



Quest[®] NetVault[®] Backup
Plug-in *for SharePoint* 12.1

User's Guide



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Quest Software Inc.
Attn: LEGAL Dept.
4 Polaris Way
Aliso Viejo, CA 92656

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Legend

- **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

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

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

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Introducing NetVault Backup Plug-in for SharePoint

- [NetVault Backup Plug-in for SharePoint: at a glance](#)
- [Key benefits](#)
- [Feature summary](#)
- [Target audience](#)
- [Recommended additional reading](#)

NetVault Backup Plug-in for SharePoint: at a glance

Quest® NetVault® Backup Plug-in for SharePoint (Plug-in for SharePoint) provides protection from media failure and wide-ranging data corruption. Through a web-based user interface (WebUI) and automated workflow process, the plug-in offers a centralized way to set up, configure, and define backup and restore policies for SharePoint. The plug-in offers a detailed level of control that minimizes downtime by allowing you to restore complete farms, individual web applications, or individual content databases. Through integration with a range of backup devices, your data is protected and stored offsite to meet your disaster-recovery and business-continuity goals.

Key benefits

- **Increase confidence when deploying the plug-in:** The plug-in eliminates the need to create scripts and is flexible enough to account for many recovery scenarios. Using the SharePoint PowerShell Cmdlets and the STSADM utility, the plug-in offers the flexibility to back up the entire SharePoint Farm, including the configuration database and Shared Services Providers (SSPs) or individual site collections.

The plug-in's backup features also include:

- Full and Differential Backups while data is online and accessible
- Individual Site Collection backups

By relying on the plug-in to implement your backup policies, you can focus on more critical tasks without risking your ability to recover what is needed if a failure occurs. In addition, an IT manager's confidence is increased by knowing that SharePoint data is protected.

- **Speed up restores to reduce downtime:** With Plug-in for SharePoint, DBAs have minimal involvement when issuing each command required in the recovery process and thus experience faster and more reliable recovery from a range of backup devices. The plug-in also minimizes downtime by offering a detailed level of control that lets you restore complete farms, individual web applications, and individual content databases.

Additional Plug-in *for SharePoint* restore-and-recovery features include:

- Full and Differential Restores
 - Restores of complete farms, individual web applications, or individual content databases
 - Relocation of site collections to an alternate SharePoint Farm
 - Disaster recovery to the same or an alternate SharePoint Farm
- **Ensure business continuity:** With offsite backups being an important part of the data-protection for business-critical applications, the plug-in takes advantage of NetVault Backup's integration with a range of backup devices. NetVault Backup lets you select which backup device to store the backup on. You can store the backup online in a virtual tape library (VTL). You can also duplicate the job to physical tape libraries shared by multiple SharePoint instances, other propriety databases, or even general backup files.

Plug-in *for SharePoint* gives you the confidence that your SharePoint environments are protected and stored offsite for disaster-recovery purposes. At the same time, it frees administrators from being available 24x7 because less-experienced personnel can initiate restores, thus reducing downtime and improving business continuity.

Feature summary

- Full and Differential Backups while data is online and accessible
- Individual Site Collection backups
- Protection down to the site-collection level
- Restores of complete farms, individual web applications, or individual content databases
- Relocation of site collections to an alternate SharePoint Farm
- Disaster recovery to same or alternate SharePoint Farm
- Point-and-click WebUI

Target audience

While advanced DBA skills are not required to create and run routine backup operations, they are required for defining an efficient backup-and-recovery strategy.

Recommended additional reading

Quest recommends that you have the following documentation available for reference while setting up and using this plug-in.

- **Microsoft SharePoint documentation:** <https://docs.microsoft.com/en-us/sharepoint/sharepoint-server>
- **STSADM command-line Tool:** [http://technet.microsoft.com/en-us/library/cc261956\(v=office.12\).aspx](http://technet.microsoft.com/en-us/library/cc261956(v=office.12).aspx)
- **SharePoint PowerShell Cmdlets:** <https://docs.microsoft.com/en-us/powershell/module/sharepoint-server/?view=sharepoint-ps>
- **NetVault Backup documentation:**
 - *Quest NetVault Backup Installation Guide:* This guide provides details on installing the NetVault Backup Server and Client software.
 - *Quest NetVault Backup Administrator's Guide:* This guide explains how to use NetVault Backup and describes the functionality common to all plug-ins.

- *Quest NetVault Backup CLI Reference Guide*: This guide provides a description of the command-line utilities.

You can download these guides from <https://support.quest.com/technical-documents>.

Deploying, installing, and removing the plug-in

- [Deploying the plug-in](#)
- [Installing or upgrading the plug-in](#)
- [Removing the plug-in](#)

Deploying the plug-in

Microsoft supports the deployment of a SharePoint environment on a single server, small farm, or scaled-out farm. Deploying the plug-in in each of these environments is almost identical in that the plug-in is installed on the server that is performing the role of the SharePoint Web Server. Backing up the entire SharePoint environment or farm is performed from this single installation of the plug-in.

The following topics describe plug-in deployment in a Single Server, Small Farm, or Scaled-Out Farm, and the prerequisites required for each type of deployment.

- [SharePoint 2010, 2013, and 2016 terminology](#)
- [Single Server deployment](#)
- [Small Farm deployment](#)
- [Scaled-Out Farm deployment](#)

SharePoint 2010, 2013, and 2016 terminology

Various services included in SharePoint are named differently depending on the version that you are using. Throughout this document, the following generic service names are used.

Table 1. Generic service names

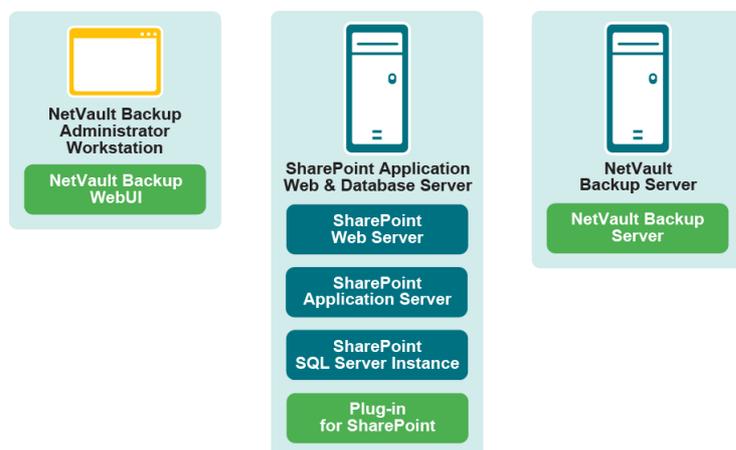
Generic service name	Microsoft SharePoint Foundation 2010	Microsoft SharePoint Server 2010	Microsoft SharePoint Foundation 2013	Microsoft SharePoint Server 2013	Microsoft SharePoint Server 2016
SharePoint Adminis-tration	SharePoint 2010 Adminis-tration	SharePoint 2010 Adminis-tration	SharePoint Adminis-tration	SharePoint Adminis-tration	SharePoint Adminis-tration
SharePoint Timer	SharePoint 2010 Timer	SharePoint 2010 Timer	SharePoint Timer Service	SharePoint Timer Service	SharePoint Timer Service
SharePoint Tracing	SharePoint 2010 Tracing	SharePoint 2010 Tracing	SharePoint Tracing Service	SharePoint Tracing Service	SharePoint Tracing Service
SharePoint Search	SharePoint Foundation Search V4	— SharePoint Server Search 14 ^a — SharePoint Foundation Search V4	SharePoint Server Search 15	SharePoint Server Search 15	SharePoint Server Search 15

a. Provides enhanced full-text indexing and search capabilities. Replaces the SharePoint Foundation Search service for search over SharePoint user content.

Single Server deployment

In a Single Server deployment, the SharePoint SQL Server Instance, application server, and web server all reside on the same computer or server. The plug-in is installed on this single server and performs all backups and restores from this server.

Figure 1. Plug-in deployed in a Single Server deployment



Single Server deployment prerequisites

Verify that the following prerequisites are met:

- Set up a user account that is a member of the Administrators group on the local computer.
- Create a directory for temporary files on the SharePoint Server that stores the temporary backup packages created by the SharePoint PowerShell Cmdlets or STSADM.

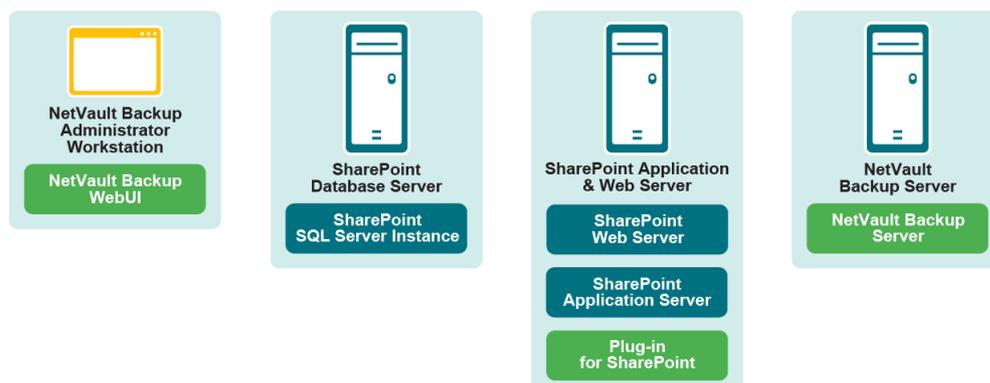
Every backup stores information, called a backup package, in this directory. The backup package for a Full Backup must be available to perform a Differential Backup because a Full Backup is the base of all subsequent Differential Backups. For this reason, Quest recommends that you use the same directory for every backup in a backup sequence. Quest also recommends that you clean out this directory before you perform a new Full Backup.

- Ensure that the **SharePoint Administration** service in the Windows Control Panel is started. This service is not started by default on Single Server deployments.

Small Farm deployment

In a Small Farm deployment, the SharePoint SQL Server Instance resides on a dedicated server while the application server and web server reside together on a separate server. The plug-in is installed on the server where the application server and web server reside and performs all backups and restores from this server.

Figure 2. Plug-in deployed in a Small Farm deployment



Small Farm deployment prerequisites

Verify that the following prerequisites are met:

- Create a domain user account that is a:
 - Member of the Administrators group on each server on which SharePoint Setup is run.
 - Member of the following SQL Server security roles:
 - Logins
 - Securityadmin
 - Dbcreator
- For SharePoint 2013 and later, ensure that the domain user account has the SP_DATA_ACCESS role. For more information, see [Assigning the SP_DATA_ACCESS role for SharePoint 2013 and later](#).
- Create a directory for temporary files that stores the temporary backup packages created by the SharePoint PowerShell Cmdlets or STSADM.

For small farms, use Universal Naming Convention (UNC) share paths, such as **\\machine_name\SPbackup**, so that the SQL Server Database and search components are written to the same location. This directory must exist, and all the servers in the SharePoint Farm must be able to access it.

In addition, verify that **Change** and **Read** Share Permissions for the file share are granted to the domain account user.

Every backup stores information, called a backup package, in this directory. The backup package for a Full Backup must be available to perform a Differential Backup because a Full Backup is the base of all subsequent Differential Backups. For this reason, Quest recommends that you use the same directory for every backup in a backup sequence and that you clean out this directory before you perform a new Full Backup.

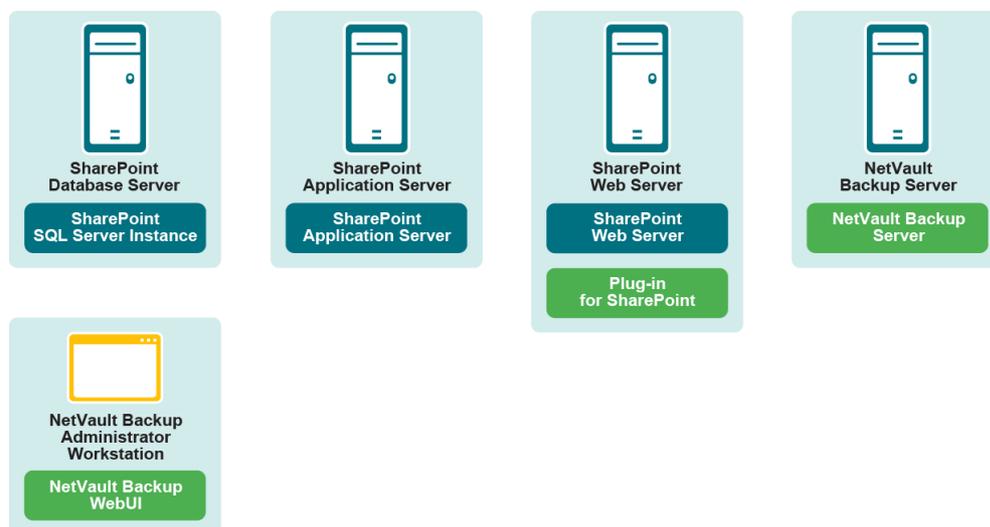
i | **IMPORTANT:** Unrelated SharePoint Farms should not use the same UNC Share for the Directory of Temporary Files; otherwise, the SharePoint PowerShell Cmdlets or STSADM backup history includes backups for unrelated farms, which can lead to unnecessary complexity.

- Ensure that the **SharePoint Administration** service in the Windows Services is started. This service is not started by default on Small Farm deployments.

Scaled-Out Farm deployment

In a Scaled-Out Farm deployment, the SharePoint SQL Server Instance, application server, and web server each reside on a dedicated server. Optionally, SharePoint Administrators can deploy extra dedicated web servers. The plug-in is installed on a single web or application server and performs all backup and restores from this server.

Figure 3. Plug-in deployed in a Scaled-Out Farm deployment



Scaled-Out Farm deployment prerequisites

Verify that the following prerequisites are met:

- Create a domain user account that is a:
 - Member of the Administrators group on each server on which SharePoint Setup is run.
 - Member of the following SQL Server security roles:
 - Logins
 - Securityadmin
 - Dbcreator
- For SharePoint 2013 and later, ensure that the domain user account has the SP_DATA_ACCESS role. For more information, see [Assigning the SP_DATA_ACCESS role for SharePoint 2013 and later](#).
- Create a directory for temporary files that stores the temporary backup packages created by the SharePoint PowerShell Cmdlets or STSADM.

For scaled-out farms, use UNC share paths, such as `\\machine_name\SPbackup`, so that the SQL Server Database and search components are written to the same location. This directory must exist and all the servers in the SharePoint Farm must be able to access it.

In addition, verify that **Change** and **Read** Share Permissions for the file share are granted to the domain account user.

Every backup stores information, called a backup package, in this directory. The backup package for a Full Backup must be available to perform a Differential Backup because a Full Backup is the base of all subsequent Differential Backups. For this reason, Quest recommends that you use the same directory for every backup in a backup sequence. Quest also recommends that you clean out this directory before you perform a new Full Backup.

i | **IMPORTANT:** Unrelated SharePoint Farms should not use the same UNC Share for the Directory of Temporary Files; otherwise, the SharePoint PowerShell Cmdlets or STSADM backup history includes backups for unrelated farms, which can lead to unnecessary complexity.

- Ensure that the **SharePoint Administration** service in the Windows Services is started. This service is not started by default on Scaled-Out Farm deployments.

Assigning the SP_DATA_ACCESS role for SharePoint 2013 and later

Although SP_DATA_ACCESS database role is the default role for database access in SharePoint 2013 and later, Quest recommends that you ensure that the domain user account has the SP_DATA_ACCESS role.

- 1 On the server where the SharePoint SQL Server Instance resides, open **SQL Server Management Studio**.
- 2 In the **Object Explorer**, navigate to the **Security** folder.
- 3 Under the **Security** folder, select **Logins**.
- 4 Right-click the name of the domain user account, and select **Properties**.
- 5 In the **Login Properties** dialog box, select **User Mapping**.
- 6 In the list of databases, select the SharePoint configuration database.
For example: SharePoint_Config
- 7 In the **Database role membership** section, select the following options:
 - **Public**
 - **SharePoint_Shell_Access**
 - **SPDataAccess**
 - **WSS_Content_Application_Pools**

Quest also recommends that you select the **db_accessadmin** role.

- 8 Add the same role memberships to the other SharePoint configuration databases, including:
 - **SharePoint_AdminContents**
 - **SharePoint_Config**
 - **WSS_Content**
- 9 To save your changes, click **OK**.

Installing or upgrading the plug-in

- 1 Access the **NetVault Configuration Wizard** or **Manage Clients** page.

i | **NOTE:** If the selected clients are all the same type, you can use the configuration wizard to install the plug-in on multiple clients at the same time. When you select multiple clients, verify that the plug-in binary file is compatible with the OS and platforms of the target clients. From the **Manage Clients** page, you can only select one client for plug-in installation.

- To access the **NetVault Configuration Wizard** page:
 - a In the Navigation pane, click **Guided Configuration**.
 - b On the **NetVault Configuration Wizard** page, click **Install Plugins**.

- c On the next page, select the applicable clients.
 - To access the **Manage Clients** page:
 - a In the Navigation pane, click **Manage Clients**.
 - b On the **Manage Clients** page, select the machine that contains the SharePoint Server, and click **Manage**.
 - c On the **View Client** page, click the **Install Plugin** button ().
 - 2 Click **Choose Plug-in File**, navigate to the location of the “.npk” installation file for the plug-in, for example, on the installation CD or the directory to which the file was downloaded from the website.

Based on the OS in use, the path for this software may vary on the installation CD.
 - 3 Select the file entitled “**sps-x-x-x-x.npk**,” where **xxxxx** represents the version number and platform, and click **Open**.
 - 4 To begin installation, click **Install Plugin**.
- After the plug-in is successfully installed, a message is displayed.

Removing the plug-in

- 1 In the Navigation pane, click **Manage Clients**.
- 2 On the **Manage Clients** page, select the applicable client, and click **Manage**.
- 3 In the **Installed Software** table on the **View Client** page, select **Plug-in for SharePoint**, and click the **Remove Plugin** button ().
- 4 In the **Confirm** dialog box, click **Remove**.

Configuring the plug-in

- [Configuring default settings](#)

Configuring default settings

The plug-in lets you set default options for backup and restore jobs. You can override these options on a per-job basis.

i | NOTE: To specify the default Windows Administrator Name, use the Configure dialog box.

- 1 In the Navigation Pane, click **Create Backup Job**, and click **Create New** next to the **Selections** list.
- 2 In the selection tree, open the applicable client node.
- 3 Click **Plug-in for SharePoint**, and select **Configure** from the context menu.
- 4 Configure the following parameters:
 - **Windows Administrator User Name:** For a Single Server deployment, enter a user name in the **.username** format, where the user name is a member of the Administrators group on the local computer.

For a Small or Scaled-Out Farm, enter a domain user name in the **DOMAIN\username** format. Verify that the account has met the prerequisites outlined previously in [Small Farm deployment prerequisites](#) and [Scaled-Out Farm deployment prerequisites](#).
 - **Password:** Enter the password associated with the user specified in the preceding field. For security reasons, this field is displayed blank by default.
 - **PowerShell Filename (Enter Full Path and Executable File Name):** The plug-in automatically completes this field with the default location of the PowerShell executable file, **C:\Windows\System32\WindowsPowerShell\v1.0\PowerShell.exe**. If you are using a different location, update the field with the new location.
 - **SharePoint PowerShell Snapin:** The plug-in automatically completes this field with the default name of the Windows PowerShell snap-in for SharePoint, **Microsoft.SharePoint.PowerShell**. If you are using a different name, update the field with the new name.
 - **STSADM Filename (Enter Full Path and Executable File Name):** Enter the full path and executable filename that points to the STSADM command line tool, for example, **C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\<version>\BIN\stsadm.exe**. Replace **<version>** with **14** for SharePoint 2010, **15** for SharePoint 2013, or **16** for SharePoint 2016. By default, the plug-in enters the path to the directory where the web extensions are installed.
 - **Use STSADM Tool For All Restores:** By default, the plug-in performs restores using SharePoint PowerShell Cmdlets. If you want the plug-in to use the STSADM utility instead, select this option.
 - i | NOTE:** You can select this option before restoring a specific backup saveset, or you can instruct the plug-in to use this option every time.
 - **Directory for Temporary Files:** Specify the directory where temporary SharePoint backup packages should be stored.

For Small and Scaled-Out Farms, use UNC share paths, such as \\machine_name\SPbackup, so that the SQL Server Database and search components are written to the same location. This directory must exist and all the servers in the SharePoint Farm must be able to access it. For more information, see [Deploying the plug-in](#).

i | **IMPORTANT:** If the backup package for the latest Full Backup has been deleted or relocated and is no longer available in the specified directory, all Differential Backups fail. Run a new Full Backup job before any Differential Backup jobs completes successfully.

- **Delete Backups from Temporary Directory Older than (days - 0=never):** Use this option to specify how long a successful Full Backup for a SharePoint Farm is retained in the Temporary Directory after the backup is completed. The default setting is **30**. To disable deletion and retain all backups stored in the Temporary Directory, enter **0**.

i | **IMPORTANT:** This option only applies to a SharePoint Farm; it does not affect Site Collection backups, which produces only one file per Site Collection.

This option only addresses the Temporary Directory; it does not affect files maintained and monitored by the NetVault Backup Media Manager.

To use this option, the Date and Time format used for your system and the format used for SharePoint must match. For more information, see [Troubleshooting](#).

- **Incomplete Backup of ALL Items Selected:** The plug-in can do one of the following when this error condition occurs:
 - **Complete with Warnings — Saveset Retained:** The job returns a status of “**Backup Completed with warnings**” and a backup saveset is created that includes the items that were successfully backed up.
 - **Complete without Warnings — Saveset Retained:** The job completes and returns a status of “**Backup Completed.**” The errors are logged in the NetVault Backup binary logs and ignored on the **Job Status** page. A backup saveset is created that includes the items that were backed up.
 - **Fail — Saveset Retained:** The job returns a status of “**Backup Failed.**” However, a backup saveset is generated that includes the items that were successfully backed up.
 - **Fail — No Saveset Retained:** The job returns a status of “**Backup Failed**” and no saveset of backed-up objects is kept. That is, even if some of the objects were successfully backed up, the saveset is discarded.

If either of the following occurs, the plug-in overrides the **Incomplete Backup of ALL Items Selected** setting and responds as indicated:

- If a fatal error occurs, the job returns a “**Backup Failed**” status.
- If a Partial Database or Differential Partial Database backup is performed on a database whose backup target contains a read-only filegroup, the job returns a “**Backup Completed With Warnings**” status.

- 5 To save the settings, click **OK**.

With the account properly configured, you can click the **SharePoint APM** node to display the available Farms.

Backing up data

- [Defining a backup-and-recovery strategy](#)
- [Performing backups](#)

Defining a backup-and-recovery strategy

The purpose of creating SharePoint backups is to recover a SharePoint Farm that is damaged from media failure or data corruption. Reliable use of backup for recovery requires a strategy that maximizes data availability and minimizes data loss, while accounting for defined business requirements.

A strategy is divided into two pieces: a backup piece and a restore piece.

- The backup piece defines the type and frequency of backups that are required to meet the goals for availability of the database and for minimizing data loss.
- The restore piece defines who is responsible for performing restores, and how restores should be performed to recover from the particular type of damage or failure.

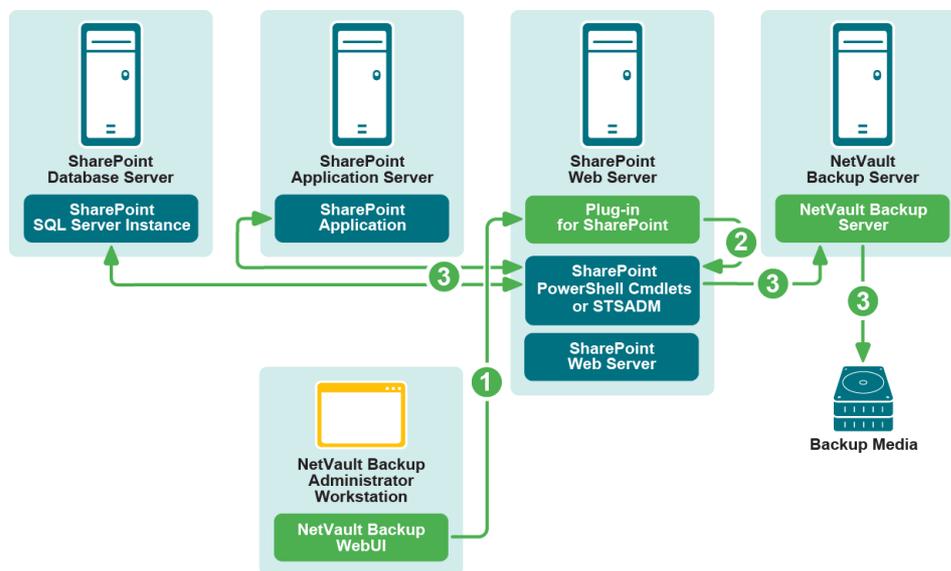
Reviewing the available backup methods

The plug-in offers the following backup methods for backing up and restoring entire SharePoint Farms or individual site collections:

- **SharePoint PowerShell Cmdlets:** The SharePoint PowerShell-based Cmdlets are Microsoft-provided commands that can perform a variety of operations.
- **STSADM:** STSADM is a Microsoft-provided tool for command-line administration of SharePoint Servers and sites.

Understanding the SharePoint backup process

Figure 4. Overview of SharePoint backup process



- 1 The user defines a backup job in the NetVault Backup WebUI.
- 2 Depending on the Backup Method selected, the Plug-in for SharePoint converts the job definition into corresponding SharePoint PowerShell Cmdlets or STSADM backup commands.
- 3 The SharePoint PowerShell Cmdlets or STSADM runs the backup commands that read data from SharePoint and stores backups on the backup device managed by NetVault Backup.

Reviewing types

The plug-in provides the following types of backup:

- Full Backup
- Differential Backup
- Individual Site Collection

To protect your SharePoint deployment fully, backups of the following items are available as detailed in [Extra items to protect using NetVault Backup and the Plug-in for FileSystem](#):

- Customizations
- Alternate Access Mapping
- SharePoint Farm Configuration

Full Backup

A Full Backup is the most common type of backup performed. It backs up the entire SharePoint Farm for disaster recovery, media failure, or data corruption across many content databases or site collections.

Full Backups consume more space and time per backup and are typically supplemented by Differential Backups, which are created more frequently. With Full Backups, you can re-create a SharePoint Farm in one step. To do so, you can restore the entire farm or you can restore an individual web application or content database from the same Full Backup.

The entire SharePoint Farm is backed up during a Full Backup even if individual web applications or site collections are selected on the **NetVault Backup Selections** page. A Full Backup does not depend on any other backup and can be restored in a single step.

Differential Backup

With a Differential Backup, only the data that has changed since the last Full Backup occurred is backed up. Differential Backups reduce your risk of data loss because they are smaller and faster than Full Backups.

A Differential Backup is useful if some of the site collections are modified more frequently than others. In this case, Differential Backups let you back up frequently without the overhead of Full Backups.

A Differential Backup must always have a “base” backup, which is a Full Backup. Performing a Differential Backup without first performing a Full Backup may lead to backup failures in addition to an inability to restore and recover your SharePoint Farm properly.

Individual Site Collection

Individual Site Collection backups are an ideal option when you only want to protect a subset of individual site collections or duplicate one or multiple site collections to a test environment. Individual Site Collection backups are independent of an established sequence of backups and do not affect the recoverability of Full or Differential Farm Backups. However, they should *not* be used as a replacement for a Full and Differential Backup strategy.

Examples of backup sequences

Following are a few examples of backup sequences that support multiple restore scenarios and that you can implement to meet your SharePoint data protection requirements.

- **Full Backups only:** When requirements guarantee data protection up to the previous day, performing Full Backups nightly should suffice when one or more of the following conditions exist:
 - Backup windows are large.
 - Databases are small.
 - Updates are infrequent across the entire SharePoint Farm.
 - Databases are only for testing or development purposes.
- **Full + Differential Backups:** When requirements guarantee data protection up to the previous day and backups have to be as fast as possible, Full Backups coupled with Differential Backups is a valid strategy. For example, Full Backups are performed every Sunday at 11:00 P.M., while Differential Backups are performed Monday through Saturday at 11:00 P.M. Each Differential Backup includes all the changes since the last Full Backup, which is known as the differential base.

No matter when recovery is performed, the same number of restore jobs is required. For example, if recovery is performed on Tuesday, Sunday's Full Backup and Monday's Differential Backup must be restored. Whereas, if recovery is performed on Thursday, Sunday's Full Backup followed by Wednesday's Differential Backup must be restored.

Even though Differential Backups increase not only in size but in duration, restores are quicker due to the fewer restore jobs that must be run.

Performing backups

A backup using the plug-in includes the steps outlined in the following topics:

- [Selecting data for a backup](#)
- [Setting backup options](#)
- [Finalizing and submitting the job](#)

Selecting data for a backup

You must use sets—Backup Selection Set, Backup Options Set, Schedule Set, Target Set, and Advanced Options Set—to create a backup job.

Backup Selection Sets are essential for Incremental Backups. Create the Backup Selection Set during a Full Backup, and use it for Incremental Backups. The backup job reports an error if you do not use a Selection Set for the Incremental Backup. For more information, see the *Quest NetVault Backup Administrator's Guide*.

i | TIP: To use an existing set, click **Create Backup Job**, and select the set from the **Selections** list.

- 1 In the Navigation pane, click **Create Backup Job**.

You can also start the wizard from the Guided Configuration link. In the Navigation pane, click **Guided Configuration**. On the **NetVault Configuration Wizard** page, click **Create backup jobs**.

- 2 In **Job Name**, specify a name for the job.

Assign a descriptive name that lets you easily identify the job when monitoring its progress or restoring data. The job name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. On Windows, there is no length restriction. However, a maximum of 40 characters is recommended on all platforms.

- 3 Next to the **Selections** list, click **Create New**.

- 4 In the list of plug-ins, open **Plug-in for SharePoint** to view the **Farm** node.

- 5 If you are performing a Full or Differential Backup, select the **Farm** node.

When you select the Farm or root node, all items are automatically selected.

i | IMPORTANT: When the Farm node has been selected in the selection tree, that is, all items have a green check mark with white background, select Full or Differential as the backup type on the **Backup Options** tab.

- 6 If you are performing an Individual Site Collection backup, expand the **Farm** node to display the Web Applications icon, navigate the selection tree to the applicable Site Collections node, and select the site collections to include in the backup.

You can select the following groups of objects:

- **All Site Collections for a Web Application**
- **Individual Site Collections**

i | **IMPORTANT:** Be aware of the following:

- If a web application does not contain any site collections, the **Site Collections** node does not expand.
- When a granular set of site collections has been selected on the **Selections** page, that is, an individual site collection has a green check mark on a white background while the **Farm** node has a green check mark on a gray background, select **Individual Site Collections** as the backup type.
- If there are thousands of individual site collections in the SharePoint environment, it can take several minutes to expand the **Site Collection** node. Quest recommends that you only use the **Individual Site Collections** backup type to protect the most critical site collections. If there are thousands of individual site collections, do not attempt to include them all in a single backup as including them all causes the backup job to fail.

7 Click **Save**, enter a name in the **Create New Set** dialog box, and click **Save**.

The name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. On Linux, the name can have a maximum of 200 characters. On Windows, there is no length restriction. However, a maximum of 40 characters is recommended on all platforms.

Setting backup options

The next step involves creating the Backup Options Set or selecting an existing one.

i | **TIP:** To use an existing set, in the **Plugin Options** list, select the set that you want to use.

1 Next to the **Plugin Options** list, click **Create New**.

2 In the **Backup Method** section, select the applicable option:

- **Use SharePoint PowerShell Cmdlets:** To perform the backup using the Cmdlets, select this option.
- **Use SharePoint Team Server Administration (Stsadm) tool:** To perform the backup using STSADM, select this option.

3 In the **Backup Type** section, select the applicable option:

- **Full:** To back up the entire SharePoint Farm, select this option.

i | **IMPORTANT:** If you selected a Farm node on the **NetVault Backup Selections** page, select **Full** or **Differential**.

- **Differential:** To back up the data that has changed since the last Full Backup, select this option.

i | **IMPORTANT:** When a content database is added to SharePoint SQL Server Instance following the completion of a Full Backup, Differential Backups fail and the SharePoint PowerShell Cmdlets or STSADM error: "Cannot perform a differential backup for database, because a current database backup does not exist" is displayed. To avoid this error, complete a Full Backup before performing additional Differential Backups. For example, if Full Backups are performed every Sunday, Differential Backups are performed nightly Monday through Saturday, and a new web application stored in a new content database is created on Wednesday afternoon, Wednesday night's Differential Backup fails. A Full Backup must be performed for any Differential Backup to complete successfully.

- **Individual Site Collection:** To back up a subset of individual site collections or duplicate one or multiple site collections to a test environment, select this option.

i | **IMPORTANT:** If you selected a granular set of site collections on the **NetVault Backup Selections** page, select **Individual Site Collection**.

4 In the **Additional Options** section, select the applicable options:

- **Number of Backup Threads:** For a Full or Differential Backup, specify the number of threads that should be used during the backup; the default is **1**. Microsoft's recommended value is **3**. The fewer the threads, the easier it is to read the backup log file.
- **Incomplete Backup of ALL Items Selected (only available for Individual Site Collection backups):** When multiple items are included in an Individual Site Collections backup, and the plug-in is unable to back up all the selected items, the plug-in lets you specify what action the backup should take. For example, if a job includes five Site Collections and the backup of the fifth Site Collection is unsuccessful while the first four are backed up successfully, you can specify what action the backup job should take. The plug-in can do one of the following:
 - **Complete with Warnings — Saveset Retained:** The job returns a status of **"Backup Completed with warnings"** and a backup saveset is created that includes the items that were successfully backed up.
 - **Complete without Warnings — Saveset Retained:** The job completes and returns a status of **"Backup Completed."** The errors are logged in the NetVault Backup binary logs and ignored on the **Job Status** page. A backup saveset is created that includes the items that were backed up.
 - **Fail — Saveset Retained:** The job returns a status of **"Backup Failed."** However, a backup saveset is generated that includes the items that were successfully backed up.
 - **Fail — No Saveset Retained:** The job returns a status of **"Backup Failed"** and no saveset of backed-up objects is kept. That is, even if some of the objects were successfully backed up, the saveset is discarded.
- **Directory for Temporary Files:** Specify the directory where temporary backup packages should be stored for SharePoint in this field. By default, this field displays the directory that you specified in the **Configure** dialog box. However, you can override on a per-job basis.

For Small and Scaled-Out Farms, use UNC share paths so that the SQL Server Database and search components are written to the same location. For more information, see [Deploying the plug-in](#).

i | **IMPORTANT:** If the backup package for the latest Full Backup has been deleted or relocated and is no longer available in the specified directory, all Differential Backups fail. Run a new Full Backup job before any Differential Backup jobs complete successfully.

5 Click **Save** to save the set, enter a name in the **Create New Set** dialog box, and click **Save**.

The name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. On Windows, there is no length restriction. However, a maximum of 40 characters is recommended on all platforms.

Finalizing and submitting the job

The final steps include setting additional options on the Schedule, Target Storage, and Advanced Options pages, submitting the job, and monitoring the progress through the Job Status and View Logs pages. These pages and options are common to all NetVault Backup Plug-ins. For more information, see the *Quest NetVault Backup Administrator's Guide*.

- 1 Use the **Schedule**, **Target Storage**, and **Advanced Options** lists to configure any additional required options.
- 2 Click **Save** or **Save & Submit**, whichever is applicable.

i | **TIP:** To run a job that you have already created and saved, select **Manage Job Definitions** in the Navigation pane, select the applicable job, and click **Run Now**.

You can monitor progress on the **Job Status** page and view the logs on the **View Logs** page. For more information, see the *Quest NetVault Backup Administrator's Guide*.

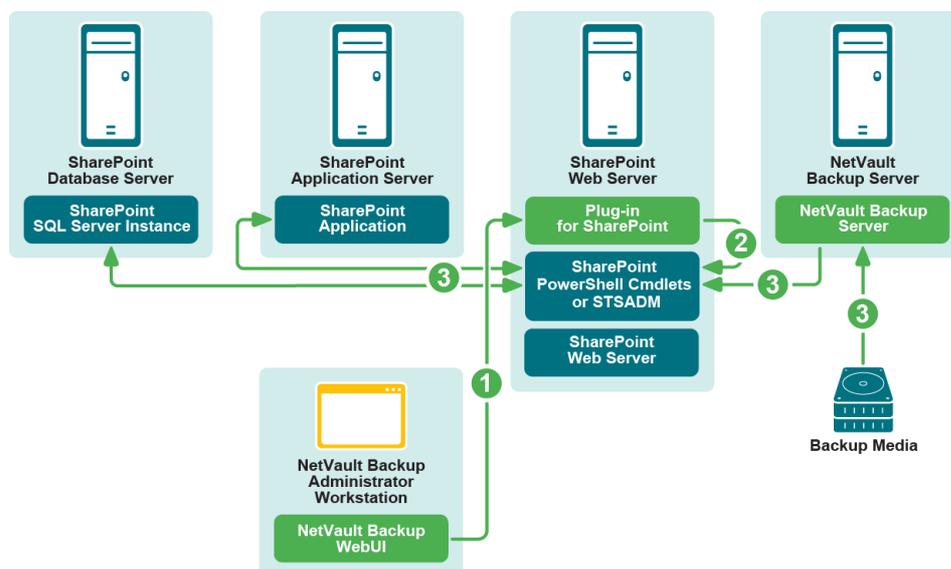
Restoring data

- Understanding the SharePoint restore process
- Restoring backups in SharePoint
- Restoring a single Full Backup, a Full + Differential sequence, or an Individual Site Collection Backup
- Using other restore procedures

Understanding the SharePoint restore process

This topic provides an overview on using the plug-in to restore and recover farms, web applications, and Individual Collection Sites.

Figure 5. Overview of restore process



- 1 The user defines the restore job in the NetVault Backup WebUI.
- 2 The plug-in converts the job definition into corresponding SharePoint PowerShell Cmdlets or STSADM restore commands.
- 3 The SharePoint PowerShell Cmdlets or STSADM runs restore commands that read data from the backup device managed by NetVault Backup Server and restores data into SharePoint.

i NOTE: By default, the plug-in uses SharePoint PowerShell Cmdlets to perform all restores. However, you can instruct the plug-in to use STSADM instead. For more information, see the description of the **Use STSADM Tool For All Restores** option in [Configuring default settings](#).

Understanding the available types of restores

To perform a successful restore, you must have a full understanding of the types of restores that are available.

- **Restoring a Single Full farm Backup:** The restore of a single Full Backup is seen as a restore sequence by the plug-in. Therefore, certain steps must be followed to restore a single Full Backup and render its recovered data suitable for use by SharePoint.
- **Restoring a Full + Differential farm Backup sequence:** Assuming that Full Backups are performed every Sunday at 11:00 p.m. and Differential Backups are performed Monday through Saturday at 11:00 p.m., the day on which recovery is performed determines what backups must be recovered. (For example, if recovery is performed on Tuesday, Sunday's Full Backup and Monday's Differential Backup must be restored. If recovery is performed on Thursday, Sunday's Full Backup followed by Wednesday's Differential Backup must be restored.) After the Full Backup is restored, you would restore the latest Differential Backup.
- **Restoring an Individual Site Collection Backup:** When restoring an Individual Site Collection backup, ensure that the web application that the individual site collection belongs to exists. If the web application does not exist, re-create the web applications *before* you perform the restore. Next, verify that the content databases where the individual site collections are stored have a status of **Started** in the **SharePoint Central Administration** utility. After completing these prerequisites, you can restore the applicable backup.

Restoring backups in SharePoint

A standard restore with the plug-in includes the steps outlined in the following topics.

- i** | **IMPORTANT:** If appropriate, you have the option using a Full Backup to restore only your web applications. To restore a Full Backup, you must be a member of the Administrators group. If you do not have administrator permissions, you can only restore data from the Web Application for which you do have permission. If you initiate a restore job for which you do *not* have the applicable permissions, NetVault Backup displays a “Restore Failed” status. The NetVault Backup binary logs list a “SharePoint PowerShell Cmdlet failed” or “STSADM failed” error message. Although the status implies that the restore failed to complete, any data for which you do have the correct permissions is restored.

Validating prerequisites

Verify that the following requirements are met:

- **Services started:** In the **Services** window, which you can access by clicking **Start > Control Panel > Administrative Tools > Services**, verify the following; for more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#):
 - The **SharePoint Administration** service is **Started**.
 - If you are performing granular restores that include the **Windows SharePoint Services Web Application** or one or more web applications, ensure that the **SharePoint Timer** service is **Stopped**. This step avoids update conflicts during the restore job.
 - If you are restoring the SSP for a Single Server deployment, the status of the **SharePoint Timer** service is **Started**.
- **Web applications:** If you are restoring web applications, content databases, or individual site collections, ensure that the web application exists. If the web application does not exist, re-create it *before* you perform the restore. This step ensures that the timer jobs associated with each web application are created.
 - 1 Open **SharePoint Central Administration**, and select the **Application Management** tab.
 - 2 In the **SharePoint Web Application Management** section, click **Create or extend Web application**.

- 3 In the **Adding a SharePoint Web Application** section, click **Create a new Web application**.
- 4 On the **Create New Web Application** page, enter the settings for the new web application. Ensure that the **IIS web site** and the **Database Name** match the web application as it existed on the source SharePoint deployment.

i | **IMPORTANT:** Some SharePoint timer job definitions are not restored successfully when you back up a SharePoint Web application, and then you restore this application to a new farm. For a fix that eliminates the need to create web applications before you perform the restore to ensure that the timer jobs are created, see <http://support.microsoft.com/kb/942989>.

- **Content databases:** When restoring individual site collections, confirm that the content databases where the individual site collections are stored have a status of **Started** in the **SharePoint Central Administration** utility.
 - 1 Open **SharePoint Central Administration**, and select the **Application Management** tab.
 - 2 In the **SharePoint Web Application Management** section, click **Content Databases**.
 - 3 Verify that the applicable databases have a status of **Started**.

Selecting data for a restore

- 1 In the Navigation pane, click **Create Restore Job**.
- 2 On the **Create Restore Job—Choose Saveset** page, select **Plug-in for SharePoint** from the **Plugin Type** list.
- 3 To filter the items displayed in the saveset table further, use the **Client**, **Date**, and **Job ID** lists.

The table displays the saveset name (job title and saveset ID), creation date and time, and size. By default, the list is sorted by creation date.

The following table outlines the backup-type identifiers:

Backup method	Backup type	Backup type identifier
SharePoint PowerShell Cmdlets	Full Backup	SP CMDLET FULL
	Differential Backup	SP CMDLET DIFFERENTIAL
	Individual Site Collection	SP CMDLET INDIVIDUAL SITE
STSADM	Full Backup	STSADM FULL
	Differential Backup	STSADM DIFFERENTIAL
	Individual Site Collection	STSADM INDIVIDUAL SITE

- 4 In the saveset table, select the applicable item.

When you select a saveset, the following details are displayed in the **Saveset Information** area: Job ID, job title, server name, client name, plug-in name, saveset date and time, retirement setting, Incremental Backup or not, Archive or not, saveset size, and snapshot-based backup or not.

- 5 Click **Next**.
- 6 On the **Create Selection Set** page, double-click a node to open it.

The database name is displayed when you open this node. For the **File and Filegroup** backup saveset, you can open the database node and select the individual files or filegroups. For other backup types, further drill-down shows items but you *cannot* select them.

- 7 Select the applicable data for inclusion in the restore procedure.

Full and Differential Backups provide the option to restore complete farms, individual web applications, or individual content databases. The **Create Selection Set** page for Full and Differential Backups displays all the items that are included in the backup; however, SharePoint PowerShell Cmdlets or STSADM does not make all items available for granular restore selection. Items displayed without a corresponding check box

are restored automatically when its parent node is selected. For example, **Shared Search Index** is not available for granular restore; however, it is restored when its parent **SharedService1** is selected for restore. The types of SharePoint objects visible on the tab of a Full or Differential Backup are outlined in the following table:

Icon	Name
	Farm
	Web Service, SSP, Global Search Settings, or Search Service
	Web Application, User Profile Application, Session State Shared Application, Search Shared Application, or Search Service Instance
	Configuration, Shared Service, Shared Search, or Content Database

When performing granular restores with Full and Differential Backups, ensure that the node for the individual item being restored is selected. For example, if you want to restore an individual web application, navigate the tree to the applicable web application name, and select the web application's node. When properly selected, the Web Application node has a large green check mark with white background.

Do *not* select a parent node and exclude individual sub nodes with a red X. This combination causes the restore job to fail because SharePoint PowerShell Cmdlets and STSADM do not allow you to restore a parent node without restoring all the sub- or child nodes.

Individual Site Collection backups provide the option to restore all the site collections included in a backup or just a subset.

Setting restore options

On the **Create Selection Set** page, click **Edit Plugin Options**, and configure the following parameters—these options are available for all VSS backup types:

- The following options are available for Full and Differential Backups:
 - **Restore Files from Backup Only:** If you want the backup package for the selected saveset restored to the specified **Directory for Temporary Files** for use in advanced restore scenarios, select this option. If you use this option, the plug-in restores files to the target directory and leaves them intact; the plug-in does not restore the files to the SharePoint Farm. For more information, see [Using other restore procedures](#).
 - **SQL Server User Name:** Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
 - **Password:** Enter the password associated with the user specified in the preceding field.
- The following options are available for Individual Site Collection backups:
 - **Restore Files from Backup Only:** If you want the backup package for the selected saveset restored to the specified **Directory for Temporary Files** for use in advanced restore scenarios, select this option. If you use this option, the plug-in restores files to the target directory and leaves them intact; the plug-in does not restore the files to the SharePoint Farm. For more information, see [Using other restore procedures](#).
 - **Overwrite Existing:** If you want to overwrite the existing configuration when restoring Individual Site Collection backups to the same or alternate server or farm, select this option. When this option is cleared, the individual site collection *cannot* exist in the destination server or farm; otherwise, the restore job fails.

Finalizing and submitting the job

The final steps include setting additional options on the Schedule, Source Options, and Advanced Options pages, submitting the job, and monitoring the progress through the Job Status and View Logs pages. These pages and options are common to all NetVault Backup Plug-ins. For more information, see the *Quest NetVault Backup Administrator's Guide*.

- 1 To save the settings, click **Ok**, and then click **Next**.
- 2 In **Job Name**, specify a name for the job if you do not want to use the default setting.

Specify a detailed title that lets you easily identify the job when monitoring its progress. The job name can contain alphanumeric and nonalphanumeric characters, but it cannot contain non-Latin characters. There is no length restriction. However, a maximum of 40 characters is recommended on all platforms.
- 3 In the **Target Client** list, select the machine on which you want to restore the data.

i | **TIP:** You can also click **Choose**, and then locate and select the applicable client in the **Choose the Target Client** dialog box.
- 4 Use the **Schedule**, **Source Options**, and **Advanced Options** lists to configure any additional required options.
- 5 Click **Save** or **Save & Submit**, whichever is applicable.

You can monitor progress on the **Job Status** page and view the logs on the **View Logs** page. For more information, see the *Quest NetVault Backup Administrator's Guide*.

- i** | **IMPORTANT:** If you selected multiple items for restore, multiple SharePoint PowerShell Cmdlets or STSADM restores are performed consecutively in the same plug-in restore job. When reviewing the NetVault Backup job logs, review the entire log when searching for errors or warnings. The SharePoint PowerShell Cmdlets or STSADM status near the end of the logs only reflects the status of the last SharePoint PowerShell Cmdlets or STSADM restore.

Restarting services

Ensure that all SharePoint services and SharePoint Server services are started in the Windows **Control Panel**. For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

Restoring a single Full Backup, a Full + Differential sequence, or an Individual Site Collection Backup

The following topics provide high-level descriptions of the steps involved in restoring specific types of backups. Use this information with the steps provided in [Restoring backups in SharePoint](#).

Restoring a single Full farm Backup

The restore of a single Full Backup is seen as a restore sequence by the plug-in. Therefore, certain steps must be followed to restore a single Full Backup and render its recovered data suitable for use by SharePoint.

- i** | **IMPORTANT:** This topic describes the steps for recovering a single Full Backup; they do *not* apply to the recovery of a Full Backup associated with a Differential sequence of restores.

- 1 On the **Create Selection Set** page, select the objects to restore; that is, the complete farm, individual web applications, or individual site collections that have been corrupted.
For more information, see [Selecting data for a restore](#).
- 2 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
- 3 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 4 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

For more information, see [Finalizing and submitting the job](#).

On job completion, NetVault Backup finalizes the restore process and all restored data is accessible to SharePoint.

Restoring a Full + Differential farm backup sequence

This example assumes that Full Backups are performed every Sunday at 11:00 p.m., while Differential Backups are performed Monday through Saturday at 11:00 p.m. If recovery is performed on Tuesday, Sunday's Full Backup and Monday's Differential Backup must be restored. If recovery is performed on Thursday, Sunday's Full Backup followed Wednesday's Differential Backup must be restored.

Restoring the Full Backup

- 1 On the **Create Selection Set** page, access the server where the plug-in is installed, and locate the Full Backup saveset that served as a starting point for the applicable Differential Backup sequence.
- 2 Navigate the selection tree for the backup saveset, and select the objects to restore; that is, the complete farm, individual web application, or individual site collections that have been corrupted.
- 3 Note the exact items that were selected for the restore.
Quest recommends that you use a selection set to ensure that the same items are selected for both the Full and Differential Backups.
For more information, see [Selecting data for a restore](#).
- 4 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
- 5 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 6 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

For more information, see [Finalizing and submitting the job](#).

Restoring the applicable Differential Backup

After the original Full Backup is successfully restored, complete the following steps:

- 1 On the **Create Selection Set** page, navigate the selection tree to the backup saveset belonging to the applicable Differential Backup in the sequence.
- 2 Open this backup saveset, and select the *same items* that were selected in the Full Backup, that is, the items that were selected during the restore of the Full Backup.

Quest recommends that you use a selection set to ensure that the same items are selected for both the Full and Differential Backups.
- 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
- 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 5 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

For more information, see [Finalizing and submitting the job](#).

On job completion, NetVault Backup finalizes the restore process and all restored data is accessible to SharePoint.

Restoring an Individual Site Collection Backup

- 1 Complete the steps outlined for the web application and content database items in [Validating prerequisites](#).
- 2 On the **Create Selection Set** page, access the server where the plug-in is installed, and locate the applicable Individual Collection Site Backup.
- 3 Navigate the selection tree for the backup saveset, and select the objects to restore, that is, the individual site collections.

For more information, see [Selecting data for a restore](#).
- 4 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET INDIVIDUAL SITE** or **STSADM INDIVIDUAL SITE**.
 - Select the **Overwrite Existing** check box if you want to overwrite the existing configuration.
- 5 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 6 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

For more information, see [Finalizing and submitting the job](#).

On job completion, NetVault Backup finalizes the restore process and all restored data is accessible to SharePoint.

Using other restore procedures

This topic describes other restore operations that you can perform with the plug-in. Some of these operations involve common tasks, which are described first.

- [Common tasks](#)
- [Restoring to the same server or farm](#)
- [Restoring to an alternate server or farm](#)

i | **NOTE:** In this topic, STSADM commands are used to perform some of the tasks, but you can use the equivalent SharePoint PowerShell Cmdlets. For more information, see <https://docs.microsoft.com/en-us/powershell/module/sharepoint-server/?view=sharepoint-ps>.

Common tasks

The following tasks are referred to when they are applicable. These tasks include:

- [Stopping the SharePoint Search service](#)
- [Deleting the Search Instance Database](#)
- [Restarting the SharePoint Search service](#)
- [Deleting Shared Services in a new deployment](#)
- [Re-creating the web applications](#)
- [Deleting content databases](#)
- [Redeploying solutions](#)
- [Re-creating Alternate Access Mappings \(optional\)](#)
- [Restarting timer jobs](#)
- [Reactivating features](#)
- [Restarting IIS](#)
- [Creating the SharePoint Central Administration Web Site](#)
- [Configuring the SharePoint Search service](#)
- [Configuring the SharePoint Search service](#)
- [Reconfiguring the Index Schedule](#)
- [Verifying that the Site Collection Administrator matches on the source and alternate](#)
- [Adding SSP Credentials to the Alternate Server or Farm](#)
- [Verifying that the Shared Services rights reference the correct administrator](#)
- [Verifying that the Business Catalog Permissions reference the correct administrator](#)
- [Validating the Authoritative Pages for Search Settings](#)
- [Validating the Trusted File location](#)

Stopping the SharePoint Search service

To stop the SharePoint Search service, enter the following STSADM commands:

```
stsadm -o spsearch -action fullcrawlstop  
stsadm -o spsearch -action stop -f
```


Deleting Shared Services in a new deployment

Delete the default SSP, **SharedServices1**, in the newly installed deployment.

- 1 Open **SharePoint Central Administration**, and select **Shared Services Administration** from the menu on the navigation pane.
- 2 Note the web applications that are listed under **SharedServices1**.
- 3 On the **Application Management** page, in the **SharePoint Web Application Management** section, click **Delete Web application**.
- 4 Delete both web applications associated with the **SharedServices1** SSP as noted in [Step 2](#) with **Delete content databases** and **IIS Web site** set to **Yes**.
- 5 At the command prompt, use STSADM to delete the **SharedServices1** SSP by entering the following command:

```
stsadm -o deletessp -title SharedServices1 -deletedatabases
```

i | **IMPORTANT:** If the default Shared Services entry in the newly installed deployment is not deleted, the restore job stops responding when trying to restore the Shared Search Index at the following step: **Progress: [Shared Search Index] 90 percent complete**.

Re-creating the web applications

Re-create all web applications for your farm before you perform a restore. This step ensures that the timer jobs associated with each web application are created.

- 1 Open **SharePoint Central Administration**, and select the **Application Management** tab.
- 2 In the **SharePoint Web Application Management** section, click **Create or extend Web application**.
- 3 In the **Adding a SharePoint Web Application** section, click **Create a new Web application**.
- 4 Enter the settings for the new web application.

Ensure that the **IIS web site** and the **Database Name** match the web application as it existed on the source SharePoint deployment.

The web applications and associated database names are detailed in the NetVault Backup log for the backup job that is used in a disaster recovery. For example, if the NetVault Backup log for the backup job included the following tree for SharePoint, the following web applications must be created:

- Web Application Name: SharePoint - 2073
 - Database Name: WSS_Content_PM
- Web Application Name: SharePoint - 80
 - Database Name: WSS_Content

```
Farm\  
  [SharePoint_Config_20df73ac-d2b0-4c99-a919-b853626bae80]\  
  Windows SharePoint Services Web Application\  
    SharePoint - 2073\  
      WSS_Content_PM\  
    SharePoint - 80\  
      WSS_Content\  
  [WSS_Administration]\  
  [Web Application]\  
    SharePoint_AdminContent_feb7e07b-aeb4-4403-a5d4-  
    a78fe0f90b0e  
  SharedServices1\  
    [SharePoint - 36448]\  
      SharedServicesContent_96a5c320-6b44-4daa-a7ar-1a43e1e3a3a2\  
    [SharedServices1_DB_c99ef411-87c1-4d91-bea6-dde5b1acbb16]\  
  [UserProfileApplication]
```

```
[SessionStateSharedApplication]\
[Shared Search Index]\
  [SharedServices1_Search_DB_9461bb96-b54b-4368-bd42-
    826f2b03d837]\
Global Search Settings\
Windows SharePoint Services Search\
  [Search instance]\
  [WSS_Search_BKB_APM_PM]\
```

For more information, see <http://go.microsoft.com/fwlink/?LinkId=102634&clcid=0x409>.

Deleting content databases

To ensure that the names of content databases for the new farm or server equal the names of the content databases for the source farm or server, ensure that all content databases for the web application being restored are deleted with the **SQL Server Management Studio**.

- 1 On the server where the SQL Server Instance resides, open **SQL Server Management Studio**.
- 2 In the **Object Explorer**, navigate to the **Databases** node, right-click the database that you want to delete, and select **Delete**.
- 3 On the **Delete Object** dialog box, select **Close existing connections**, and click **OK**.

Redeploying solutions

If you have a solution package that you want to redeploy, use the STSADM **deploysolution** option. In the following example, the **-allcontenturls** parameter is used to deploy the solution to all site collections within the farm.

```
stsadm -o deploysolution -name <mysolution.wsp> -allcontenturls
```

For additional information about deploying solutions, see:

<http://go.microsoft.com/fwlink/?LinkId=102644&clcid=0x409>

Re-creating Alternate Access Mappings (optional)

Use the Alternate Access Mapping text file restored with the NetVault Backup Plug-in for *FileSystem* as a reference.

- 1 Open **SharePoint Central Administration**, and select the **Operations** tab.
- 2 In the **Global Configuration** section, click **Alternate access mappings**.
- 3 See the text file, and re-create your mappings.

Restarting timer jobs

Because some timer jobs are not started when you restore the web-application backup, use the following procedure to start the jobs. For more information, see <http://go.microsoft.com/fwlink/?LinkId=102639&clcid=0x409>.

- 1 Create a Publishing Portal site collection in the newly created farm, which automatically creates the following timer job definitions.
 - Scheduled Approval (ApprovalJobDefinition)
 - Scheduled Page Review (NotificationJobDefinition)
 - Variations Propagate Page Job Definition (PropogateVariationPageJobDefinition)
 - Variations Propagate Site Job Definition (SpawnSitesJobDefinition)
 - Scheduled Unpublish (UnpublishJobDefinition)

- 2 Delete the temporary Publishing Portal site collection that you created; the timer job definitions remain active.
- 3 After you restore each web application, start the Bulk workflow task processing job (BulkWorkflowWIJD) with the following STSADM command:

```
stsadm -o setbulkworkflowtaskprocessingschedule -schedule <recurrenceString>
```

- 4 After you restore each web application, start the Search and Process job (SearchAndProcessWIJD) with the following STSADM command on the application server:

```
stsadm -o setsearchandprocessschedule -schedule <recurrenceString>
```

For more information about the preceding commands, see <http://technet.microsoft.com/en-us/library/cc263384.aspx>.

- 5 Repeat [Step 3](#) and [Step 4](#) for all web applications.

Reactivating features

If your solution contains features that must be enabled, enable the features at the appropriate level—web application, site collection, or website. To enable a feature, run the following STSADM command at a command prompt, specifying the URL of the web application, site collection, or site:

```
stsadm -o activatefeature -name
<folderInFEATURESdirectoryThatContainsFeature.xmlFile> -url
http://Server/Site/Subsite
```

Restarting IIS

To ensure that IIS has the most current configuration, restart IIS by running the following command at a command prompt:

```
iisreset /noforce
```

Creating the SharePoint Central Administration Web Site

The SharePoint Central Administration Web Site is installed by default on the first server on which you install SharePoint, such as the application server.

- 1 On the application server, start the **SharePoint Products and Technologies Configuration Wizard**.
- 2 On the **Welcome to SharePoint Products and Technologies** page, click **Next**.
- 3 On the dialog box that notifies you that some services might need to be restarted or reset during configuration, click **Yes**.
- 4 On the **Connect to a server farm page**, select **No, I want to create a new server farm**, and then click **Next**.
- 5 On the **Specify Configuration Database Settings** dialog box, in the **Database server** box, type the name of the computer that is running SQL Server.
- 6 In the **Database name** box, enter a name for your configuration database in if you do not want to use the default (**SharePoint_Config**).
- 7 In the **User name** box, use the **DOMAIN\username** format to enter user name of the Server farm account.
- 8 In the **Password** box, type the user's password, and then click **Next**.
- 9 On the **Configure SharePoint Central Administration Web Application** page, select the **Specify port number** check box, and enter the port number if you want the SharePoint Central Administration Web application to use a specific port.
- 10 Do one of the following:
 - If you want to use NTLM authentication, the default, click **Next**.

- If you want to use Kerberos authentication, click **Negotiate (Kerberos)**, and then click **Next**.
- 11 On the **Completing the SharePoint Products and Technologies Configuration Wizard** page, click **Next**.
 - 12 On the **Configuration Successful** page, click **Finish**.

The **Central Administration** home page opens.

Configuring the SharePoint Search service

To start the **SharePoint Search** service on the application server, complete the following steps. For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

- 1 Open **SharePoint Central Administration**, and select the **Operations** tab.
- 2 In the **Topology and Services** section, click **Services on server**.
- 3 In the **Server** list, select the server that you want to configure as an index server.
You can also choose to configure this server as a query server.
- 4 On the **Services on Server** page, next to **SharePoint Search**, click **Start**.
- 5 Select the **Use this server for indexing content** check box.
This step expands the page and adds the **Index Server Default File Location**, **Indexer Performance**, and **Web Front End and Crawling** sections.
- 6 If you want to use this server to service search queries, select the **Use this server for servicing search queries** check box.
This step expands the page and adds the **Query Server Index File Location** section.
- 7 In the **Contact E-mail Address** section, type the email address you want external site administrators to use to contact your organization if problems arise when their sites are crawled by your index server.

Configuring the SharePoint Search service

To start the **SharePoint Search** service on the application server, complete the following steps. For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

- 1 Open **SharePoint Central Administration**, and select the **Operations** tab.
- 2 In the **Topology and Services** section, click **Services on server**.
- 3 In the **Server** list, select the application server.
- 4 On the **Services on Server** page, next to **SharePoint Search**, click **Start**; for more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).
- 5 In the **Service Account** section, type the user name and password for the user account under which the **SharePoint Search** service account runs.
- 6 In the **Content Access Account** section, type the user name and password for the user account that the search service will use to search over content.
This account must have read access to all the content you want it to search over. If you do not specify credentials, the same account used for the search service is used.
- 7 In the **Indexing Schedule** section, either accept the default settings, or specify the schedule that you want the search service to use when searching over content.
Quest recommends that you clear the **Every X Minutes** option to ensure that there are no update conflicts during the restore.
- 8 After you have configured all the settings, click **Start**.

Reconfiguring the Index Schedule

You can change the Index Schedule back to the applicable interval.

- 1 Open **SharePoint Central Administration**, and select the **Operations** tab.
- 2 In the **Topology and Services** section, click **Services on server**.
- 3 In the **Server** field, select the server where the **Search Indexing** service is installed.
- 4 In the **Services on Server** column, click the **Windows SharePoint Service Search** link.
- 5 Select the applicable option for the **Index Schedule**, and click **OK**.

Verifying that the Site Collection Administrator matches on the source and alternate

During the restore to an alternate server or farm, SharePoint PowerShell Cmdlets or STSADM maintains the Site Collection Administrator of the source server or farm. If the source server farm Site Collection Administrator differs from the alternate server or farm Site Collection Administrator, update the Site Collection Administrator for every site collection restored in the alternate server or farm; otherwise, users receive unauthorized-user errors when accessing site collections through a browser.

- 1 On the alternate farm, open **SharePoint Central Administration**, and select the **Application Management** tab.
- 2 In the **SharePoint Site Management** section, click **Site Collection Administrators**.
- 3 In the **Site Collection** field, select the **Site Collection** name.
- 4 To reflect the applicable SharePoint administrator for the alternate server or farm, update the **Primary Site Collection Administrator** and **Secondary Site Collection Administrator**.
- 5 Repeat **Step 2** and **Step 3** for each Site Collection in each web application restored.

Adding SSP Credentials to the Alternate Server or Farm

Ensure that the SSP service credentials are added to the alternate server or farm after the restore.

- 1 Open **SharePoint Central Administration**, and select **Shared Services Administration** from the menu on the navigation pane.
- 2 On the **Manage This Farm's Shared Services** page, right-click the **Shared Services Provider** restored to the alternate server, and select **Edit Properties**.
- 3 In **SSP Service Credentials**, enter the user name of the local administrator for the alternate server in the **DOMAIN\username** format.
- 4 Enter the password associated with the user specified in the preceding field, and click **OK**.

Verifying that the Shared Services rights reference the correct administrator

Ensure that the **Shared Services Rights** reference the local administrator on the alternate server or the domain administrator on the alternate farm.

- 1 Open **SharePoint Central Administration**, and select the **Shared Services** name from the menu on the navigation pane.
- 2 In the **User Profile and My Sites** section, click **Personalization services permissions**.
- 3 On the **Shared Services Rights** page, click **Add Users/Groups**.

- 4 Using the **DOMAIN\username** format, enter the user name of the local administrator of the alternate server.
- 5 To add the following rights, select them, and click **Save**.
 - Manage Analytics
 - Manage Audiences
 - Manage User Profiles
 - Personal Features
 - Personal Site
 - Set Permissions
- 6 Select the user from the source server, and click **Remove Selected Users**.

Verifying that the Business Catalog Permissions reference the correct administrator

Ensure that the Business Catalog Permissions reference the local administrator on the alternate server or the domain administrator on the alternate farm.

- 1 Open **SharePoint Central Administration**, and select the **Shared Services** name from the menu on the navigation pane.
- 2 In the **User Profile and My Sites** section, click **Business Data Catalog** permissions.
- 3 On the **Manage Permissions: Business Data Catalog** page, click **Add Users/ Groups**.
- 4 Using the **DOMAIN\username** format, enter the user name of the local administrator of the alternate server.
- 5 To add the following permissions, select them, and click **Save**.
 - Edit
 - Execute
 - Selectable in clients
 - Set Permissions

Validating the Authoritative Pages for Search Settings

Ensure that the **Authoritative Pages** in the **Search Setting** references the alternate server or farm.

- 1 Open **SharePoint Central Administration**, and select **Shared Services Administration** from the menu on the navigation pane.
- 2 In the **Search** section, click **Search Settings**.
- 3 In the **Authoritative Pages** section, select **Specify authoritative pages**.
- 4 Ensure all authoritative pages reference the host name of the alternate server or server in the alternate farm, and click **OK**.

Validating the Trusted File location

Ensure that the **Trusted File** location in the **Excel Services Trusted File Locations** references the alternate server.

- 1 Open **SharePoint Central Administration**, and select the **Shared Services** name from the menu on the navigation pane.
- 2 In the **Excel Services Settings** section, click **Trusted File Locations**.

- 3 Ensure that the **Address** field references the full Windows SharePoint Services location, network file share, or web folder address of this trusted location, and click **OK**.

Restoring to the same server or farm

This topic describes the following procedures:

- [Restoring SharePoint Search to the same server or farm](#)
- [Performing a disaster recovery of a Single Server deployment to the same server](#)
- [Performing a disaster recovery of a Small Farm or Scaled-Out Farm to the same farm](#)

Restoring SharePoint Search to the same server or farm

The following procedure describes how to restore the **SharePoint Search** service to the same server if it has been deleted or corrupted. For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

Verify that the following requirements are met:

- **SharePoint Search service stopped:** Stop the SharePoint Search Service. For more information, see [Stopping the SharePoint Search service](#).
- **Search Instance Database deleted:** Delete the Search Instance Database. For more information, see [Deleting the Search Instance Database](#).
- **SharePoint Search service restarted:** Restart the SharePoint Search service. For more information, see [Restarting the SharePoint Search service](#).

Beginning the restore

- **Restore Full Backup:** At a minimum, restoring the SharePoint Search Database requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **SharePoint Search** node; for more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in performs a full restore of SharePoint Search.
- **Restore Differential Backup** (optional): If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **SharePoint Search** node; for more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

- 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
- 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 5 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in performs a full restore of SharePoint Search.

- **Reconfigure Index Schedule:** Reconfigure the Index Schedule back to the applicable interval. For more information, see [Reconfiguring the Index Schedule](#).

Performing a disaster recovery of a Single Server deployment to the same server

Disaster recovery in a Single Server deployment includes the restore and recovery of the entire SharePoint deployment after a farm-level failure; that is, the loss of the entire server that houses the SharePoint SQL Server Instance, application server, and web server. To perform disaster recovery, the minimum set of backups, which includes at least a Full Backup, is required.

The following procedure describes how to perform disaster recovery to the same server where the Single Server deployment resided. You might use this procedure if a complete media failure occurred and either the damaged host was rebuilt using the same configuration or a new server was configured imitating the original host's configuration including host name.

Prerequisites

Verify that the following requirements are met:

- **SharePoint Server installed:** Install the same version and edition of the SharePoint software on the system as existed on the damaged server. This step includes installing and configuring Internet Information Services (IIS) so that your computer acts as a web server, installing the Microsoft.NET Framework version 3.0, and enabling ASP.NET 2.0.
- **IMPORTANT:** In a Single Server deployment, a Basic Installation of the SharePoint software, free or enhanced version, is assumed for these procedures.
- **Service Packs installed:** Install the same Service Packs for Windows Server and SharePoint that were previously installed on the damaged server. A minimum of SP1 is required for WSS.
- **NetVault Backup software and the Plug-in for SharePoint installed:** The same version of NetVault Backup and the plug-in must be installed and configured as they originally existed on the damaged server.
- **Full and optional Differential Backups available:** Ensure that you have the latest Full Backup and Differential Backup, if applicable, available.
- **Plug-in for FileSystem backups of additional items available:** Ensure that you have backups of the following items available as detailed in [Extra items to protect using NetVault Backup and the Plug-in for FileSystem](#):
 - Customizations
 - Alternate Access Mapping
 - SharePoint Farm Configuration

- **Delete Shared Services in the new deployment:** Delete the default SSP, **SharedServices1**, in the newly installed deployment. For more information, see [Deleting Shared Services in a new deployment](#).
- **Create web applications:** Re-create all web applications for your farm before you perform the restore. This step ensures that the timer jobs associated with each web application are created. For more information, see [Re-creating the web applications](#).
- **Ensure that the SQL Server Express Data directory exists:** If a directory other than the default directory for the SQL Server Express Data directory was used on the damaged server, ensure that this directory structure exists on the newly installed deployment.

i **IMPORTANT:** If the SQL Server Express Data directory does not exist on the newly installed deployment, the restore job fails with errors referencing: Directory lookup for the file “<Directory\FileName>” failed with the operating system error 3. (The system cannot find the path specified).
Re-create the directory structure referenced in the error message and submit the restore job again.

Disaster recovery procedure

For more information about disaster recovery, see <http://go.microsoft.com/fwlink/?LinkId=102839&clcid=0x409>.

- **Restore Full Backup:** At a minimum, recovery requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.

The plug-in performs a full restore of the SharePoint Farm to the newly installed deployment.

- **Restore Differential Backup** (optional): If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.

4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.

5 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in performs a differential restore of the SharePoint Farm to the newly installed deployment.

Post-recovery procedure

- **Redeploy solutions:** If you have a solution package that you want to redeploy, use the **STSADM deploysolution** option. For more information, see [Redeploying solutions](#).

- **Restore unpackaged customizations and alternate access mappings:** Use the *Plug-in for FileSystem* to restore unpackaged customizations and mappings as detailed in [Alternate access mapping and Customizations](#).
- **Re-create alternate access mappings** (optional): Use the Alternate Access Mapping text file to re-create mappings. For more information, see [Re-creating Alternate Access Mappings \(optional\)](#).
- **Restart timer jobs:** Some timer jobs are not started when you restore the web-application backup. For more information, see [Restarting timer jobs](#).
- **Reactivate features:** If your solution contains features that must be enabled, enable the features at the appropriate level—web application, site collection, or website. For more information, see [Reactivating features](#).
- **Restart IIS:** To ensure that IIS has the most current configuration, restart IIS. For more information, see [Restarting IIS](#).

Performing a disaster recovery of a Small Farm or Scaled-Out Farm to the same farm

Disaster recovery in a Small Farm or Scaled-Out Farm deployment includes the restore and recovery of the entire SharePoint deployment after a farm-level failure, that is, the loss of servers that house the SharePoint SQL Server Instance, application server, and web server. To perform disaster recovery, the minimum set of backups, which includes at least a Full Backup, is required.

The following procedure describes how to perform disaster recovery to the farm where the damaged SharePoint deployment resided. You can use this procedure when a complete media failure occurs and the damaged hosts are rebuilt with the same configuration or new servers are configured that imitate the original host's configuration, including host names.

Prerequisites

Verify that the following requirements are met:

- **SharePoint Server installed:** Install the same version and edition of the SharePoint software on the systems that make up the small farm as existed on the damaged farm. This step includes installing and configuring the following software on each of the servers in the farm:
 - **Database Server**
 - SQL Server software and updates
 - **Application Server**
 - .NET Framework 3.0
 - **Front-End Web Server**
 - IIS
 - .NET Framework 3.0
 - APS.NET
- **IMPORTANT:** In Small and Scaled-Out Farm deployments, an Advance Installation of the SharePoint software, free or enhanced version, is assumed for these procedures.
- **Service Packs installed:** Install the same Service Packs for Windows Server and SharePoint that were previously installed on the damaged server. A minimum of SP1 is required for WSS.
- **SharePoint Central Administration Web Site created:** The SharePoint Central Administration Web Site is installed by default on the first server on which you install SharePoint, such as the application server. For more information, see [Creating the SharePoint Central Administration Web Site](#).
- **SharePoint Search configured:** On the application server, start the **SharePoint Search** service. For more information, see [Configuring the SharePoint Search service](#) and [Configuring the SharePoint Search service](#). For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

- **Web applications created:** Re-create all web applications for your farm before you complete a restore, so that the timer jobs associated with each web application are created. For more information, see [Re-creating the web applications](#).
- **NetVault Backup software and the Plug-in for SharePoint installed:** The same version of NetVault Backup and the plug-in must be installed and configured as they originally existed on the damaged server.
- **Full and optional Differential Backups available:** Ensure that you have the latest Full Backup and Differential Backup, if applicable, available.
- **Plug-in for FileSystem backups of additional items available:** Ensure that you have backups of the following items available as detailed in [Extra items to protect using NetVault Backup and the Plug-in for FileSystem](#):
 - Customizations
 - Alternate Access Mapping
 - SharePoint Farm Configuration

Disaster recovery procedure

For more information about disaster recovery in small-to-medium-sized deployments, see <http://go.microsoft.com/fwlink/?LinkId=102839&clcid=0x409>.

- **Restore Full Backup:** At a minimum, recovery requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in performs a full restore of the SharePoint Farm to the newly installed deployment.
- **Restore Differential Backup (optional):** If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - In the **SQL Server User Name** field, use the **DOMAIN\username** format to specify the user name that has the **sysadmin** server role.
 - In the **Password** field, enter the password associated with the user specified in the preceding field.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 Complete the **Target Client**, **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in performs a differential restore of the SharePoint Farm to the newly installed deployment.

Post-recovery procedure

- **Redeploy solutions:** If you have a solution package that you want to redeploy, use the STSADM **deploysolution** option. For more information, see [Redeploying solutions](#).
- **Restore unpackaged customizations and alternate access mappings:** Use the Plug-in *for FileSystem* to restore unpackaged customizations and mappings as detailed in [Alternate access mapping and Customizations](#).
- **Re-create alternate access mappings** (optional): Use the Alternate Access Mapping text file to re-create mappings. For more information, see [Re-creating Alternate Access Mappings \(optional\)](#).
- **Restart timer jobs:** Some timer jobs are not started when you restore the web-application backup. For more information, see [Restarting timer jobs](#).
- **Reactivate features:** If your solution contains features that must be enabled, enable the features at the appropriate level—web application, site collection, or website. For more information, see [Reactivating features](#).
- **Reconfigure Index Schedule:** Reconfigure the Index Schedule back to the applicable interval. For more information, see [Reconfiguring the Index Schedule](#).
- **Restart IIS:** To ensure that IIS has the most current configuration, restart IIS. For more information, see [Restarting IIS](#).

Restoring to an alternate server or farm

This topic describes the following procedures:

- [Understanding the restore to alternate server or farm process](#)
- [Validating prerequisites](#)
- [Restoring an Individual Site Collection to an alternate farm](#)
- [Restoring a Web Application to an alternate server or farm](#)
- [Restoring a SharePoint Search to an alternate server or farm](#)
- [Restoring a Shared Services Provider to an alternate server or farm](#)
- [Performing a disaster recovery of a Single Server deployment to an alternate server](#)
- [Performing a disaster recovery of a Small Farm or Scaled-Out Farm to an alternate farm](#)

Understanding the restore to alternate server or farm process

SharePoint PowerShell Cmdlets and STSADM let you restore to an alternate server or farm with its ability to restore to a new configuration. However, restoring to a new configuration introduces more complexity and requires more manual intervention from the user.

Restoring to an alternate server or farm includes the following steps:

- Validating the prerequisites.
- Restoring backup files to the Directory for Temporary Files with the plug-in.
- Restoring the backup to an alternate server.
- Performing post-restore procedures.

The following topics provide procedures for multiple restore scenarios, including restoring individual site collections, web applications, SSPs, SharePoint Search, and disaster recovery to an alternate server. To ensure that restores to alternate servers or farms are successful, Quest recommends that you adhere to these procedures.

Validating prerequisites

When performing a complete farm or granular restore to an alternate SharePoint Server or Farm, ensure that the following prerequisites are met before initiating the restore procedures detailed in the following topics:

- **Same version and edition of SharePoint:** Ensure that the alternate SharePoint Server or Farm has the same version and edition of SharePoint as the source SharePoint Server or Farm. This requirement includes the same Service Pack and patch level.
- **Same farm deployment:** Ensure that the alternate SharePoint Server's or Farm's deployment matches the deployment of the source server or farm. For example, if restoring a backup from a Single Server deployment, you can only restore to a different Single Server deployment; if restoring a Small Farm deployment, you can only restore to a different Small Farm deployment. Mismatching deployments between the source and the alternate server or farm is not currently supported.
- **Same domain:** When restoring from a Small or Scaled-Out Farm to an alternate Small or Scaled-Out Farm, Quest recommends that both farms reside in the same network domain. It simplifies the restore process if both farms use the same domain administrator as the SharePoint administrator.

Restoring an Individual Site Collection to an alternate farm

Verify that the following requirements are met:

- **Web application created:** When restoring individual site collections, ensure that the web application that the individual site collection belongs to exists. If the web application does not exist, re-create the web applications *before* you perform the restore. This step ensures that the timer jobs associated with each web application are created. If a different Database Name is provided for the web application, it results in two content databases being attached to the web application after completion of the restore job. For more information, see [Re-creating the web applications](#).
- **New content database created:** To rename or relocate an individual site collection during the restore, a new content database is required.
 - 1 Open **SharePoint Central Administration**, and select the **Application Management** tab.
 - 2 In the **SharePoint Web Application Management** section, click **Content Databases**.
 - 3 Select the target web application, and click **Add a Content Database**.
 - 4 Navigate the selection tree for the backup saveset, and select the objects to restore, that is, the individual site collections as detailed in [Selecting data for a restore](#).

Renaming and relocating the collection during the restore

- 1 On the **Create Selection Set** page, access the server where the plug-in is installed, and locate the applicable Individual Collection Site Backup.
- 2 Navigate the selection tree for the backup saveset, and select the objects to restore, that is, the Individual Site Collections as detailed in [Selecting data for a restore](#).
- 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and verify that the **Backup Type** is labeled **SP CMDLET INDIVIDUAL SITE** or **STSADM INDIVIDUAL SITE**.
- 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm where the Individual Site Collection backup is to be restored.
- 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

For more information, see [Finalizing and submitting the job](#).

The plug-in restores a backup file for each alternate server or farm. Each individual site collection included in the restore is restored to a separate backup file stored in the **<directoryForTemporaryFiles>\nvsprestore** directory as indicated in the NetVault Backup restore job log.

- 7 On the server where the plug-in is installed in the alternate server or farm, run the applicable STSADM command for each site collection being restored.

- To relocate an individual site collection to an alternate web application:

```
stsadm -o restore -url <newURL> -filename <fileName>
```

Replace the variables with the following information:

- **<newURL>**: Enter the new URL for the site collection in the format:
http:\\<newWebApplication>\<originalURL>
- **<fileName>**: Enter the name of the Individual Site Collection backup file stored in the **<directoryForTemporaryFiles>\nvsprestore** directory as specified in the NetVault Backup restore job log.

- To rename and relocate an individual site collection to an alternate web application:

```
stsadm -o restore -url <newURL> -filename <fileName>
```

Replace the variables with the following information:

- **<newURL>**: Enter the new URL for the site collection in the format:
http:\\<newWebApplication>\<newURL>
- **<fileName>**: Enter the name of the Individual Site Collection backup file stored in the **<directoryForTemporaryFiles>\nvsprestore** directory as specified in the NetVault Backup restore job log.

Restoring a Web Application to an alternate server or farm

Verify that the following requirements are met:

- **Web applications created:** Before performing the restore, create the web applications in the alternate farm. This step ensures that the timer jobs associated with each web application are created. When creating the web application, ensure that the **Load Balanced URL** provided for the new web application matches the URL of the web application being restored. On the alternate farm, perform the steps outlined in [Re-creating the web applications](#).

The web applications and associated database names are detailed in the NetVault Backup log for the backup job that is restored. For example, if the NetVault Backup log for the backup job included the following tree for SharePoint and you wanted to restore the **SharePoint - 2475** web application, you would create a web application with the following settings:

- Web Application Name: SharePoint - 2475
 - Database Name: WSS_Content_2475
 - Load Balanced URL: http:\\<newWebServerHost>:<originalPortNumber>\

```
Farm\  
  [SharePoint_Config]\  
    Windows SharePoint Services Web Application\  
      SharePoint - 2475\  
        WSS_Content_2475\  
      SharePoint - 80\  
        WSS_Content\  
    [WSS_Administration]\  
      [Web Application]\  
        SharePoint_AdminContent_e2062b53-61cf-4ca3-ae4-  
          076f37aec653\  
    SharedServices1\  
      [SharePoint - 47807]\
```

```

SharedServiceContent\
  [SharedServices1_DB]\
  [UserProfileApplication]\
  [SessionStateSharedApplication]\
  [Shared Search Index]\
    [SharedServices1_Search_DB]\
Global Search Settings\
Windows SharePoint Services Help Search\
  [Search instance]\
    [WSS_Search_SPVMA-64]\

```

i **IMPORTANT:** Some SharePoint timer job definitions are not restored successfully when you back up a SharePoint Web application, and then you restore this application to a new farm. For a fix that eliminates the need to create web applications before you perform the restore to ensure that the timer jobs are created, see <http://support.microsoft.com/kb/942989>.

- **Content databases deleted:** To ensure that the names of content databases for the new farm match the names of the content databases for the source farm, delete all content databases for the web application that you are restoring. For more information, see [Deleting content databases](#).
- **SharePoint Timer stopped:** On the server where the plug-in is installed in the alternate farm, use the **Services** window in the Windows Control Panel to ensure that the status of the **SharePoint Timer** service is **Stopped**. This step avoids update conflicts during the restore job. For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

Beginning the restore

- **Restore Full Backup:** At a minimum, restoring a web application to an alternate farm requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.
The plug-in performs a full restore of the web application.
- **Restore Differential Backup (optional):** If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.

7 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in restores the backup package to the alternate server or farm.

- **Restore Full and Differential Backups to the alternate farm:** On the server where the plug-in is installed in the alternate farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethod new -username <SQLserverUserName> -password <password>
  -item "FARM\Windows SharePoint Services Web Application\
  <WebApplicationName>"
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>:** Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>:** Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>:** Enter the password associated with the user specified in the preceding field.
- **<WebApplicationName>:** Enter the name of the web application that you are restoring.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Web Application	New web application URL	Enter the new URL with the new web server host name and the original port.
	New web application name	To accept the <default>, press Enter .
Content Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.

Completing the restore

During the restore to an alternate server or farm, SharePoint PowerShell Cmdlets or STSADM maintains the Site Collection Administrator of the source server or farm. If the source server farm Site Collection Administrator differs from the alternate server or farm Site Collection Administrator, update the Site Collection Administrator for every site collection restored in the alternate server or farm. For more information, see [Verifying that the Site Collection Administrator matches on the source and alternate](#).

Restoring a SharePoint Search to an alternate server or farm

The following procedure describes how to restore the **SharePoint Search** service to an alternate farm. For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).

Verify that the following requirements are met:

- **SharePoint Search service stopped:** Stop the SharePoint Search service. For more information, see [Stopping the SharePoint Search service](#).
- **Search Instance Database deleted:** Delete the Search Instance Database. For more information, see [Deleting the Search Instance Database](#).

- **SharePoint Search service restarted:** Restart the SharePoint Search service. For more information, see [Restarting the SharePoint Search service](#).
- **Search Instance Database deleted again:** To ensure that the name of Search Instance Database for the new farm is the same as the name provided when starting the SharePoint Search service, verify that the content database specified during the SharePoint Search service creation process is deleted again. For more information, see [Deleting the Search Instance Database](#).

Beginning the restore

- **Restore Full Backup:** At a minimum, restoring the SharePoint Search Database requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in restores the backup package to the alternate server or farm.
- **Restore Full Backup to alternate farm:** On the server where the plug-in is installed in the alternate farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethod new -username <SQLserverUserName> -password <password>
  -item "FARM\Windows SharePoint Services Help Search"
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>:** Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>:** Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>:** Enter the password associated with the user specified in the preceding field.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Search Instance Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.

- **Restore Differential Backup (optional):** If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.

- 2 Select the **Farm** node.
- 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - Select **Restore Files from Backup Only**.
- 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
- 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
- 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in restores the backup package to the alternate server or farm.

- **Restore Differential Backup to alternate farm:** On the server where the plug-in is installed in the alternate farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethod new -username <SQLserverUserName> -password <password>
  -item "FARM\Windows SharePoint Services Help Search"
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>**: Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>**: Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>**: Enter the password associated with the user specified in the preceding field.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Search Instance Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.

- **Reconfigure Index Schedule:** Reconfigure the Index Schedule back to the applicable interval. For more information, see [Reconfiguring the Index Schedule](#).
- **Verify Site Collection Administrator:** During the restore to an alternate server or farm, STSADM maintains the Site Collection Administrator of the source server or farm. If the source server farm Site Collection Administrator differs from the alternate server or farm Site Collection Administrator, update the Site Collection Administrator for every site collection restored in the alternate server or farm. For more information, see [Verifying that the Site Collection Administrator matches on the source and alternate](#).

Restoring a Shared Services Provider to an alternate server or farm

The following procedure describes how to restore an SSP to an alternate server or farm. When restoring an SSP to an alternate server or farm, ensure that no SSP with the same name exists in the server or farm. If an SSP with the same name exists, rename the existing SSP or delete it. You can only delete the default SSP if it is the only SSP in the server or farm.

Verify that the following requirements are met:

- **SSP must not exist:** If an SSP with the same title as the SSP being restored to the alternate server or farm exists, the restore job fails. Rename or delete the existing SSP in the alternate server or farm before submitting the restore job.

To rename the existing SSP, enter the following STSADM command on the server where the plug-in is installed:

```
stsadm -o editssp -title <existing_SSP_name> -newtitle <new_SSP_name>
```

To delete the existing SSP, enter the following STSADM command on the server where the plug-in is installed:

```
stsadm -o deletessp -title <existing_SSP_name> -deletedatabases
```

An SSP cannot be deleted if it has any dependent objects; therefore, Quest recommends that you rename the existing SSP instead of deleting them.

- **SSP Administration Site Host Web Application created:** Re-create the SSP Administration site host web application in the alternate server or farm before you complete a restore, so that the timer jobs associated with the web application are created. (On the alternate farm, perform the steps outlined in [Re-creating the web applications](#).) For example, if the NetVault Backup log for the backup job included the following tree for SharePoint, the following SSP web applications must be created: Web Application Name: SharePoint - 47807; Database Name: SharedServicesContent

```
Farm\  
  [SharePoint_Config]\  
  Windows SharePoint Services Web Application\  
    SharePoint - 2475\  
      WSS_Content_2475\  
      SharePoint - 80\  
        WSS_Content\  
  [WSS_Administration]\  
  [Web Application]\  
    SharePoint_AdminContent_e2062b53-61cf-4ca3-aef4-076f37aec653\  
  SharedServices1\  
    [SharePoint - 47807]\  
      SharedServiceContent\  
      [SharedServices1_DB]\  
      [UserProfileApplication]\  
      [SessionStateSharedApplication]\  
      [Shared Search Index]\  
        [SharedServices1_Search_DB]\  
  Global Search Settings\  
  Windows SharePoint Services Help Search\  
    [Search instance]\  
      [WSS_Search_SPVMA-64]\
```

- **Shared Services Provider Administration Site Host Content Database deleted:** To ensure that the name of the SSP Administration Site Host content databases for the new server or farm matches the name of the content databases for the source server or farm, ensure that the content database created is deleted with the **SQL Server Management Studio**.

- 1 On the server where the SQL Server Instance resides, open **SQL Server Management Studio**.

- 2 In the **Object Explorer**, navigate to the **Databases** node, right-click the database for the SSP Administration Site Host web application, and select **Delete**.
- 3 On the **Delete Object** dialog box, select **Close existing connections**, and click **OK**.

Beginning the restore

- **Restore Full Backup:** At a minimum, restoring the SSP requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate server or farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in restores the backup package to the alternate server or farm.

- **Restore Full Backup to alternate server or farm:** On the server where the plug-in is installed in the alternate server or farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethode new -username <SQLserverUserName> -password <password>
  -item "Farm\<SharedServiceProviderName>"
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>:** Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>:** Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>:** Enter the password associated with the user specified in the preceding field.
- **<SharedServiceProviderName>:** Enter the name of the SSP as it existed on the source server or farm.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Web Application	New web application URL	Enter the new URL with the new web server host name and the original port.
	New web application name	To accept the <default>, press Enter .
Content Database	New database server name	Enter the name of the new SQL Server Database server. Use the Server\Instance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the default SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To ensure that the resulting database name matches the name for the content database of the source server or farm, press Enter to accept the <default>.

Item	Parameter	New value
Shared Services Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the default SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To ensure that the resulting database name matches the name for the content database of the source server or farm, press Enter to accept the <i><default></i> .
User Profile Application	New server name	Enter the host name of the new application server.
Shared Search Index	New server name	Enter the host name of the new application server.
Shared Search Index Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the default SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To ensure that the resulting database name matches the name for the content database of the source server or farm, press Enter to accept the <i><default></i> .

- **Restore Differential Backup** (optional): If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.

The plug-in restores the backup package to the alternate server or farm.

- **Restore Differential Backup to alternate server or farm:** On the server where the plug-in is installed in the alternate server or farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethod new -username <SQLserverUserName> -password <password>
  -item "Farm\<SharedServiceProviderName>"
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>**: Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>**: Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>**: Enter the password associated with the user specified in the preceding field.

- **<SharedServiceProviderName>**: Enter the name of the SSP as it existed on the source server or farm.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Web Application	New web application URL	Enter the new URL with the new web server host name and the original port.
	New web application name	To accept the <i><default></i> , press Enter .
Content Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the <i><default></i> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <i><default></i> , press Enter , and ensure that the resulting database name matches the name for the content database of the source server or farm.
Shared Services Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the <i><default></i> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <i><default></i> , press Enter , and ensure that the resulting database name matches the name for the content database of the source server or farm.
User Profile Application	New server name	Enter the host name of the new application server.
Shared Search Index Database	New server name	Enter the host name of the new application server.
Shared Search Index Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the <i><default></i> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <i><default></i> , press Enter , and ensure that the resulting database name matches the name for the content database of the source server or farm.
Search Instance Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the <i><default></i> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <i><default></i> , press Enter , and ensure that the resulting database name matches the name for the content database of the source server or farm.

Completing the restore

In Single Server deployments, a local administrator is typically used as the SharePoint administrator. This setting complicates the restoring of an SSP to an alternate Single Server deployment because each deployment is using a different local administrator. Therefore, you must perform the following post-restore procedures to ensure that the restored Shared Services on the alternate server reference the local administrator of the alternate server.

Also, several **Shared Services Provider** settings reference host names that are not updated during the restore and must be modified to reference the alternate server or farm.

- **Add Shared Services Provider service credentials:** Ensure that the SSP service credentials are added to the alternate server or farm after the restore. For more information, see [Adding SSP Credentials to the Alternate Server or Farm](#).
- **Validate Personalized Service permissions:** Ensure that the **Shared Services Rights** reference the local administrator on the alternate server or the domain administrator on the alternate farm. For more information, see [Verifying that the Shared Services rights reference the correct administrator](#).
- **Validate Business Data Catalog permissions:** Ensure that the **Business Catalog Permissions** reference the local administrator on the alternate server or the domain administrator on the alternate farm. For more information, see [Verifying that the Business Catalog Permissions reference the correct administrator](#).
- **Validate Search Authoritative web page settings:** Ensure that the **Authoritative Pages** in the **Search Setting** references the alternate server or farm. For more information, see [Validating the Authoritative Pages for Search Settings](#).
- **Validate Trusted File location:** Ensure that the **Trusted File** location in the **Excel Services Trusted File Locations** references the alternate server. For more information, see [Validating the Trusted File location](#).

Performing a disaster recovery of a Single Server deployment to an alternate server

Disaster recovery in a Single Server deployment includes the restore and recovery of the entire SharePoint deployment after a farm-level failure—the loss of the entire server that houses the SharePoint SQL Server Instance, application server, and web server. To perform disaster recovery, the minimum set of backups, which includes at least a Full Backup, is required.

The following procedure describes how to perform disaster recovery to a server other than where the damaged SharePoint deployment resided. You might use this procedure if a complete media failure occurred and the backups from the damaged server were restored to a replacement server that has a different host name.

- **IMPORTANT:** When performing disaster recovery, Quest recommends that you perform recovery to the damaged server that was rebuilt using the same configuration or a new server that was configured to imitate the original host's configuration including host name; otherwise, several more steps are required during the post-recovery process to rename the host name in several configuration settings that are not updated automatically with SharePoint PowerShell Cmdlets or STSADM.

Verify that the following requirements are met:

- **SharePoint Server installed:** Install the same version and edition of the SharePoint software on the system as it existed on the damaged server. This step includes installing and configuring IIS so that your computer acts as a web server, installing the Microsoft.NET Framework version 3.0, and enabling ASP.NET 2.0.
 - **IMPORTANT:** In a Single Server deployment, a Basic Installation of the SharePoint software, free or enhanced version, is assumed for these procedures.
- **Service Packs installed:** Install the same Service Packs for Windows Server and SharePoint that were previously installed on the damaged server. A minimum of SP1 is required for WSS.
- **Delete Shared Services in the new deployment:** Delete the default SSP, **SharedServices1**, in the newly installed deployment. For more information, see [Deleting Shared Services in a new deployment](#).

- **Web applications created:** Re-create all web applications for your farm before you complete a restore, so that the timer jobs associated with each web application are created. For more information, see [Re-creating the web applications](#).
- **Content databases deleted:** To ensure that the names of content databases for the new farm match the names of the content databases for the damaged farm, ensure that all content databases *except* for the **Configuration Database** and **Central Administration** website are deleted; for more information, see [Deleting content databases](#). Repeat the steps outlined in [Deleting content databases](#) for *each* database *except* **Configuration Database** and **Central Administration**.
 - **IMPORTANT:** The **Configuration Database** and **Central Administration** databases are not recovered. Deleting these databases causes you to start the entire Disaster Recovery process over because they must be created in place by the **SharePoint Products and Technologies Configuration Wizard**.
- **Ensure that the SQL Server Express Data directory exists:** If a directory other than the default directory for the SQL Server Express Data directory was used on the damaged server, ensure that this directory structure exists on the newly installed deployment.
 - **IMPORTANT:** If the SQL Server Express Data directory does not exist on the newly installed deployment, the restore job fails with errors referencing: Directory lookup for the file "*<Directory\FileName>*" failed with the operating system error 3. (The system cannot find the path specified).
Re-create the directory structure referenced in the error message and submit the restore job again.
- **NetVault Backup software and the Plug-in for SharePoint installed:** The same version of NetVault Backup and the plug-in must be installed and configured as they originally existed on the damaged server.
- **Full and optional Differential Backups available:** Ensure that you have the latest Full Backup and Differential Backup, if applicable, available.
- **Plug-in for FileSystem backups of additional items available:** Verify that you have backups of the following items available as detailed in [Extra items to protect using NetVault Backup and the Plug-in for FileSystem](#):
 - Customizations
 - Alternate Access Mapping
 - Document SharePoint Farm Configuration

Beginning the restore

For more information, see: <http://technet.microsoft.com/en-us/library/cc262370.aspx>

- **Restore Full Backup:** At a minimum, recovery requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.
The plug-in performs a full restore of the SharePoint Farm to the newly installed deployment.
- **Restore Differential Backup (optional):** If your backup strategy includes Differential Backups, restore the last available Differential Backup.

- 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.
- The plug-in restores the backup package to the alternate server or farm.
- **Restore Full and Differential Backups to the alternate farm:** On the server where the plug-in is installed in the alternate farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethode new -username <SQLserverUserName> -password <password>
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>**: Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>**: Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>**: Enter the password associated with the user specified in the preceding field.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Web Application	New web application URL	Enter the new URL with the new web server host name and the original port.
	New web application name	To accept the <default>, press Enter .
Content Database	New database server name	Enter the name of the new SQL Server Database server. Use the Server\Instance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.
Shared Services Database	New database server name	Enter the name of the new SQL Server Database server. Use the Server\Instance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.
User Profile Application	New server name	Enter the host name of the new application server.

Item	Parameter	New value
Shared Search Index Database	New server name	Enter the host name of the new application server.
Shared Search Index Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.
Search Instance Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.

Completing the restore

In Single Server deployments, a local administrator is typically used as the SharePoint administrator. This setting complicates the restoring of an SSP to an alternate Single Server deployment because each deployment is using a different local administrator. Therefore, you must perform the following post-restore procedures to ensure that the restored Shared Services on the alternate server reference the local administrator of the alternate server.

Also, several **Shared Services Provider** settings reference host names that are not updated during the restore and must be modified to reference the alternate server.

- **Add Shared Services Provider service credentials:** Ensure that the SSP service credentials are added to the alternate server or farm after the restore. For more information, see [Adding SSP Credentials to the Alternate Server or Farm](#).
- **Validate Personalized Service permissions:** Ensure that the **Shared Services Rights** reference the local administrator on the alternate server or the domain administrator on the alternate farm. For more information, see [Verifying that the Shared Services rights reference the correct administrator](#).
- **Validate Business Data Catalog permissions:** Ensure that the **Business Catalog Permissions** reference the local administrator on the alternate server or the domain administrator on the alternate farm. For more information, see [Verifying that the Business Catalog Permissions reference the correct administrator](#).
- **Validate Search Authoritative web page settings:** Ensure that the **Authoritative Pages** in the **Search Setting** references the alternate server or farm. For more information, see [Validating the Authoritative Pages for Search Settings](#).
- **Validate Trusted File location:** Ensure that the **Trusted File** location in the **Excel Services Trusted File Locations** references the alternate server. For more information, see [Validating the Trusted File location](#).
- **Redeploy solutions:** If you have a solution package that you want to redeploy, use the STSADM **deplouesolution** option. For more information, see [Redeploying solutions](#).
- **Restore unpackaged customizations and alternate access mappings:** Use the Plug-in *for FileSystem* to restore unpackaged customizations and mappings as detailed in [Alternate access mapping and Customizations](#).

- **Re-create alternate access mappings** (optional): Use the Alternate Access Mapping text file to re-create mappings. For more information, see [Re-creating Alternate Access Mappings \(optional\)](#).
- **Restart timer jobs**: Some timer jobs are not started when you restore the web-application backup. For more information, see [Restarting timer jobs](#).
- **Reactivate features**: If your solution contains features that must be enabled, enable the features at the appropriate level—web application, site collection, or website. For more information, see [Reactivating features](#).
- **Restart IIS**: To ensure that IIS has the most current configuration, restart IIS. For more information, see [Restarting IIS](#).

Performing a disaster recovery of a Small Farm or Scaled-Out Farm to an alternate farm

Disaster recovery of a Small or Scaled-Out Farm deployment includes the restore and recovery of the entire SharePoint deployment after a farm-level failure—the loss of servers that house the SharePoint SQL Server Instance, application server, and web server. To perform disaster recovery, the minimum set of backups, which includes at least a Full Backup, is required.

The following procedure describes how to perform disaster recovery to a farm other than the one where the damaged SharePoint deployment resided. You might use this procedure if a complete media failure occurred and the backups from the damaged farm were restored into a replacement farm that was made of different servers using different host names.

Verify that the following requirements are met:

- **SharePoint Server is Installed**: Install the same version of the SharePoint software on the systems that make up the alternate farm as it existed on the damaged farm. This step includes installing and configuring the following software on each of the servers in the farm.
 - **Database Server**
 - SQL Server software and updates
 - **Application Server**
 - Net Framework 3.0
 - **Front-End Web Server**
 - Internet Information Services (IIS)
 - Net Framework 3.0
 - APS.NET

i | **IMPORTANT:** In Small and Scaled-Out Farm deployments, an Advance Installation of the SharePoint software, free or enhanced, is assumed for these procedures.

- **Service Packs installed**: Install the same Service Packs for Windows Server and SharePoint that were previously installed on the damaged server. A minimum of SP1 is required for WSS.
- **SharePoint Central Administration Web Site created**: The SharePoint Central Administration Web Site is installed by default on the first server on which you install SharePoint, such as the application server. For more information, see [Creating the SharePoint Central Administration Web Site](#).
- **SharePoint Search configured**: On the application server, start the **SharePoint Search** service. For more information, see [Configuring the SharePoint Search service](#) and [Configuring the SharePoint Search service](#). For more information about the service names, see [SharePoint 2010, 2013, and 2016 terminology](#).
- **Web applications created**: Re-create all web applications for your farm before you complete a restore, so that the timer jobs associated with each web application are created. For more information, see [Re-creating the web applications](#).
- **Content databases deleted**: To ensure that the names of content databases for the new farm match the names of the content databases for the damaged farm, ensure that all content databases *except* for the

Configuration Database and **Central Administration** website are deleted; for more information, see [Deleting content databases](#). Repeat the steps outlined in [Deleting content databases](#) for *each* database *except* **Configuration Database** and **Central Administration**.

i | **IMPORTANT:** The **Configuration Database** and **Central Administration** databases are not recovered. Deleting these databases causes you to start the entire Disaster Recovery process over because they must be created in place by the **SharePoint Products and Technologies Configuration Wizard**.

- **NetVault Backup software and the Plug-in for SharePoint installed:** The same version of NetVault Backup and the plug-in must be installed and configured as they originally existed on the damaged server.
- **Full and optional Differential Backups available:** Ensure that you have the latest Full Backup and Differential Backup, if applicable, available.
- **Plug-in for FileSystem backups of additional items available:** Ensure that you have backups of the following items available as detailed in [Extra items to protect using NetVault Backup and the Plug-in for FileSystem](#):
 - Customizations
 - Alternate Access Mapping
 - Document SharePoint Farm Configuration

Beginning the restore

For more information, see <http://technet.microsoft.com/en-us/library/cc262370.aspx>.

- **Restore Full Backup:** At a minimum, recovery requires the restore of a Full Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Full Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET FULL** or **STSADM FULL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.
The plug-in restores the backup package to the alternate server or farm.
- **Restore Differential Backup** (optional): If your backup strategy includes Differential Backups, restore the last available Differential Backup.
 - 1 On the **Create Selection Set** page, select the saveset of the last **Differential Backup**.
 - 2 Select the **Farm** node.
 - 3 On the **Create Selection Set** page, click **Edit Plugin Options**, and complete the following steps:
 - Verify that the **Backup Type** is labeled **SP CMDLET DIFFERENTIAL** or **STSADM DIFFERENTIAL**.
 - Select **Restore Files from Backup Only**.
 - 4 To save the settings, click **Ok**, click **Next**, and specify a **Job Name** if you do not want to use the default.
 - 5 In the **Target Client** list, select the server where the plug-in is installed in the alternate farm.
 - 6 Complete the **Schedule**, **Source Options**, and **Advanced Options** lists, and click **Save & Submit**.
The plug-in restores the backup package to the alternate server or farm.

- **Restore Full and Differential Backups to the alternate farm:** On the server where the plug-in is installed in the alternate farm, run the following STSADM command to restore the Full Backup to a new configuration.

```
stsadm -o restore -directory <directoryForTemporaryFiles>\nvsprestore
  -restoremethode new -username <SQLServerUserName> -password <password>
```

Replace the variables with the following information:

- **<directoryForTemporaryFiles>:** Enter the UNC share path that is specified in the **Configure** dialog box.
- **<SQLserverUserName>:** Specify a SQL Server user with the **sysadmin** server role in the **DOMAIN\username** format.
- **<password>:** Enter the password associated with the user specified in the preceding field.

STSADM begins an interactive session and prompts for the following information:

Item	Parameter	New value
Web Application	New web application URL	Enter the new URL with the new web server host name and the original port.
	New web application name	To accept the <default>, press Enter .
Content Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for a nondefault SQL Server Instance name.
	New directory name	To accept the <default> SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To accept the <default>, press Enter , and ensure that the resulting database name matches the name for the content database of the damaged farm.
Shared Services Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name
	New directory name	To accept the default SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To ensure that the resulting database name matches the name for the content database of the damaged farm, press Enter to accept the <default>.
User Profile Application	New server name	Enter the host name of the new application server.
Shared Search Index	New server name	Enter the host name of the new application server.
	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name
	New directory name	To accept the default SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To ensure that the resulting database name matches the name for the content database of the damaged farm, press Enter to accept the <default>.

Item	Parameter	New value
Search Instance Database	New database server name	Enter the name of the new SQL Server Database server. Use the ServerInstance Name format for nondefault SQL Server Instance name
	New directory name	To accept the default SQL Server Data directory, press Enter ; or enter the Data directory for the new SQL Server Instance name.
	New database name	To ensure that the resulting database name matches the name for the content database of the damaged farm, press Enter to accept the <i><default></i> .

Completing the restore

- **Add Shared Services Provider service credentials:** Ensure that the SSP service credentials are added to the alternate server or farm after the restore. For more information, see [Adding SSP Credentials to the Alternate Server or Farm](#).
- **Validate Personalized Service permissions:** Ensure that the **Shared Services Rights** reference the local administrator on the alternate server or the domain administrator on the alternate farm. For more information, see [Verifying that the Shared Services rights reference the correct administrator](#).
- **Validate Business Data Catalog permissions:** Ensure that the **Business Catalog Permissions** reference the local administrator on the alternate server or the domain administrator on the alternate farm. For more information, see [Verifying that the Business Catalog Permissions reference the correct administrator](#).
- **Validate Search Authoritative web page settings:** Ensure that the **Authoritative Pages** in the **Search Setting** references the alternate server or farm. For more information, see [Validating the Authoritative Pages for Search Settings](#).
- **Validate Trusted File location:** Ensure that the **Trusted File** location in the **Excel Services Trusted File Locations** references the alternate server. For more information, see [Validating the Trusted File location](#).
- **Redeploy solutions:** If you have a solution package that you want to redeploy, use the STSADM **deploysolution** option. For more information, see [Redeploying solutions](#).
- **Restore unpackaged customizations and alternate access mappings:** Use the *Plug-in for FileSystem* to restore unpackaged customizations and mappings as detailed in [Alternate access mapping and Customizations](#).
- **Re-create alternate access mappings** (optional): Use the Alternate Access Mapping text file to re-create mappings. For more information, see [Re-creating Alternate Access Mappings \(optional\)](#).
- **Restart timer jobs:** Some timer jobs are not started when you restore the web-application backup. For more information, see [Restarting timer jobs](#).
- **Reactivate features:** If your solution contains features that must be enabled, enable the features at the appropriate level—web application, site collection, or website. For more information, see [Reactivating features](#).
- **Restart IIS:** To ensure that IIS has the most current configuration, restart IIS. For more information, see [Restarting IIS](#).

Extra items to protect using NetVault Backup and the Plug-in for *FileSystem*

- [Overview](#)
- [Customizations](#)
- [IIS configuration](#)
- [Alternate access mapping](#)
- [Document SharePoint Farm configuration](#)

Overview

To protect the entire SharePoint Farm adequately in disaster recovery scenarios, include the following items in the backup strategy. While you should back these items up at least once, Quest recommends that you back them up every time they change:

- Customizations
- IIS Configuration
- Alternate Access Mapping
- Document SharePoint Farm Configuration

Customizations

In the following link, Microsoft recommends that you package customizations to SharePoint sites as solutions that can contain features, Web Parts, security policy changes, and other files. Features are portions of solutions that can be enabled by the server administrator against the farm, a specific web application, a specific site collection, or a specific website.

<http://office.microsoft.com/download/afile.aspx?AssetID=AM102447701033>

Packaging customizations into solutions simplifies the backup-and-recovery process by enabling SharePoint administrators to back up each solution package and redeploy the solution to the applicable servers if there is a disaster.

For decentralized systems, or systems in which customizations have not or cannot be packaged as solutions, customization files must be backed up individually. Customization files are stored in several places on the front-end web servers, including:

- IIS Virtual Directories, which by default is at: **%Systemroot%\inetpub**
- Global Assembly Cache (GAC) folder, which is at: **%WinDir%\assembly**
- **%Systemroot%\Program Files\Common Files\Microsoft Shared\Web Server Extensions\<version>**

Replace *<version>* with **14** for SharePoint 2010, **15** for SharePoint 2013, or **16** for SharePoint 2016.

Also, some customizations also write changes to the **web.config** file. Quest recommends that you consult with your SharePoint development team or customization vendor to determine a definitive list of add-in software file locations.

IIS configuration

For each front-end web server, Quest recommends that you protect the IIS Metabase in addition to the **web.config** file in the root directory of the hosting virtual server. You can back up these items by using the Plug-in *for FileSystem*.

For more information, see: <https://support.microsoft.com/en-us/help/240941/an-introduction-to-the-iis-metabase>

Alternate access mapping

Alternate access-mapping settings for SharePoint can be dumped to a text file by running the following command and including the resulting backup file in a Plug-in *for FileSystem* backup job:

```
stsadm -o enumalternatedomains <backupFile>
```

Document SharePoint Farm configuration

Configurations in SharePoint are set in Central Administration and stored in the Configuration database. Although the Configuration database and Central Administration are protected with SharePoint PowerShell-based or STSADM-based backups, they contain computer-specific information and can only be restored to an environment configured to match exactly, including all software updates, server names, and number of servers. Therefore, manually documenting all the settings in Central Administration is necessary. Items that should be documented are detailed in: <http://go.microsoft.com/fwlink/?LinkId=102839&clcid=0x409>

These items include:

- Application pool settings, including service accounts, that is, all accounts that web applications run as, including the crawler account and search account.
- Database names and locations.
- Web application names and databases. Be sure to document the content database names associated with each web application.
- Crawler impact rules.
- Farm-level search settings.
- External service connection settings.
- Workflow management settings.
- Enabled features.

Troubleshooting

- [Enabling NetVault Backup Tracing](#)
- [Disabling NetVault Backup Tracing](#)
- [Additional information](#)

NetVault Backup truncates the log messages in the NetVault Backup Binary Logs. You can enable the X Trace Level for the plug-in. Detailed logs are written to the NetVault Backup Trace Directory, which by default is `%ProgramFiles%\Quest\NetVault Backup\trace` with the following naming convention: `nvsharepoint<process_id>.log`.

i | **IMPORTANT:** Use extreme caution when enabling NetVault Backup tracing. Only enable tracing for diagnostic purposes. If tracing is enabled for an extended period, large amounts of disk space are consumed on the volume where the NetVault Backup software is installed. If this volume runs out of space, it affects the NetVault Backup Database, which can cause corruption.

Enabling NetVault Backup Tracing

- 1 In the Navigation pane, click **Change Settings**.
- 2 On the **Configuration** page, click **Server Settings** or **Client Settings**, as applicable.
- 3 If you selected **Client Settings**, select the applicable client, and click **Next**.
- 4 On the **Settings** page, click **General**.
- 5 In the **General** dialog box, select the **Generate debugging files** option, and click **Apply**.
- 6 On the **Settings** page, click **Trace Level**.
- 7 In the **Trace Level** dialog box, select the appropriate trace levels for the plug-in.
Use the **LIBVERBOSE** option if you want to view every available diagnostic message.
- 8 Restart the NetVault Backup Service.

For more information, see the *Quest NetVault Backup Administrator's Guide*.

Disabling NetVault Backup Tracing

- 1 In the Navigation pane, click **Change Settings**.
- 2 On the **Configuration** page, click **Server Settings** or **Client Settings**, as applicable.
- 3 If you selected **Client Settings**, select the applicable client, and click **Next**.
- 4 On the **Settings** page, click **General**.
- 5 In the **General** dialog box, clear the **Generate debugging files** option, and click **Apply**.
- 6 Restart the NetVault Backup Service.

For more information, see the *Quest NetVault Backup Administrator's Guide*.

Additional information

Table 2. Troubleshooting

Error	Explanation
<p>The Log on As account for the NetVault Process Manager was changed from the default account to one of the following:</p> <ul style="list-style-type: none"> • A local administrator account • A domain user account that is also a member of the Administrator's group on each server that SharePoint is used <p>Subsequently, backup or restore jobs are failing because of authentication issues.</p>	<p>The local or domain user account specified for the Log on As account for the NetVault Process Manager must have the Replace a process level token policy in the Local Security Setting Administrative tool. After this right has been granted, restart the NetVault Process Manager.</p>
<p>Icons on the NetVault Backup Selections page are displaying as question marks (?).</p>	<p>Restart the NetVault Process Manager on both the NetVault Backup Administrator Workstation where the NetVault Backup WebUI is running and the server where the plug-in is running. If the problem persists, copy the contents of the ...\\NetVault Backup\gui\CachedPits on the server where the plug-in is running to the same directory on the NetVault Backup Administrator Workstation where the NetVault Backup WebUI is running.</p>
<p>When browsing the NetVault Backup Selections page, the following error is received: "Unable to browse SharePoint. Ensure that the SharePoint services are running and the user account provided has the correct privileges."</p>	<p>Verify that the SharePoint SQL Server Instance is started, the user name specified in the Windows Authentication Details section of the Configure dialog box matches the requirements defined in Deploying the plug-in, and that the SharePoint Administration service in the Windows Control Panel is started; for more information about the service names, see SharePoint 2010, 2013, and 2016 terminology. To obtain additional information, enable NetVault Backup Tracing; for more information, see Enabling NetVault Backup Tracing.</p>
<p>Failed to find previous full backup index for set.</p>	<p>This issue usually happens when you perform a Differential Backup and a Backup Selection set was not used to perform a Full Backup.</p>
<p>Restore job fails with the error message "Error Changing User."</p>	<p>If the password for the Windows Administrator User Name specified in the Configure dialog box has changed since the last backup or restore job, update the Configure dialog box with the new password and submit the restore job again.</p>
<p>Restore job stops responding at "Progress: [Shared Search Index] 90 percent complete."</p>	<p>When performing a disaster recovery for a Single Server deployment and the default Shared Services in the newly installed deployment are not deleted before running the restore job, the restore job stops responding. Ensure that the prerequisites are met for a Single Server deployment before performing the restore. For more information, see Performing a disaster recovery of a Single Server deployment to the same server.</p>
<p>Restore job fails with "Directory lookup for the file "<directory\filename>" failed with the operating system error 3 (The system cannot find the path specified.)"</p>	<p>The SQL Server Express Data directory does not exist on the newly installed SharePoint deployment in a restore to Alternate Server. Re-create the directory structure referenced in the error message and - submit the restore job again.</p>
<p>Files are not deleted from the Temporary Directory</p>	<p>If you are using the Delete Backups from Temporary Directory Older than (days - 0=never) option and the plug-in does not delete the files, it might be because the Date and Time format for your systems differs from the format used for SharePoint. For example, if your system uses a dd/mm format and SharePoint uses the mm/dd format, temporary files are not deleted when the specified time has elapsed. To use this option, make sure that the same format is used.</p>

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™.

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Contacting Quest

For sales or other inquiries, visit <https://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.