitoring page again and select **Monitor this server** and then click **OK**.	N/A
SQL Server 2000 - The display of long SQL queries is truncated when click on the SPID in the SQL Activity | Sessions drilldown.	1273
Data sourced from SQL Server 2000 performance counters may be incorrect. Spotlight may display an incorrect size or procedure cache hit rate for SQL Server 2000. This does not apply to SQL Server 2005 or 2008.	3057
Unexpected error "**Could not load file or assembly 'System.Cor, Version=2.0.5.0…**" on first time connecting to a SQL Server instance. **Solution**: Install the following patch to the .NET framework (http://support.microsoft.com/kb/2468871)	2764
The collections **Fragmentation by Index** and **Fragmentation Overview** can adversely impact the performance of monitored SQL Servers. If this is an issue then use Configure | Scheduling to reduce the frequency of collection	2705
Deadlock List Report - Each Deadlock List report is limited to 4000 characters of deadlock information.	13064
Error collecting data. The collection used to populate the Top SQL drilldown is unable to run when some databases on the instance are in restricted states of access (for example, Single User Mode, Offline).	7584
Top SQL Statements drilldown - Query Plan returns a duplicate attribute error - This is a	11179

Known Issue	Issue ID
Microsoft bug. **Workaround:** Restrict the grid by getting fewer records or sorting on a different variable.	
For **SQL Activity | Sessions | Plan** there is a limit on the size of the <inputbuf> tag of 1024 bytes (or nearly that). This cannot be expanded as the SQL Server truncates the SQL when it creates the XML.	2300
Negative values in Wait Statistics drilldown. Negative values may be shown in the Waits Details grid.	3757
SQL Analysis grid. The Text Data column in the SQL Analysis grid may occasionally display blank rows. This is due to SQL Server not returning any data in the Text Data column from the trace.	219577
SQL Analysis and filtering. When default filters are set in a mixed environment of SQL Server 2000, SQL Server 2005 and SQL Server 2008, if the filter uses a column that does not exist in one of the versions of SQL Server then the filter is ignored for that version.	211872
SQL - Long Running SQL alarm raised from a Spotlight issued query - This issue follows "Cannot alter the event session", the query stops responding(hangs) so it raises a Long Running SQL alarm. Refer to the Microsoft known issue: https://support.microsoft.com/en-us/kb/2511963	

Table 13: known issues monitoring Windows Server

Known Issue	Issue ID
WMI access denied alarm messages. A large number of WMI access denied alarm messages usually indicates a network problem such as a malfunctioning domain controller or DNS server. When the network problem is resolved, restart the Diagnostic Server service.	N/A
Microsoft Cluster Server connection problem. If you are connecting to a Microsoft Cluster Server system that does not have control of all disk resources, the uncontrolled disks may display a value of zero for space in total and space available in Spotlight. To rectify this problem customize your disk view to not show this disk. (Do this by right-clicking the disk and choosing Disk Options)	N/A
Disk Queue length metric. Due to a bug in WMI, the Disk Queue length metric can briefly show a false high value when returning from a (valid) Disk Queue Length alarm.	13227
Missing data on the **CPU drilldown** when monitoring a Windows 2008 R2 Server with more than 32 processors. **Workaround**: http://msdn.microsoft.com/en-au/en-us/library/windows/desktop/aa393067 (v=vs.85).aspx	14493
Open Sessions grid. Values displayed in the Elapsed Time and Idle Time columns in the Open Sessions grid (Network drilldown > Sessions tab) may not be accurate if the session has been running for more than 18 hours.	N/A
Time stamp in Event Log drilldown. When monitoring a Windows Vista 64-bit or Windows Server 2008 64-bit machine, the time shown for events in the Event Log drilldown is in GMT, not local time.	4625
Errors in the Windows Security Log. Specifying OS Connection Details on Windows connections can cause WMI connection errors to be reported in the Windows Security Log of the machine being monitored. This does not affect Spotlight's monitoring capabilities.	6722

Known Issue	Issue ID
Unusually large values displayed in Spotlight. Spotlight may display unusually large values on some components and charts. These values are incorrect and are due to inaccurate raw performance counter values returned by Microsoft Windows. The following components and charts are affected:	5796

- Disk Queue Length chart (Spotlight on Windows > Disks drilldown > Logical Disk Activity page and Physical Disk Activity page).

- Disk Load chart (Spotlight on Windows > Disks drilldown > Logical Disk Activity page and Physical Disk Activity page).

Workaround: Reboot the machine returning large values.

System requirements

Before installing Spotlight on SQL Server Enterprise 11.7.1, ensure that your system meets the following minimum hardware and software requirements.

Client requirements

Table 14: Client requirements

Requirement	Details
Platform	1 GHz Pentium 4 PC
Memory	1 GB RAM
Hard disk space	200 MB
	This space should exist on a local disk drive rather than a network drive.
Operating system	Microsoft Windows 10 (32-bit and 64-bit)
	Microsoft Windows 8.1 (32-bit and 64-bit)
	Microsoft Windows 8 (32-bit and 64-bit)
	Microsoft Windows 7 (32-bit and 64-bit)
	Microsoft Windows Vista (32-bit and 64-bit)
	Microsoft Windows Server 2012 R2 (64-bit)
	Microsoft Windows Server 2012 (64-bit)
	Microsoft Windows Server 2008 R2 (64-bit)
	Microsoft Windows Server 2008 (32-bit and 64-bit)
Screen resolution	Minimum Resolution: 1280x1024
	DPI scaling is supported for large fonts, Windows 8.1 and above.
CD-ROM drive or Internet connection	This is required for installation only.

Table 15: Additional software requirements

Requirement	Details
SQL Server Client Tools	Required to use the Discovery Wizard to locate SQL Servers on your network. SQL Server Client Tools can be found on the Microsoft SQL Server installation media.
	Client Connectivity Tools - Required to monitor an Analysis Services server.
.NET	It is recommended that the latest .NET be installed.
	Minimum .NET 4.5.
	.NET is required for the Performance Health drilldowns and the Spotlight Report Viewer.
Microsoft Internet Explorer 6.0 or later.	
Microsoft Data Access Components (MDAC)	MDAC includes the ODBC and other components that enable a connection to be established to a SQL Server database. The database may be local or remote. Your client machine must have MDAC 2.7 (or later) installed.
	MDAC is available from the Microsoft website: www.microsoft.com/downloads
	To find out the version of MDAC that you are currently running, you can download an application from the Microsoft website called the *Component Checker Tool*. Review the following Microsoft Knowledge Base article for more information: http://support.microsoft.com/kb/301202

Spotlight Diagnostic Server requirements

Table 16: Spotlight Diagnostic Server requirements

Requirement	Details
Platform	2 GHz Pentium Dual Core
Memory	2 GB RAM
Hard disk space	300 MB
	If the Diagnostic Server's connection to the Spotlight Statistics Repository or Playback database is interrupted, the Diagnostic Server will cache data to the local disk. In this event, an extra 2 MB per hour, per monitored server is required.
Operating system	Microsoft Windows 10 (32-bit and 64-bit)
	Microsoft Windows 8.1 (32-bit and 64-bit)
	Microsoft Windows 8 (32-bit and 64-bit)

Requirement	Details
	Microsoft Windows 7 (32-bit and 64-bit)
	Microsoft Windows Server 2012 R2 (64-bit)
	Microsoft Windows Server 2012 (64-bit)
	Microsoft Windows Server 2008 R2 (64-bit)
	Microsoft Windows Server 2008 (32-bit and 64-bit)
	i Note: The Diagnostic Server is not supported on a cluster or High Availability Always On.
.NET	.NET 4.5 or later.

Table 17: Additional requirements

Requirement	Details
SQL Server Client Tools	Required to use the Discovery Wizard to locate SQL Servers on your network. SQL Server Client Tools can be found on the Microsoft SQL Server installation media.
	Client Connectivity Tools - Required to monitor an Analysis Services server.
SQL Server Management Tools	Required to monitor an Analysis Services server, a SQL Server Replication environment, and the use of Session Trace and SQL Analysis when monitoring a SQL Server.
	The SQL Server Management Tools are available from any SQL Server 2005, SQL Server 2008, SQL Server 2012, SQL Server 2014 or SQL Server 2016 edition except SQL Server Express and SQL Server Compact. The version required corresponds to the latest version of SQL Server that you are monitoring. Note, if you are monitoring SQL Server 2000 servers, you need the Management Tools from SQL Server 2005.
Internet Access	Required by Auto Update and Spotlight Cloud. Required to monitor your Spotlight connections from the Spotlight web site or a mobile device.
Connection Limit	A single Spotlight Diagnostic Server is designed to monitor a maximum of 100 SQL Servers, Analysis Services or Replication instances and 100 Windows servers. Exceeding this recommended limit on 32 bit environments may result in poor performance or product instability, due to the 1 Gb memory limit. On 64 bit environments theoretically more connections can be monitored as the 1 Gb limit no longer applies, however testing of this has been limited. In environments that exceed this number of connections, consider a deployment of federation of Spotlight Diagnostic Server.

Monitoring

Table 18: Spotlight on SQL Server is able to monitor the following connections

Connection type	Requirements
SQL Server	Spotlight can monitor SQL Server instances of the following versions: • SQL Server 2016 (32-bit and 64-bit) • SQL Server 2014 (32-bit and 64-bit) • SQL Server 2012 (32-bit and 64-bit) • SQL Server 2008 R2 (32-bit and 64-bit) • SQL Server 2008 (32-bit and 64-bit) • SQL Server 2005 (32-bit and 64-bit) Spotlight on SQL Server also supports MSDE (2000), SQL Express (2005) and SQL Server 2008 Express Edition. Note that use of these versions to host playback or Spotlight Statistics Repository databases is not supported. Spotlight continues to monitor SQL Server 2000 instances Service Pack 3 or later, however no further support (fixes) will be provided. Spotlight cannot monitor earlier versions of SQL Server (version 7.x and earlier). Spotlight supports all SQL Server sort orders, including case-sensitive and binary sort orders. Spotlight cannot monitor SQL Server instances where the instance name contains non-US ASCII characters. On each monitored instance Spotlight requires the network setting "File and Print Sharing" to be enabled. UDP port 1434 should be open. If UDP port 1434 is closed then the port number must be included in the address used to connect Spotlight to the SQL Server instance.
Database Cloud Service	Spotlight can be used to monitor SQL Azure.
Windows Server	Spotlight can monitor the following operating systems: • Microsoft Windows 10 (32-bit and 64-bit) • Microsoft Windows 8.1 (32-bit and 64-bit) • Microsoft Windows 8 (32-bit and 64-bit) • Microsoft Windows 7 (32-bit and 64-bit) • Microsoft Windows Vista (32-bit and 64-bit) • Microsoft Windows Server 2012 R2 (64-bit) • Microsoft Windows Server 2012 (64-bit) • Microsoft Windows Server 2008 R2 (64-bit) • Microsoft Windows Server 2008 (32-bit and 64-bit)

Connection type	Requirements
	• Microsoft Windows Server 2003 (32-bit and 64-bit), however as this operating system is deprecated, WMI issues will no longer be investigated by support. Spotlight requires the network setting "File and Print Sharing" to be enabled and any firewall configured to open TCP port 135.
Virtualization	Spotlight can monitor virtual environments and virtual guest machines in a virtual environment. The following is supported: • VMware ESX infrastructure. VMware vCenter 2.5 (or later). VMware ESX Server 4.0 (or later) • Hyper-V 6.2 and above. The username used to connect to the virtual guest machine must have at least a read-only role. Ensure any firewall is configured to open TCP port 135.

Playback database

Table 19: Playback database requirements

Requirement	Details
Database sizing	The MS Model database is used. The database size usually starts at about 3MB (data size) and 1MB (log size).
Hard disk space	Requires approximately 270 MB for each monitored SQL Server instance and the corresponding monitored Windows host on which the SQL Server instance resides. Retains 7 days of historical data for each connection in the Playback Database by default. This is configurable. This estimate assumes default configuration in an average environment. Actual space used will depend on your environment and any data collection/storage configuration changes that are made. For more information, see the Spotlight on SQL Server Sizing Wizard. You can access the wizard from the Spotlight Installation Center.
SQL Server	The Playback Database can be installed on: • SQL Server 2016 • SQL Server 2014 • SQL Server 2012 • SQL Server 2008 R2 • SQL Server 2008 • SQL Server 2005

Requirement	Details
	i Note: Due to the size of the Playback Database, it is recommended that this database is not installed on a SQL Express instance. The Playback Database is not supported on High Availability Always On and mirrored databases. The Playback Database cannot be installed on SQL Server 2000.
Other requirements	The SQL Browser service must be running on the machine where the Playback Database is installed. Alternatively you can use the host and port number of the (named) SQL Server instance you want to connect to, when creating a connection and connecting to the Playback Database.
	For more information, see the *Spotlight on SQL Server Enterprise Deployment Guide*.
Maintenance	The Diagnostic Server runs maintenance procedures daily at 3am for the Playback Database. This is configurable.
	It is highly recommended that regular maintenance is performed on the Playback Database. The recommended maintenance plan is outlined in the online help and in the *Spotlight on SQL Server Enterprise Deployment Guide*.

Spotlight Statistics Repository

Table 20: Spotlight Statistics Repository Requirements

Requirement	Details
Database sizing	The MS Model database is used. The database size usually starts at about 3MB (data size) and 1MB (log size).
Hard Disk Space	Approximately 1.2 GB for each monitored SQL Server instance and the corresponding monitored Windows host on which the SQL Server instance resides.
	This estimate assumes default configuration in an average environment. Actual space used will depend on your environment and any data collection/storage configuration changes that are made. For more information, see the Spotlight on SQL Server Sizing Wizard. You can access the wizard from the Spotlight Installation Center.
SQL Server	The Spotlight Statistics Repository can be installed on:
	- SQL Server 2016 - SQL Server 2014 - SQL Server 2012 - SQL Server 2008 R2 - SQL Server 2008 - SQL Server 2005

Requirement	Details
	i Note: Due to the size of the Spotlight Statistics Repository, it is recommended that this database is not installed on a SQL Express instance. The Spotlight Statistics Repository is not supported on High Availability Always On and mirrored databases. The Spotlight Statistics Repository cannot be installed on SQL Server 2000.
Other Requirements	The SQL Browser service must be running on the machine where the Spotlight Statistics Repository is installed. Alternatively you can use the host and port number of the (named) SQL Server instance you want to connect to, when creating a connection and connecting to the Spotlight Statistics Repository. The TCP protocol must be enabled on the instance where the Spotlight Statistics Repository resides. For more information, see the *Spotlight on SQL Server Enterprise Deployment Guide*.
Maintenance	It is highly recommended that regular maintenance is performed on the Spotlight Statistics Repository. The recommended maintenance plan is outlined in the online help and in the *Spotlight on SQL Server Enterprise Deployment Guide*.

Upgrade and compatibility

Use the Spotlight installer to upgrade from version 10.0 or later of Spotlight on SQL Server. To upgrade from an earlier version of Spotlight than 10.0, upgrade to at least version 10.0 before upgrading to 11.7. To upgrade from 10.5.0, first upgrade to 10.5.2 and then upgrade to 11.7.

Spotlight Diagnostic Server - upgrade

The following is transferred during the upgrade:

- Connection properties for all monitored servers (including changes to scheduling and alarms)
- Enterprise views
- Collector properties
- Alarm Actions (These include running a program and sending an email.)
- Planned Outages
- Global options such as user-created Error Log rules
- Configuration information for the Spotlight Statistics Repository (this applies only if you installed the Spotlight Statistics Repository from an earlier version of Spotlight on SQL Server.)

For more information about upgrading, see the *Spotlight on SQL Server Enterprise Deployment Guide*.

Alarms requiring acknowledgment - upgrade

The Spotlight factory settings for alarms requiring acknowledgment changes on upgrade from Spotlight 11.2. Only Connection Failure alarms are now factory set to require acknowledgment.

The alarms that were factory set to require acknowledgment in Spotlight 11.2 are as follows. They are included here so you can choose to manually enable them to require acknowledgment again post upgrade if required.

- Availability Group - Failed Over
- Clusters - Failed over

- Diagnostic Server - Auto Update Success

- Error Log - Error Count

- LiteSpeed Backup Failed

- LiteSpeed Backup Warning

- Locks - Blocked Processes

- Locks - Deadlocks

- Mirroring Failedover

- SQL Agent - Jobs Failed

Monitoring your Spotlight on SQL Server connections on a mobile device - upgrade

If you are upgrading from 11.1.x and used that version or earlier to monitor your Spotlight on SQL Server connections on a mobile device and intend to continue monitoring your connections on a mobile device then the following additional upgrade instructions are required.

1. Uninstall the **Spotlight Web Publisher** via **Windows | Control Panel | Programs and Features**. The Spotlight Web Publisher was required in the past to monitor SQL Server connections on a mobile device. It is now important that you uninstall it. By default the Spotlight Web Publisher was installed on the same computer as the Spotlight Diagnostic Server.

2. From the Spotlight Client, click **Configure | Spotlight Cloud**. Select **Upload data to Spotlight Cloud**. Ensure your Spotlight Cloud (Spotlight Essentials) account details are correct.

Product licensing

Spotlight is supplied with a time-limited trial key so you can test the product. When the trial key expires Spotlight reverts to a preview mode with severely limited access. When you enter a valid license key and site message you are licensed to use Spotlight on SQL Server.

A purchased commercial license may be applied to a single Spotlight Diagnostic Server deployment or a federation of Spotlight Diagnostic Server. The license and the procedure for entering the license is the same.

To activate a purchased commercial license

From a Spotlight Client connected to the Spotlight deployment:

1. Click **Help | About**.

2. Ensure **Product Information** is to the front.

3. Click view/change **product license**.

4. Enter the **License Key** and **Site Message**.

Make sure you enter the site message exactly. The site message is case sensitive.

Upgrade and installation instructions

Use the Spotlight installer to upgrade from version 10.0 or later of Spotlight on SQL Server. To upgrade from an earlier version of Spotlight than 10.0, upgrade to at least version 10.0 before upgrading to 11.7. To upgrade from 10.5.0, first upgrade to 10.5.2 and then upgrade to 11.7.

For more information, see the *Spotlight on SQL Server Enterprise Deployment Guide*.

More resources

Additional information is available from the following:

- Online product documentation
- Toad World
- Spotlight Cloud

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release is Unicode-enabled and supports any character set. In this release, all product components should be configured to use the same or compatible character encodings and should be installed to use the same locale and regional options. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan.

This release has the following known capabilities or limitations: There are no plans to localize this product

About us

We are more than just a name

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

Our brand, our vision. Together.

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

Contacting Quest

For sales or other inquiries, visit www.quest.com/company/contact-us.aspx or call +1 949 754-8000.

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