Quest®

LiteSpeed® for SQL Server® 8.9

# Install Guide

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**Legend**

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

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

# Contents

# Introduction

## About LiteSpeed

LiteSpeed® for SQL Server®, or LiteSpeed, is a fast and flexible backup and recovery solution that allows database administrators to easily maintain complete control over the backup and recovery process. LiteSpeed's low-impact, high-performance compression and encryption technology helps reduce storage costs and protect data, while maintaining a high level of recoverability.

## LiteSpeed Architecture

The diagram below shows how the LiteSpeed components communicate to SQL Server to create a backup and how data gets into the local repository and then is pushed to the central repository.
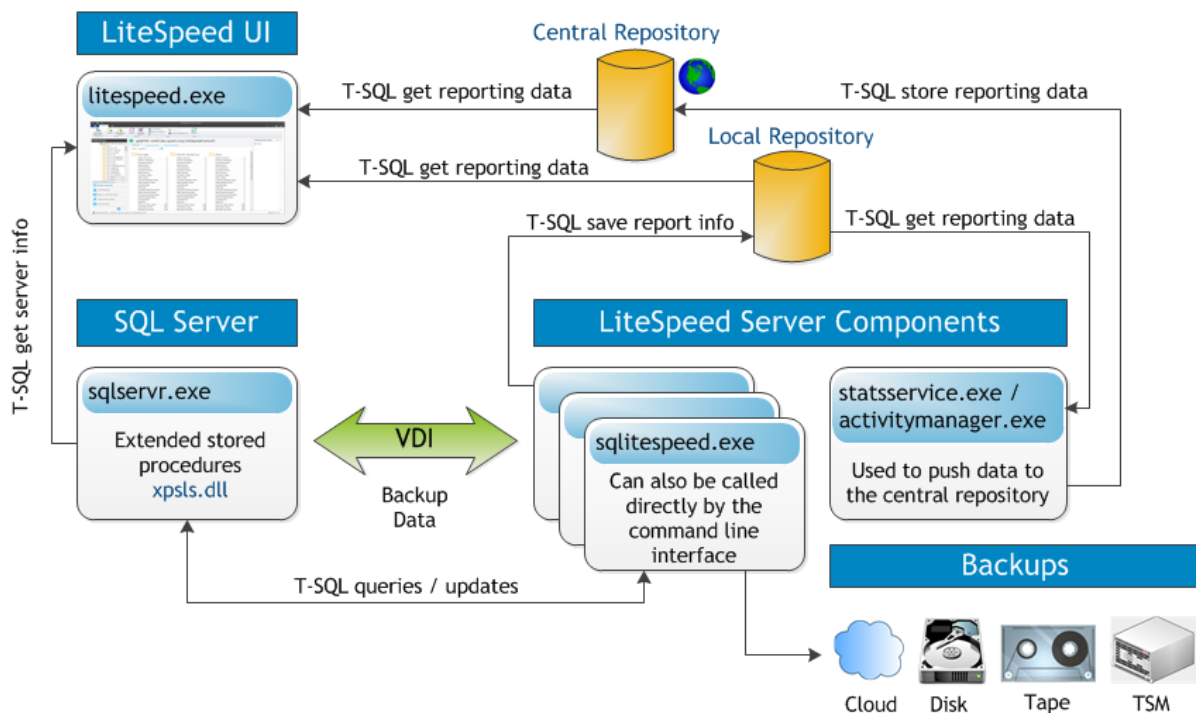
# LiteSpeed UI Console

The LiteSpeed UI Console is a graphical user interface that maintains the accessibility of LiteSpeed functionality. You need to install at least one LiteSpeed UI Console on the computer from which you want to manage your SQL Servers and control backup and restore processes.

# LiteSpeed Server Components

The core of LiteSpeed includes the LiteSpeed extended stored procedures, compression and encryption engines and other components that provide command-line access to the product's functionality and support the LiteSpeed UI Console.

You need to install LiteSpeed core components on all server instances where you want to benefit from LiteSpeed's fast and flexible backup and recovery solutions.

NOTE: If you do not install LiteSpeed core components on the server instances, you can only conduct native SQL Server backups.

# Local and Central Repositories

LiteSpeed repositories collect and retain statistics on backup activity that occurs through LiteSpeed, including backups conducted from the LiteSpeed UI Console, command-line, or using the extended stored procedures. Repositories collect and present statistics for registered servers. They are not a list of servers. If a server goes

offline you can use the central repository to find out information about it, such as the last time LiteSpeed backed up the server.

LiteSpeed installs statistics databases through the Instance Configuration wizard. For more information, see Configure Server Instances on page 16. LiteSpeed installs a local repository for each server instance you select. Then, you create and select a central repository to gather the local repositories' statistics. LiteSpeed uses the LiteSpeed Activity Service to transfer the statistics from each local repository to the central repository, so that the central repository provides a complete picture of backups on all servers.

With the repositories, you can see backups that have failed or succeeded in the Backup Manager Overview tab. LiteSpeed displays the statistics for the server group, category, server, or database that you select in the navigation pane tree.

# Multiple Central Repositories

LiteSpeed allows you to have multiple central repositories. For example, you may want to have one set of server instances report to one central repository and another set to a second central repository. However, one local repository cannot report to two central repositories.

If you want to use multiple central repositories, register each central repository, and then select the appropriate central repository. For more information, see Register Central Repositories on page 30.

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# System Requirements

Before beginning installation, review this section to ensure your system meets the following minimum hardware and software requirements.

# Software Requirements

| Requirements | Details |
| --- | --- |
| Operating System | Microsoft Windows Server 2008 32-bit and 64-bit (x64) (All Service Packs) |
| | Microsoft Windows Server 2008 R2 64-bit (x64) (All Service Packs) |
| | Microsoft Windows Server Core 2008 R2 |
| | Microsoft Windows Server 2012 64-bit (x64) (All Service Packs) |
| | Microsoft Windows Server Core 2012 |
| | Microsoft Windows Server 2012 R2 64-bit (x64) (All Service Packs) |
| | Microsoft Windows Server Core 2012 R2 |
| | Microsoft Windows Server 2016 64-bit (x64) (All Service Packs) |
| | Microsoft Windows Server Core 2016 |
| | Microsoft Windows Server 2019 64-bit (x64) (All Service Packs) |
| | Microsoft Windows 7 32-bit and 64-bit (x64) (All Service Packs) |
| | Microsoft Windows 8 32-bit and 64-bit (x64) (All Service Packs) |
| | Microsoft Windows 8.1 32-bit and 64-bit (x64) (All Service Packs) |
| | Microsoft Windows 10 32-bit and 64-bit (x64) (All Service Packs) |
| Database Software | SQL Server 2005 32-bit and 64-bit (x64) (All Service Packs) |
| | SQL Server 2008 32-bit and 64-bit (x64) (All Service Packs) |
| | SQL Server 2008 R2 32-bit and 64-bit (x64) (All Service Packs) |
| | SQL Server 2012 32-bit and 64-bit (x64) (All Service Packs) |
| | SQL Server 2014 32-bit and 64-bit (x64) (All Service Packs) |
| | SQL Server 2016 64-bit (x64) (All Service Packs) |

| Requirements | Details |
| --- | --- |
| | SQL Server 2017 64-bit (x64) (All Service Packs) when hosted on a Windows operating system. |
| | SQL Server 2019 64-bit (x64) (All Service Packs) when hosted on a Windows operating system. |
| | **NOTE:** Compressed backups for TDE databases supported starting following versions: SQL Server 2016 SP2 CU8, SQL Server 2017 CU16, SQL Server 2019 |
| Additional Software | .Net Framework 4.5 installed before you install the LiteSpeed UI Console and LiteSpeed Core Cloud Components. |
| | .Net Framework 3.5 required with SQL Server 2005, 2008 and 2008R2. |
| | If using IBM Spectrum Protect™ (Tivoli Storage Manager - TSM), the TSM API and Backup/Archive Client version 5.3 or later should be installed. |
| | Microsoft Internet Explorer 6.0 or later. |
| | Adobe Reader 8 or later to view PDF guides. |

# Supported Cluster Environments

- Windows Server 2008 Failover Cluster
- Windows Server 2008 R2 Failover Cluster
- Windows Server 2012 Failover Cluster
- Windows Server 2012 R2 Failover Cluster
- Windows Server 2016 Failover Cluster
- Windows Server 2017 Failover Cluster
- Windows Server 2019 Failover Cluster
- HP PolyServe Matrix Sever 3.6.1
- Veritas Storage Foundation HA for Windows 5.0

# Supported Storage Appliances

LiteSpeed has been tested and is certified to work with Dell DR4100 and DR4000 Storage Appliances.

# VMWare and Hyper-V Environments

LiteSpeed has been tested and is certified to work under VMware and Hyper-V environments.

# Hardware Requirements

| Requirements | Details |
| --- | --- |
| Processor | Follow the recommendations for the SQL Server version used. |
| Disk Space | 500 MB of disk space for installation<br>**NOTE:** The disk space required may vary based on options selected during installation. |
| Memory | Follow the recommendations for the SQL Server version used.<br>**NOTE:** The memory required may vary based on the following:<br><br>• Applications that are running on your system<br>• Size and complexity of the database<br>• Amount of database activity<br>• Number of concurrent users accessing the database |
| Monitor | Monitor with a minimum resolution of 1600 x 1024 |

# Privilege and Grant Requirements

LiteSpeed requires the following privileges and grants:

| Account | Requirement |
| --- | --- |
| User account that performs the LiteSpeed installation | Windows administrator rights and DBA privileges required to<br><br>• Install stored procedures and extended stored procedures<br>• Create databases, tables, and indexes<br>• Insert, update, and delete to/from the MSDB, LiteSpeedLocal and LiteSpeedCentral databases |
| User account that runs the LiteSpeed UI Console | Power User privileges (or some equivalent).<br>**NOTE:** When executing a Double Click Restore, Windows Vista, Windows Server 2008, and higher require that the Windows user account is an administrator. |

| Account | Requirement |
|---------|-------------|
| SQL Server service account | Sysadmin server role privileges required to<br><br>• Push stats to local repository<br><br>• Back up or restore using extended stored procedures<br><br>• Execute a scheduled job |
| SQL Agent service account (or a proxy account) | • Start a job manually<br><br>**TIP:** The SQL service account needs at least read\write access to the following directory and all its contents:<br>`C:\ProgramData\Quest Software\LiteSpeed\SQL Server\`<br>**NOTE:** SQL Server Configuration Manager should always be used when changing SQL Server service accounts. |
| Windows or SQL Server accounts specified during instance configuration (**Start | All Programs | Quest Software | LiteSpeed for SQL Server | Instance Configuration**) | If you select SQL Server authentication, the SQL Server account must have sysadmin server role privileges, while the Activity Manager service account must have the Log on as a service permission.<br>If you select the Windows authentication method for both the local and central repository, then the Activity Manager service account specified on the Service Account page must have the sysadmin privileges and the Log on as a service permission.<br>**NOTE:** If the central repository is located on another server, the LiteSpeed Activity Manager service account must have domain rights for two-way communication between the local and central repositories. |
| Windows or SQL Server account (**Application Button | Repository Registration…**) | Db_owner of the central repository (required to retrieve data from the central repository) |
| Windows or SQL Server account (**Application Button | SQL Server Registration…**) | Sysadmin server role privileges required to<br><br>• Connect to SQL Server and retrieve SQL Server properties<br><br>• Back up or restore<br><br>• Execute procedures, retrieve MSDB history<br><br>• Access repositories |
| TSM with LiteSpeed | If using TSM, its recommended that the following line be added to the dsm.opt file used by LiteSpeed.<br>`errorlogname "C:\ProgramData\Quest Software\LiteSpeed\SQL Server\Logs\dsierror.log"` |

# Installation Scenarios

## Install LiteSpeed

1. Install LiteSpeed Locally.
2. Configure Server Instances.
3. Install LiteSpeed on Remote Server Instances.
4. Register Central Repositories.
5. Register Server Instances.

For information about configuring LiteSpeed for the first use, please refer to the *User Guide*.

## Upgrade LiteSpeed

1. Make sure you have a license key for the new version of LiteSpeed for SQL Server.
   For more information, see License Registration on page 29. about licensing LiteSpeed.

2. Disable LiteSpeed jobs.

Before installing a new version of LiteSpeed, disable any LiteSpeed jobs that are scheduled to run at the time of upgrade on all servers where you plan to upgrade LiteSpeed.

### To disable jobs on a server instance

    a. Select a SQL Server instance in the Job Manager window.

    b. CTRL+Click to select multiple LiteSpeed jobs.

    c. Right-click anywhere in the selected area and select **Disable Jobs**.

**NOTE:** Instead of disabling LiteSpeed jobs, you can open SQL Server Configuration Manager, right-click SQL Server Agent and select **Stop**. Be aware that no other SQL Server Agent jobs will be able to run. SQL Server Agent jobs control backups, database maintenance, and other third-party application jobs. Review the full list of jobs and their upcoming schedules to make sure no other products will be affected during the upgrade.

3. Upgrade LiteSpeed UI Console.

To upgrade the LiteSpeed UI Console, run the LiteSpeed installation. Install LiteSpeed Locally

4. Upgrade LiteSpeed on SQL Server instances.

| To upgrade LiteSpeed… | Complete the following steps… |
|---|---|
| Locally | a. Install LiteSpeed Locally.<br>b. Configure Server Instances. |
| Remotely | a. Install LiteSpeed on Remote Server Instances.<br><br>**NOTE:** You must have the **Complete** installation on the machine from which you wish to run the remote deploy. |
| On a cluster | Run local or remote cluster installation. For more information, see Cluster Installation on page 25. |

5. Enable LiteSpeed jobs.

After you upgraded LiteSpeed on all instances, enable jobs that were disabled before the upgrade.

### To enable jobs on a server instance

    a. Select a SQL Server instance in the Job Manager window.

    b. CTRL+Click to select multiple LiteSpeed jobs.

    c. Right-click anywhere in the selected area and select **Enable Jobs**.

**NOTE:** If you stopped SQL Server Agent instead of disabling the jobs, right-click SQL Server Agent and select **Start**.

# Uninstall LiteSpeed

To uninstall, reinstall or change LiteSpeed, right-click LiteSpeed for SQL Server from the Add or Remove Programs option in the Control Panel and select an option.

**TIPS:**

- If you select **Change** and then **Remove**, you can delete LiteSpeed Local repositories during the  uninstall.

- LiteSpeed Central repository and Repository Cleanup job for the central repository are not part of the uninstall. They will remain after the uninstall has completed.

# Installation

## Install LiteSpeed Locally

To begin a local server installation of LiteSpeed, copy the appropriate LiteSpeed .msi file to the server on which you will install.

| To install LiteSpeed on… | Use this installer… |
| --- | --- |
| 32-bit Windows | LiteSpeed.msi |
| 64-bit Windows | LiteSpeed-x64.msi |

You may run the installer from a network device, but for performance and stability reasons Quest Software recommends that the installer be run locally.

### To install LiteSpeed using the Installation wizard

1. Double-click .msi to start the installation.

2. Use the following information to help guide you through the installation wizard:

| Screen | Description |
| --- | --- |
| User Information | Enter your user information. You will need to decide whether this application should be added to the Windows Start menu for all users or only for the installation owner. Quest Software recommends the default installation, for all users. |
| Destination Folder | Select the install location. You may select any directory that meets the following criteria:<br><br>• The destination cannot be shared.<br><br>• The path must exist on all nodes.<br><br>The default install location is: *C:\Program Files\Quest Software\LiteSpeed\SQL Server*. |
| Installation Type | Select **Complete** to install all features or **Custom** to install only selected features. If you select **Custom**, the components you may install are:<br><br>• LiteSpeed Help<br><br>• LiteSpeed UI Console<br><br>• LiteSpeed Core–Installs LiteSpeed for SQL Server on each SQL Server instance on which you plan to use LiteSpeed. |

| Screen | Description |
| --- | --- |
| License Information | Select one of the following options: |

- Run LiteSpeed in Trial Mode or Restore Only Mode

- Register your copy of LiteSpeed

  Enter your license key obtained from Quest Software. Ensure that the key does not contain any line breaks or trailing spaces.

  **NOTE:** If you upgrade from a LiteSpeed 8.5 or earlier installation then you will be required to enter a site message. If you upgrade from LiteSpeed 5.x or earlier you will be required to provide a new license key. For more information, see License Registration on page 29.

After the LiteSpeed program files are installed, the LiteSpeed Instance Configuration wizard will help you complete the installation of LiteSpeed components into your SQL Server environment.

# Configure Server Instances

In the LiteSpeed Instance Configuration wizard you will select the SQL Server instances that will use LiteSpeed and install extended stored procedures that LiteSpeed needs to run on the instances. You must install the extended stored procedures to take full advantage of LiteSpeed functionality on the selected instances.

In addition, you can configure activity logging using this wizard. Activity logging works by installing a local repository on a server instance to record its activity, and then installing a central repository to consolidate information from the local repositories. Quest Software recommends that you configure activity logging to benefit fully from LiteSpeed's features.

### *To configure server instances on the local computer*

1. Start the Instance Configuration wizard from **Start | All Programs | Quest Software | LiteSpeed for SQL Server | LiteSpeed Instance Configuration**. In the installation scenario, the LiteSpeed Instance Configuration wizard is launched automatically.

2. On the **Template** page (not available for first time Instance Configuration Wizard use), select a template with the settings configured during first the wizard use (or load from a file by use **Load** button) and press **Apply** to automatically fill in all settings in the wizard. To apply changes into the wizard settings press Next and go through all wizard's steps.

3. On the **SQL Instances** page, select the SQL Server instances on which you want to install the extended LiteSpeed stored procedures. The default behavior is to install the procedures onto all instances. Also, when you re-run the wizard to modify existing options, be sure to select **Install**.

   **Tip:** If you do not want to install the procedures on an instance, click the action and change it to **Ignore**. When you select **Uninstall** next to an instance, the wizard removes the LiteSpeed extended stored procedures from the instance.

   Verify the connection details for each server. To change login details, select **Windows** or **SQL Server** authentication.

4. On the **Activity Logging** page, select whether you want to configure a central *and* a local repository, or only a local repository.

   LiteSpeed creates a local repository database to collect backup activity information. This database can be a dedicated database or an existing database of your choice. You can create the central repository once and point to it in subsequent installs.

   If you decide to create and configure only local repositories during installation, you may define a central repository later using the LiteSpeed UI Console to enable consolidated logging.

5. Complete the wizard.

Use the following information to help guide you through instance configuration:

| Page | Description |
|---|---|
| Service Account | Specify login information for the LiteSpeed Activity Manager service. This service runs on each server and merges statistics from the LiteSpeed local repositories to the central repository database. Typically the account is a Windows domain account. It must have permissions to update the central repository database using Windows authentication (for a cluster configuration, the Windows account must have permissions on all nodes). For more information, see Privilege and Grant Requirements on page 10.<br>**NOTE:**<br><ul><li>You should select **Local system** when the central repository is on the same server as the local repository. If the central repository is on another server, the Activity Service will not be able to use Windows authentication to access it. You will need to provide SQL Server login and password on the Central Repository screen.</li></ul> |
| Local Repository | LiteSpeed uses the login details you specify to connect to the server instance, create the database, and add objects to it. This account must have the appropriate permissions. |
| Native Backup Activity | Select whether you want to update the local repository with information about native SQL Server backup activity and view it in the LiteSpeed UI Console. Click **Schedule** to modify the default schedule. |
| Central Repository | Point to the server instance and database.<br>Create and upgrade a Central Repository database. LiteSpeed creates the database if it does not already exist. It checks the version and upgrades if necessary. |
| Repository Update | Indicate when you want the central repository to be updated with backup and job statistics. You can have LiteSpeed update the central repository:<br><ul><li>Automatically after any LiteSpeed activity, such as after every backup/restore operation (best for real time statistics).</li><li>Via a scheduled SQL Server job (best for minimal network traffic).</li><li>Manually.</li></ul>**NOTE:** Quest Software recommends that you select **Automatically after any LiteSpeed activity** for both selections. |
| Repository Cleanup | Select to set repository maintenance, including when to delete old data from repositories, and how much of that data to delete. Old data can be deleted from the local repository, central repository, or both. The repositories are individually selected to remove activity older than a user-selectable number of days, weeks, months, or years. Additionally, **Edit Schedule** launches a screen where schedule information can be changed.<br><br>Tip: Further repository cleanup can be accomplished by using the Purge Repository Data procedure. |

| | |
|---|---|
| Proxy settings | Select **Use proxy settings** for cloud connections. When selected, you can add the proxy address and port. Optionally, you can select to use authentication and then enter username and password.<br><br>In most cases, proxy settings are not required. It is recommended to do not use proxy settings by default. |
| Summary | Displays a summary of instance configuration selections.<br><br>**Save As Template** button allows saving selected in the wizard options locally for next time use in the wizard |

# Upgrade Repositories

LiteSpeed automatically upgrades LiteSpeed repositories during local and remote install.

If you have a LiteSpeed central repository that needs to communicate with a repository for a previous version of LiteSpeed, do one of the following:

- Upgrade the statistic agent that transfers information between them on the outdated server instance. To do this, run the Remote Deploy Configuration wizard and select **Statistics Agent Only** on the Installer Path page.  For more information, see Install LiteSpeed on Remote Server Instances on page 19.

- Upgrade both the server where the LiteSpeedLocal and LiteSpeedCentral to the same version of LiteSpeed.

- Rename the LiteSpeedLocal and LiteSpeedCentral databases and recreate them by running the Instance Configuration wizard.

# Install LiteSpeed on Remote Server Instances

You can install LiteSpeed on multiple remote server instances using the Remote Deploy Configuration wizard.
**NOTES:**

- Before you run the Remote Deploy Configuration wizard, you must run **Complete** installation on the machine from which you wish to run the remote deploy.

- Make sure you have a Windows domain user account with Administrator rights for the server instances you want to install LiteSpeed on. The machines must be part of the same domain.

## To create and deploy installation files

1. Click the Application Button and select **Remote Deploy…**

2. On the Remote Deploy Task page, select one of the following tasks:

   - Generate Remote Deploy configuration file–To create the installation files and optionally deploy them. If you select the Complete or Core Components Only installation and deploy the files, this will also configure remote server instances.

   - Edit existing Remote Deploy configuration files–To edit configuration files generated by the **Generate Remote Deploy configuration file** task. Use to deploy to many servers that all use the same parameters without having to input all the information every time.

   - Deploy existing Remote Deploy configuration files–To deploy the installation and configuration files generated by the **Generate Remote Deploy configuration file** task.

   - Configure LiteSpeed using existing Remote Deploy configuration files–To configure remote server instances. You can use this task to complete installation after you deployed LiteSpeed using a deployment tool such as SCCM or LANDesk.

   - Validate existing Remote Deploy configuration files–To see if the configuration files are valid for installation and review installation options and expected actions.

   **NOTE:** To deploy or validate existing Remote Deploy configuration files, you only need to select the main configuration file (usually, *LiteSpeedRemoteDeploy_Configuration.xml*). The wizard will automatically validate all remaining server-specific configuration files.

3. If you selected the Generate Remote Deploy configuration file task, review the following for additional information:

- Select one of the following installation types:

  - Complete–Installs LiteSpeed for SQL Server, LiteSpeed UI Console, and statistics agent (if you configured LiteSpeed to collect statistics).

  - Core Components Only–Installs LiteSpeed for SQL Server and statistics agent (if you configured LiteSpeed to collect statistics), but not the LiteSpeed UI Console

  - Client Only–Installs the LiteSpeed UI Console only.

  - Statistic Agent Only–Installs/updates the service that transfers information between local and central repositories.

- If the current user account has Windows administrative rights but does not have access to the server instances, select **Use a different account for installation** to specify an additional account.

- Select the SQL Server instances on which to install LiteSpeed. Start by clicking the Refresh button to see all the machines found on the network. Select servers in the Servers drop-down list, confirm selection and click **Add**. If you prefer to add servers manually, enter server names separated by commas in the Servers field and click **Add**. Alternately, you can import servers from a text file (one server name or IP address per line).

Use the following information to help guide you through instance configuration:

| Page | Description |
| --- | --- |
| Service Account | Specify login information for the LiteSpeed Activity Manager service. This service runs on each server and merges statistics from the LiteSpeed local repositories to the central repository database. Typically the account is a Windows domain account. It must have permissions to update the central repository database using Windows authentication (for a cluster configuration, the Windows account must have permissions on all nodes). For more information, see Privilege and Grant Requirements on page 10.<br>**NOTE:**<br>• You should select **Local system** when the central repository is on the same server as the local repository. If the central repository is on another server, the Activity Service will not be able to use Windows authentication to access it. You will need to provide SQL Server login and password on the Central Repository screen. |
| Local Repository | LiteSpeed uses the login details you specify to connect to the server instance, create the database, and add objects to it. This account must have the appropriate permissions. |
| Native Backup Activity | Select whether you want to update the local repository with information about native SQL Server backup activity and view it in the LiteSpeed UI Console. Click **Schedule** to modify the default schedule. |
| Central Repository | Point to the server instance and database.<br>Create and upgrade a Central Repository database. LiteSpeed creates the database if it does not already exist. It checks the version and upgrades if necessary. |
| Repository Update | Indicate when you want the central repository to be updated with backup and job statistics. You can have LiteSpeed update the central repository:<br>• Automatically after any LiteSpeed activity, such as after every backup/restore operation (best for real time statistics).<br>• Via a scheduled SQL Server job (best for minimal network traffic).<br>• Manually.<br>NOTE: Quest Software recommends that you select **Automatically after any LiteSpeed activity** for both selections. |
| Repository | Select to set repository maintenance, including when to delete old data from |

| | |
|---|---|
| Cleanup | repositories, and how much of that data to delete. Old data can be deleted from the local repository, central repository, or both. The repositories are individually selected to remove activity older than a user-selectable number of days, weeks, months, or years. Additionally, **Edit Schedule** launches a screen where schedule information can be changed.<br><br>Tip: Further repository cleanup can be accomplished by using the Purge Repository Data procedure. |
| Proxy settings | Select **Use proxy settings** for cloud connections. When selected, you can add the proxy address and port. Optionally, you can select to use authentication and then enter username and password.<br><br>In most cases, proxy settings are not required. It is recommended to do not use proxy settings by default. |
| Summary | Displays a summary of instance configuration selections.<br><br>**Save As Template** button allows saving selected in the wizard options locally for next time use in the wizard |

- On the License page, if you select **Register later**, the installed LiteSpeed version will operate as a trial on all instances, until you register it or the trial period expires.

4. On the Deploy LiteSpeed page, select whether you want to deploy the files immediately or run the wizard later and select the appropriate option.

   **TIP:** On the Deploy Status tab you can check for errors during deployment. If errors are found you are given the opportunity on this tab to select to save the list of failed servers to a configuration file.

   **Caution:** The Remote Configuration wizard does not prevent you from deploying the files if they are not valid.

   **NOTE:** The **Simultaneous installs** field determines how many servers to install simultaneously. For example, if you select to install LiteSpeed on 50 servers and specify 10 simultaneous installs, then the wizard would install LiteSpeed on 10 servers at a time until it has installed all 50 servers.

5. Complete the wizard.

# Install LiteSpeed Silently

LiteSpeed may also be installed locally from the command line or remotely using the LANDesk, SCCM or WMI deployment tools.

**NOTE:** The silent installation procedure requires the user running the installer be logged into the Windows machine with Local Administrator level access.

The silent install requires the following:

- LiteSpeed installer.

- Server-specific .xml file containing information about the machine onto which LiteSpeedis being installed. You can generate it using the **RemoteDeploy.exe** utility, supplied with LiteSpeed. For more information, see Install LiteSpeed on Remote Server Instances on page 19..

# Command-Line Parameters

**NOTE:** All paths in the msiexec string should be passed as fully qualified paths, including the drive letter.

| Parameter | Description |
|---|---|
| /i | This is an installation. |
| /l*v | Invokes logging (The *v invokes verbose logging.) The path of the log file is indicated by, "C:\logfile.txt"). |
| /qn | Suppresses the graphic user interface. |
| SILENTPHASE=0 | Runs Instance Configuration silently. |
| SILENTINSTALLXML | Indicates the fully qualified path to the .xml file for Instance Configuration. Must be local to the system.<br><br>**NOTE:** Version 6.5 of LiteSpeed introduced the new improved XML file format. Although the configuration files created by a LiteSpeed version prior to 6.5 can be manually used with the current LiteSpeed installer, it is recommended, that you generate the new files. For more information, see Install LiteSpeed on Remote Server Instances on page 19. |
| LICENSEKEY | Passes the license key. |
| SITEMSG | Passes site message. Required only when upgrading from a LiteSpeed 8.5 or earlier installation. |
| LICENSETYPE | Indicates the license type:<br><br>• "LICENSE"<br>• "RESTORE"–LiteSpeed will be installed in Restore Only mode. |
| ENGINEONLY=1 | Installs LiteSpeed for SQL Server without the LiteSpeed UI Console. |
| CLIENTONLY=1 | Installs only the LiteSpeed UI Console. |
| INSTALLDIR="D:\Program Files\Quest Software" | Provides an alternate install destination to the default C:\Program Files. |

# Examples

## To run a silent install

```
msiexec /i "c:\Litespeed.msi" SILENTINSTALLXML="C:\LiteSpeedRemoteDeploy_Server.xml"
SILENTPHASE=0 /qn
```

## To register LiteSpeed on all* instances during install

```
msiexec /i "c:\LiteSpeed.msi" LICENSEKEY="C20TM3Q3K2HD74UDLBMHC6KYV6HZ3MQFNXZFB-123-
45678-34" SITEMSG="Trial Version" LICENSETYPE="LICENSE"
```

```
SILENTINSTALLXML="c:\LiteSpeedRemoteDeploy_Server.xml" SILENTPHASE=0 /qn
```

\*–all instances that were specified in the .XML file.

SITEMSG="Trial Version" - The Site Message is applicable only when upgrading from a LiteSpeed 8.5 or earlier installation.

## To run an install with logging enabled

```
msiexec /i "c:\LiteSpeed.msi" /l*v "c:\logfile.txt"
SILENTINSTALLXML="c:\LiteSpeedRemoteDeploy_Server.xml" SILENTPHASE=0 /qn
```

## To run install, but not Instance Configuration

```
msiexec /i "c:\Litespeed.msi" SILENTPHASE=0 /qn
```

## To uninstall LiteSpeed

```
msiexec /uninstall "c:\Litespeed.msi"
```

# Cluster Installation

Before you begin the installation process, please review the following requirements:

- For cluster installs, it is required that users log in and install with a user account that has Administrator rights to all the nodes in the cluster.

- You must select an unshared local drive for the LiteSpeed installation directory. This location should be the same for all nodes of the cluster. For example, *C:\Program Files\Quest Software\LiteSpeed*.

- The Remote Registry service should be running on all nodes involved in a cluster installation.

Review the following to select the installation type.

| Feature | Local | Remote |
|---|---|---|
| Installs on multiple nodes at once | Yes* | Yes |
| Installs on multiple instances on those nodes | Yes | Yes |
| Automatically upgrades LiteSpeed during install | Yes | Yes |
| Requires logging into the cluster node | Yes | No |
| Requires running the .msi on each node | Yes** | Yes |

\*–To the other cluster nodes.

\*\*–Install LiteSpeed to the active node first. That should install LiteSpeed to all nodes. If there are problems

| Feature | Local | Remote |
|---|---|---|

with the automatic installation to remote nodes, then install to the remaining nodes for the local cluster installations.

# Local Cluster Installations

Use the following installation instructions for both active-passive and active-active Microsoft Cluster Service or Failover installations.

- The user you are logged in as needs to be a Domain User in the local administrators group on all the nodes of the cluster.

- If you supply the license once during the local install on the first node and it will install that license on the other nodes. If the first node was installed in demo mode then the other nodes will be as well.

- Install LiteSpeed to the active node first and then to the remaining nodes.

### To install LiteSpeed on a cluster

1. Launch the .msi file on one node in the cluster. This node must have an install of each SQL Server instance on which you want to install LiteSpeed.

2. Choose "Install LiteSpeed to all nodes automatically" which is the default option. This is the recommended option for doing an initial installation to the cluster configuration.

3. Complete the wizard. For more information, see Install LiteSpeed Locally on page 15.

### To install LiteSpeed on a node only

1. If you have added a new node to an existing cluster configuration and want to install LiteSpeed to this new node only, run .msi on this particular node and use the "Install LiteSpeed to this node only" option.

Instance Configuration uses WMI to deploy the .msi file to all nodes. You do not need to run the installation from the passive nodes or failover any nodes of the cluster during the installation process. This process automatically upgrades any old version of LiteSpeed on any node.

If you have issues while running the Instance Configuration Wizard during installation, cancel out of the wizard and complete the installation without it. After the installation completes run the Instance Configuration Wizard from the Start menu and complete it.

# Remote Cluster Installations

## Using LiteSpeed Remote Deploy Tool

You can install LiteSpeed on clustered instances with the Remote Deploy tool. LiteSpeed automatically installs on the selected server instances. For more information, see Install LiteSpeed on Remote Server Instances on page 19.

**NOTES:**

- To install or upgrade LiteSpeed on HP Polyserve and Veritas Storage Foundation cluster, you may need to manually add all the nodes you want to deploy LiteSpeed to.

- When running Remote Deploy on an active node, you cannot use a different account for installation on the current cluster. The solution includes using a third machine, using a passive node, or using any node name instead of the cluster name on the step "SQL Servers."

- An access is denied error can sometimes be displayed on the SQL Servers step when the user connects to an active node of a cluster and then tries to add a cluster name using the Add Server step. The solution includes running Remote Deploy from passive node, using an Administrator account to connect to node, or running Remote Deloy from a third machine that is not in the cluster.

# Using SCCM or LANDesk

LiteSpeed can also be deployed silently via a deployment tool such as SCCM or LANDesk. In a mass deployment, the steps are as follows:

1. Deploy the MSI using a deployment tool.

2. Create the XML files for the servers.

3. Configure the instances.

## Deploy the MSI using a deployment tool

To setup the package for deployment create a distribution package in your deployment tool.

In the command line, specify "silentphase=0" to cause Instance Configuration not to be run. You can customize the installation by creating an MSI transform and by using the `TRANSFORMS=MyTransformName.mst` command-line parameter for MSI package.

The package should be set to run in silent mode with no user interaction and to suppress any reboot. Separate packages need to be set up for x32, and x64 systems.
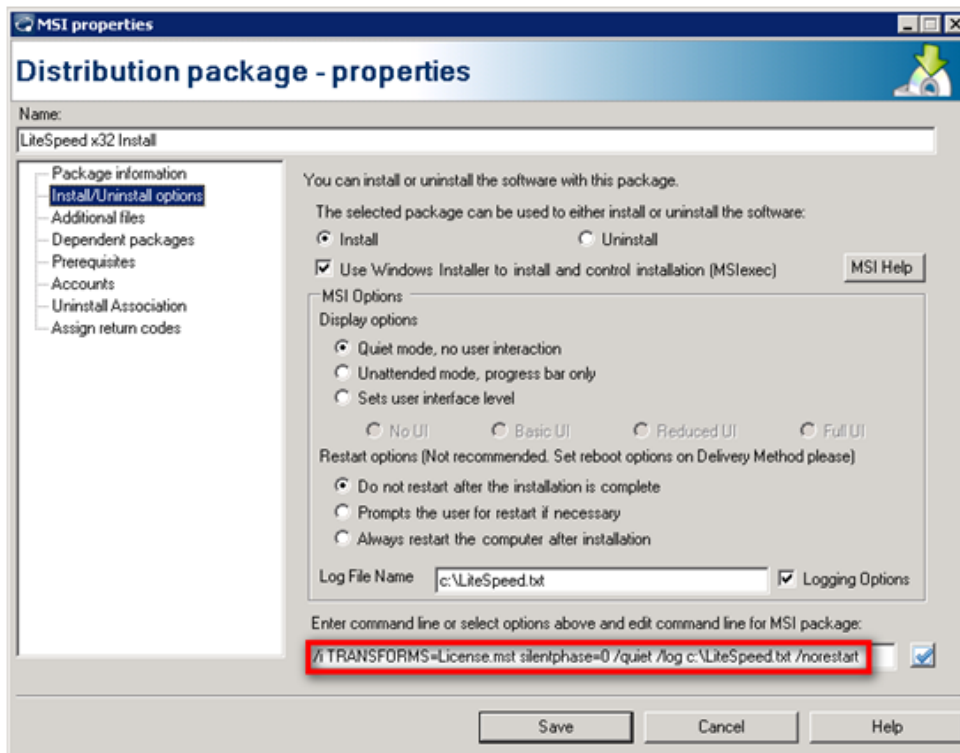
Once the package is setup create a distribution task and deploy the .msi to the cluster nodes.

## Create the XML files for the servers

Use the Remote Deploy Configuration wizard to create the .xml files. For more information, see Install LiteSpeed on Remote Server Instances on page 19.

## Configure the instances

You can configure LiteSpeed on the remote server instances using the Remote Deploy wizard, or by logging into the server and manually running Instance Configuration.

# License Registration

You need to license LiteSpeed for SQL Server with a commercial key or a custom evaluation key to use many advanced features for managing backup and restore processes.

Tips:

- There is a way to manage licenses using Edit SQL Server Registration dialog. See Register Server Instances.

- You can set or change the license for any server registered in the LiteSpeed console by right-clicking on the SQL Server instance, selecting the "LiteSpeed Instance Settings," and then selecting "LiteSpeed License." Note that the license is entered / updated per server not per instance.

If you purchased LiteSpeed and have a valid license, you can register LiteSpeed during the installation or upgrade, or any time:

- Using the LiteSpeed UI Console (**Help** | **License…**)

    note: This will only register a local copy of LiteSpeed

- Using xp_sqllitespeed_licenseinfo

- Using the LicenseInfoCmd command-line utility

note:  For more information about the LiteSpeed extended stored procedures and command-line utilities, please refer to the LiteSpeed *User Guide*.

If you want to purchase LiteSpeed or require a trial extension or have any other licensing questions related to your purchase please contact your sales representative or go to https://www.quest.com/company/contact-us.aspx.

# Configuration

# Register Central Repositories

When you create or upgrade a central repository, you must register it in the LiteSpeed UI Console before you can view its activity statistics.

Note: If the LiteSpeed install includes a central repository and the console, then LiteSpeed defaults the console to use that central repository automatically without the need to manually register and select it in the LiteSpeed console.

### To register a repository

1. Click **Repository Registration** from the **Application Menu**.

   Alternately you can click ▾ beside the **Central Repository** field at the bottom of the LiteSpeed UI Console and select **Select Repository**.

2. Click ✚ **Add repository** and complete the Register New Repository dialog fields.

   | | |
   |---|---|
   | Server name: | Enter the name of the server instance, or click ⋯ to select from a list of available server instances. |
   | Display name: | Enter the name to display in the navigation pane tree. |
   | Connect using: | Select the following options: |
   | Windows authentication | Select this option to connect to the SQL Server instance using Windows authentication. |
   | SQL Server Authentication | Select this option to connect to the SQL Server instance using SQL Server authentication. Complete the **Login name** and **Password** fields. |
   | Additional Connection Parameters | Enter additional connection string parameters.<br>**TIP:** Use this selection as needed to include custom parameters such as encryption, AlwaysOn and others to the SQL server connection string. |
   | Repository database: | Displays the name of the repository database selected. |
   | Repository version: | Displays the version of the repository. |

3. Click ✔ **Test connection**.

**TIPS:**

- Select add repository, edit connection, delete connection, test connection, import, and export by clicking the corresponding button in the Edit Repository Registration dialog. Imports can be done from .csv files and from LiteSpeed 4.x.

- You can click the **Display name**, **Authentication**, **Login**, or **Password** fields in the grid to change their value.

# Select a Central Repository

The LiteSpeed UI Console displays the activity statistics in the Backup Manager Overview tab for the selected central repository. You can register multiple central repositories in the LiteSpeed UI Console, but you can only view activity for one at a time.

### *To select a central repository*

Select **Tools | Options** and select the repository on the General tab.

**Tip:** You can also click ▾ beside the **Central Repository** field in the status bar of the LiteSpeed UI Console and select the repository from the list.

# Register Server Instances

You must register server instances before you can manage them in the LiteSpeed UI Console. You can also register server instances that do not have LiteSpeed installed on them and perform native backups and restores through the LiteSpeed UI Console.

**NOTE:** You need to register all SQL Server instances involved in log shipping in the LiteSpeed UI Console to retrieve log shipping data for them.

---

Scenario

There are several server instances configured to report to a central repository and you need to register some of them in your LiteSpeed UI Console.

---

### *To register server instances*

**TIP:** From the **Edit SQL Server Registration** window you can add server, edit connection, display overview tab, test connection, import and export. You can also edit credential information for each instance including display name, server name, authentication, login, password, and parent group. You can also see information for each instance including license, license type, and license expire date.

1. Select **Home | SQL Server Registration | Manage**.

2. Click **Add server** to add an individual server or **Import** to import server instances from a CSV file or the LiteSpeed central repository.

   **NOTE:** You can import instances from a central repository, if the central repository is configured and selected for use.

   **Scenario:** Click **Import** and then **From Central Repository**. Select the central repository to import server instances from, review the list of servers, optionally deselecting those you do not want to be registered in your LiteSpeed UI Console, click **OK** and continue with step 4.

3. (If you selected to import servers from a CSV file) Review the following for additional information:

The first line of a valid CSV file contains the following column headers:

- DisplayName—Specify how you want to display servers in the navigation pane tree.
- ServerName—Computer name or IP address following by port number: <IP_address>, <port_number>.
- Authentication—Windows or SQL Server.
- LoginName—User name that is used for the SQL Server connection. It can be a Windows login in the following format: 'Domain\Username', or SQL Server login.
- Password—Encrypted password for the login. May be blank.
- LicenseInfo—License key information (Site Message).
- LicenseType—Examples: Trial, Permanent, Term.
- LicenseEdition—Style of license. Example: Enterprise.
- Path—Server group location of the instance.
- ExpireDate—Date that the LiteSpeed license expires.

Next lines contain server parameters, separated by semicolons (;), a separate line for a server. You can omit the LoginName and Password parameters to complete them later in the LiteSpeed UI Console.

Example:

```
DisplayName;ServerName;Authentication;LoginName;Password;LicenseInfo
LicenseType;LicenseEdition;Path;ExpireDate
W2K3-14;W2K3-14;Windows;DOMAIN\Username;3w663k3E
spb9884_sql_auth;spb9884;SQL Server;sa;321
```

NOTE: If you export server instances to a CSV file, it will contain SQL logins and obfuscated passwords. You need to manually edit the CSV file to remove the connection information before you import instances from this file.

4. Complete the fields as necessary. Review the following for additional information:

| SQL Server | Specify server name or IP address using the following format: <IP_address>, <port_number>. |
|---|---|
| Connect using | Select either Windows authentication or SQL Server authentication (enter the user name and password).<br>**NOTE:** Microsoft recommends using Windows authentication when possible because it is more secure than SQL Server authentication. |
| Additional Connection Parameters | Enter additional connection string parameters.<br>**Tip:** Use this selection as needed to include custom parameters such as encryption, AlwaysOn and others to the SQL server connection string. |
| Advanced>>Display Name | Enter the name to display in the navigation pane tree. |

**Tips:**

- You can click the **Display name**, **Authentication**, **Login**, or **Password** fields in the grid to change their value.

- Click **Display Overview Tab** to see the Overview tab of the LiteSpeed UI Console window for the selected instance. This will let you stay on the registration dialog and continue editing or registering new server instances, but still see overview information of the various instances.

5. (Optional) In the Server tree, click and drag server instances to move them between groups.

**Tip:** In the Server tree, you can see registered SQL Server Instance nodes sorted alphabetically. To use a custom sort order, select **View | Sort Instances | Custom**.

Scenario

There are several server instances configured to report to a central repository and you want a new colleague to manage some of them in their LiteSpeed UI Console. Define which server instances are eligible for import.

By default, LiteSpeed allows all of the instances to be imported into other clients when you select to import from a central repository, unless you specifically exclude instances.

### *To exclude a server instance from import*

1. Right-click a server in the Server tree in the navigation pane and select **Edit | SQL Server Registration**.

2. Clear the **Allow import of this instance…** checkbox and click **OK**.

# Create Server Groups

*To create server groups*

1. Select the **Backup Manager** pane (CTRL+1).

2. Group the Backup Manager tree by server group (**View | Group Instances By | Server Groups**).

3. Select one of the following options:

| | |
|---|---|
| Create a top-level server group | Right-click **SQL Servers** at the top of the navigation tree and select **New SQL Server Group**. |
| Create a subgroup of an existing server group | Right-click the group in the navigation pane tree and select **New SQL Server Group**. |

**Tips:**

- To create multi-level groups, create the parent group first. When you create the subgroup, the parent group will already be there for you to select.

- To edit or delete a server group, right-click the group and select the appropriate option.

- You can also group server instances by categories. To switch between server groups and categories, select **View | Group Instances By**.

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** iOS4Unity - https://github.com/Hitcents/iOS4Unity/

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