# NetBackup™ Self Service Installation Guide

10.0

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# NetBackup™ Self Service Installation Guide

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Chapter 1

# Introduction

This chapter includes the following topics:

- About Self Service components

## About Self Service components

Two installers are required to install NetBackup Self Service:

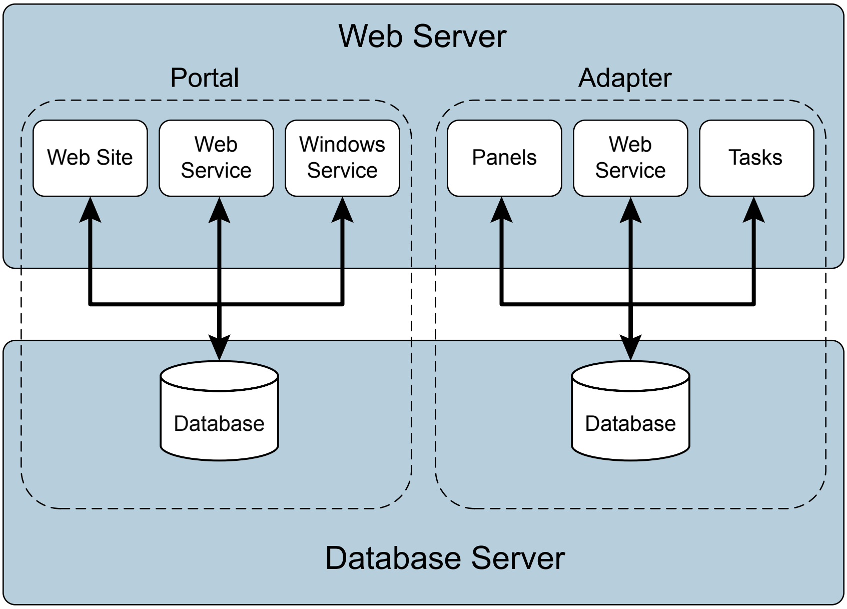
- NetBackup Self Service Portal 10.0.exe
- NetBackup Self Service Adapter 10.0.exe

The installers install a total of eight components:

- Portal
  - Website
  - Web service
  - Windows Service
  - Database
- Adapter
  - Panels
  - Web service
  - Tasks
  - Database

You can distribute the components a number of different ways, but the focus of this guide is the two-server install. A web server that hosts the websites, web services and Windows Service, and a database server that hosts the databases.

**Figure 1-1** Two-server installation



You can extend your NetBackup Self Service solution by using one of the additional add-ons. You can find more information, as well as download details, on the Veritas Open Exchange (VOX). A link takes you to the specific post.

- Veritas NetBackup Self Service app for Mobile, available for both iOS and Android.
  https://tinyurl.com/y7g56u2r
- Veritas NetBackup Self Service bot for Microsoft Teams
  https://tinyurl.com/ycqkhfzh
- Veritas NetBackup Self Service app for Slack
  https://tinyurl.com/yc5snw7z
- Veritas NetBackup Self Service app for ServiceNow
  https://tinyurl.com/yadg2obh
- Veritas NetBackup Self Service plug-in for VMware vRealize Automation
  https://tinyurl.com/ybldbpcx
- Veritas NetBackup Self Service plug-in for VMware vCloud Director
  https://tinyurl.com/y77f68jv

# Prerequisites

This chapter includes the following topics:

- About prerequisites

## About prerequisites

The person who installs NetBackup Self Service needs a working knowledge of SQL Server, Windows Services, and Internet Information Services (IIS).

NetBackup Self Service can be installed on the following Windows platforms:

- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

**Note:** Apply the latest service packs to the operating system.

The prerequisites for each component are:

**Table 2-1**

| Component | Requirement |
|---|---|
| Database | ■ Microsoft SQL Server 2014, 2016, 2017, or 2019<br>■ Azure SQL database or Microsoft SQL Server on Amazon RDS<br>■ At least 5 GB free disk space for data and 2 GB for logs |

**Table 2-1** *(continued)*

| Component | Requirement |
|---|---|
| Website, web service, and Windows Service | ■ Microsoft .NET Framework version 4.7.2<br>■ IIS installed by configurator<br>■ Microsoft PowerShell 3.0 part of standard Windows installation<br>■ Access to an SMTP server<br>■ At least 1 GB free disk space |

# Installation

This chapter includes the following topics:

- Installation overview
- IIS considerations
- Install Portal
- Install Adapter
- Silent install
- Validation
- Installed components

## Installation overview

The Self Service installation is a multi-part installation. You can install Self Service either with the `.msi` file or through the silent install method. Table 3-1 provides an overview of the process. Additionally, this chapter provides details on where the various Self Service components are installed.

**Table 3-1** Installation overview

| Step | Additional information |
|---|---|
| IIS considerations | See “IIS considerations” on page 11. |
| Https | See “About the default HTTPS configuration” on page 41. |
| Install Portal | See “Install Portal” on page 12. |
| Install Adapter | See “Install Adapter” on page 15. |

**Table 3-1** Installation overview *(continued)*

| Step | Additional information |
|---|---|
| Silent install | See "Silent install" on page 15. |
| Validation | See "Validation" on page 17. |

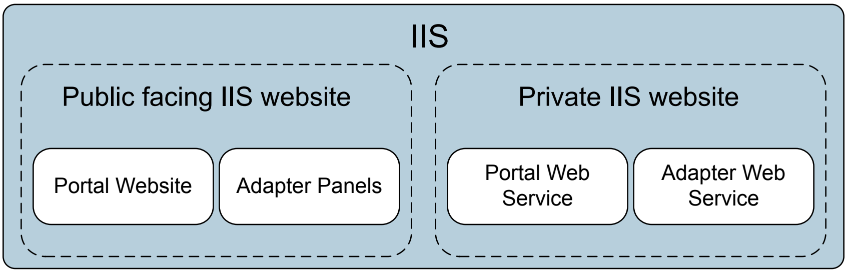
# IIS considerations

Before you begin installation, you should give some consideration to how you want to configure IIS. Four components are installed within IIS:

- Portal website
- Portal web services
- Adapter pages
- Adapter web services

The security considerations for these components are different. The portal website and adapter pages must be visible to all the users of the system. This requirement can mean exposing the website over the public internet. The portal web services and adapter web service provide an integration point. Only internal systems need access to these pages.

The recommended configuration is to create two IIS websites for the components. The first IIS website hosts the portal website and adapter pages. The second IIS website hosts the portal web services and adapter web services.



Create two websites in IIS. The first is the public facing website to host the portal and the adapter panels. The second is the private website to host the web services. Configure the security of the IIS websites. Be sure to restrict the visibility of the private IIS website so that it is not exposed over the public internet.

Starting with the 10.0 release, NetBackup Self Service creates the default binding on port 443 with the corresponding certificate.

If NetBackup Self Service has both a public and a private website, the NetBackup Self Service creates the first one with the default binding to port 443. NetBackup Self Service creates the second website with a default binding on port 444 and a corresponding certificate.

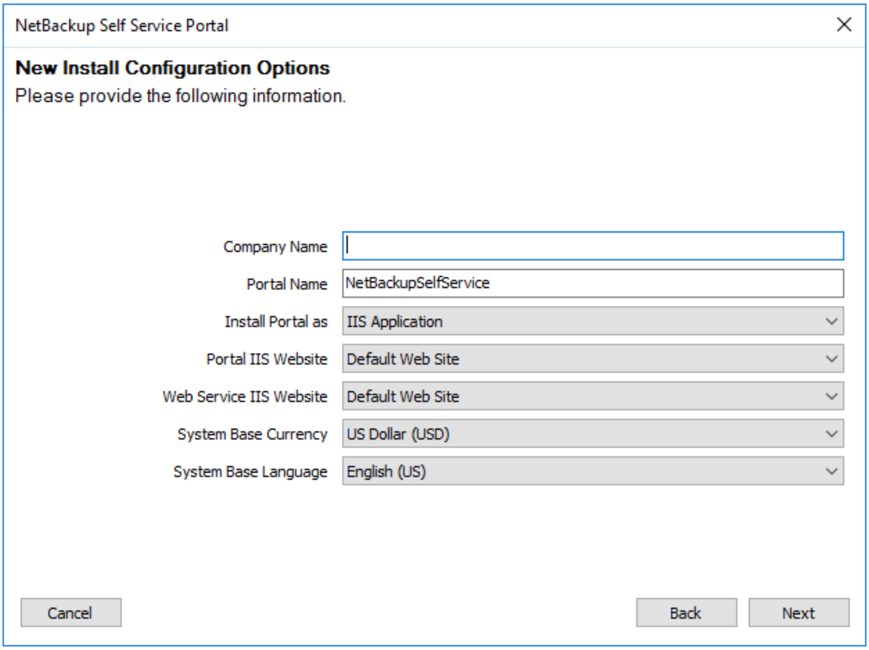
# Install Portal

This section describes the installation of the NetBackup Self Service Portal. You can run the installer manually or use the silent installer. The silent installer proceeds through the installation without user input.

**To install the portal**

1. Install the NetBackup Self Service Portal before the NetBackup Self Service Adapter.
2. Install the NetBackup Self Service Portal on the web server. The portal installation does create a database on a remote machine.
3. Run `NetBackup Self Service Portal 10.0.exe`.

   The installer runs and copies the installation onto the computer. When the installation completes, a configurator launches.
4. In the configurator select **Install a New NetBackup Self Service Portal**.
5. On the component screen, confirm that all options are selected and select **Next**.
6. A validation screen runs to check that IIS is configured correctly.
7. Use the **New Install Configuration Options** dialog to specify the site configuration.



NetBackup Self Service Portal

**New Install Configuration Options**

Please provide the following information.

| | |
|---|---|
| Company Name | |
| Portal Name | NetBackupSelfService |
| Install Portal as | IIS Application |
| Portal IIS Website | Default Web Site |
| Web Service IIS Website | Default Web Site |
| System Base Currency | US Dollar (USD) |
| System Base Language | English (US) |

- The **Company Name** is the name of your company.
- The **Portal Name** field defines the name of the site. It is used to create the names of the **IIS Applications** and Windows service the installer creates. The portal name cannot be changed once the installer runs. Choose the **Portal Name** carefully.
- The **Install Portal as** field gives you the option to install the main website in an IIS application or directly under the website root. If you install in an IIS application the URL is similar to `www.example.com/`*`portalname`*, where *portalname* is the **Portal Name**. If you install in the root of the IIS website, the URL of the website is similar to `www.example.com`.

  The advantage of installing in an IIS application is that other websites can co-exist on the web server. The advantage of installing under the root of the website is a more attractive URL.
- Specify the IIS website where you want the components installed. Select the IIS website you want to use for the portal and the web services. Veritas recommends that you use two websites. Use **Public** to host the portal and **Private** to host the web services.
- **System Base Currency** defines the currency type that Self Service uses.

- The **System Base Language** defines the language that is displayed in the user interface.

8 On the **Database Installer Connection** dialog, enter information about the database you want created. Enter the credentials you want used while creating the database. Veritas recommends that you keep the default database name, which is the same as the **Portal Name**. The credentials you provide must exist and have `sysadmin` access to the database instance. The installer uses these credentials to create the database.

9 Enter the user credentials that the portal, web service, and windows service use to connect to the database. This database user is created as part of the install process, and the application uses it to connect to the database.

10 Generate a new **Application Key** in the **Application Security** dialog.

The **Application Key** is used to encrypt third-party passwords in the system. For example, the adapters contain credentials for connecting to other systems and the application key is used to encrypt them. If the installation is for a new system, click **Generate Key** to create a new key. If the installation is for a new component for an existing system, paste the key from the original installation into the box.

If you intend to install a second website to load-balance the system, keep a copy of the application key. You must use the same application key when you install the second website.

**Caution:** The application key is not used to encrypt the user's logon credentials.

11 A validation screen runs to check that the database credentials are correct.

12 A confirmation screen is presented. Confirm that the details are correct and click **Install**.

13 On completion of the installation and configuration of the portal, log into to the website.

The final page of the configurator contains the URL for the website. The credentials for initial logon are:

User ID: `Admin`. The user ID is not case-sensitive.

Password: `password`. The password is case-sensitive. You are required to change the password at first logon.

Keep a copy of the URL from this final screen. Use this URL to connect to the system.

# Install Adapter

This section guides you though the installation of the NetBackup Self Service Adapter.

**To install the adapter**

1 From the web server, run `NetBackup Self Service Adapter 10.0.exe`. The installer runs and copies the installation files onto disk. When it completes, the configurator launches.

2 Select **Install NetBackup Self Service Adapter** from the **Select Installation** dialog box.

3 Confirm that all options are selected in the **Select Components** dialog and select **Next**.

4 A validation screen runs, to check that PowerShell 3.0 or later is installed.

5 On the **Select Portal Web Service** screen, specify the **Portal Web Service Virtual Root** for your system. The adapter communicates with the portal by the portal's web services.

6 Select the IIS websites where you want to install the adapter pages and adapter services in the **Select IIS Websites** dialog. Veritas recommends that the pages are on a public site and the services are on a private site.

7 The **Database Installer Connection** dialog is used to create the database for the adapter. Select the database server where the database is created and choose a name for the database. Veritas recommends that you accept the default database name, which is derived from the **Site Name** of the portal. The credentials that are entered are used to create the database. The user that is specified must have the `sysadmin` database privilege. This user is only used while the configurator is active and the credentials are not stored.

8 Create a database user which the adapter pages and services can use to connect the database on the **Application Connection** dialog.

9 A validation screen runs to check that the database credentials are correct.

10 A confirmation screen is presented. If the details are correct, click **Install**.

11 The installation runs.

# Silent install

Before you attempt to install NetBackup Self Service, confirm that the current computer meets all installation requirements for NetBackup Self Service. These requirements include confirming there is not an older version of NetBackup Self Service already installed.

**To install NetBackup Self Service silently:**

1. Edit the `install_directory\Silent Files\Install.db.config` file and provide the required information to connect to the NetBackup Self Service database.
2. For the `CompanyName` option in the `Install.db.config` file, enter your company name or leave the default value.
3. If you want to use a silent install to reinstall NetBackup Self Service, use the `OverrideNSSDBUsersIfExists` option in the `Install.db.config` file.

   Set the `OverrideNSSDBUsersIfExists` option to `True` for a silent install if you:

   - Uninstalled a previous version of NetBackup Self Service.
   - Deleted the databases (`NetBackupSelfService` and `NetBackupSelfServiceNetBackupAdapter`).
   - Failed to delete the two logins that NetBackup Self Service created (**NetBackupSelfServiceUser** and **NetBackupSelfServiceNetbackupAdapterUser**).

   Under the conditions shown, the silent install fails unless the `OverrideNSSDBUsersIfExists` option is set to true.
4. The remaining options in the `Install.db.config` file are used to connect to the SQL server. Configure these to use an ID that is a member of the `sysadmin` group.
5. Right click the `install_directory\Silent Files\SilentInstall.bat` and select **Run as administrator**. The installation starts and the command-line window displays the installation progress. The command-line window closes after the installation completes.

   You can also launch the silent install directly from the command line. Open a command prompt, change to the directory that contains the `SilentInstall.bat` file, and then run `SilentInstall.bat`.

An installation log file, `log_timestamp_install.log`, is generated in the same directory as the `SilentInstall.bat` file. Review this file to see the installation results. If the installation failed, troubleshooting information is found in the installation log.

# Validation

When the installation completes, log into to the website with the URL and credentials from the final screen of the portal installation. More information on how to validate the installation and perform the initial setup is available.

See "About post-installation validation" on page 30.

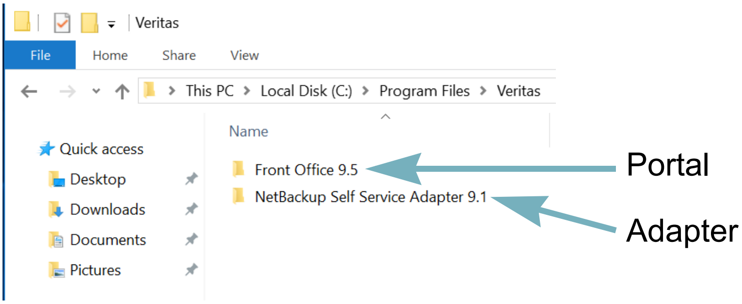
# Installed components

This section shows the result of a default installation of NetBackup Self Service. It shows the components that are installed and where they are installed.

## File System

The portal and the adapter are installed under `C:\Program Files\Veritas`.

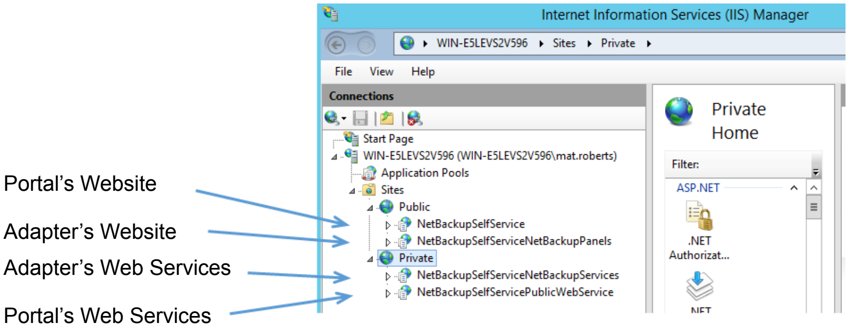
- Portal: `C:\Program Files\Veritas\Front Office` *`version_number`*
- Adapter: `C:\Program Files\Veritas\NetBackup Self Service Adapter` *`version_number`*



## IIS

Four components are installed in IIS. The figure shows the recommended configuration. In this configuration, two IIS websites are created: a public site to host the webpages and a private site to host the web services.

**Figure 3-1** Installed IIS components

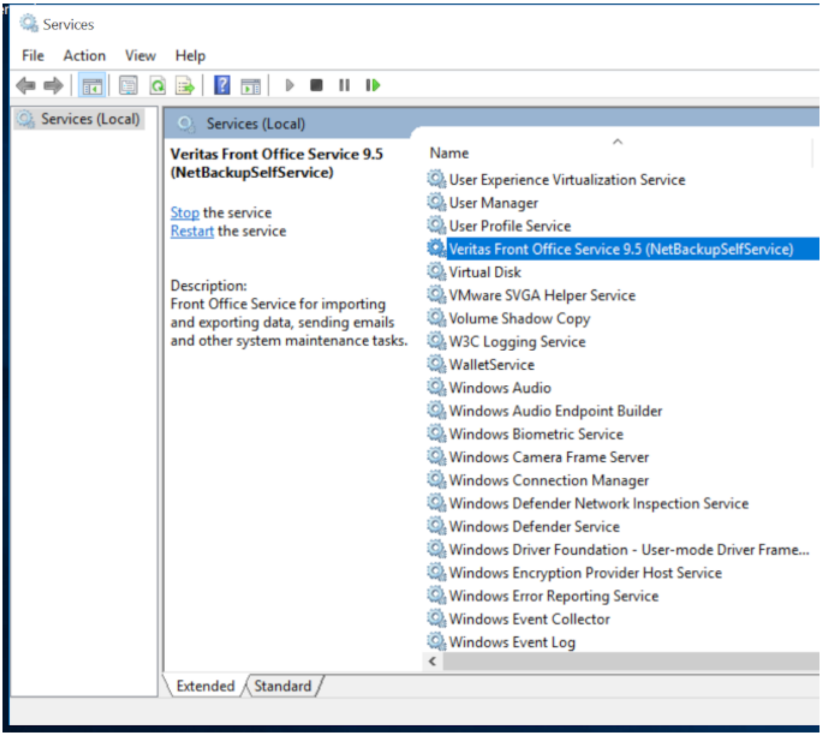


```
Start Page
WIN-E5LEVS2V596 (WIN-E5LEVS2V596\mat.roberts)
  Application Pools
  Sites
    Public
      NetBackupSelfService
      NetBackupSelfServiceNetBackupPanels
    Private
      NetBackupSelfServiceNetBackupServices
      NetBackupSelfServicePublicWebService
```

## Windows Service

The portal installs a Windows Service.

**Figure 3-2** Portal Windows Service (Veritas Front Office Service)



**Veritas Front Office Service 9.5 (NetBackupSelfService)**

Stop the service
Restart the service

Description:
Front Office Service for importing and exporting data, sending emails and other system maintenance tasks.

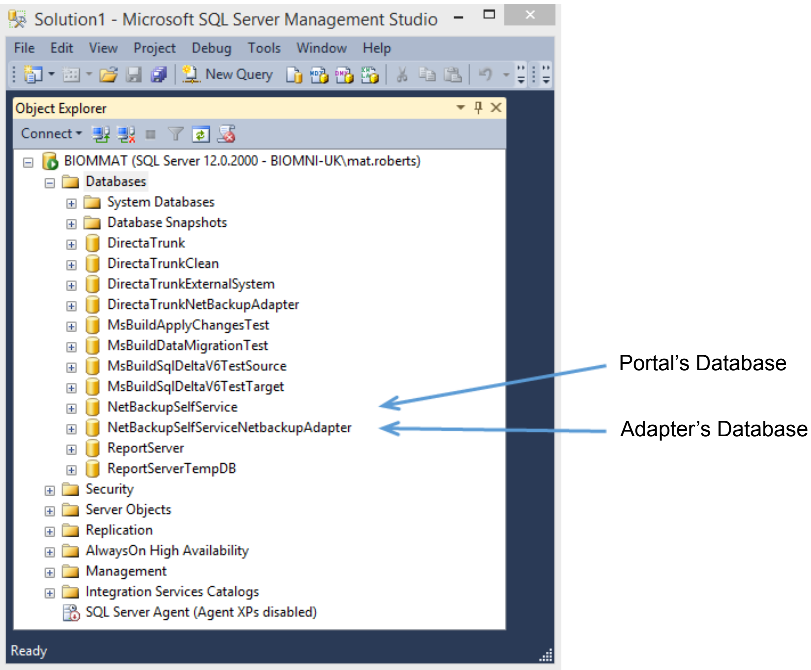
- User Experience Virtualization Service
- User Manager
- User Profile Service
- Veritas Front Office Service 9.5 (NetBackupSelfService)
- Virtual Disk
- VMware SVGA Helper Service
- Volume Shadow Copy
- W3C Logging Service
- WalletService
- Windows Audio
- Windows Audio Endpoint Builder
- Windows Biometric Service
- Windows Camera Frame Server
- Windows Connection Manager
- Windows Defender Network Inspection Service
- Windows Defender Service
- Windows Driver Foundation - User-mode Driver Frame...
- Windows Encryption Provider Host Service
- Windows Error Reporting Service
- Windows Event Collector
- Windows Event Log

## Database

Two databases are created:

- Portal's database: **NetBackupSelfService**
- Adapter's database: **NetBackupSelfServiceNetBackupAdapter**

**Figure 3-3** Self Service Databases


Solution1 - Microsoft SQL Server Management Studio
File
Edit
View
Project
Debug
Tools
Window
Help
New Query
Object Explorer
Connect
BIOMMAT (SQL Server 12.0.2000 - BIOMNI-UK\mat.roberts)
Databases
System Databases
Database Snapshots
DirectaTrunk
DirectaTrunkClean
DirectaTrunkExternalSystem
DirectaTrunkNetBackupAdapter
MsBuildApplyChangesTest
MsBuildDataMigrationTest
MsBuildSqlDeltaV6TestSource
MsBuildSqlDeltaV6TestTarget
NetBackupSelfService
NetBackupSelfServiceNetbackupAdapter
ReportServer
ReportServerTempDB
Security
Server Objects
Replication
AlwaysOn High Availability
Management
Integration Services Catalogs
SQL Server Agent (Agent XPs disabled)
Ready
Portal’s Database
Adapter’s Database

# Upgrade

This chapter includes the following topics:

- Review current environment configuration
- Upgrade preparation
- Upgrade the Portal
- Upgrade the Adapter
- Silent upgrade
- Validation
- Post upgrade resynchronization
- Post upgrade steps
- Rollback

## Review current environment configuration

Before you begin the upgrade, review existing installation. Self Service has eight components that are typically distributed across two servers.

**Table 4-1** Typical Self Service configuration

| Location | Component |
|---|---|
| IIS server | ■ Portal website<br>■ Portal public web service<br>■ Adapter panels<br>■ Adapter web service |

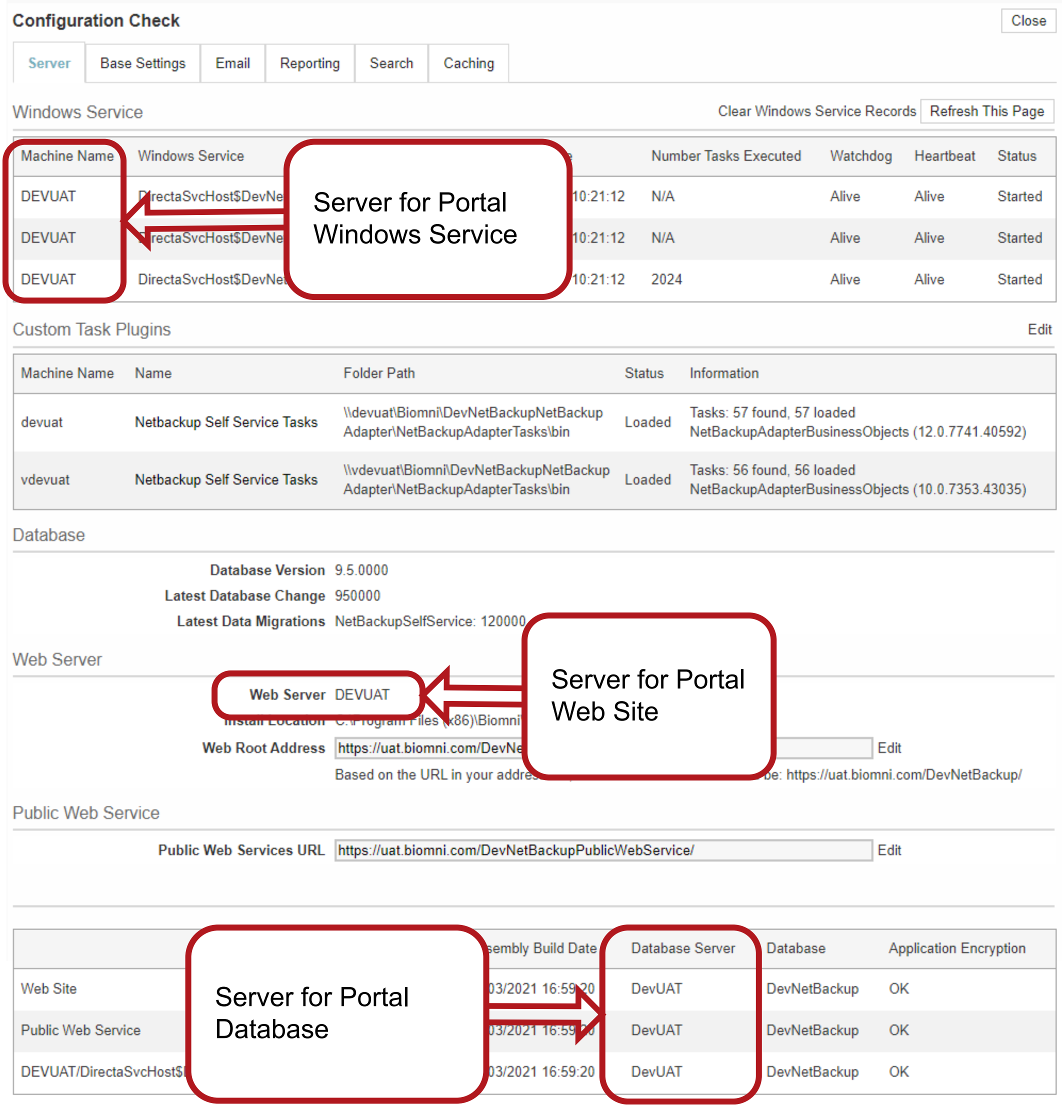
**Table 4-1** Typical Self Service configuration *(continued)*

| Location | Component |
|---|---|
| Windows services | ■ Portal Windows service<br>■ Adapter Tasks (Self Service 7.7.3 and later) |
| SQL server | ■ Portal database<br>■ Adapter database |

You can identify the components in your environment from within NetBackup Self Service.

- Determine the servers where the portal components are installed by examining the configuration check page in the Self Service website.

  Log into Self Service and navigate to the configuration check page (**Admin > Support > Configuration Check**).


Server for Portal Windows Service
Server for Portal Web Site
Server for Portal Database
Configuration Check
Close
Server
Base Settings
Email
Reporting
Search
Caching
Clear Windows Service Records
Refresh This Page
Edit

Windows Service

| Machine Name | Windows Service | e | Number Tasks Executed | Watchdog | Heartbeat | Status |
|---|---|---|---|---|---|---|
| DEVUAT | DirectaSvcHost$DevNe | 10:21:12 | N/A | Alive | Alive | Started |
| DEVUAT | DirectaSvcHost$DevNe | 10:21:12 | N/A | Alive | Alive | Started |
| DEVUAT | DirectaSvcHost$DevNe | 10:21:12 | 2024 | Alive | Alive | Started |

Custom Task Plugins

| Machine Name | Name | Folder Path | Status | Information |
|---|---|---|---|---|
| devuat | Netbackup Self Service Tasks | \\devuat\Biomni\DevNetBackupNetBackup Adapter\NetBackupAdapterTasks\bin | Loaded | Tasks: 57 found, 57 loaded<br>NetBackupAdapterBusinessObjects (12.0.7741.40592) |
| vdevuat | Netbackup Self Service Tasks | \\vdevuat\Biomni\DevNetBackupNetBackup Adapter\NetBackupAdapterTasks\bin | Loaded | Tasks: 56 found, 56 loaded<br>NetBackupAdapterBusinessObjects (10.0.7353.43035) |

Database

**Database Version** 9.5.0000
**Latest Database Change** 950000
**Latest Data Migrations** NetBackupSelfService: 120000

Web Server

**Web Server** DEVUAT
**Install Location** C:\Program Files (x86)\Biomni
**Web Root Address** https://uat.biomni.com/DevNe
Based on the URL in your addres be: https://uat.biomni.com/DevNetBackup/

Public Web Service

**Public Web Services URL** https://uat.biomni.com/DevNetBackupPublicWebService/

| | sembly Build Date | Database Server | Database | Application Encryption |
|---|---|---|---|---|
| Web Site | 03/2021 16:59:20 | DevUAT | DevNetBackup | OK |
| Public Web Service | 03/2021 16:59:20 | DevUAT | DevNetBackup | OK |
| DEVUAT/DirectaSvcHost$ | 03/2021 16:59:20 | DevUAT | DevNetBackup | OK |

Identify the servers where the components are installed.

- Identify the IIS components.
  Log into the web server and open **Internet Information Services (IIS) Manager**. Browse the sites and identify the four IIS components that are listed in Table 4-1. See Figure 3-1 on page 18.
- Identify the Windows service.

Log into the server with the Windows Service. In a default installation of Self Service, the service is located on the web server.

Open **Services** and locate the **Portal Windows Service**.

See Figure 3-2 on page 18.

- Identify the databases.

  Open Microsoft SQL Server Management Studio, and connect to the database server.

  Identify the two databases that are listed in Table 4-1.

  See "Installed components" on page 17.

# Upgrade preparation

You must perform several steps to prepare for an upgrade.

**To prepare for an upgrade**

1. Back up the databases

   You should back up both Self Service databases before you start the upgrade. The default names for the databases are **NetBackupSelfService** and **NetBackupSelfServiceNetBackupAdapter**. Perform these steps in **SQL Server Management Studio**.

   - Make a note of the **NetBackupSelfService** database recovery model.
   - Set the database recovery model to **Simple**.
   - Back up the database.
   - Make a note of the **NetBackupSelfServiceNetBackupAdapter** database recovery model.
   - Set the database recovery model to Simple.

- Back up the database.

2 Take the portal offline.

Veritas recommends that you prevent user logon and user activity while the upgrade is active. The best way to prevent user logon and user activity is to use **Internet Information Services (IIS) Manager** to stop the application pool for the portal website.

If a user attempts to connect to the website when the application pool is stopped, they receive an `HTTP Error 503. The service is unavailable` error in their web browser.

Do not stop the other application pools during the upgrade. If you stop the application pools with the suffix **PublicWebServiceAppPool** then the upgrade fails. The public web service is used for the upgrade.

# Upgrade the Portal

**To upgrade the portal**

1 On the web server, run the installer `NetBackup Self Service Portal 10.0.exe`.

The installer runs and copies the installation to the computer. When the installation completes, a configurator launches.

2 Select **Upgrade a NetBackup Self Service Portal** in the configurator and click **Next**.

3 Confirm that all components are selected in the **Select Components** dialog and click **Next**.

4 A validation page runs to confirm IIS is configured correctly.

5 Choose the correct **Website Virtual Root** and **Web Service Virtual Root** websites for upgrade.

Be sure that you select the correct websites for upgrade. In a default Self Service installation the four websites are named as follows:

- **NetBackupSelfService** - website virtual root
- **NetBackupSelfServiceNetBackupPanels** - do not choose this website
- **NetBackupSelfServiceNetBackupServices** - do not choose website
- **NetBackupSelfServicePublicWebService** - web service Virtual Root

6 Select the correct Windows service to upgrade.

7 On the **Upgrade Database** dialog box, choose the database you want to upgrade and supply credentials to connect to the database.

The database user who performs the upgrade must have the `sysadmin` Server Role. This user is only used during the upgrade process and is not stored once the configurator is complete.

If your database administrator does not want to grant the sysadmin role to you, you can perform a database upgrade with a reduced permission set. More information is available.

See "Reduced Database Permissions for Database Upgrade" on page 46.

8 On the confirmation screen, confirm that all the parameters that are entered are correct. Click **Install**.

9 The configurator upgrades the portal.

# Upgrade the Adapter

**To upgrade the adapter**

1 On the web server, run the installer `NetBackup Self Service Adapter 10.0.exe`.

The installer runs and copies the installation onto the computer. When the installation completes, a configurator launches.

2 Select **Upgrade NetBackup Self Service Adapter** in the configurator and click **Next**.

3 Leave all the options selected on the **Select Components** dialog box and click **Next**.

4 A validation screen runs, to confirm that PowerShell is installed and enabled.

5 Select the correct **Portal Panels Virtual Root** and **Web Services Virtual Root** websites that you want to upgrade.

6 A validation screen runs to confirm that you can connect to the portal web services and that the portal has been upgraded.

7. On the **Upgrade Database** dialog box, choose the adapter database you want to upgrade and supply credentials to connect to the database.

   The database user who performs the upgrade must have the `sysadmin` Server Role. This user is only used during the upgrade process and is not stored once the configurator is complete.

   If your DBA does not want to grant the sysadmin role to you, you can do a database upgrade with a reduced permission set. More information is available.

   See “Reduced Database Permissions for Database Upgrade” on page 46.

8. A validation screen runs, to confirm that you can connect to the database

9. A confirmation screen is presented. Check the parameters are correct and then click **Install** to run the upgrade.

# Silent upgrade

Before you attempt to upgrade NetBackup Self Service, confirm that NetBackup Self Service is installed on the current computer.

**To upgrade NetBackup Self Service silently:**

1. Create back up copies of the NetBackup Self Service databases. By default, they are named `NetBackupSelfService` and `NetBackupSelfServiceNetBackupAdapter`. Create backups from either the command line or from SQL Management Server.

2. The silent upgrade can collect all required information from the existing NetBackup Self Service installation. You do not need to configure anything before you launch the upgrade.

   Right click the `*install_directory*\Silent Files\Silent Upgrade.bat` and select **Run as administrator**. The upgrade starts and a command-line window displays the upgrade progress. The command-line window closes after the upgrade completes.

   You can also launch the silent upgrade directly from the command line. Open a command prompt, change to the directory that contains the `SilentUpgrade.bat` file, and then run `SilentUpgrade.bat`.

An upgrade log file, `log_*timestamp*_upgrade.log`, is generated in the same directory as the `SilentUpgrade.bat` file. Review this file to see the upgrade results. If you see `Upgrade succeeded` at the end of the file, the upgrade was successful. If you see `Upgrade failed`, the upgrade was not successful. If the upgrade failed, troubleshooting information is found in the upgrade log.

# Validation

**To validate the upgrade:**

1 Start the portal application pool to bring the website online.

2 Log into the portal.

3 Perform the validation steps to confirm correct installation.

See "About post-installation validation" on page 30.

4 Confirm that the license is correct.

## Check license and check request type codes for changes

Request types are used to perform actions within NetBackup Self Service. The NetBackup Self Service license specifies that you can use a maximum of 22 active request types. By default, after upgrade the system has 17 request types. You can view the request types in Self Service on the website in **Admin > Request & Approval > Request Type**.

Request types are split into two broad categories which relate to the main dashboards' solution. The categories are: request types that cannot be deactivated and default request types.

**Table 4-2** Request types which cannot be deactivated

| Name | Code |
|---|---|
| **Add Tenant** | NEWTENANT |
| **Add vCloud Director Import** | NEWVCLOUD |
| **New Computer User** | NEWMACUSER |
| **Set vCloud Director Password** | VCLOUDPWD |

**Table 4-3** Default request types associated with the dashboard end-user actions

| Name | Code |
|---|---|
| **Backup Now** | gargoyle030@yahoo.comDBBACKNOW |
| **Protect** | DBNEWBACK |
| **Restore File** | ALFRORIG |
| **Restore File** | DBRESTFILE |

**Table 4-3** Default request types associated with the dashboard end-user actions *(continued)*

| Name | Code |
|---|---|
| **Restore File to Alternate VM** | `ALFRALT` |
| **Restore Virtual Machine** | `DBRESTVM` |
| **Restore Cloud Asset** | `DBRESTCLD` |
| **Unprotect** | `DBREMBACK` |
| **Restore Oracle Backup** | `DBRESTORA` |
| **Restore SQL Database** | `DBRESTSQL` |
| **Register VM for File Restore** | `DBREGDNS` |
| **Restore VM Disks** | `VMDISKREST` |

Confirm that all of the request types in Table 4-2 and Table 4-3 are active.

As part of the upgrade, the current versions of these five request types are installed. The existing request types are exported to disk and stored in the `*install_location*\MsBuild\DataExport` directory. The **Integration Settings** and **Action Request Types** section is reset to the default request types. Review any locally customized request types and update or replace the new request type as appropriate.

These are the only request types currently used in NetBackup Self Service by default. Any other shipped request types are deactivated on upgrade. Confirm their status in **Admin > Request & Approval > Request Type**.

# Post upgrade resynchronization

After the upgrade, manually resynchronize the data between NetBackup and vCloud Director, if Cloud is used. Two scheduled tasks run once per day: System Sync and Asset Import. System Sync imports any new backup images from all backup servers, expires old backup images, and calculates usage. Until these tasks are run, the data that is displayed to the user may be incomplete.

**To resynchronize the data**

1. Log in to the website as an administrator, and navigate to the **Monitoring** tab. The left side of the screen shows scheduled tasks.
2. Click the cog next to the **System Sync** task and select **Run Now**.

3. (Conditional) If you use vCloud Director, click the cog next to the **Asset Import** task, and select **Run Now**.
4. The **Activity** section on the right side of the screen monitors the progress of these tasks.

If you do not perform these steps manually, the tasks run automatically overnight.

# Post upgrade steps

After the upgrade finishes, complete a connectivity check for all master servers.

Veritas also recommends that you re-synchronize all data.

As part of the upgrade, the two databases were backed up and the recovery model was set to **Simple**. Revert the database's recovery model to its initial value.

**To revert the database to its initial value:**

1. Shrink both databases.
2. Set the recovery model of the databases back to its original value.

When an upgrade is performed a new set of code is placed in a new location on the server. Once the upgrade is complete, remove the old installation.

**To remove old installation code**

1. Go to **Add/Remove Programs**.
2. Uninstall any previous versions of:
   - **NetBackup Self Service Portal**
   - **NetBackup Self Service Adapter**

# Rollback

To revert back to the previous version, a restore of the two NetBackup Self Service databases is required. Additionally, you must reinstall the previous portal and adapters or restore their web server from a backup).

If you reinstall the portal and the adapters, ensure **Database** is not selected on the **Select Components** dialog box during install. In both cases the database is restored and does not need to be reinstalled.

During the portal reinstallation, when prompted for an application key, enter the application key from the previous installation. This application key is the key used to encrypt third party passwords in the restored databases and was recorded when the previous version was deployed.

Chapter 5

# Post-installation validation

This chapter includes the following topics:

- About post-installation validation
- Visual Check
- Configuration Check
- IIS configuration check
- Windows Service

## About post-installation validation

When you complete the installation, you can validate the installation with a series of checks.

**Table 5-1** NetBackup Self Service validation checklist

| Validation | Additional details |
|---|---|
| Perform a visual check of the website main screen. | See “Visual Check” on page 31. |
| Perform a configuration check of the NetBackup Self Service components. | See “Configuration Check” on page 31. |
| Confirm the Windows service is configured correctly. | See “Windows Service” on page 33. |

# Visual Check

After installation it is important to check that the system has installed correctly. Log on to the portal website. The main screen of the website should display correctly.

# Configuration Check

After installation, check that the system is configured correctly with the **Configuration Check** screen (**Admin >Support > Configuration Check**).

## Server Tab

- **Windows Service**: Shows the status of the Windows services that are connected to the Self Service database. Each Windows service writes heartbeat information into the database every 5 minutes. If the database has not received a heartbeat within 7 minutes the service is highlighted in red.

  If the environment is an upgrade, you may need to click the **Clear Windows Service Records** hyperlink. You may have references to previous installations in red text with a status of **Stopped**.

  You can configure the system with multiple Windows services connected to a single database, which is a useful configuration for redundancy. Each Windows service writes three records into the Windows service table, so if for example there are two Windows services, six records are displayed.
- **Custom Task Plugins**: Shows the custom tasks that are plugged into the task engine. The table has one row for NetBackup Self Service Tasks. The status of the tasks is **Loaded**.
- **Database**: Shows the database version and most recent database change. These fields are useful in support scenarios.
- **Web server**: The critical field is the **Web Root Address**. This field should be the URL of the home page of Self Service, as seen by a user of the system. This setting is used when you construct emails with hyperlinks into NetBackup Self Service.
- **Public web service**: If the Public web service URL is incorrect the webpage displays an error message.
- **Table**: The table that is displayed at the bottom of the page shows the version numbers, connection strings, and application encryption status of all the components in the system. All of the version numbers and connection strings must match; if they do not an error message is displayed. If the application key is incorrect, the application encryption status indicates this problem, and an error is displayed.

## Base Settings Tab

Check that the base settings for Self Service are appropriate:

- **System Language** - US-English is the only supported language option.
- **System Time Zone** - choose a time zone which is an acceptable default for the majority of users
- **Image Upload** - Click the image icon to open the Image Manager. The Image Manager should list the `UploadedImages` folder. Select the `UploadedImages` folder and click **upload**. Browse to an image file and upload the file. If the file is successfully uploaded, the image appears on the right-hand side of the Image Manager dialog.

## Email Tab

- To configure SMTP settings for outbound email, click **Edit SMTP Settings**.
- Review core email addresses for the system.
- Send test email. Click **Send Test Email** to send a test email from the Self Service system. For the email to be sent, a Windows service must be active, the email task must be enabled, and the SMTP settings must be correct.
- Check the email queue. To view queued emails click **Email Queue**. The email queue shows any errors that are encountered with sending the email. When the mail is sent successfully it is removed from the queue.

## Integration Settings

Validate the Integration Settings after the installation finishes.

- Go to **Admin > Integration Settings**.
- Confirm the Panels URL and Service URL use the same hostname.
- Confirm the URL starts with HTTPS.
  Example:

```
https://example.com/NetBackupSelfServiceNetBackupPanels
https://example.com/NetBackupSelfServiceNetBackupServices
```

# IIS configuration check

After installation, check that IIS is configured correctly. Search for **Internet Information Service** in the **Start** menu.

- Under **Internet Information Service > Sites > Default website > Bindings**, confirm that the installer created an SSL certificate.

- Under **Internet Information Service > Sites > Default website > Bindings**, confirm the binding for port 443 is created and the certificate is assigned to that port.

# Windows Service

After an install, it is advisable to check that the Windows service is running correctly. On the server where the Windows service is installed:

- Open Event Viewer, and navigate to the Application Log.
- Find messages with a source of **DirectaService9.4$NetBackupSelfService**. The name may vary slightly - the naming convention is **DirectaService9.4$*SiteName***, where *SiteName* is the name of the website.
- If the Windows service has logged any errors then it is possible there is a configuration problem. Examine the detail of the error.

A common configuration problem is the Windows service cannot connect to the database. The Windows service checks to confirm that connectivity to the database is defined in the configuration file. If the service cannot connect to the database it logs an error in the Windows Event Log.

Chapter 6

# Uninstallation

This chapter includes the following topics:

- Uninstalling NetBackup Self Service

## Uninstalling NetBackup Self Service

The uninstallation process removes the Windows service, the website, and the public web service that are connected to the installation location. It then deletes the software on the hard disk and the **Start Menu** shortcut.

The uninstallation does not delete the two databases that were created. The databases must be deleted manually.

**To uninstall a NetBackup Self Service**

1. Determine the version of NetBackup Self Service you want to uninstall.
2. Locate and stop the **Veritas Front Office Service 9.6 (NetBackupSelfService)** service.
3. In Windows open **Programs and Features**.
4. Locate **NetBackup Self Service Adapter *version***, and select uninstall.
5. Locate **NetBackup Self Service Portal *version***, and select uninstall.

When the uninstall process finishes, delete the databases from within SQL Server Management studio. From **Object Explorer**, expand the **Databases** node. Right-click on each of the relevant databases and select **Delete**.

# Software requirements

This appendix includes the following topics:

- NetBackup software requirements for Self Service

## NetBackup software requirements for Self Service

NetBackup 8.0 or later with the latest service pack is required. With a Windows master server, only US English operating system and code page installations of NetBackup are supported. NetBackup language packs are not supported.

With a UNIX master server, the character encoding of the master server operating system must be UTF-8. Multiple locales are supported. NetBackup language packs are supported.

NetBackup appliances are supported.

### Software requirements for Self Service

The Self Service software requirements are

- If using a vCloud Director Integrated configuration, check the Software Compatibility List for supported API versions.
  http://www.netbackup.com/compatibility
- NetBackup Self Service works on any virtual platform, such as Hyper-V or vSphere, provided one of the supported operating systems is installed.

The lists that are shown define the supported operating systems, SQL servers, and web browsers. The latest service pack should always be used.

**Note:** Any version of operating system, SQL server, and web browser that is not listed as **Supported** is considered unsupported.

Supported operating systems:

- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

Supported SQL server:

- SQL Server 2014
- SQL Server 2016
- SQL Server 2017
- SQL Server 2019
- Azure SQL database
- SQL Server on Amazon RDS

Supported browsers:

- Internet Explorer 11
- Edge
- Firefox
- Chrome
- Safari (supported, but not recommended)

Appendix B

# Troubleshooting

This appendix includes the following topics:

- About PowerShell execution policy
- Recovering a lost application key

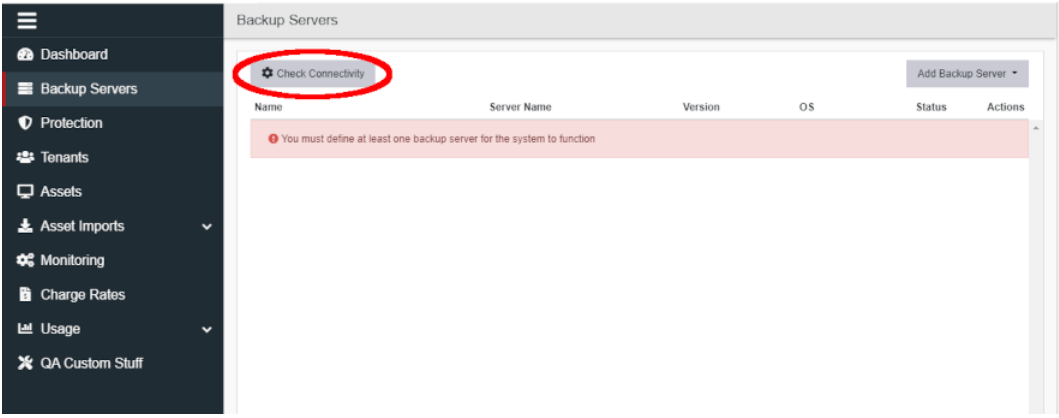
## About PowerShell execution policy

The PowerShell execution policy determines if PowerShell can run scripts. The installer sets the execution policy to **Remote Signed** which allows scripts to run. Problems are encountered if this step of the installer fails or the execution policy is changed after install. This appendix describes diagnosing and solving execution policy issues.

### Diagnosis

- Log on to the website
- Click the **Location** tab.
- Click the **Check Connectivity** icon

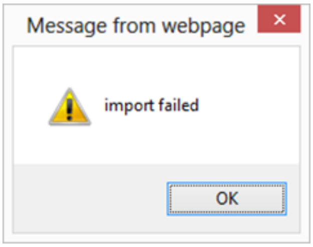
**Figure B-1** Check connectivity



You must define at least one backup server for the system to function

If you receive the error message shown, there may be an execution policy issue. If **Check Connectivity** does not generate an error, the execution policy is set correctly.

**Figure B-2** Import failed pop-up box



Message from webpage

import failed

To confirm there is an execution policy issue, navigate to the error log. Select **Admin > Support > Error Log** and examine the errors. An example of an execution policy issue is shown.

```
"CreateRequest failed with error:
File C:\Temp\NetBackupAdapter\NetBackupAdapterServices\PowerShellScripts\
ValidationHook\Initial.p s1 cannot be loaded because running scripts is
disabled on this system. For more information, see about_Execution_Policies
at http://go.microsoft.com/fwlink/?LinkID=135170. File C:\Temp
\NetBackupAdapter\NetBackupAdapterServices\PowerShellScripts\ValidationHook\
Initial.p s1 cannot be loaded because running scripts is disabled on this
system. For more information, see about_Execution_Policies at
http://go.microsoft.com/fwlink/?LinkID=135170."
```

## Solution

1. Log on to the web server
2. Open a PowerShell command prompt as administrator.
3. Type: `Get-ExecutionPolicy –List`

   The list of the current execution policies is shown
4. If the **Local Machine Scope** is not set to **Remote Signed**, type the command:

   ```
   Set-ExecutionPolicy -Scope LocalMachine -ExecutionPolicy
   RemoteSigned
   ```

Execution policy scope treats items higher up the list as higher priority, overriding those lower in the list. If the scope **MachinePolicy** is set to **Restricted**, then even though **LocalMachine** is set to **RemoteSigned** you are still unable to run scripts. This Stack Overflow post describes how to solve such problems.

http://stackoverflow.com/a/27755459

# Recovering a lost application key

The application key is critical to the correct operation of the system. If the application key is lost it is not possible to recover the third party passwords. Logging on is unaffected but passwords for adapters and integration settings must be re-entered.

In practice, there are two ways the application key can be lost:

- The web server fails
- The website is uninstalled

To mitigate the first issue, a backup of the web server should be kept.

An example of the second issue is the need to move the web server to a different physical computer. The application key should be copied from the configuration file on the old server and the new website should be installed using the application key. Test that the new server works correctly and verify that there is a valid backup of the server. Once the installation is complete, uninstall the website from the old server.

The application key, as well as the database connections strings, are stored in an encrypted section of the configuration files for the components. Two scripts are available to decrypt and encrypt the configuration files:

- *install_location*`\MsBuild\ConfigEncrypt.bat`
- *install_location*`\MsBuild\ConfigDecrypt.bat`

The files that are encrypted and decrypted are:

- `*install_location*\WebSite\web.config`
- `*install_location*\PublicWebService\web.config`
- `*install_location*\ServiceHost\DirectaSvcHost.exe.config`

Appendix C

# Default HTTPS configuration

This appendix includes the following topics:

- About the default HTTPS configuration

## About the default HTTPS configuration

The installation configures the site to use HTTPS by default. The installation adds the self-signed certificate by default and creates an HTTPS binding.

Appendix D

# Load balanced installation

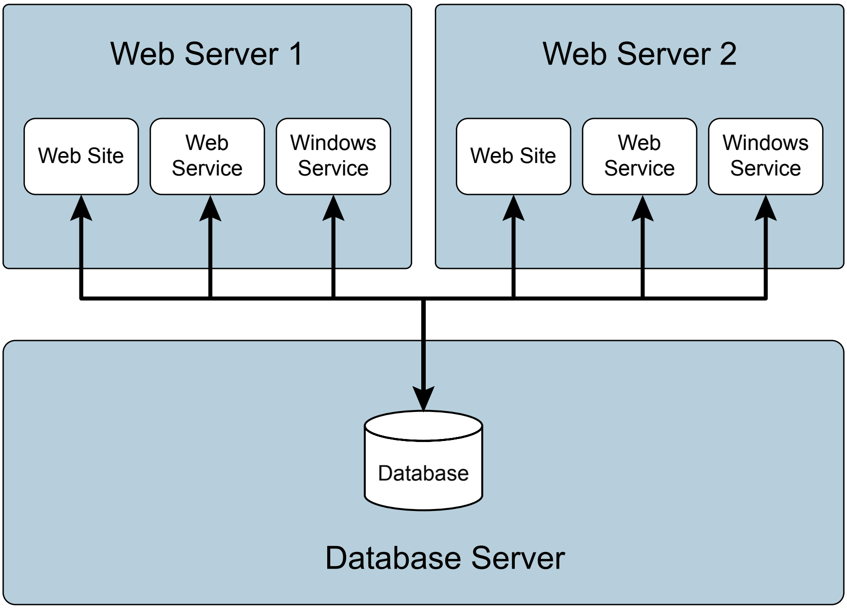
This appendix includes the following topics:

- About load-balanced installation

## About load-balanced installation

A load-balanced installation has a single database server and database, but multiple instances of the website, web service and Windows service. This configuration provides load balancing and redundancy.

**Figure D-1** Load-balanced installation example



You can run the installation on any web server or application server. The installation process copies all of the required files onto the server. You can select the components to install or upgrade at the Configurator stage. For example, to configure an application server that hosts the Windows service, choose to configure only the Windows service.

When you create a load-balanced installation, all of the components must be installed with the same application key. On the first installation of the system, generate a new application key. On subsequent installs, copy the application key, rather than generate a new key. More information about the application key is available.

See "Recovering a lost application key" on page 39.

Appendix E

# Customizing image upload

This appendix includes the following topics:

- About Customizing Image Upload

## About Customizing Image Upload

Image upload is configured automatically. The uploaded images are stored in `C:\inetpub\Veritas\Images` by default. In a load-balanced installation, all of the web servers need to share any images that users may upload to the system. You must configure the uploaded images to reside on a common network storage area. This section describes how to change the storage location.

**To change the storage location**

1. Launch Internet Information Services (IIS) Manager.
2. Navigate to the **NetBackup Self Service** Application.
3. Expand the view, and locate the `UploadedImages` virtual directory.
4. Right click **Manage Virtual Directory** and select **Advanced Settings**.
5. In the **physical path** text box enter the path to where you want the virtual directory to exist on disk. This path is where any uploaded images are stored. The path can either be a path on the local server, such as `C:\uploadedimages` or a UNC share, such as `\\myshare\uploadedimages`.
6. By default the connection to the physical directory is set to be **pass-through authentication**. If a UNC Share was chosen then click **Physical Path Credentials > Specific User** and enter the credentials.
7. In either scenario the connecting credentials require read and write access to the physical location.

**To verify that the image upload works correctly**

1. Log on to the website as Admin.
2. **Admin > Support > Configuration Check > Base Settings**.
3. Click the image icon.
4. The Image Manager should list the `UploadedImages` folder.
5. Select the `UploadedImages` folder and click the upload icon.
6. Browse to an image file and upload. If the image is successfully uploaded, it should appear to the right of the image manager dialog box.

# Reduced Database Permissions for Database Upgrade

This appendix includes the following topics:

- Reduced Database Permissions for Database Upgrade

## Reduced Database Permissions for Database Upgrade

When you upgrade the database it is necessary to choose a database logon to perform the database upgrade. The simplest choice is to use a user that has the ‘sysadmin’ role.

If your database administrator (DBA) is unwilling to grant the sysadmin role to you, you can do a database upgrade with a reduced permission set. This appendix describes the upgrade process with reduced permissions.

The following SQL script creates a logon **UpgradeUser** which is suitable for upgrading the database.

**To create a reduced permissions user for upgrade**

1. Run this script in SQL Management Studio, to create a logon and user suitable for upgrading the database
2. When you run the configurator and select the database to upgrade, choose:
   - Authentication Mode: **Sql**
   - DB User: **UpgradeUser**

- DB Password: ***password***

3. Once install is complete you can disable or delete the **UpgradeUser**, since it is only used during the upgrade process.

```
-- Create a login for upgrading the database
use master
Create Login UpgradeUser WITH PASSWORD = 'password', Check_Policy = OFF
GO

-- Make a database user for the login
-- and give them db_owner role on the target database
USE NetBackupSelfService
CREATE USER UpgradeUser FOR LOGIN UpgradeUser
GO
ALTER ROLE db_owner ADD MEMBER UpgradeUser
GO

-- Allow ownership of database to be transferred to sa.
-- The sa login can be disabled as per good dba practice,
-- and everything will still work ok.
use master
GRANT IMPERSONATE ON LOGIN::sa to UpgradeUser
```