EVOLVE IP

THE CLOUD SERVICES COMPANY™

Cloud Backup

Admin Guide

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Introduction

This section includes the following topics:

- Audience
- Cloud Backup and Restore Offerings
- Software Requirements
- Navigating to the Computer Page

Audience

The audience for this document is IT professionals and Evolve IP customers and partners who provide clients with cloud backup and recovery support using Cloud Backup.

Cloud Backup and Restore Offerings

Cloud Backup continues building on the strategy of expanding the breadth of Cloud Backup and data protection support as well as expanding the recoverability of data for small businesses. This User Guide provides support for the following offerings:

- Imaging backup and restore
- Virtual machines backup and restore for the following products:

  Hyper-V
  VMware

Software Requirements

Before installing the Cloud Backup cloud backup and recovery software on any computer, it is important to know what system environments are supported by Cloud Backup and what hardware is required.

The following table provides the requirements for running the backup software along with web portal requirements for Hyper-V and Imaging.

Backup Software Requirements

Minimum Requirements

- 2 GHz dual-core CPU
- 1 GB of total RAM (500 MB free RAM during backup, restore, or delete operation)
- Free disk space equaling twice the size of your largest protected file (not required for VM backups)
- Broadband Internet Connection
- Microsoft .NET Framework 3.5

Recommended Specifications

- 2GHz quad-core CPU
- 4 GB of total RAM
- 1 GB free RAM during backup, restore, or delete operation.
- Free disk space equaling twice the size of your largest protected file (not required for VM backups)
- Broadband Internet Connection
- Microsoft .NET Framework 3.5

Portal Requirements

- Internet Explorer 10, 11 (Desktop Mode)
- Firefox (most recent version)
- Flash player 6.0 or higher
- Silverlight 4.0 or higher

Supported Operating Systems

- Server 2012/2012 R2
- Windows 8
- Windows 8.1
- Windows 7 SP1
- Server 2008/2008 R2/SBS 2011
- Windows Vista SP1
- Server 2003 SP1/SBS 2003 SP1
- Windows XP SP3

Exchange

- Exchange2013
- Exchange 2010
- Exchange 2007
- Exchange 2003
- (No DAG support)

SQL

- SQL 2005 Standard Edition
- SQL 2008 Standard Edition
- SQL 2012 Standard Edition

VMware

- vSphere 4.1, 5.0, 5.1, and 5.5 (including clustered environments)
- All supported versions require a VMware Essentials license or higher.

Hyper-V

- Hyper-V 2008 R2
- Server 2012 R2

The following Hyper-V hardware versions are supported.

- Generation 1
- Generation 2

Windows Imaging

- Windows 7, 8.1
- Server 2008 R2/SBS 2011/Server 2012/2012 R2

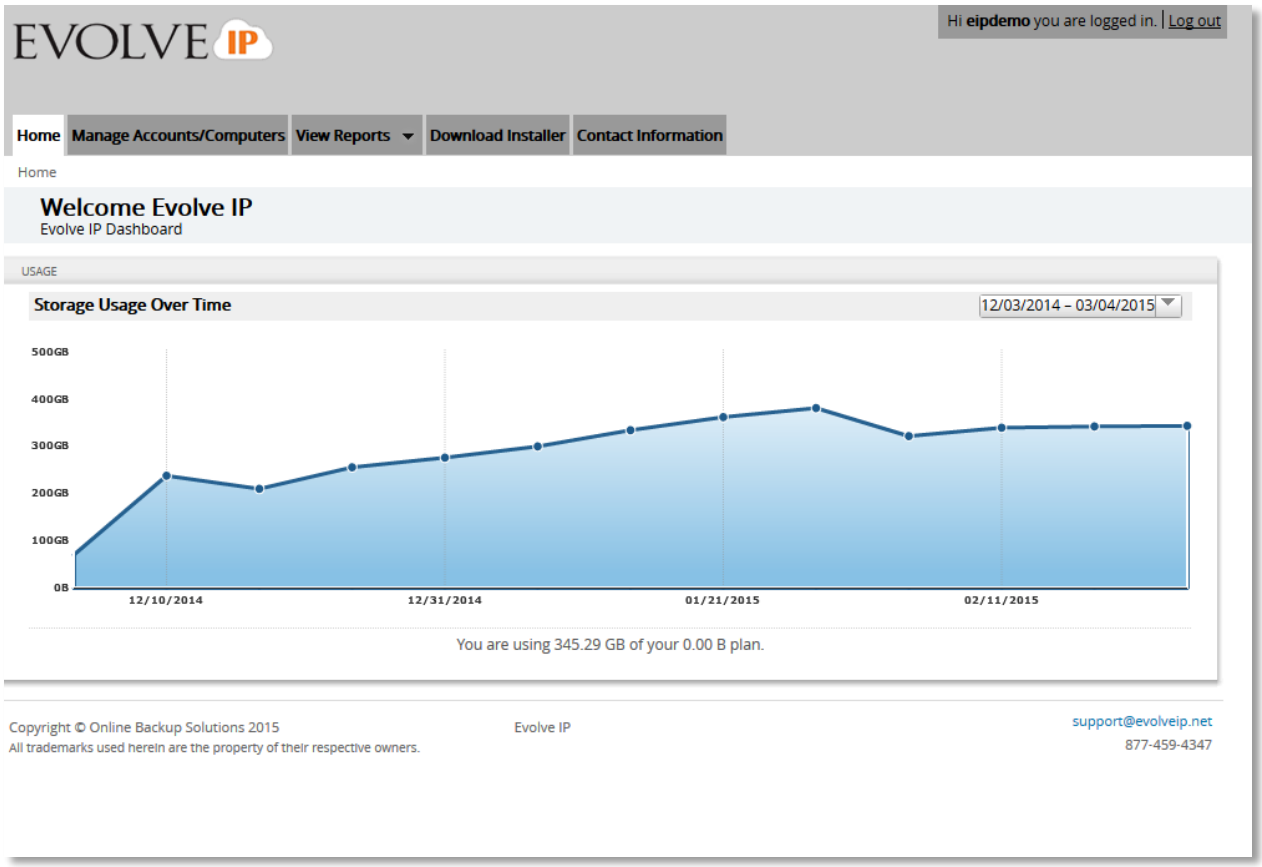
Navigating to the Computer Page

To use the functionality in Cloud Backup for your customer's machines, you need to navigate to that machine's Computer Page.

To access the Computer Page, perform the following steps.

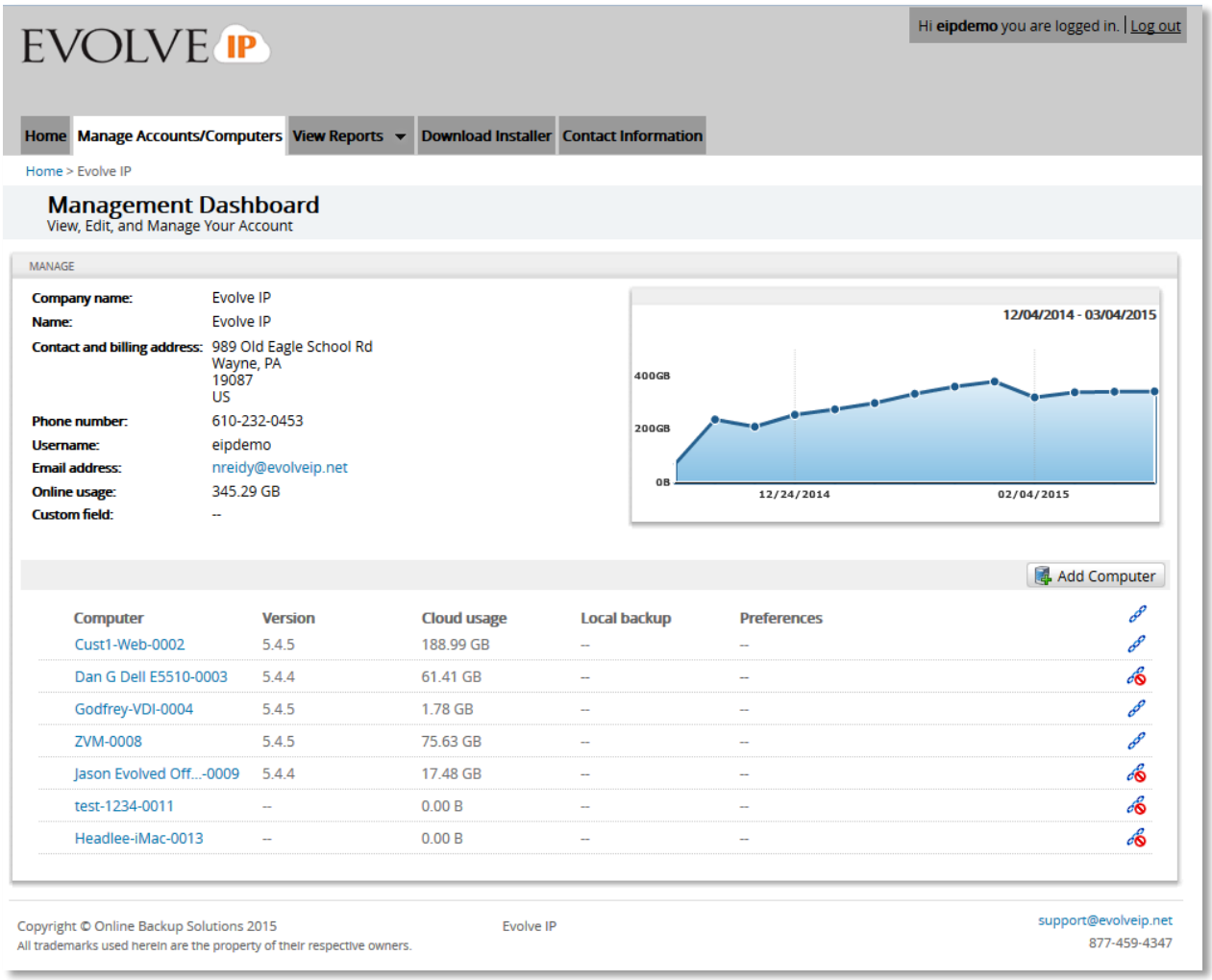
1. Log into your account @ https://evolveip.managemybackups.com

The Home page is displayed.

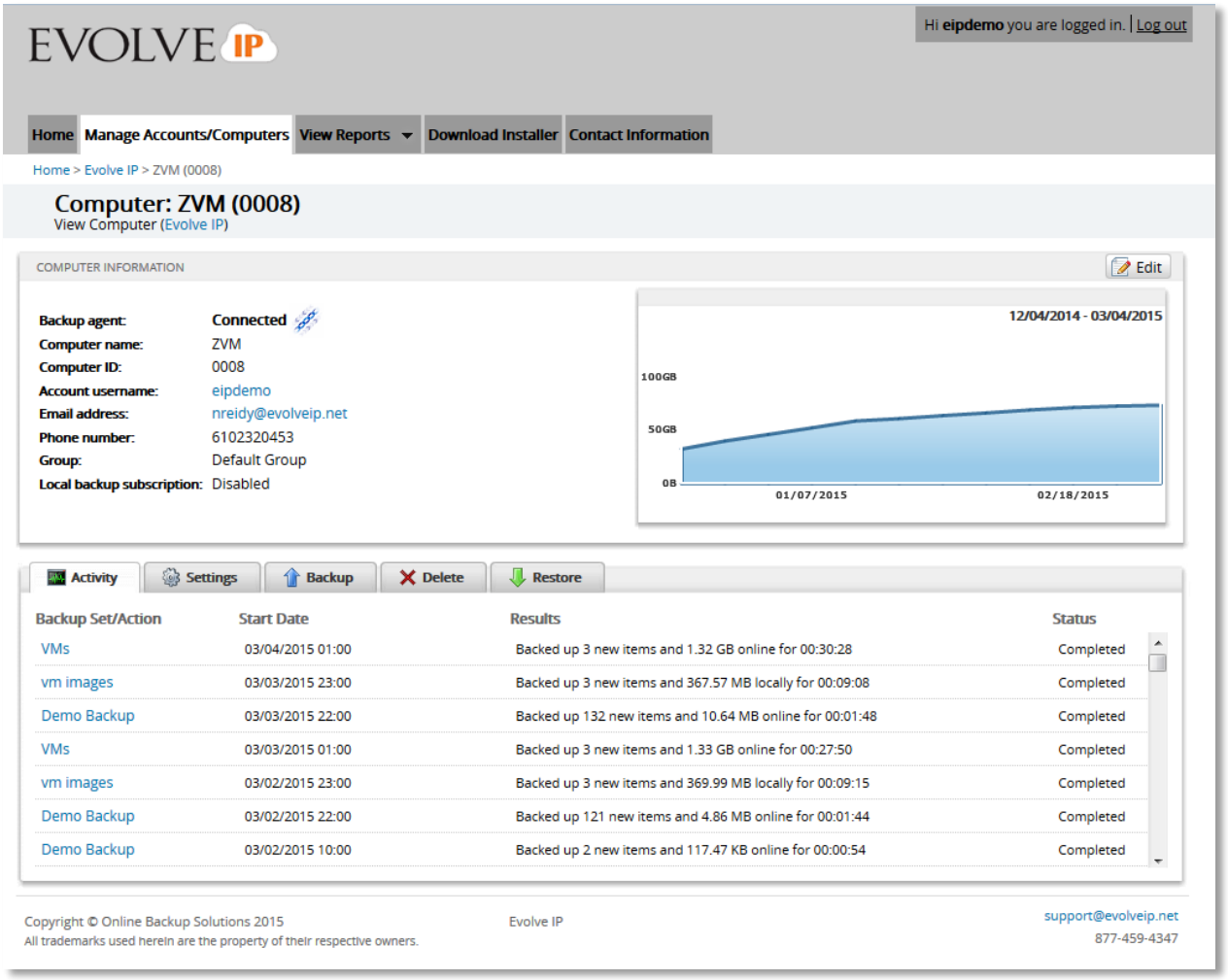


2. At the top of the page, click **Manage**.

The Management Dashboard is displayed.



3. Select the computer where the agent is installed.



The Computer page is displayed.

4. Follow the steps in the procedures in this guide to perform your backups and restores.

Chapter 1. Imaging Backup and Restore

This section provides the following information:

- Image Backup and Restore Features
- About Image Backups
- Image Backup Prerequisites
- Creating Image Backups
- About Restoring Image Backups
- Restoring Physical to Hyper-V Backups
- About Object-level Restore
- Image Configuration Best Practices
- Deleting Image Backups

Image Backup and Restore Features

Cloud Backup has added the ability to backup and restore physical machines locally with the following features:

- Back up servers, desktops, or laptops as volume-level images.
- Recover failed systems as virtual machines or mount images for quick access to files.

Cloud Backup also has added the following restore options:

- Restores to VHD/VHDX to create a Hyper-V Virtual Machine.
- Mounts as a volume or NTFS folder to recover individual files/folders.

To protect against user error, disk, or total system failure, you can backup and protect all local NTFS volumes, including system/boot to a local storage destination.

Volume capacity limits

The agent cannot back up volumes over 2 TB on Windows 7 and Windows 2008.

For newer Operating Systems (**Server 2008 R2/SBS 2011/Server 2012/2012 R2**), this limit is 64 TB.

VSS

The imaging feature uses VSS to quiesce the system on backup. All VSS writers are involved in this process. Make sure they are in a correct state before running a backup.

Network Backup Destination

if the network path used as a backup destination is on a NAS device, then its file system must not be sparse.

About Image Backups

When you perform a backup the image is stored locally and unencrypted, so you must ensure that enough disk space is made available. You can also store revisions.

A once daily backup is the default schedule for an image backup set. You also have the options of creating a recurring interval schedule, or schedule by calendar date and time.

Backups are run using the standard calendar scheduler. If a backup runs into its next start time, it finishes and resumes at the next scheduled time. See *About Scheduling Backups* for more information.

Image Backup Prerequisites

Image backups have the following prerequisites:

- Backup configuration
- Supported disks and file systems
- Supported imaging platforms

Backup Configuration

Install an agent on each physical machine you need to protect.

Supported Disks and File Systems

The following disks and file systems are supported:

- NTFS
- MBR disks
- GPT disks

Supported Imaging Platforms

The following platforms are supported by Imaging.

- Windows 7, 8.1
- Server 2008 R2/SBS 2011/Server 2012/2012 R2

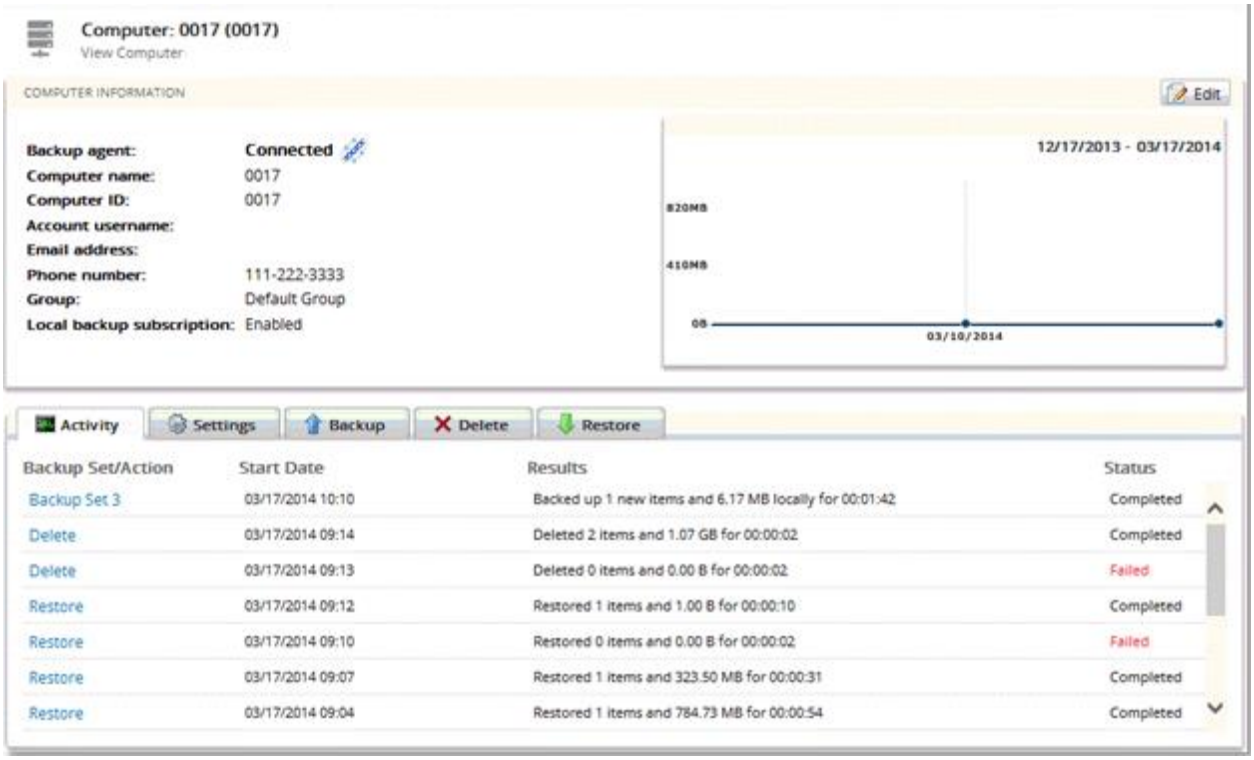
Creating Image Backups

To create an image backup, perform the following steps.

1. Navigate to the Computer Page.

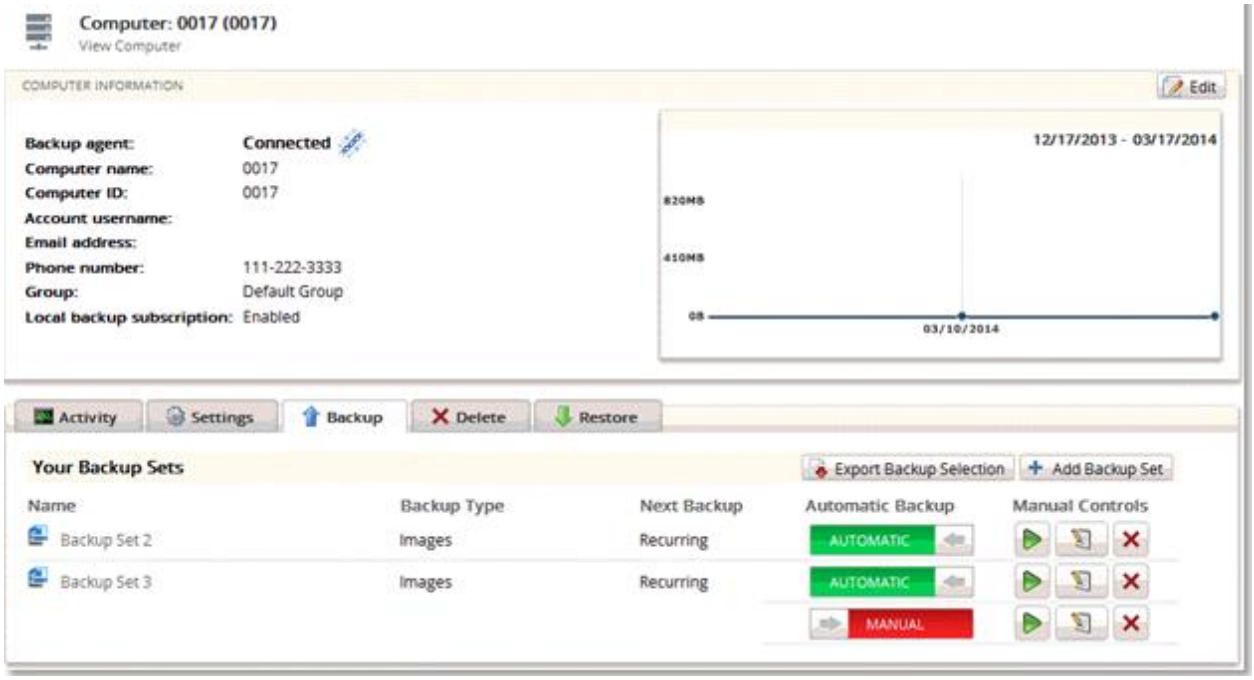
   See *Navigate to the Computer Page* for instructions.

   The Computer page is displayed.

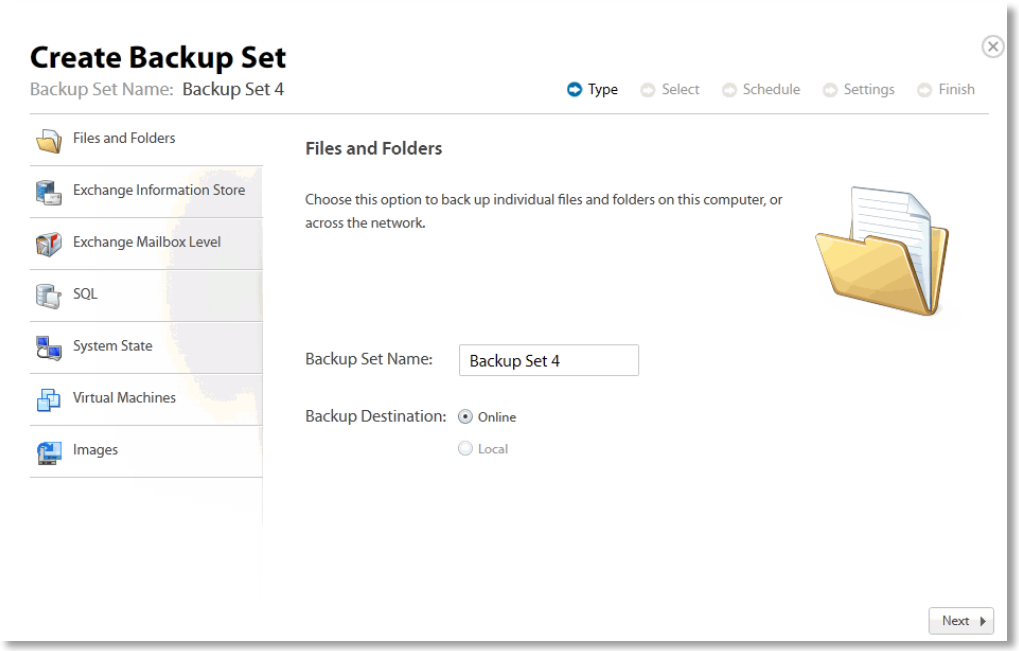


2. Click the **Backup** tab.

The Your Backup Sets section is displayed.

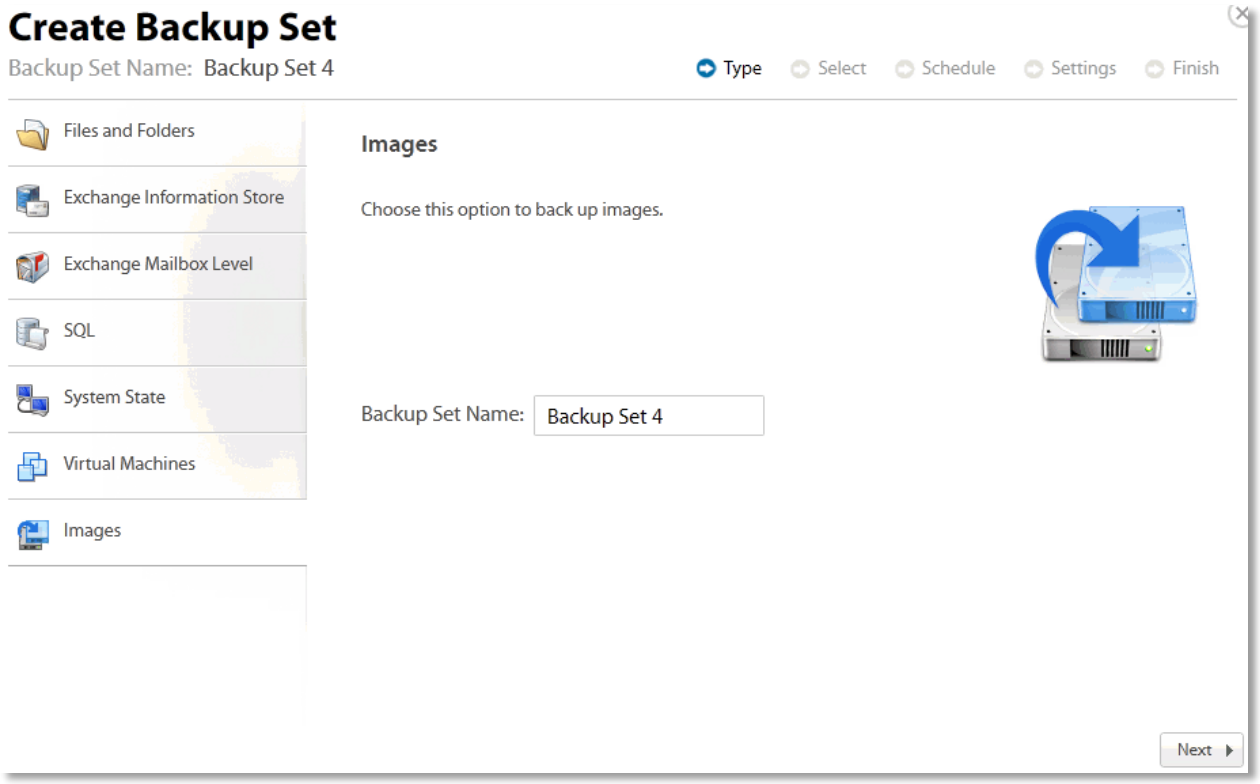


3. Click the **Add Backup Set** button. The Create Backup Set page is displayed.

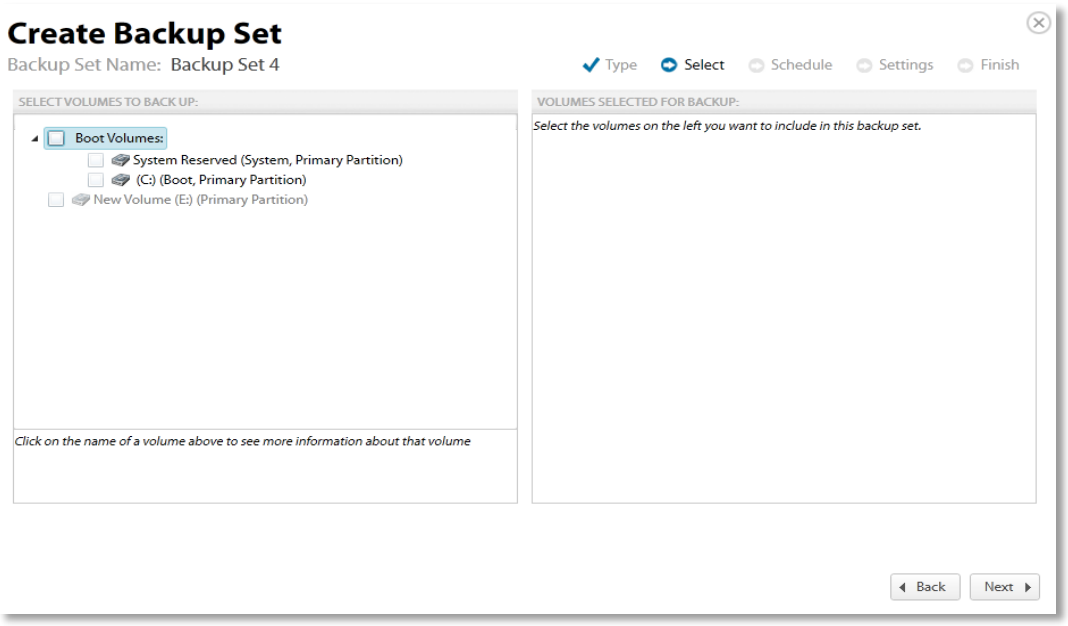


Click **Images**.

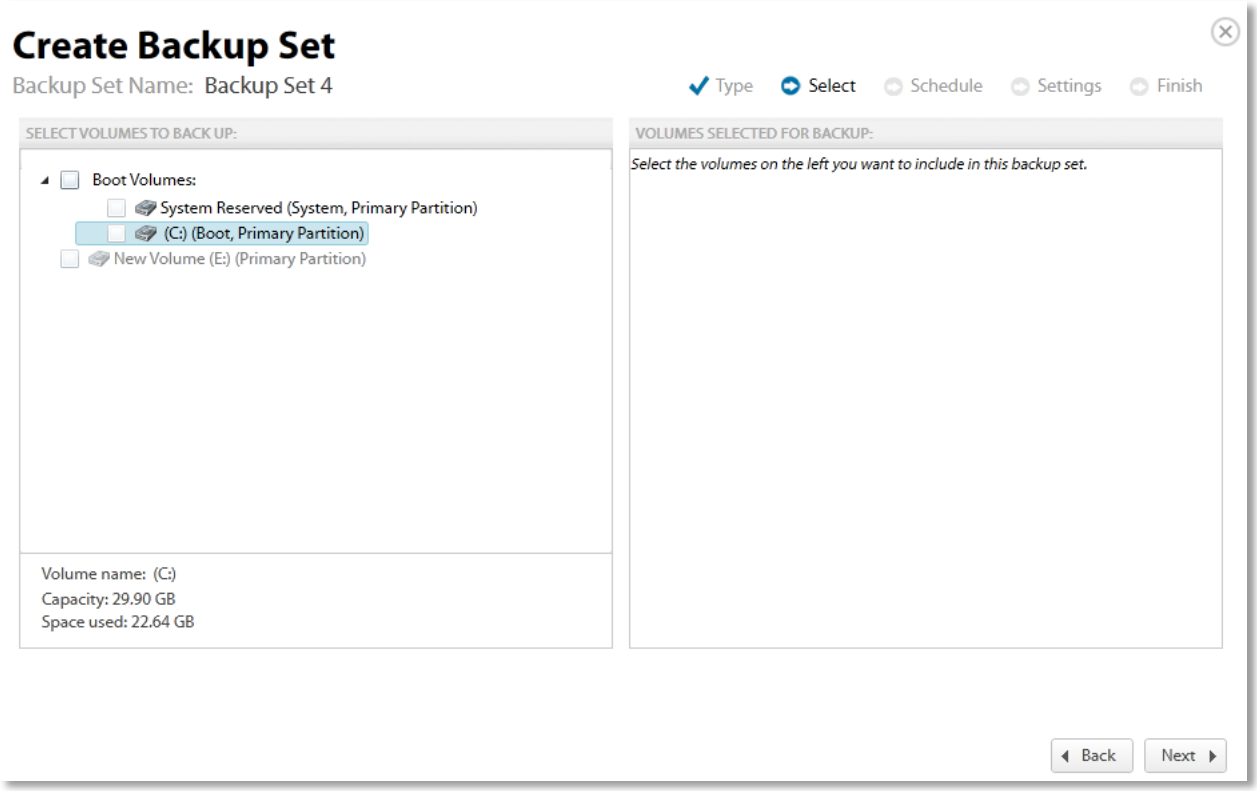
The Images page is displayed.



4. At the Backup Set Name field, type the backup set name, and then click **Next**. All volumes locally available to the agent are loaded and displayed.



5. Click the name of a volume to see more information about that volume as shown below.



6. Select the checkboxes of the volumes you want to include in the backup set.

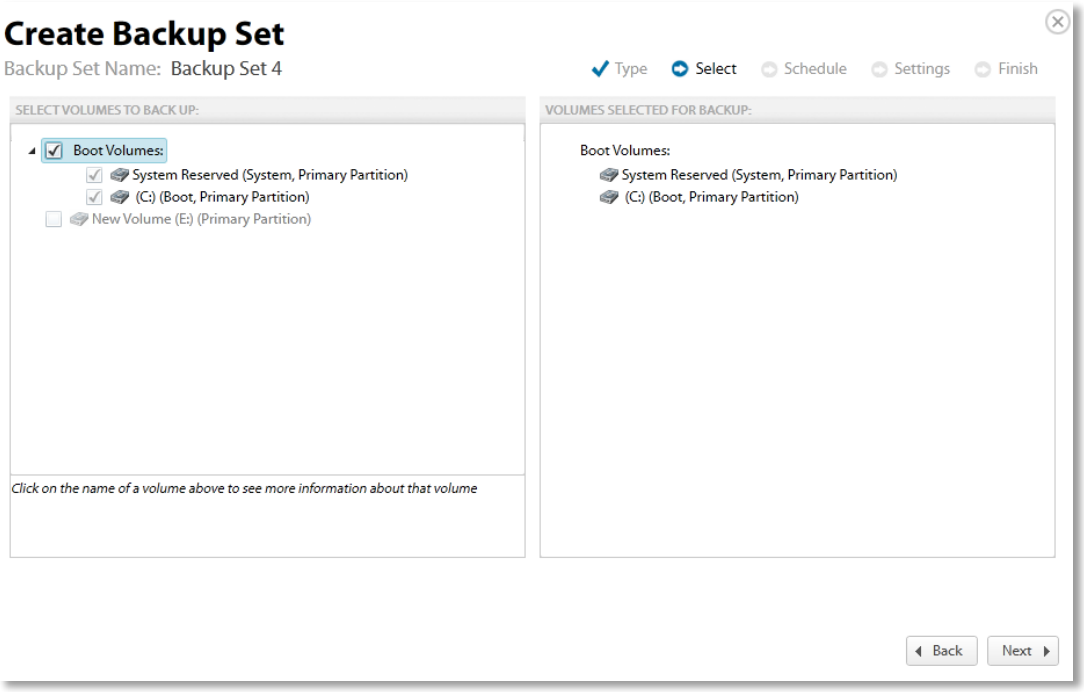
The boot volumes group allows easy selection of any volume required to perform a restore of the physical system as a functional virtual machine.

The following volume sets cannot be selected for backup:

- Volumes with non-NTFS file systems
- Remote volumes / network shares
- Volumes which are already included in an imaging backup set
- Volumes greater than or equal to 2 TB in size on the following operating systems: Windows7, 2008, and 2011
- Volumes which reside on disks which are 4k native on the following operating systems: Windows7, 2008, and 2011

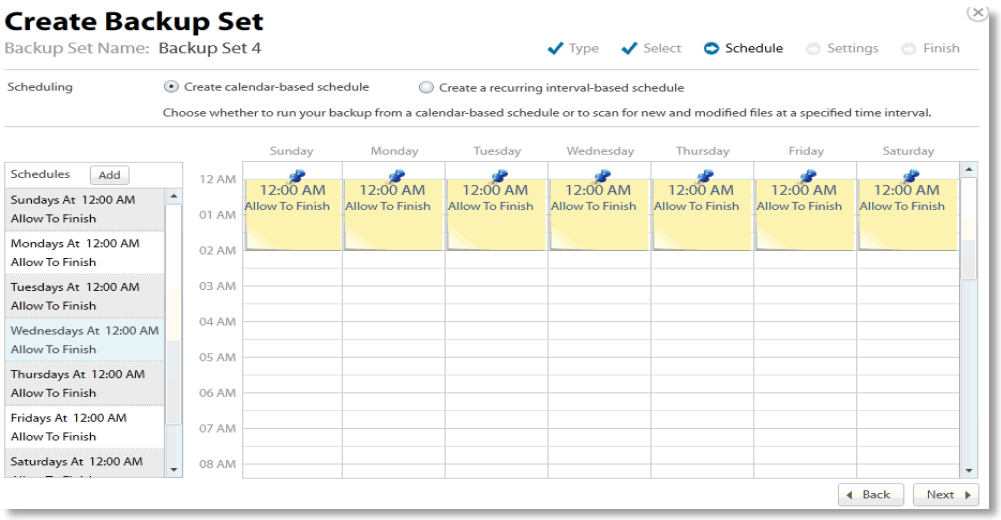
The selected volumes are displayed in the right panel of the screen.

Note: You can hover over grayed-out volumes to find out why volumes are not available (examples: the volume is a FAT or belongs to another backup set).



7. After making your selections, click **Next**.

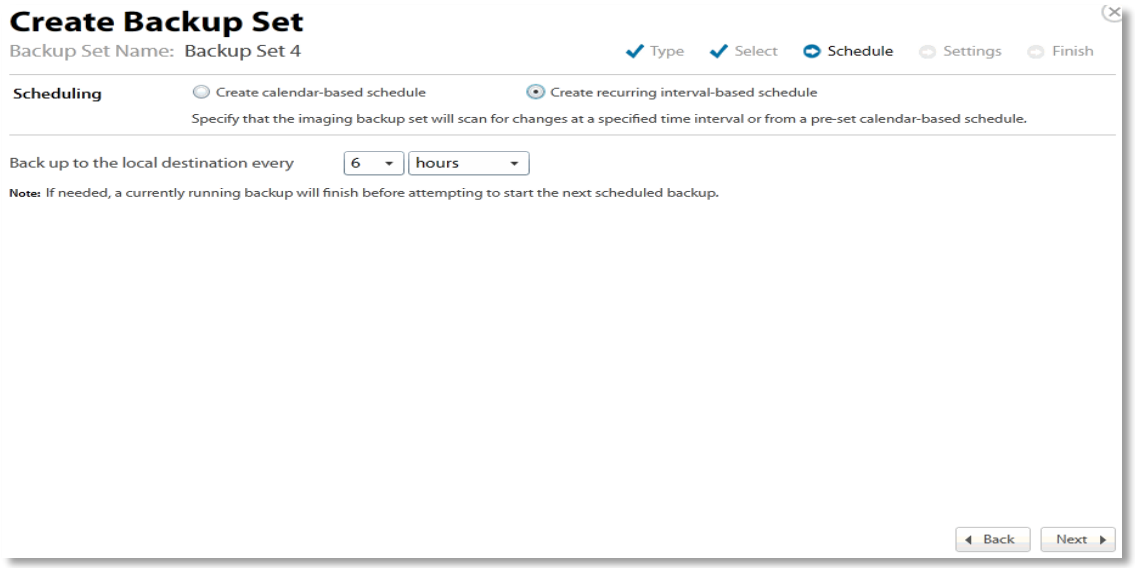
The Create Backup Set Schedule page is displayed.



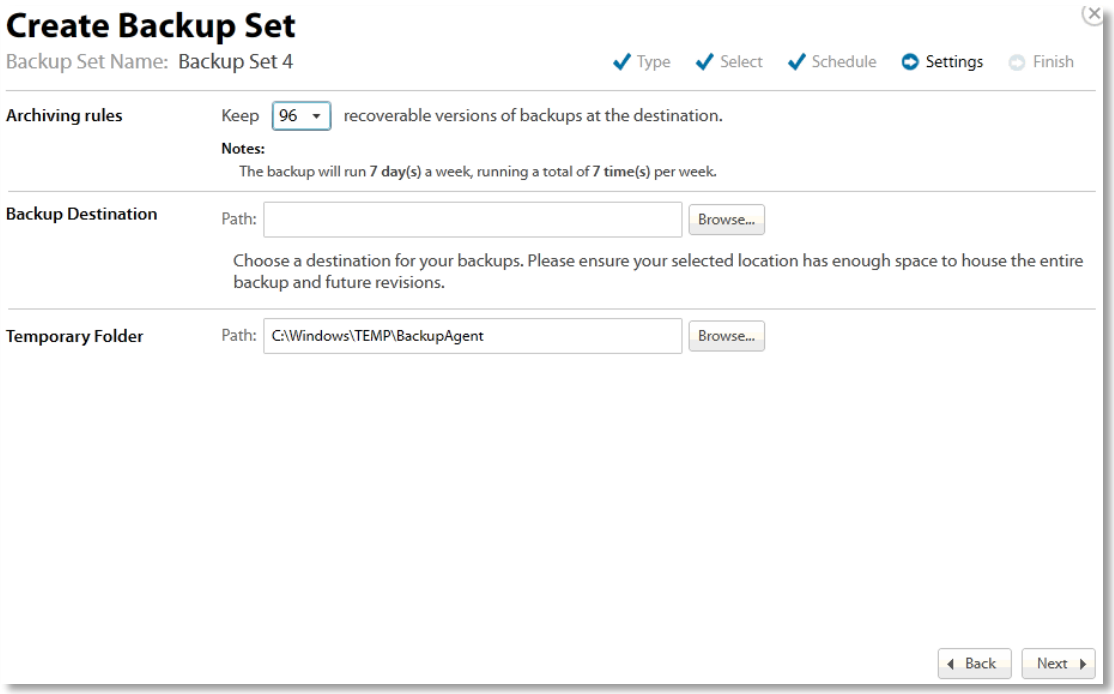
8. Create a calendar-based schedule or click the Create a recurring interval-based schedule radio button.

Note: A once daily backup is the default schedule for an image backup set. See *About Scheduling Backups* for more information.

If you select the recurring option, the following scheduling page is displayed.



9. Use the down arrows to make your selections, and then click **Next**. The Storage location page is displayed.



10. At the archiving rules section, select the number of recoverable versions you want backed up.
11. Type or browse to the backup destination.

Image backups and their revisions must be stored to a local storage location. Valid local storage locations are:

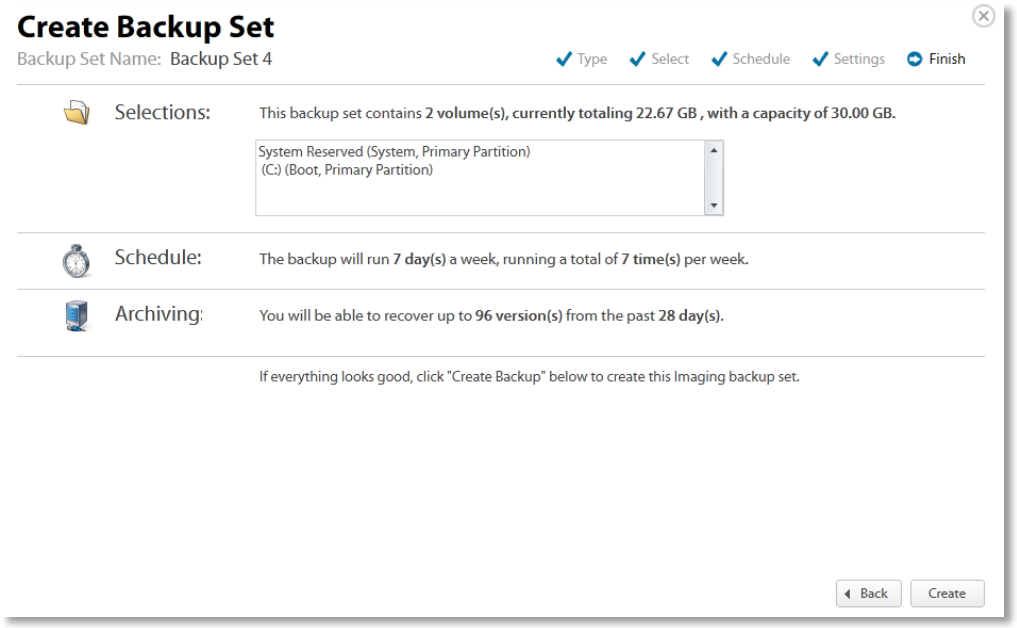
- Direct attached storage
- Network attached storage
- Removable storage

The following local storage locations cannot be selected for backup:

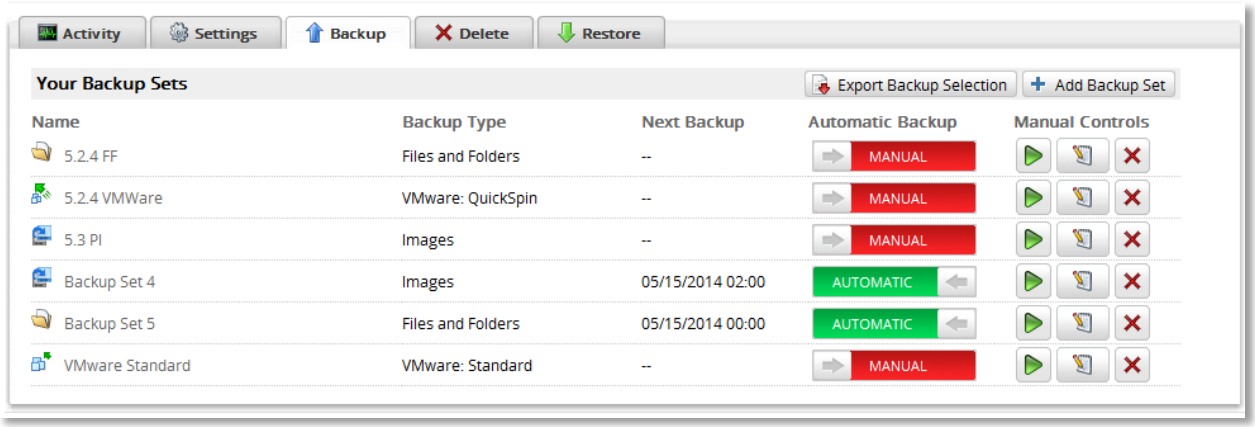
- Volumes with non-NTFS file systems
- Volumes which are already included in an imaging backup set
- Volumes greater than or equal to 2 TB in size on the following operating systems: Windows 7, 2008, and 2011
- Volumes which reside on disks which are 4k native on the following operating systems: Windows 7, 2008, and 2011
- Network attached storage with sparse file systems

Important! Because you are backing up the full volume and creating a VHD, ensure that you have enough local storage space for a full backup of each selected volume (it should be roughly equal to the used size of the volume) and any incremental changes. See *Backup Options* for more information.

12. Accept or change the temporary folder designation, and then click **Next**. The Finish page is displayed for your review.



13. After verifying the information, click the **Create** button. The backup status is displayed on the Your Backup Sets page.



About Restoring Image Backups

Because files are being restored, after the restore is completed, you can choose what to do with these files. The following types of restores are available:

- Restore as a VHD/VHDX file
- Mount as a drive letter or NTFS folder

About Restoring Hyper-V VHD/VHDX Files

You can attach the Hyper-V disks (VHD files) that are restored to an existing VM.

VHD/VHDX is the virtual hard disk file type used by Microsoft's Hyper-V hypervisor. The agent produces the following files depending on the operating system on which it is installed:

- VHD: Windows 7, Windows 2008, Windows 2008 R2
- VHDX: Windows 8, Windows 8.1, Windows 2012, Windows 2012 R2

All virtual hard disks are recovered as dynamic disks.

Virtual hard disks take the following naming convention by default: Recovery_{machine_name}_{volume or volume group label}

Example: Recovery_LT-R9RLN75_Boot

You can restore to another system if the OS version is different; however this only works as long as the change represents an upgrade. For instance, you can back up Windows 7 and restore on Windows 8 but not vise-versa.

About Mounting VHD Files as a Drive Letter or NTFS Folder

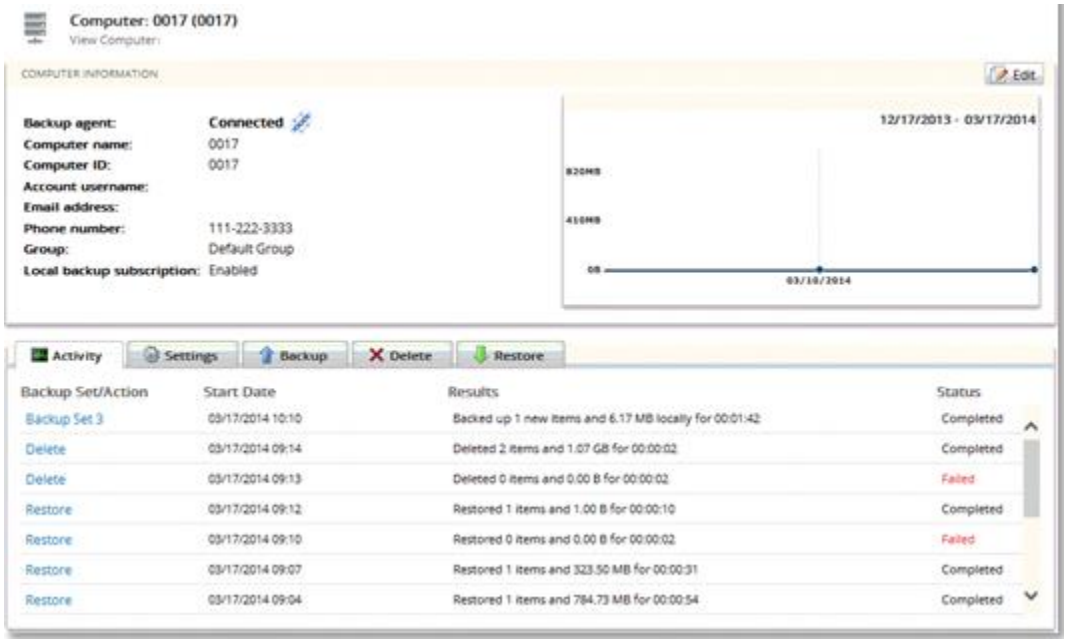
At the Object-level, you can mount a restored VHD file as a drive to explore and extract specific files.

Restoring Physical to Hyper-V Backups

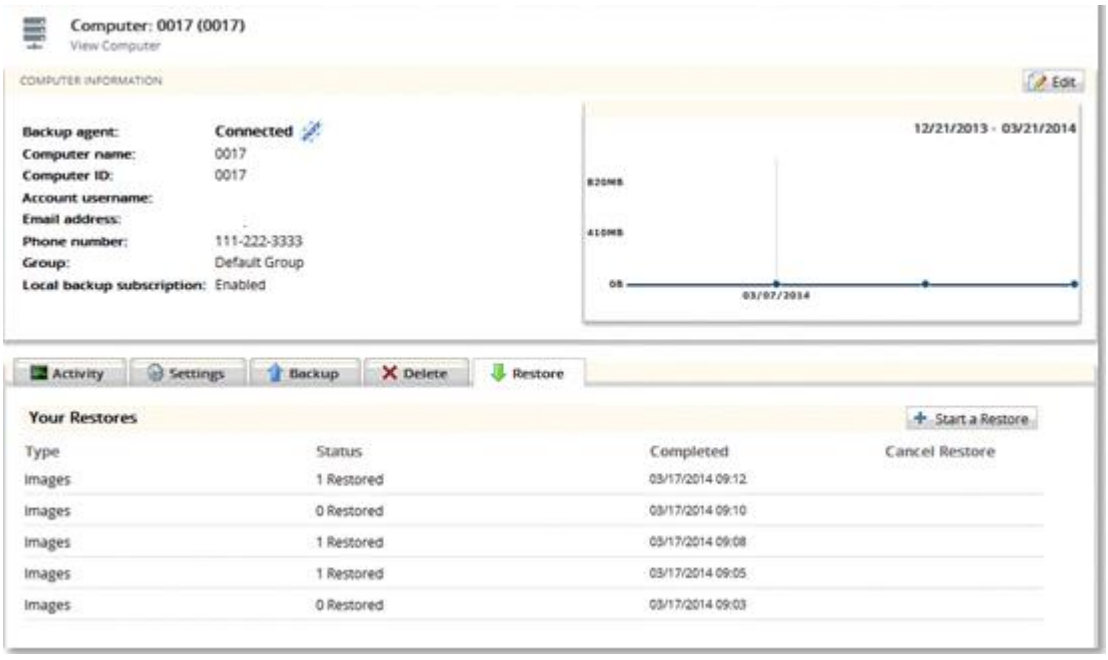
To restore a physical machine to Hyper-V using Cloud Backup images, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions.

   The Computer page is displayed.

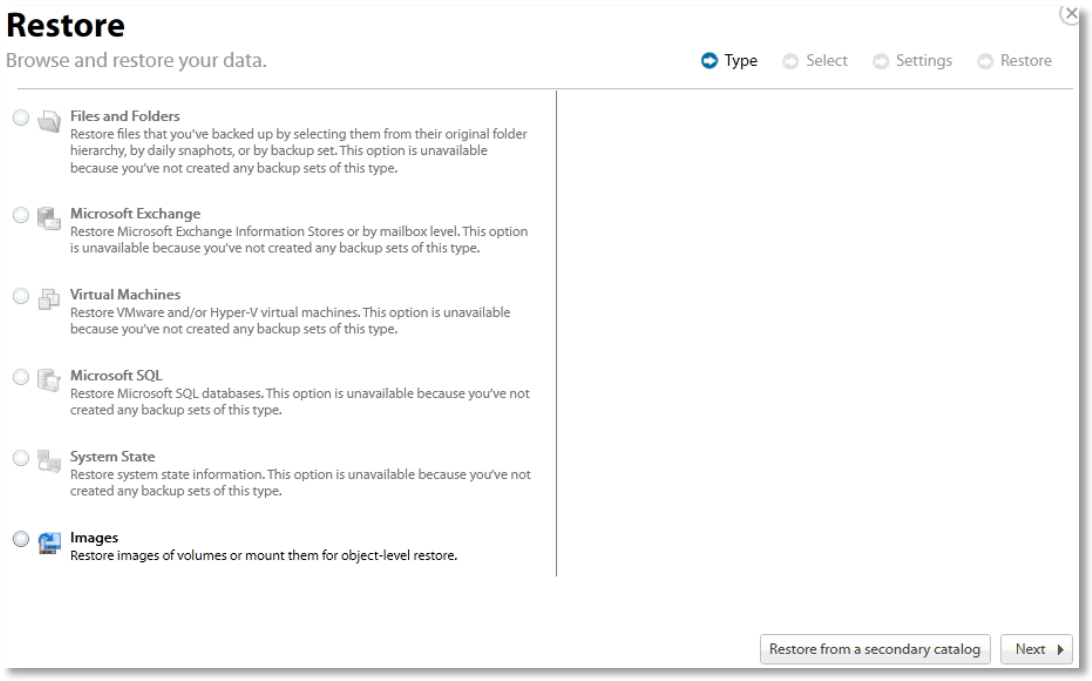


2. Click the **Restore** tab. The Your Restores section is displayed.

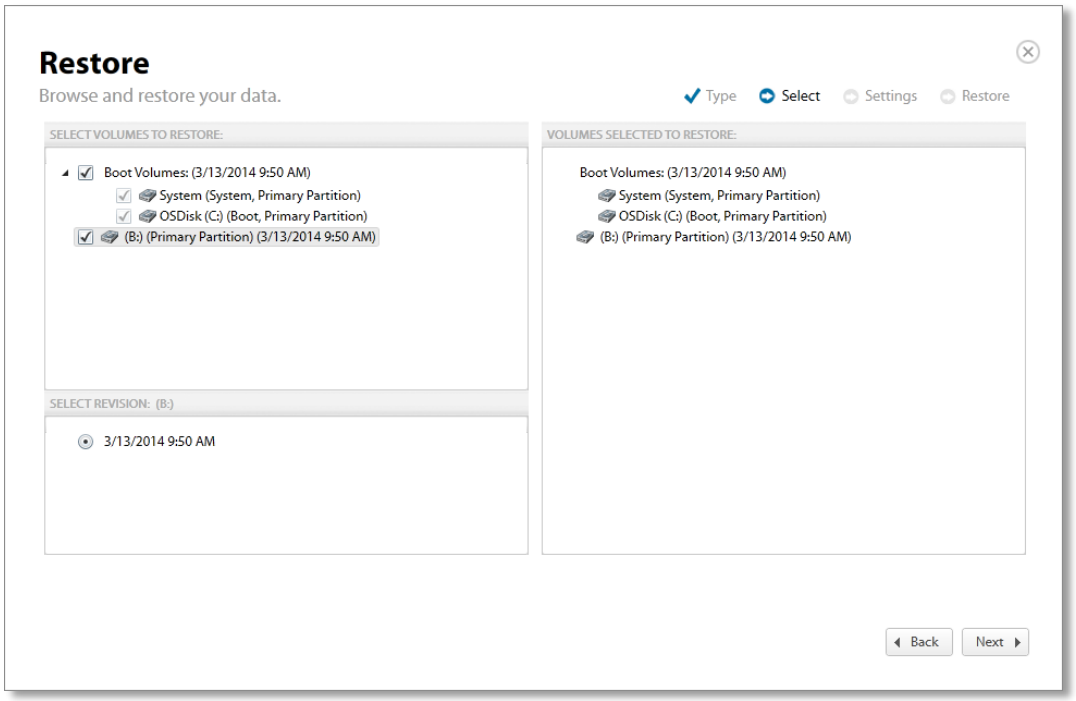


Click the **Start a Restore** button.

The Restore Type page is displayed.



3. Click the **Images** radio button, and then click **Next**. The Restore Select page is displayed.



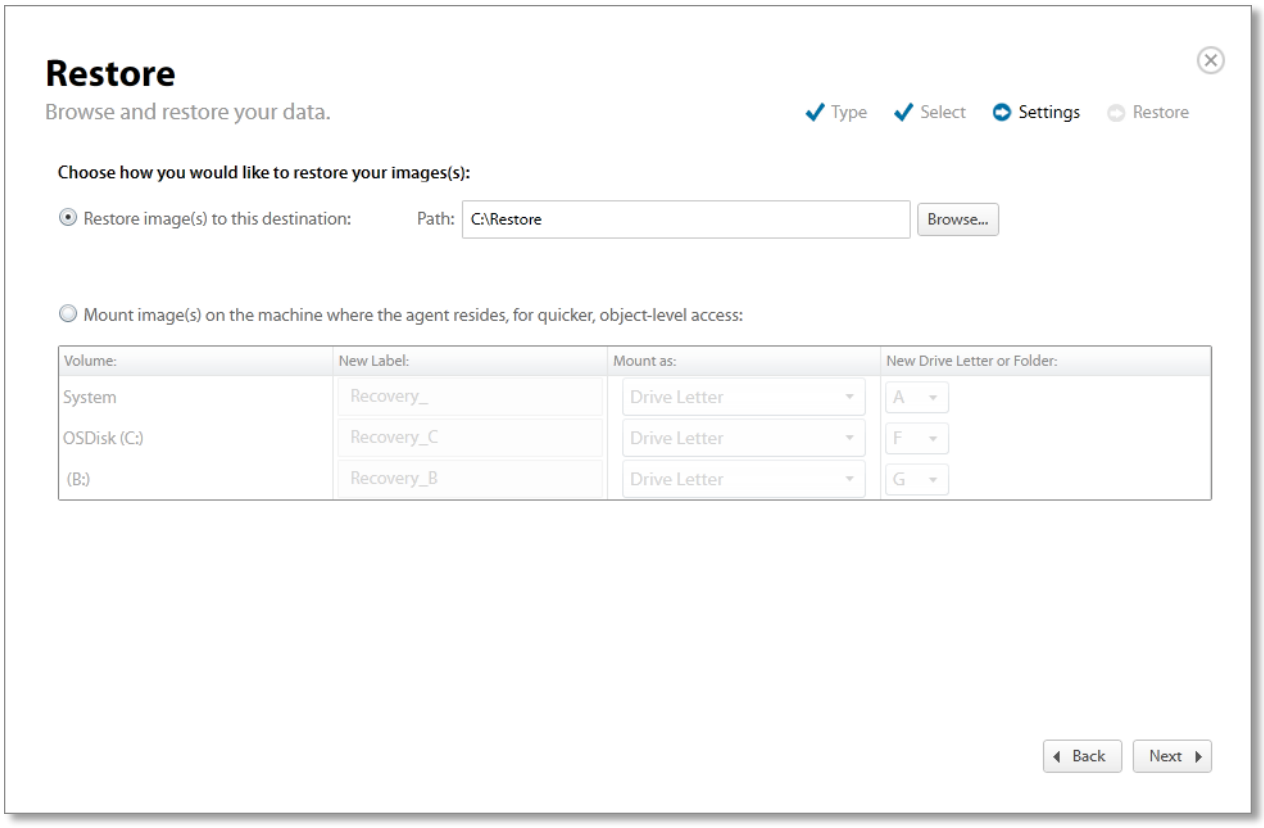
4. In the top left panel, select the volume checkboxes you want to restore.
5. In the bottom panel, select the specific revision of the virtual machines you want to restore.

Optionally, select the **Boot Volumes** group if you want to produce bootable virtual machines in Hyper-V from your backup images. The selected items are displayed in the right panel of the screen.

6. After reviewing your selections, click **Next**.

Note: The Boot Volumes group is not displayed if the source machine's boot volume was housed by a GPT disk.

The Restore Settings page is displayed.

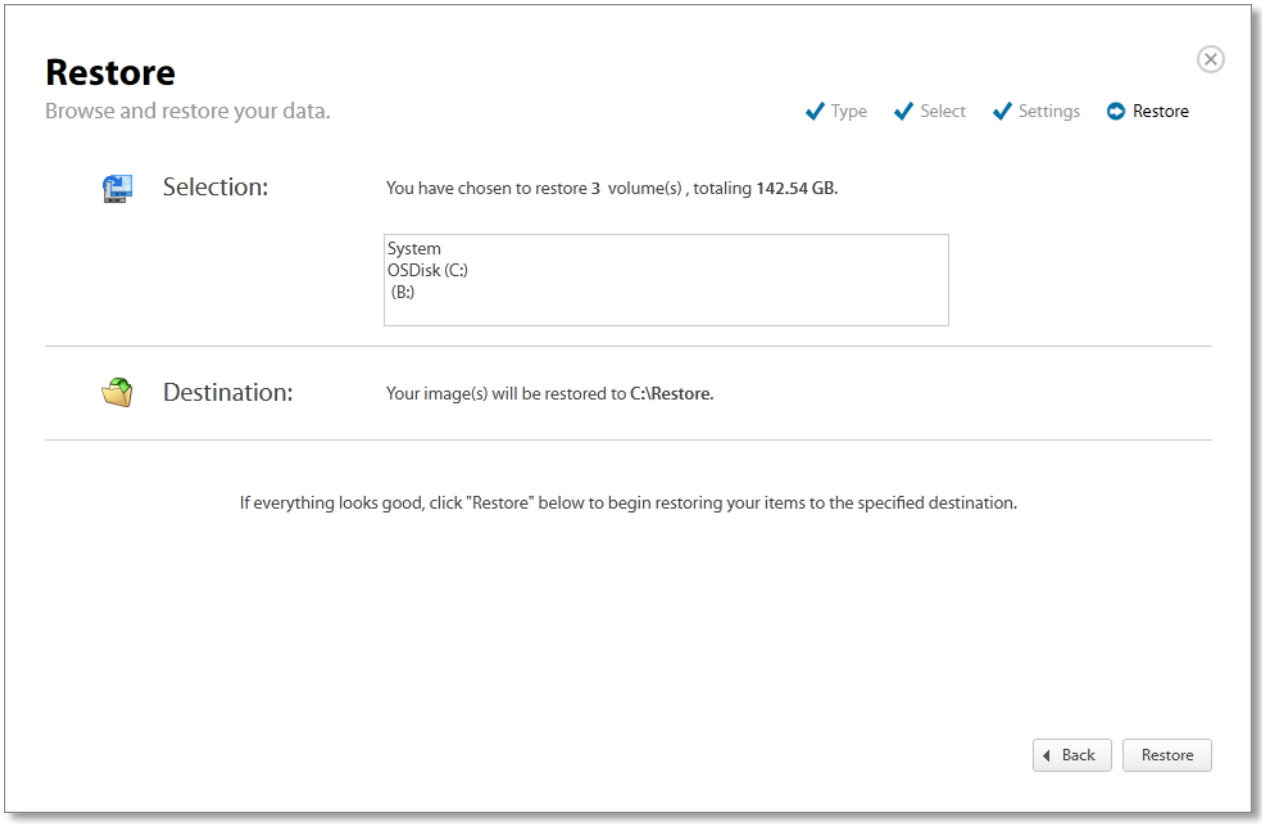


7. Select the **Restore images(s) to this destination** radio button.
8. Type the path or browse to the destination folder for the virtual hard disk files, and then click **Next**. Ideally, this restore destination is available to your Hyper-V host. If you want to mount an image, see *Restoring an Object-level Backup*.

Note: Cloud Backup creates the following virtual hard disk files in the restore destination:

- VHD – If the agent performing the restore is installed on Windows 7, 2008 R2, or 2011 SBS.
- VHDX – If the agent performing the restore is installed on Windows 8, 8.1, 2012, or 2012 R2.

The Confirmation page is displayed.



9. Verify your settings, and click **Restore**. Cloud Backup restores the selected backup images as virtual hard disk files to the selected restore destination.
10. Launch Hyper-V Manager and proceed through the New Virtual Machine Wizard to the Connect Virtual Hard Drive step, and then browse to your restored VHD file.
11. Click **Finish** and the virtual machine is created.

See *Hyper-V Manager documentation* for more information.

Note: You don't need to install the OS, as it should already exist in your system image. Your restore is complete.

About Object-level Restore

The Image -level restore has the following features:

- You can mount the backup media as volumes or NTFS folders.
- You can browse the contents of the backup media in Windows Explorer.
- You can extract individual files and folders by copying and pasting through Windows Explorer.

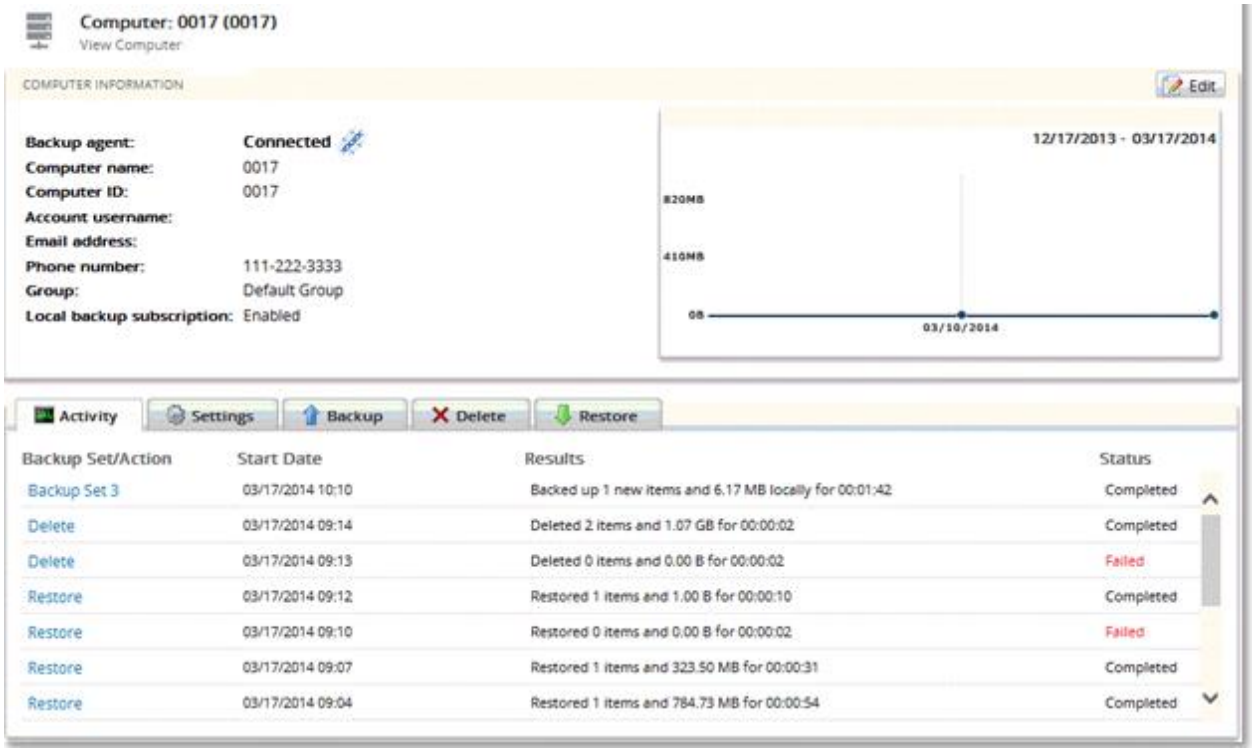
Important! The backup media is locked when it is mounted. As a consequence, no backup or restore actions can occur. To ensure backups run, you must detach the backup media from Disk Management.

Extracting Objects for an Object-level Restore

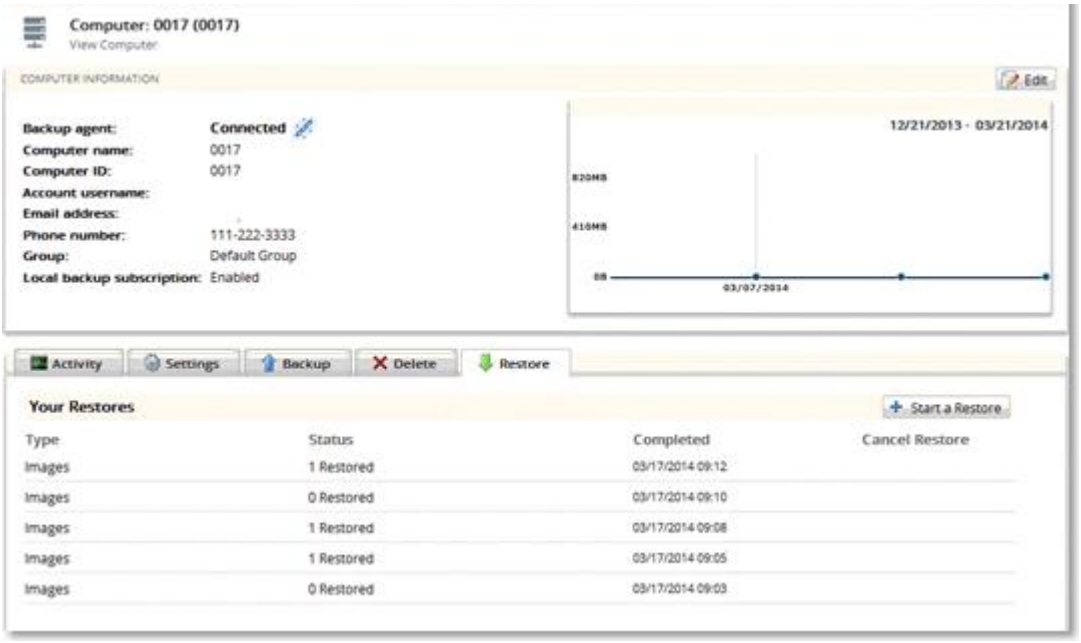
To extract an object for an Object-level restore, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions.

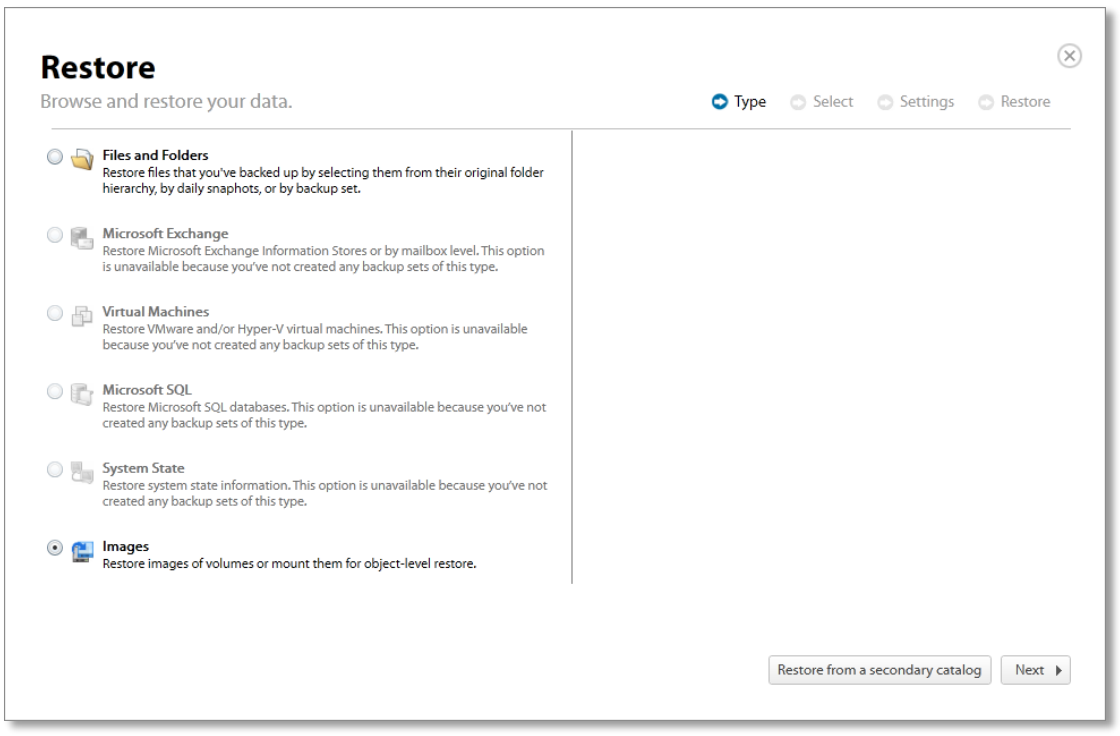
   The Computer page is displayed.



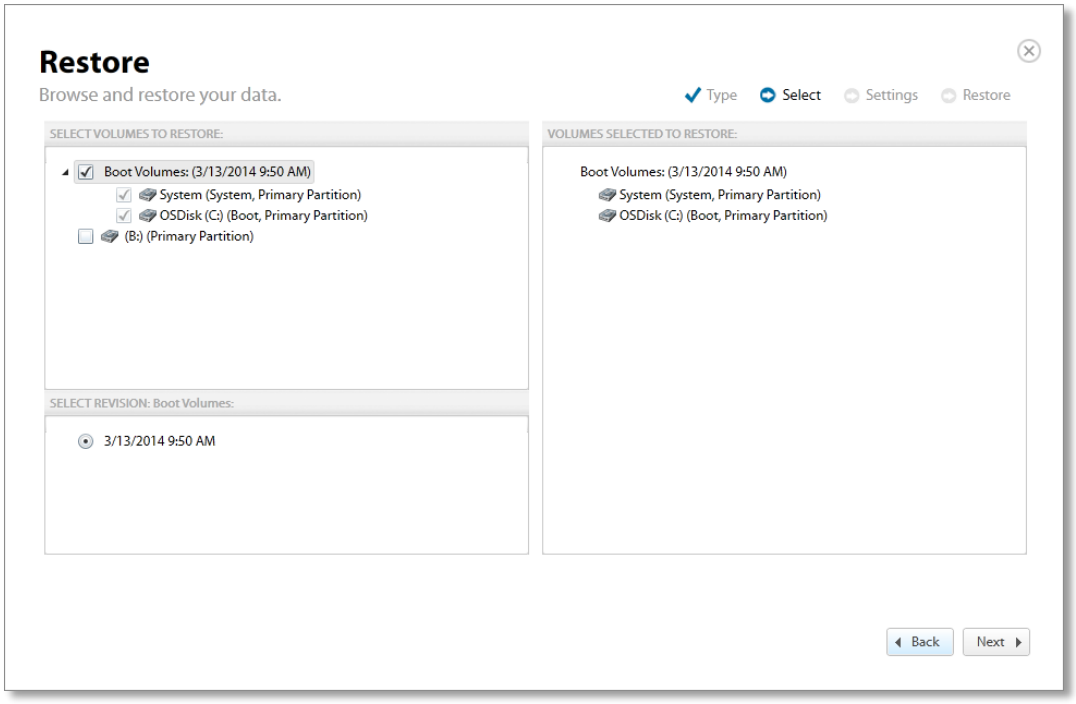
2. Click the **Restore** tab. The Your Restores section is displayed.



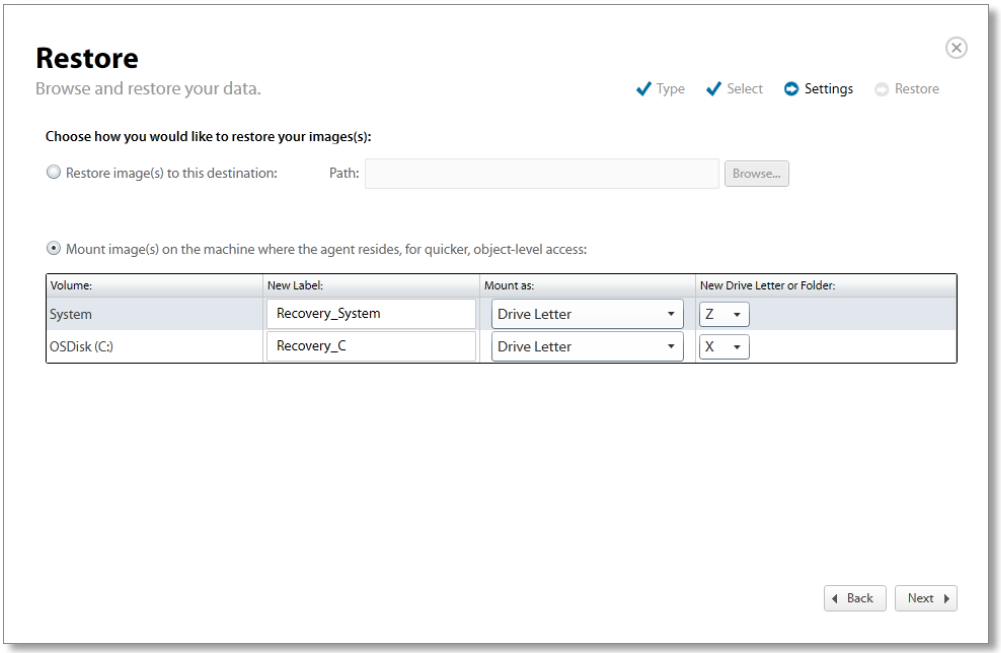
3. Click the **Start a Restore** button. The Restore Type page is displayed. Select the **Images** radio button, and then click **Next**.



The volumes that can be selected for restore are displayed on the Select page.



4. In the top left panel, select the volume checkboxes you want to mount.
5. In the bottom panel, select the revision you want to mount. The selected items are displayed in the right panel of the screen.
6. After reviewing your selections, click **Next**. The Restore Settings page is displayed.

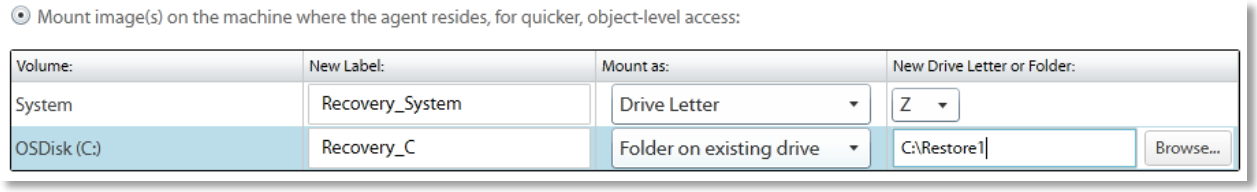


7. Select the **Mount image(s) on the machine where the agent resides** radio button.

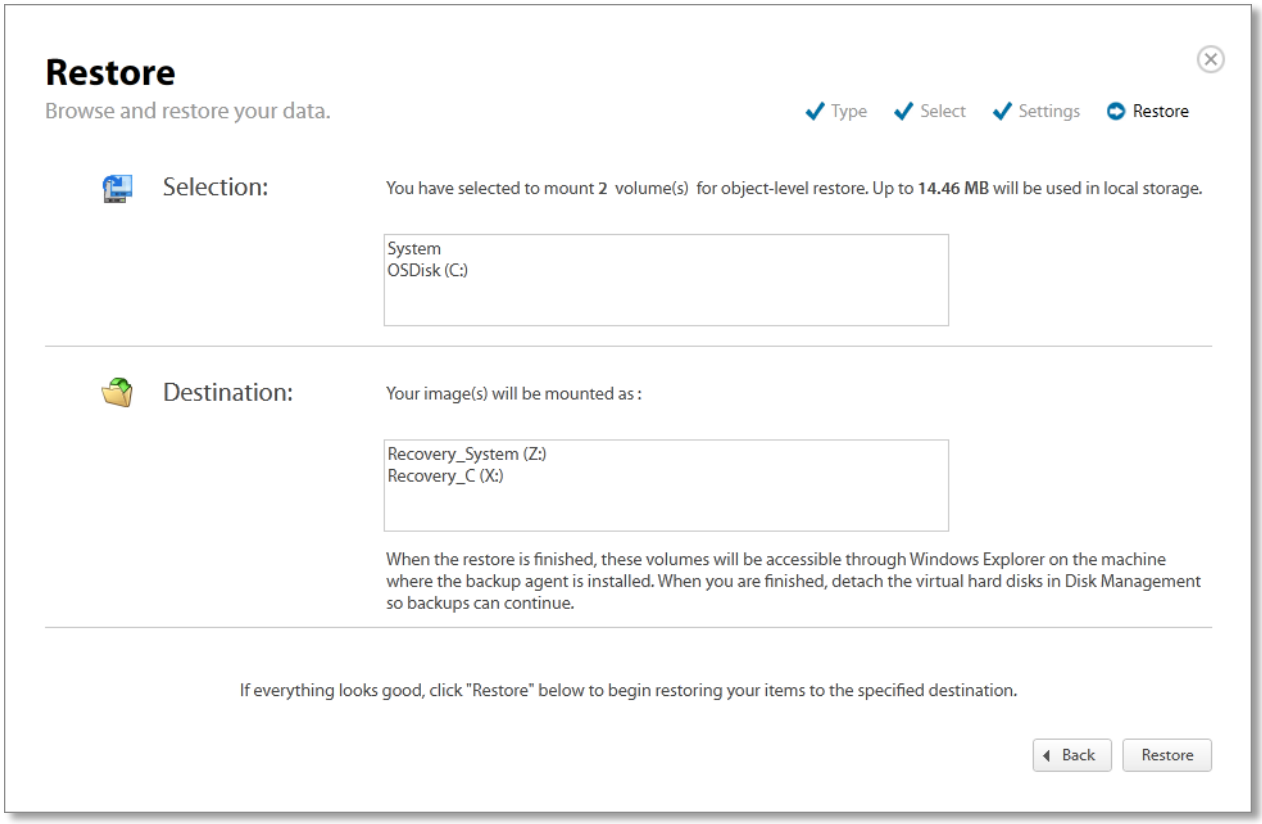
   Each selected volume is mapped to a drive letter on the machine where the agent is installed.

   By default, each mounted volume is named `Recovery_{source volume label}`. This naming convention allows mounted volumes to be easily identifiable.

   You can also mount volumes to empty NTFS folders by expanding the **Mount as** drop-down and defining a destination folder as shown below.

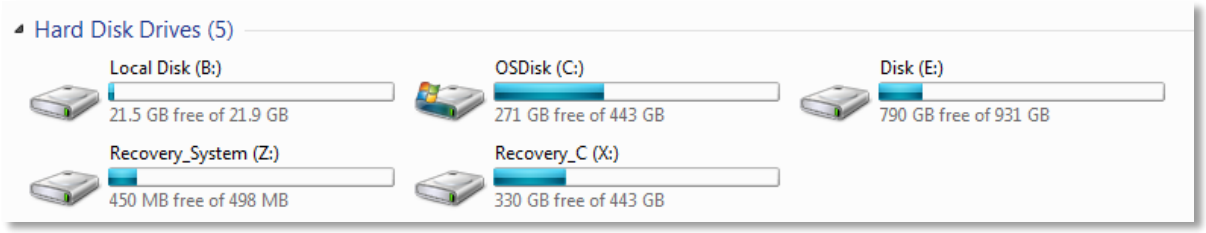


8. After mounting the images, click **Next**. The Restore Page is displayed.

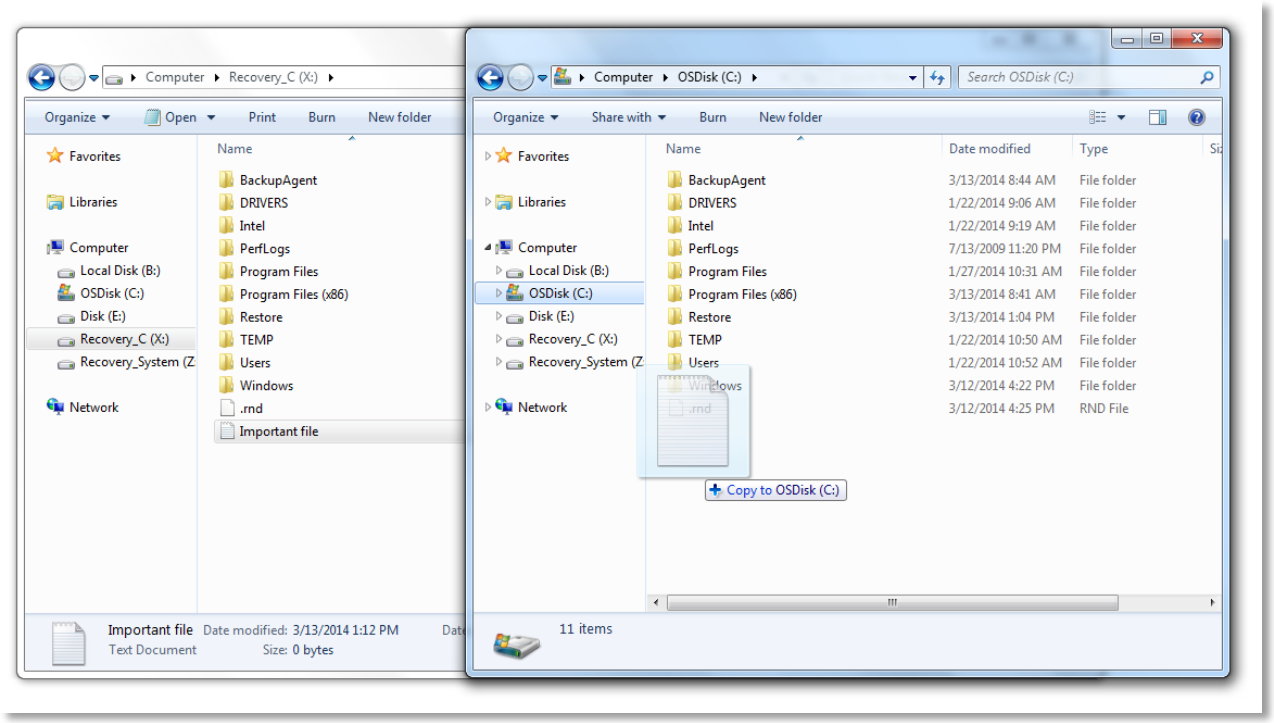


9. Review your configuration, and click **Restore**.

The process of mounting the images takes a matter of moments. When this is done, you are able to access the files and folders inside the chosen images within Windows Explorer on the machine where the agent is installed.

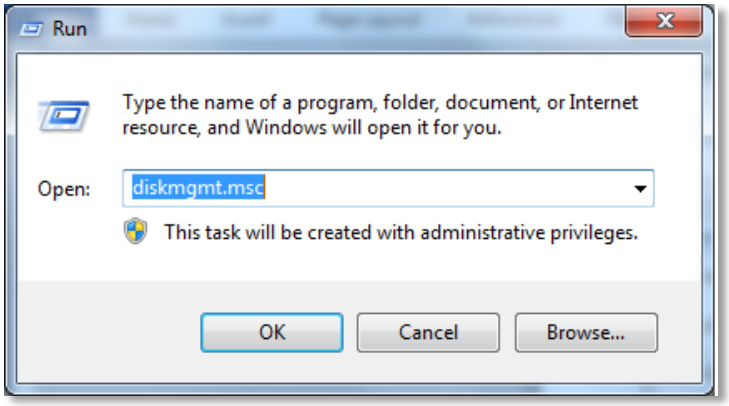


10. Copy and paste the desired files from the mount image to their ultimate destination via Windows Explorer.

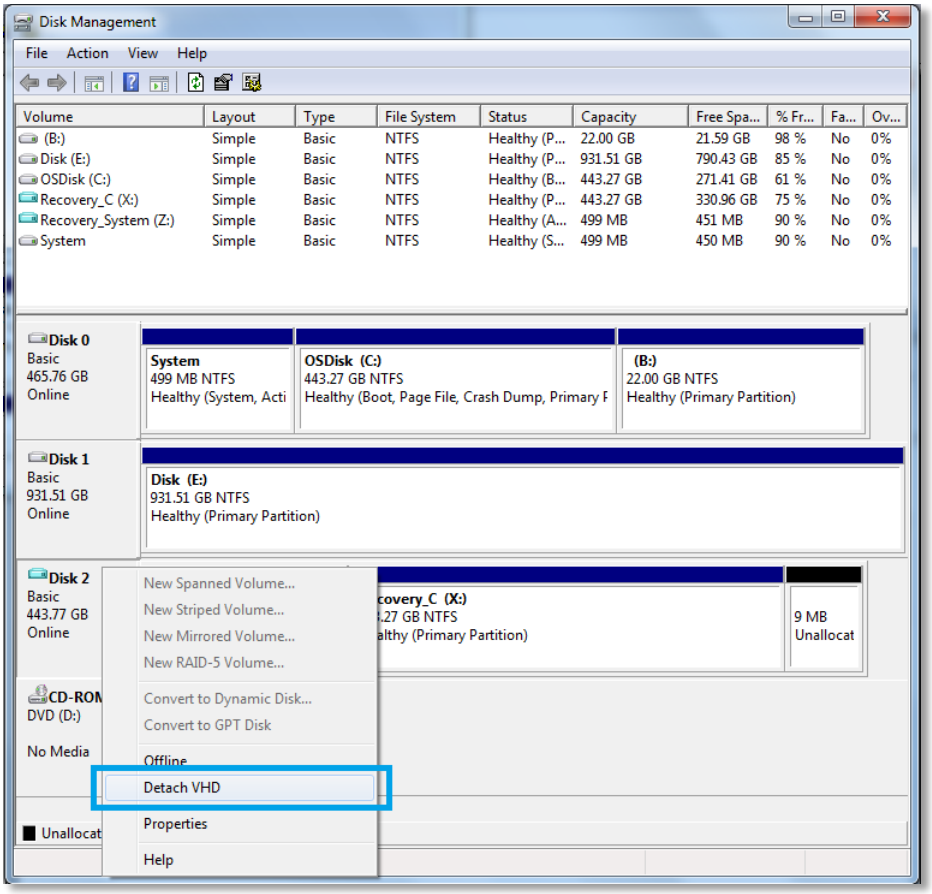


CAUTION! Backups do not work while these volumes are mounted. Dismount these volumes when you are finished to make sure backups continue.

11. When you are finished copying the files you need, dismount the disks you mounted in Disk Management.
12. To access Disk Management, open **Run**. The Run pop-up is displayed.

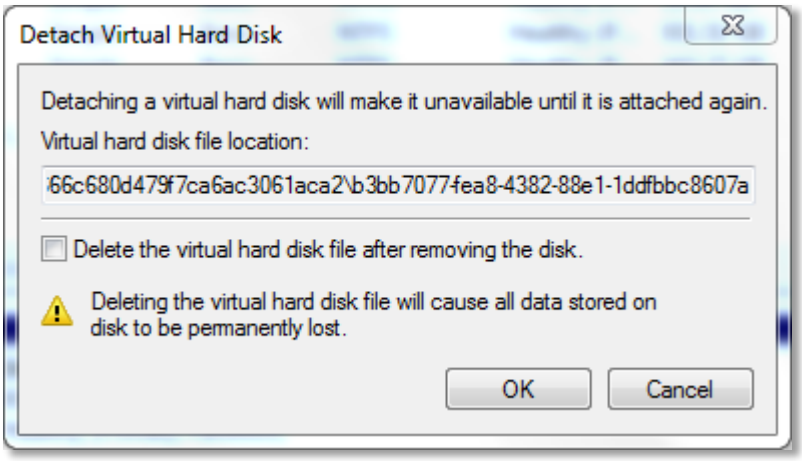


13. At the Open field, type **diskmgmt.msc.** The Disk Management screen is displayed.



14. In Disk Management, locate the disks which contain the recovery volumes. In this case, Disk 2.
15. Right-click and select **Detach VHD**.

Important! Do not select **Delete the virtual hard disk file after removing the disk.**



If you do not dismount these disks, backups for the selected volumes are unable to continue and errors are displayed in your backups.

Image Configuration Best Practices

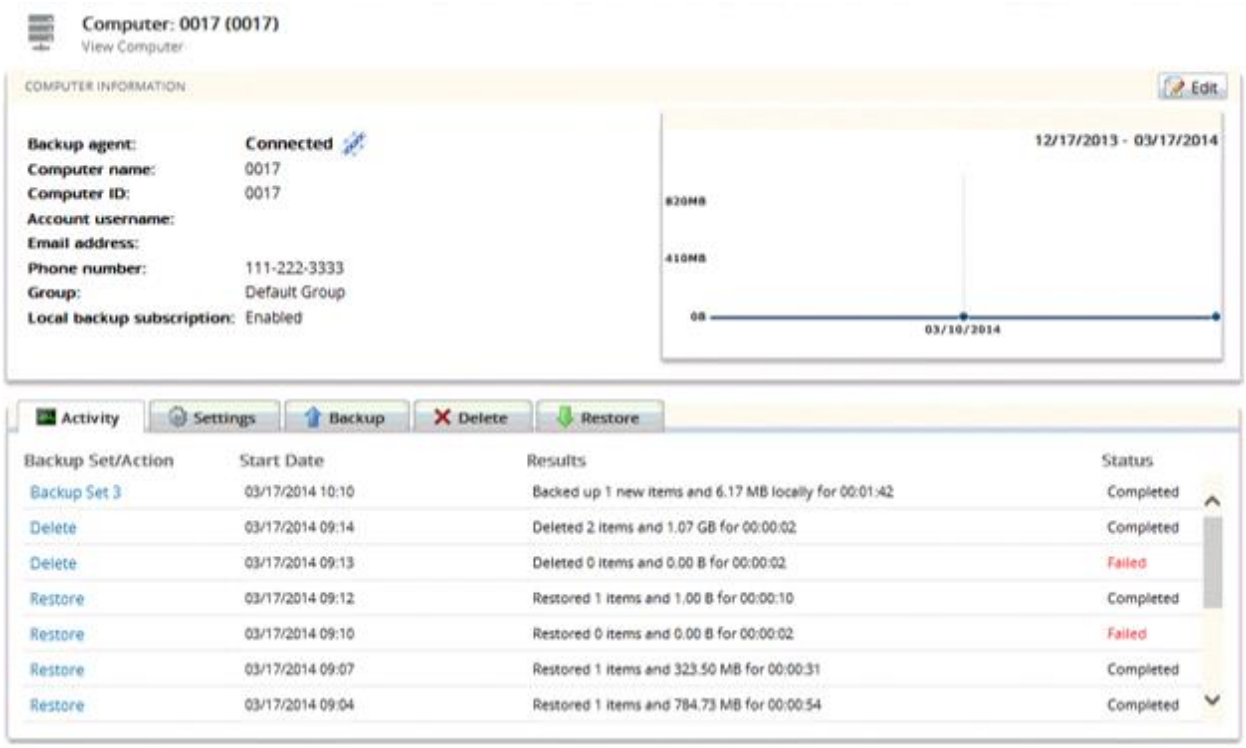
- Do not run other plugins concurrently with the same agent. Be sure to schedule backups apart.
- Use a high quality storage platform to store your backups.
- Use USB 3.0 for external drives and gigabit Ethernet for network locations.
- To avoid performance issues, do not use a volume for local storage that is on the same physical disk as the volumes you want to back up.

Deleting Image Backups

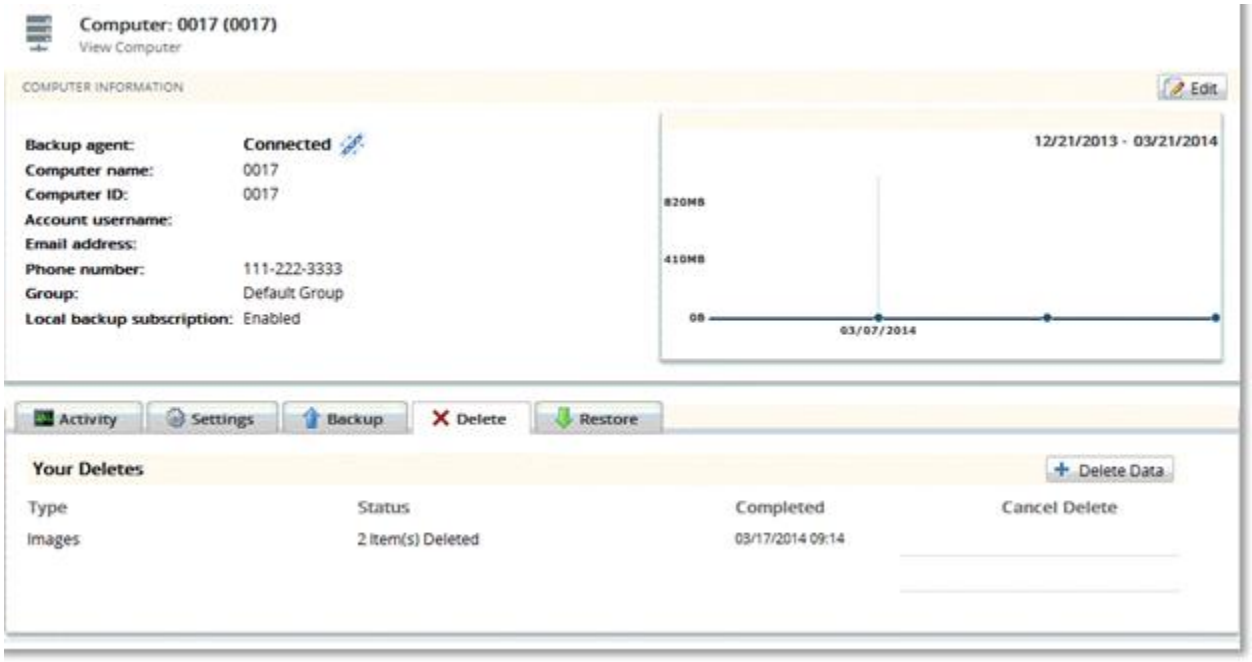
To delete a backup, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions.

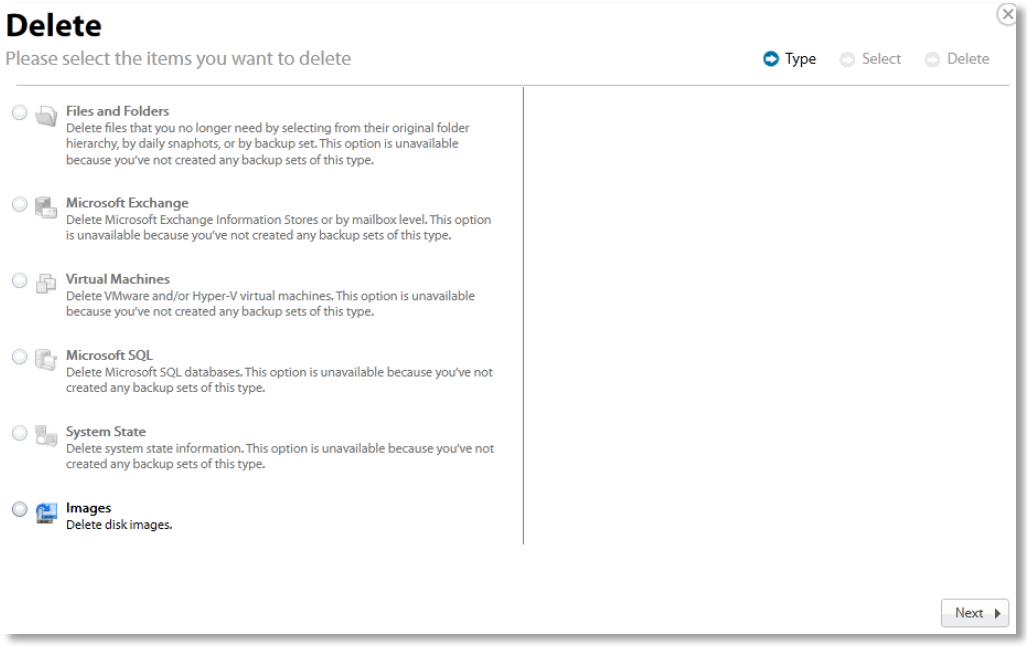
   The Computer page is displayed.



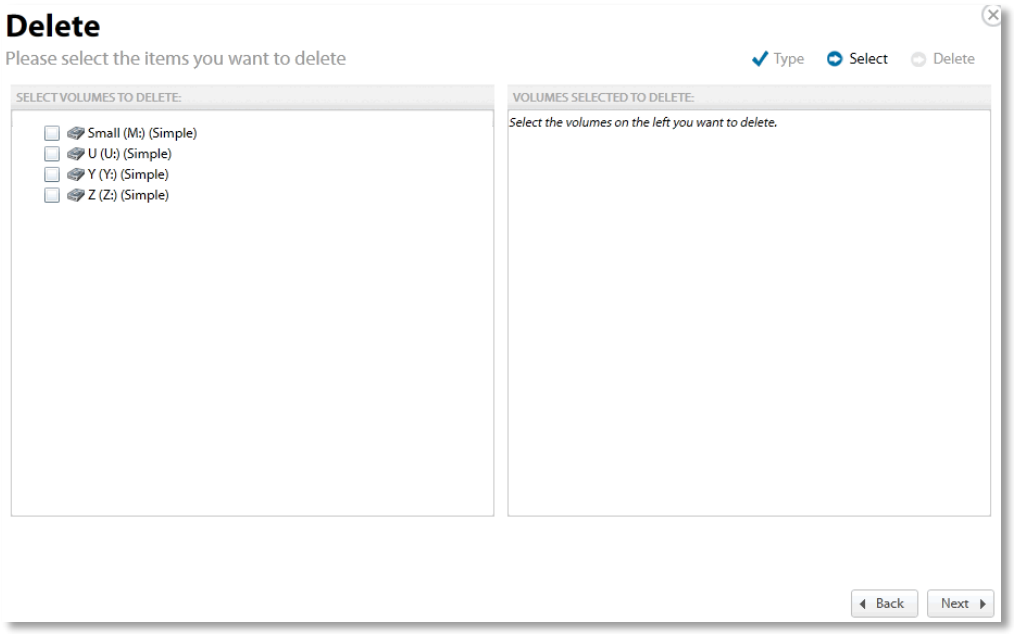
2. Click the **Delete** tab. The Your Deletes section is displayed.



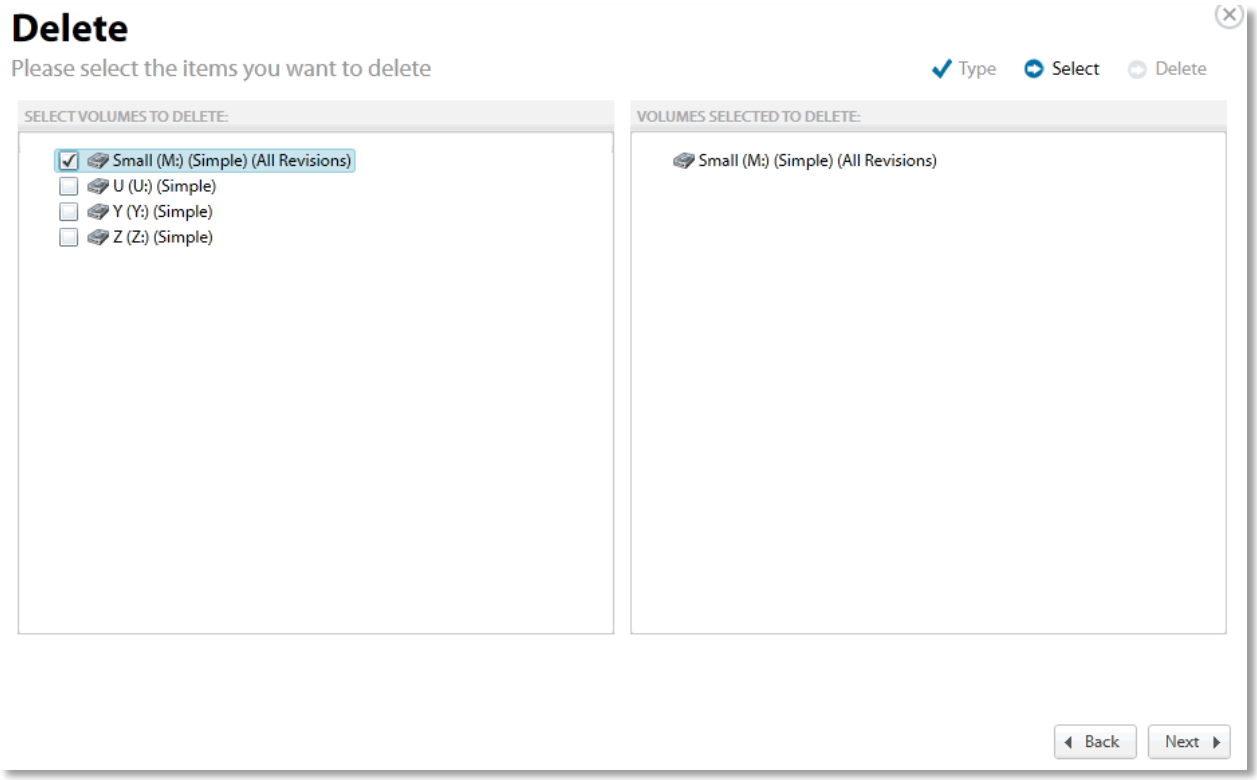
3. Select the **Delete Data** button. The Delete Type page is displayed.



4. Click the **Images** radio button, and then click **Next**. The volumes that can be deleted are displayed.



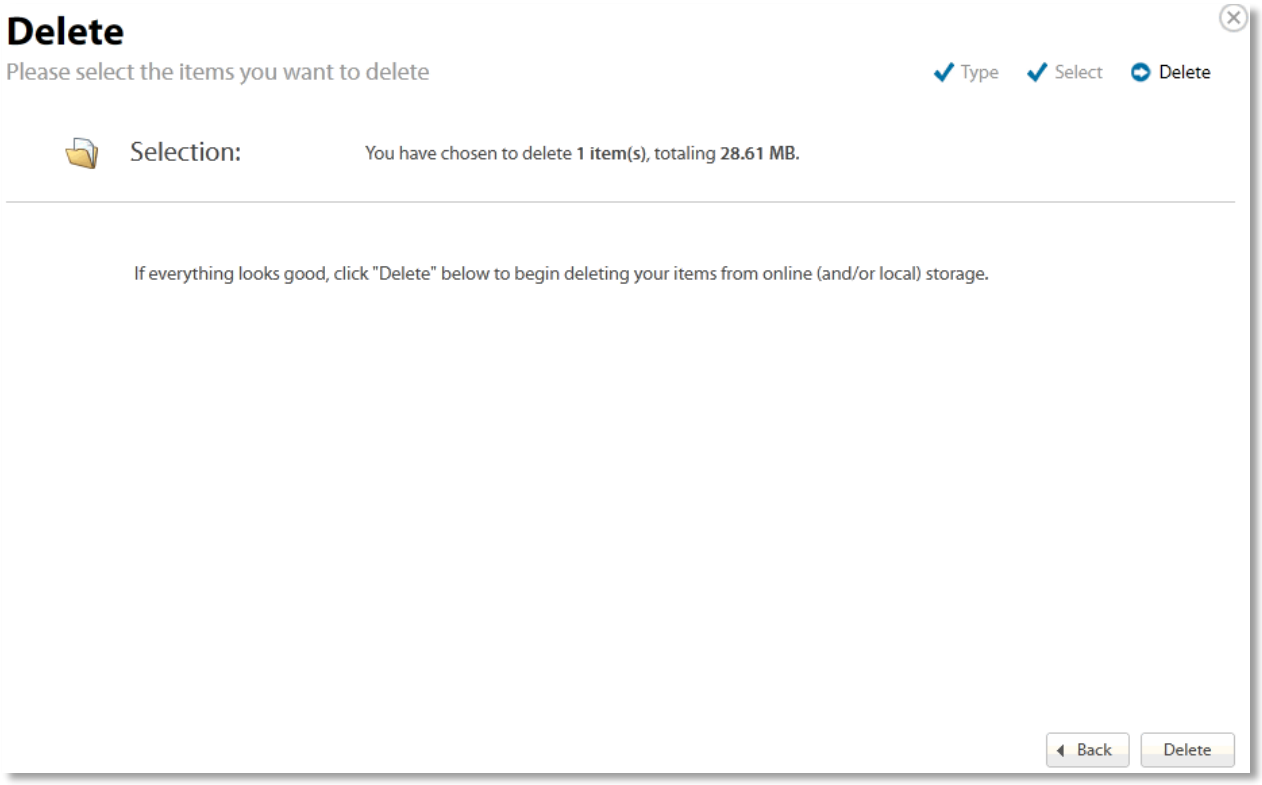
5. Select the volume checkbox in the left panel of the screen you want to delete. The selected volume is displayed in the right panel of the screen.



Verify your selection, and then click **Next**.

Note: **Delete** removes all historical revisions as well. You cannot delete specific revisions.

The Delete Confirmation screen is displayed.



6. Click the **Delete** button.

Chapter 2. Virtual Machine Backup and Restore

This section provides backup and restore information for the following platforms:

- Hyper-V
- VMware Standard
- VMware QuickSpin

Hyper-V Standard Backup and Restore

This section includes the following information:

- Hyper-V Features
- About Hyper-V Backups
- Hyper-V Backup Prerequisites
- Creating Hyper-V Backups
- Restoring Hyper-V Backups
- Hyper-V Manager Virtual Machines Import Options
- Hyper-V Replication
- Deleting Hyper-V Backups

Hyper-V Backup and Restore Features

Hyper-V includes the following features:

- Protect multiple Hyper-V virtual machines with a single agent.
- Back up Hyper-V virtual machines to the cloud or to your local vault.
- Restore virtual machines to any system for import into Hyper-V, or mount them as virtual disks.
- Create and edit Hyper-V backup sets only through the portal, not the backup monitor.

However, Hyper-V backup sets can be started from the backup monitor.

About Hyper-V Backups

Hyper-V backups can be stored locally and in the cloud. When Hyper-V backups are stored locally, they are stored in the Cloud Backup proprietary format (encrypted and compressed) and require a standard restore process to access the data.

Hyper-V backups require that the agent is installed on the Hyper-V host, so only the VMs under the local host are displayed. You can select any number of virtual machines to be backed up.

You can schedule a backup set to run on a standard schedule. The default is running once per night. See *About Scheduling Backups* for more information.

During Hyper-V backup, the default is backing up 1 virtual machine at a time. This setting can be changed in the computer's Preferences in the portal or in the Backup Monitor.

Hyper-V backups copy a full initial backup of selected VMs. After this full initial backup, only changed portions of each VM are backed up to reduce backup times.

Hyper-V Backup Prerequisites

Hyper-V backups have the following prerequisites:

- Minimum Requirements
- Backup Configuration
- Permissions Required
- Hyper-V Supported Platforms

Minimum Requirements

The following list provides the minimum requirements:

- 2 GHz dual-core CPU
- 1 GB of Total RAM (500 MB free RAM during backup, restore, or delete operation)
- Free disk space equaling twice the size of your largest protected file (not required for VM backups)
- Broadband Internet Connection
- Microsoft .NET Framework 3.5

Backup Configuration

The following list provides the configuration requirements:

- Install an agent on each Hyper-V host running virtual machines that need to be backed up.
- Ensure that each VM you need to back up has the most recent version of Integration Services installed.

Note: Because of a Microsoft limitation, Windows XP VMs are paused during backup. This pause interrupts

Hyper-V Permissions

The Agent must be running as a local administrator on the Hyper-V host.

Hyper-V Supported Platforms

The following platforms are supported by Hyper-V.

- Hyper-V 2008 R2
- Server 2012 R2

The following Hyper-V hardware versions are supported.

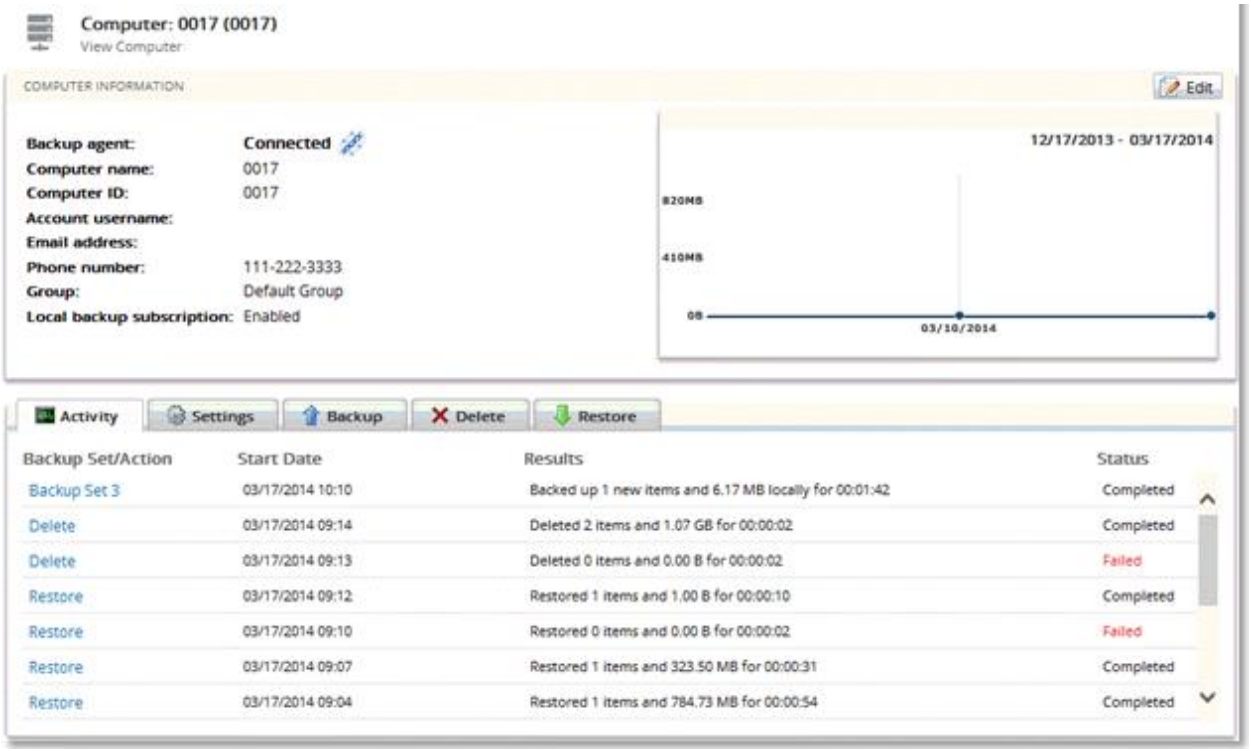
- Generation 1
- Generation 2

Creating Hyper-V Backups

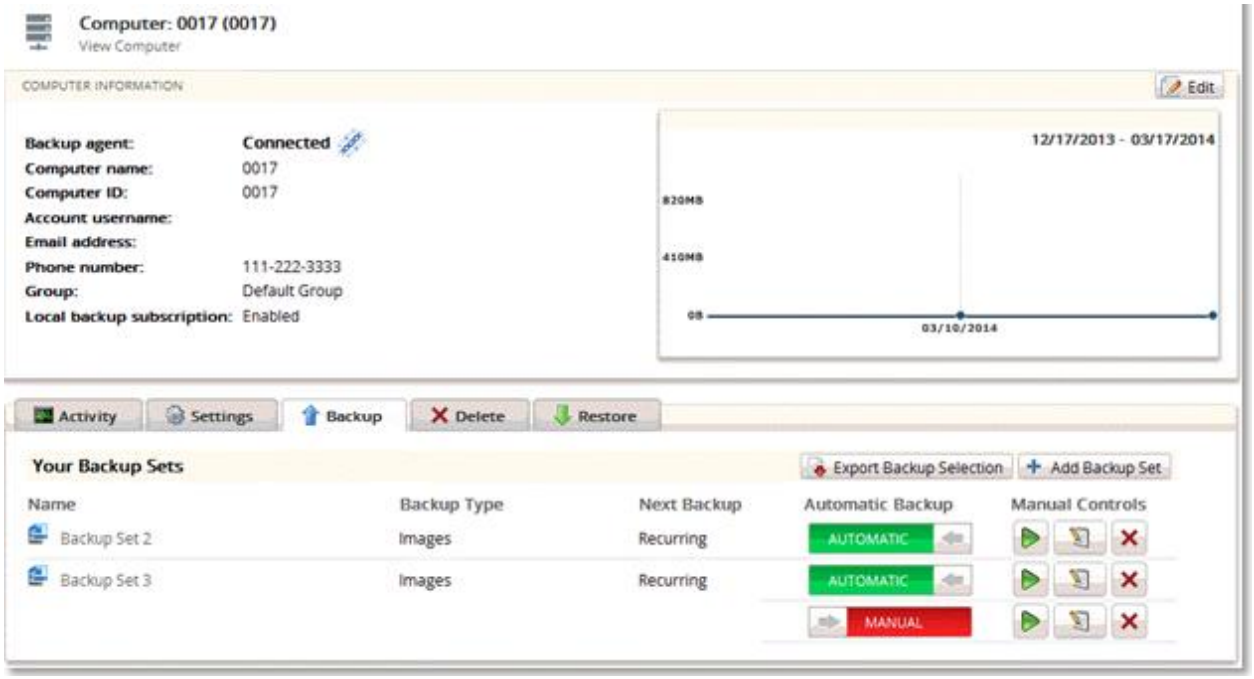
To create a Hyper-V backup, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions.

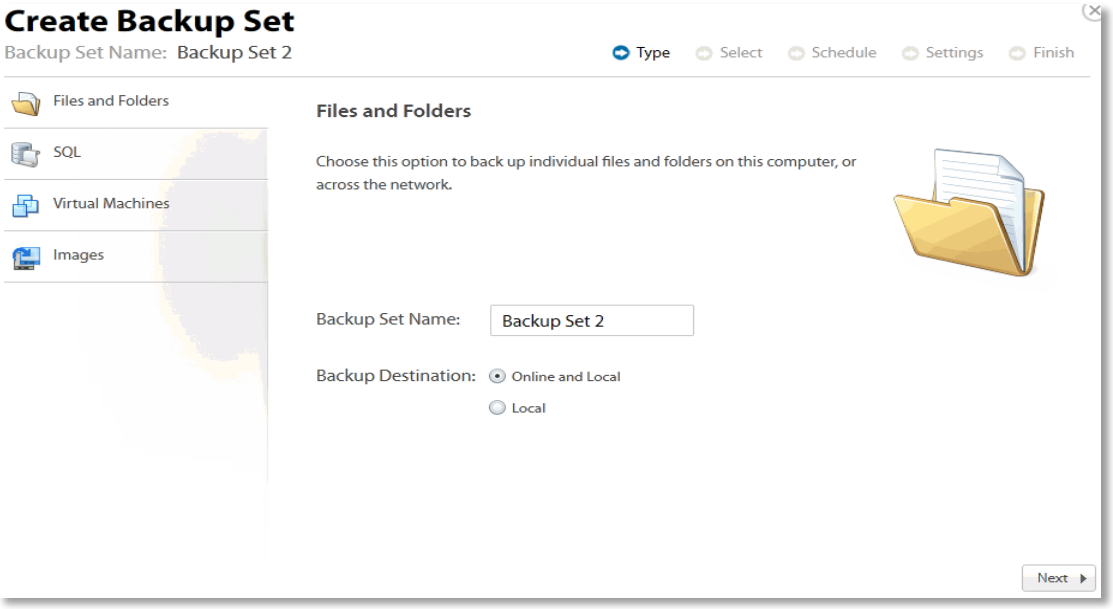
The Computer page is displayed.



2. Click the **Backup** tab. The Your Backup Sets section is displayed.

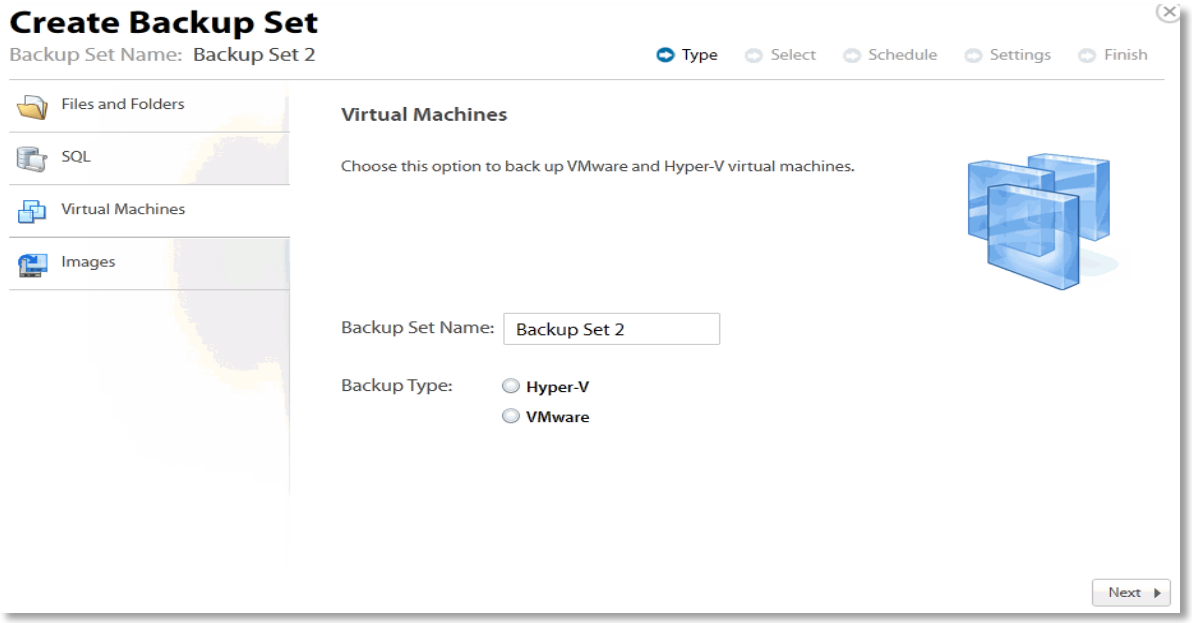


3. Click the **Add Backup Set** button. The Create Backup Set Files and Folders page is displayed.

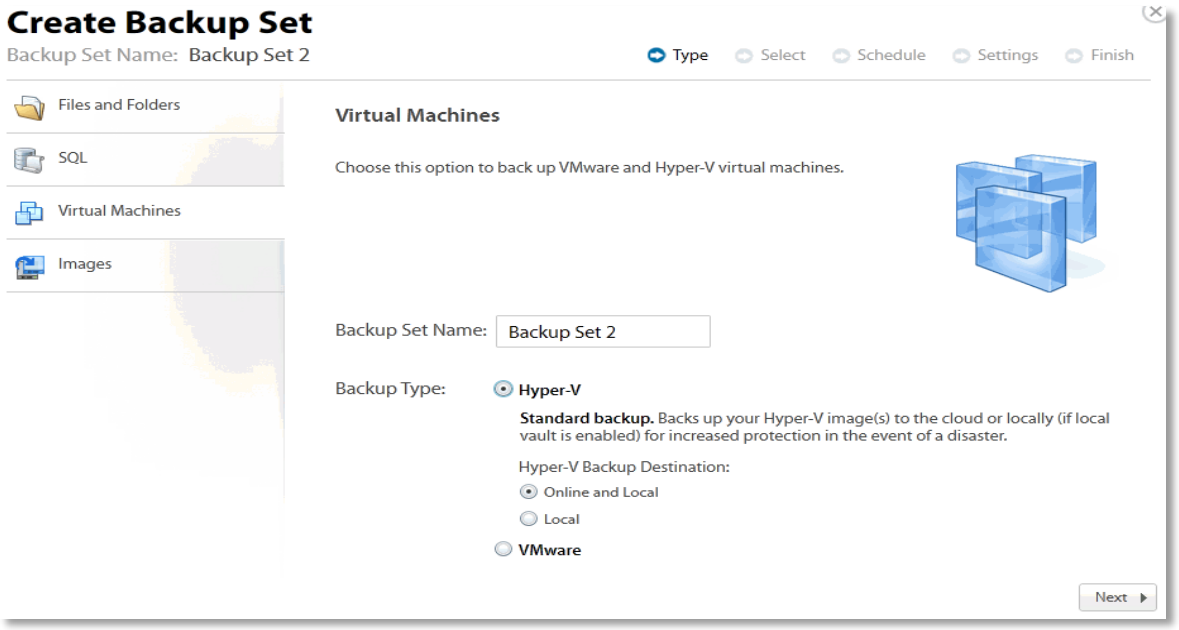


4. Click Virtual Machines.

The Create Backup Set Virtual Machines page is displayed.

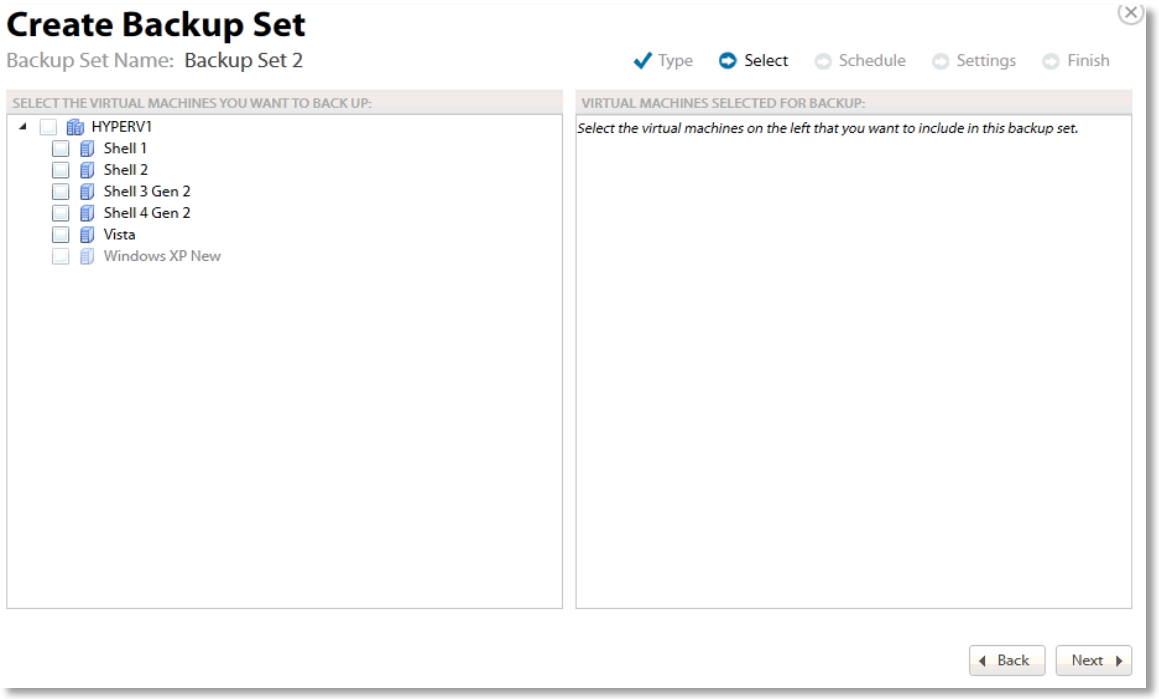


5. Select the **Hyper-V** radio button, and then click **Next**. The Standard backup message is displayed.

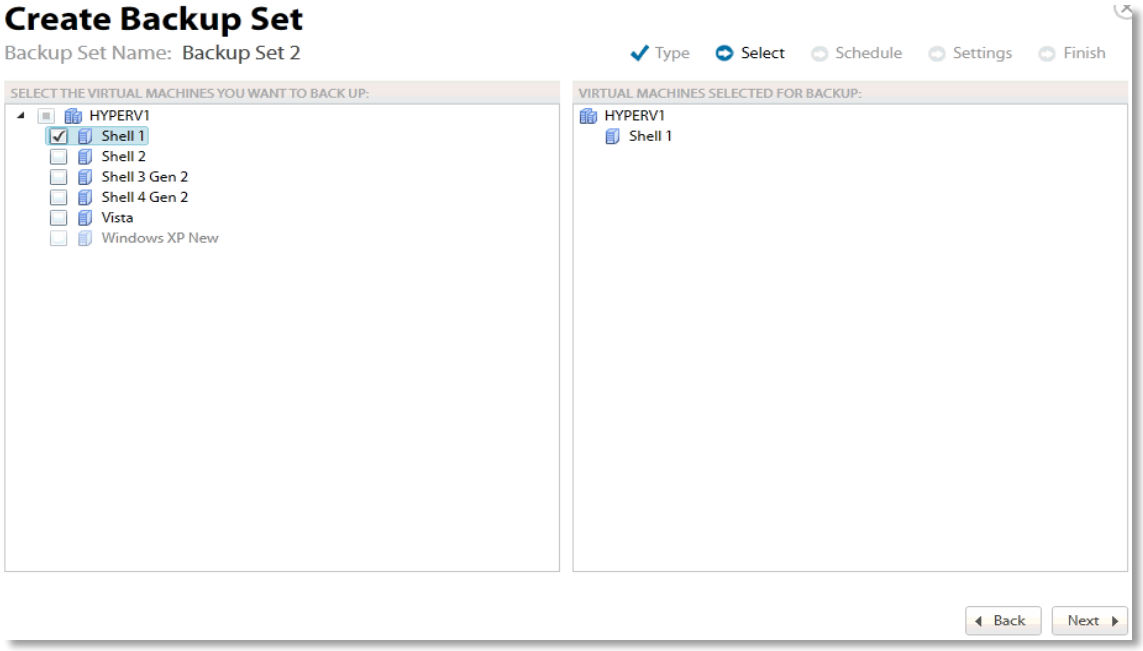


6. Type the backup name and select the backup destination: online only (if Local Vault is disabled), local only, or online and local, and then click **Next**.

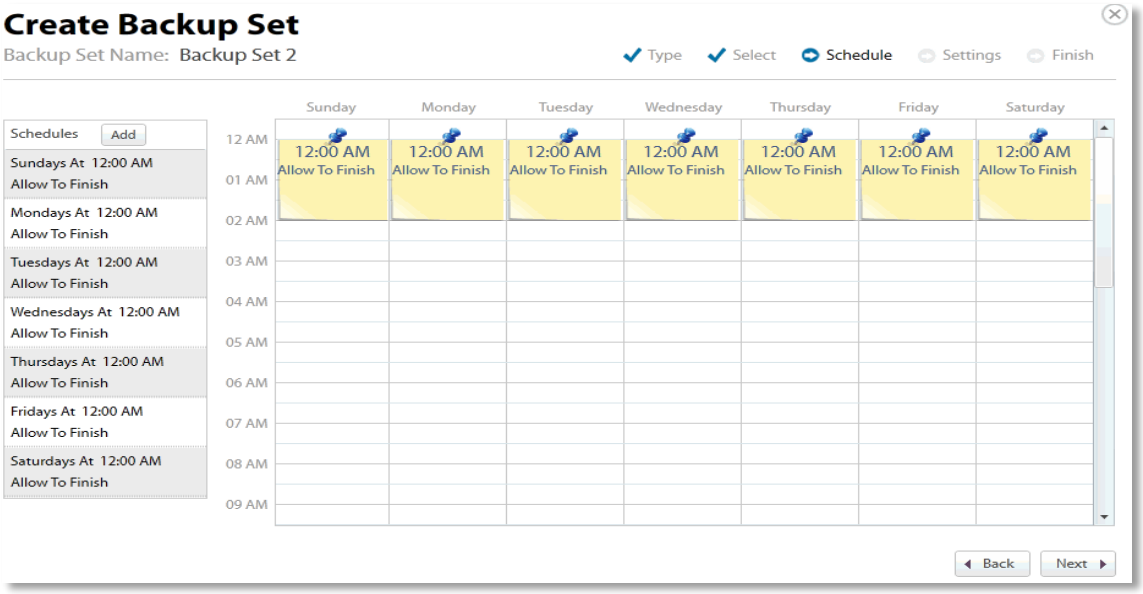
The virtual machines to be selected for backup are displayed.



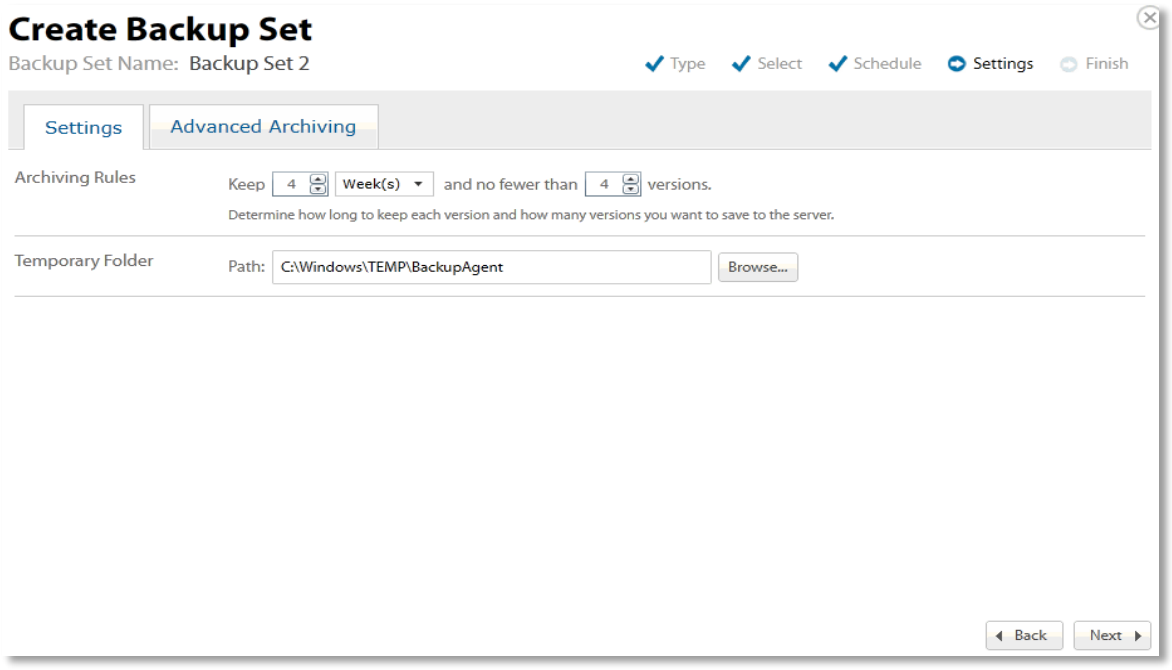
7. Select the virtual machines to be backed up. The selected virtual machines are displayed in the right panel of the screen.



8. After making your selections, click **Next**. The Create Backup Set Schedule page is displayed. See *About Scheduling Backups* for more information.



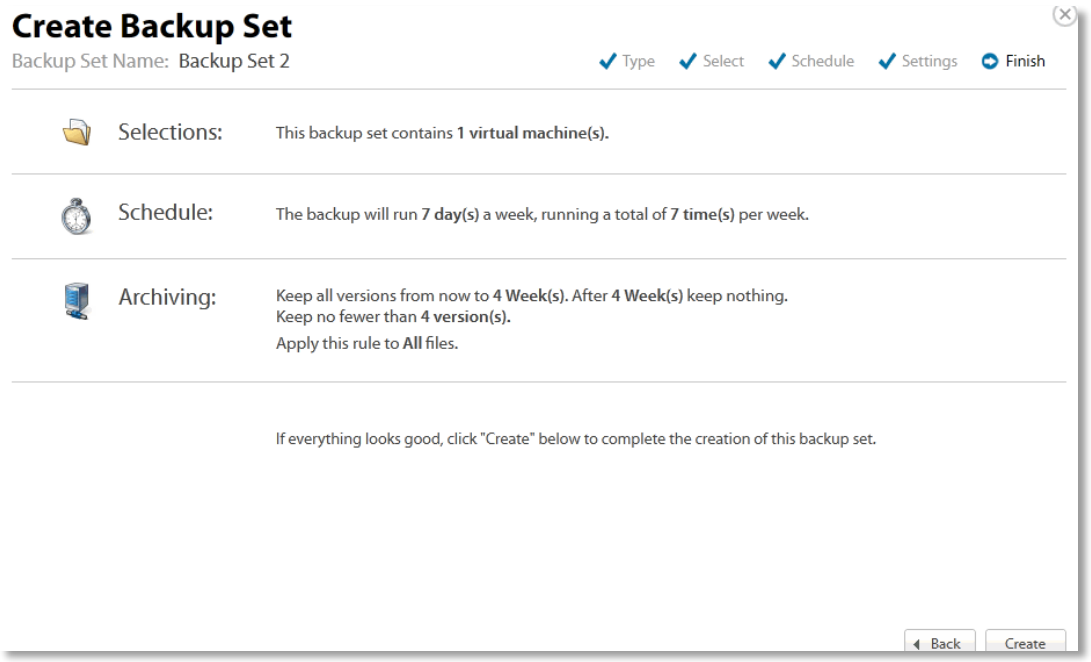
9. Select the schedule for your backup, and then click **Next**. The Create Backup Set Settings page is displayed.



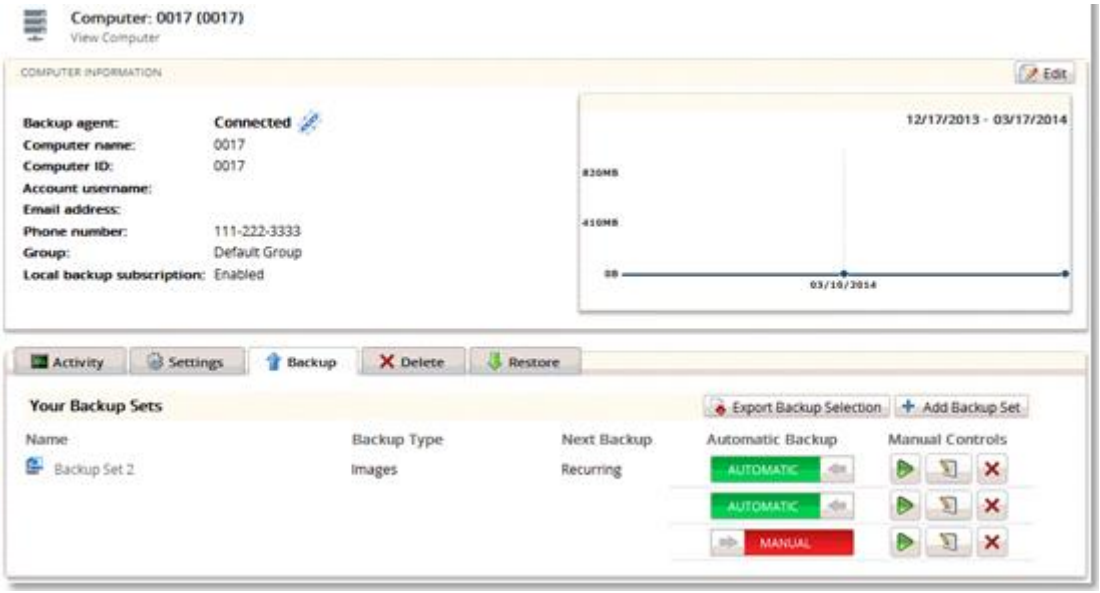
10. Select the archiving settings and temporary folder destination, and then click **Next**. See *Archiving Rules* for more information.

Note: 1 GB of temporary space is recommended for Hyper-V backups.

The Create Backup Set Confirmation page is displayed.



11. Verify your backup selections, and then click **Create**. The Your Backup Sets page is displayed with your current backup status.

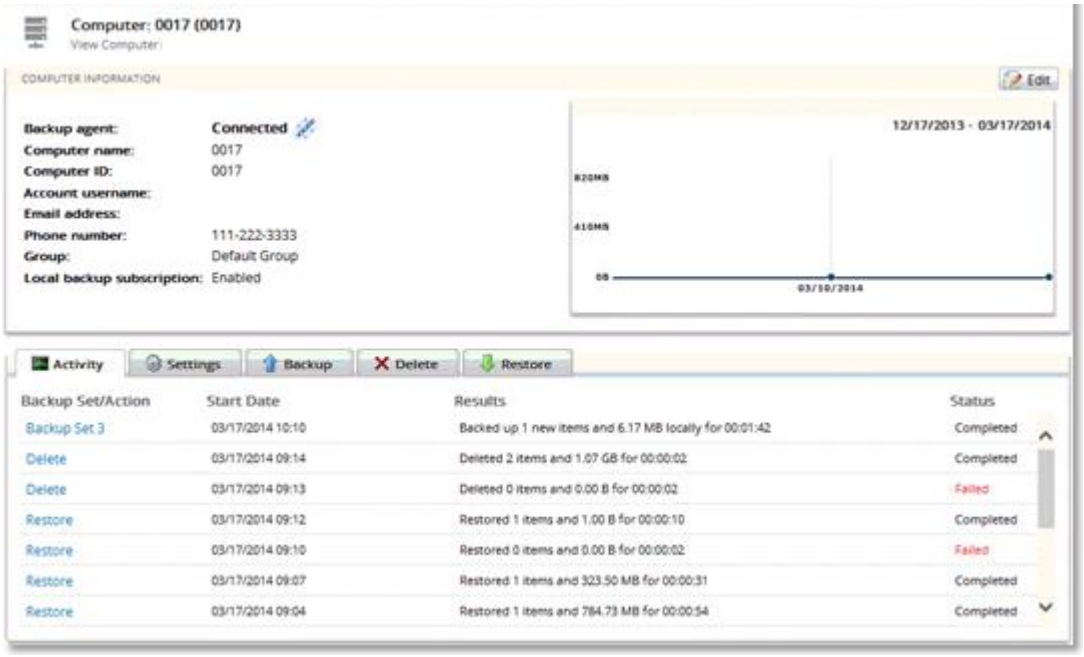


To manually run a backup set, click the green arrow (Play) button under Manual Controls. Also, note the next scheduled automatic backup run time.

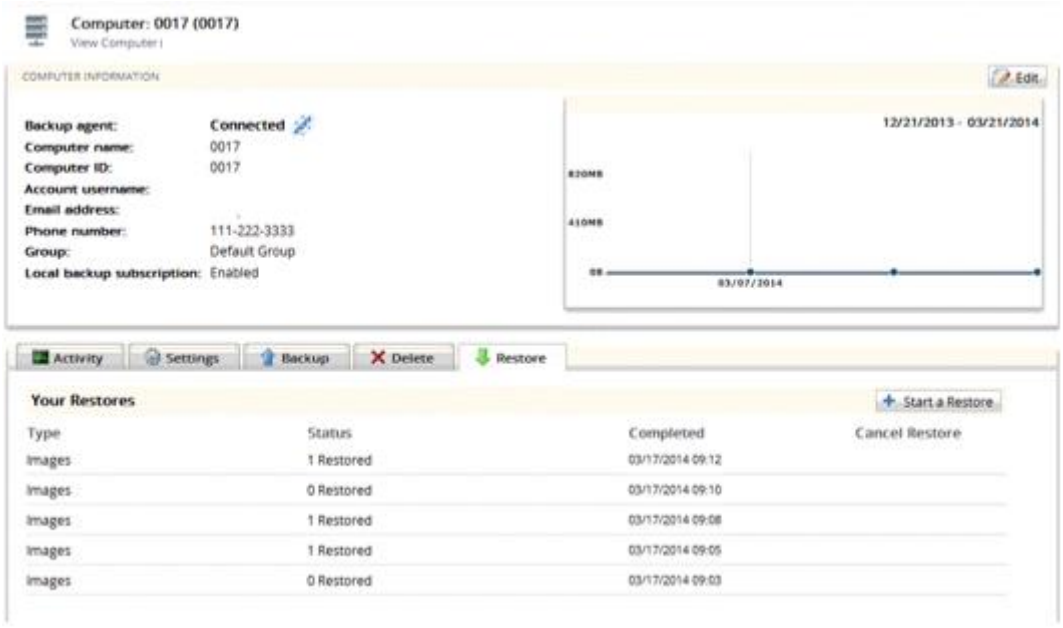
Restoring Hyper-V Backups

To restore a Hyper-V backup, perform the following steps.

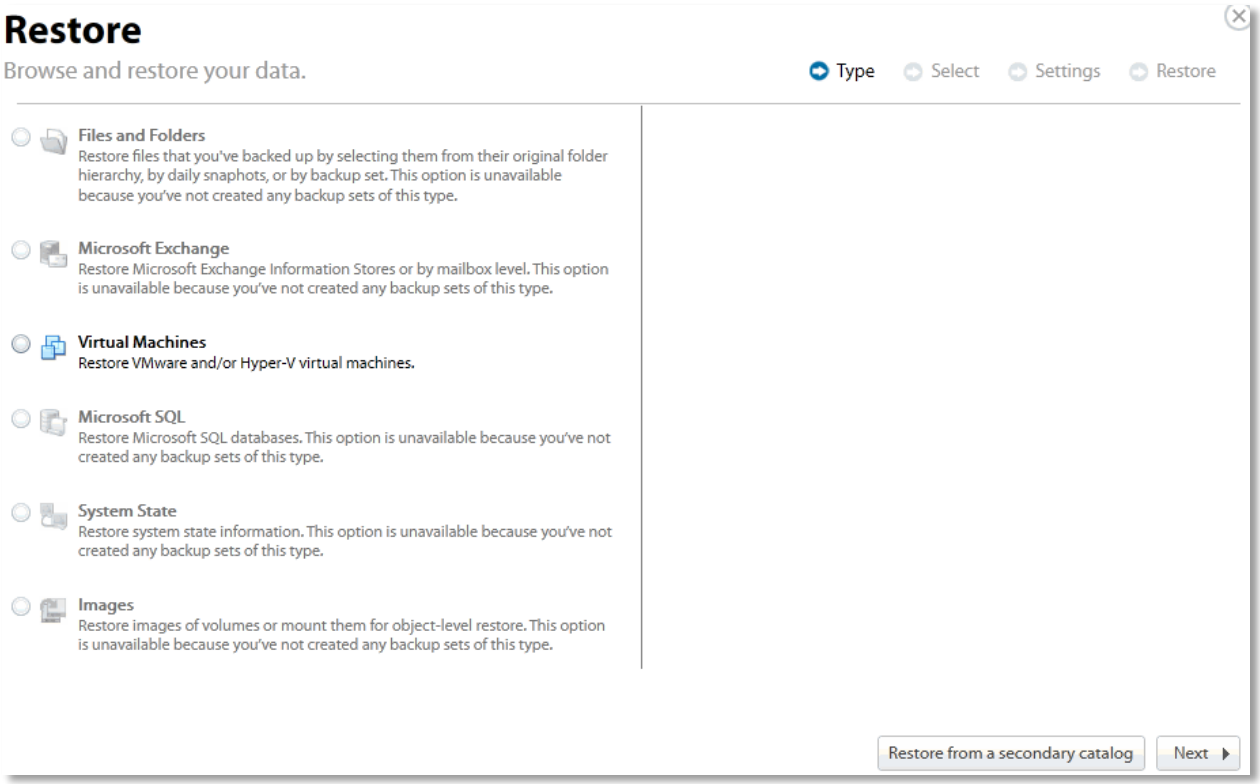
1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions. The Computer page is displayed.



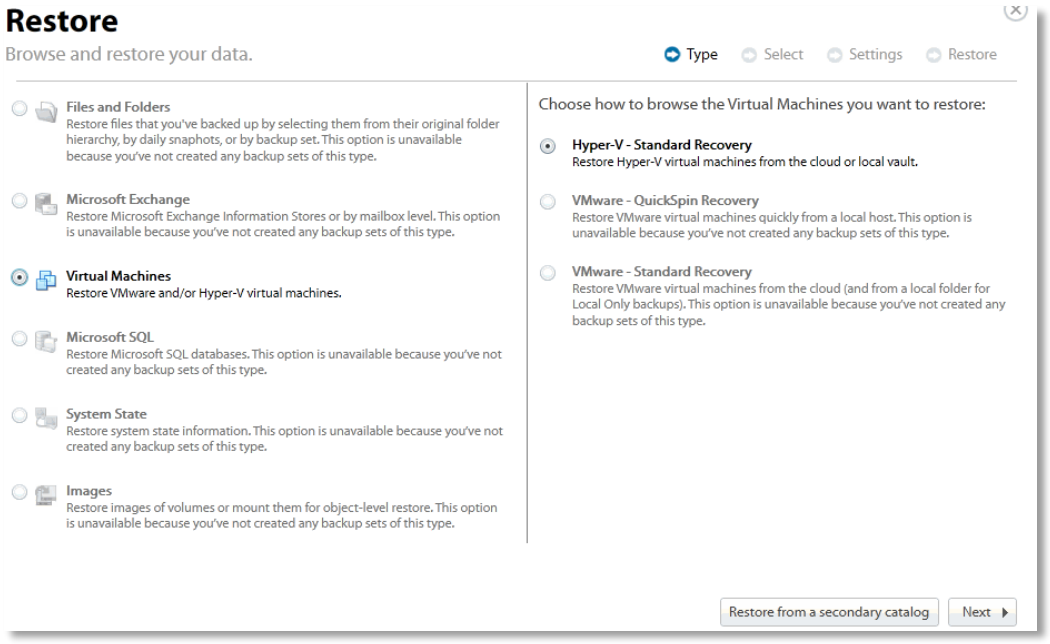
2. Click the **Restore** tab. The Your Restores section is displayed.



Click the **Start a Restore** button. The Restore Type page is displayed.

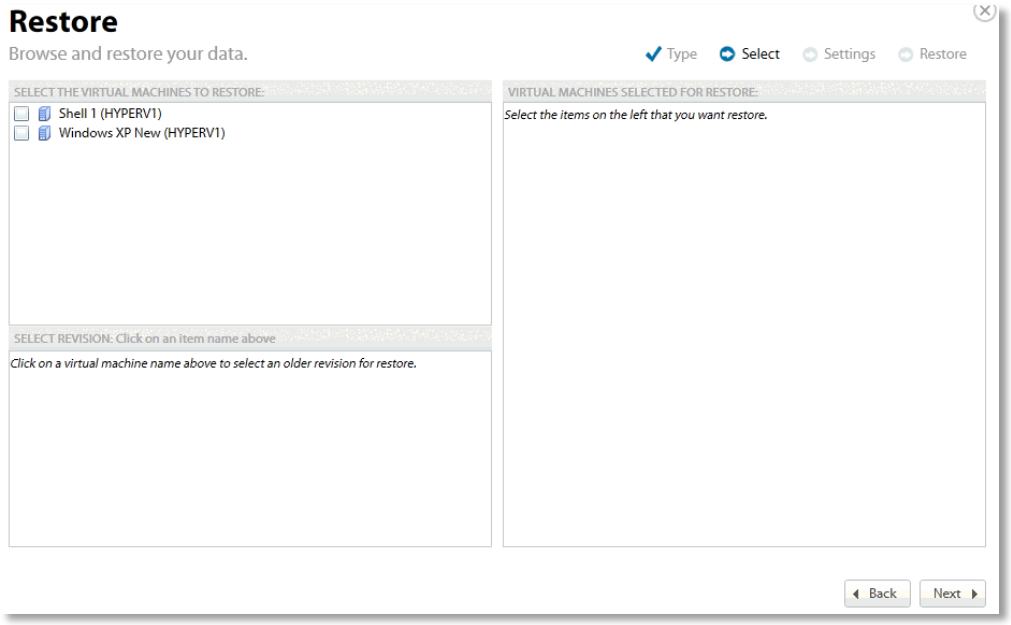


3. Select the **Virtual Machines** radio button The Hyper-V restore option is displayed in the right panel.



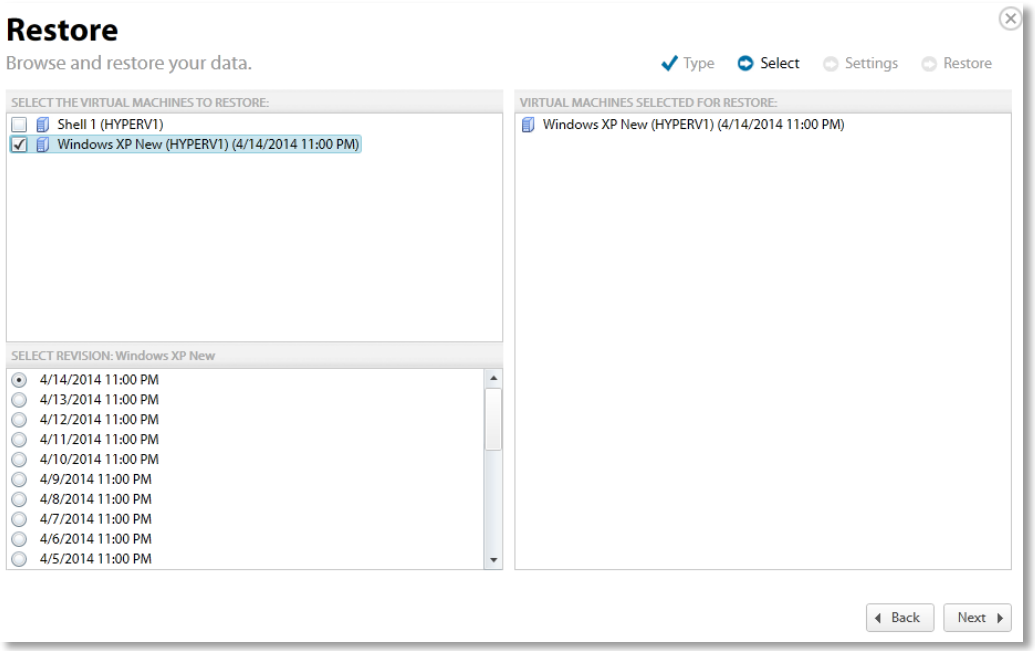
4. Select the **Hyper-V Standard Recovery** radio button, and then click **Next**.

The virtual machines are displayed.



5. In the top left panel, select the virtual machine checkboxes you want to restore.

Your selection is displayed in the right panel of the screen.

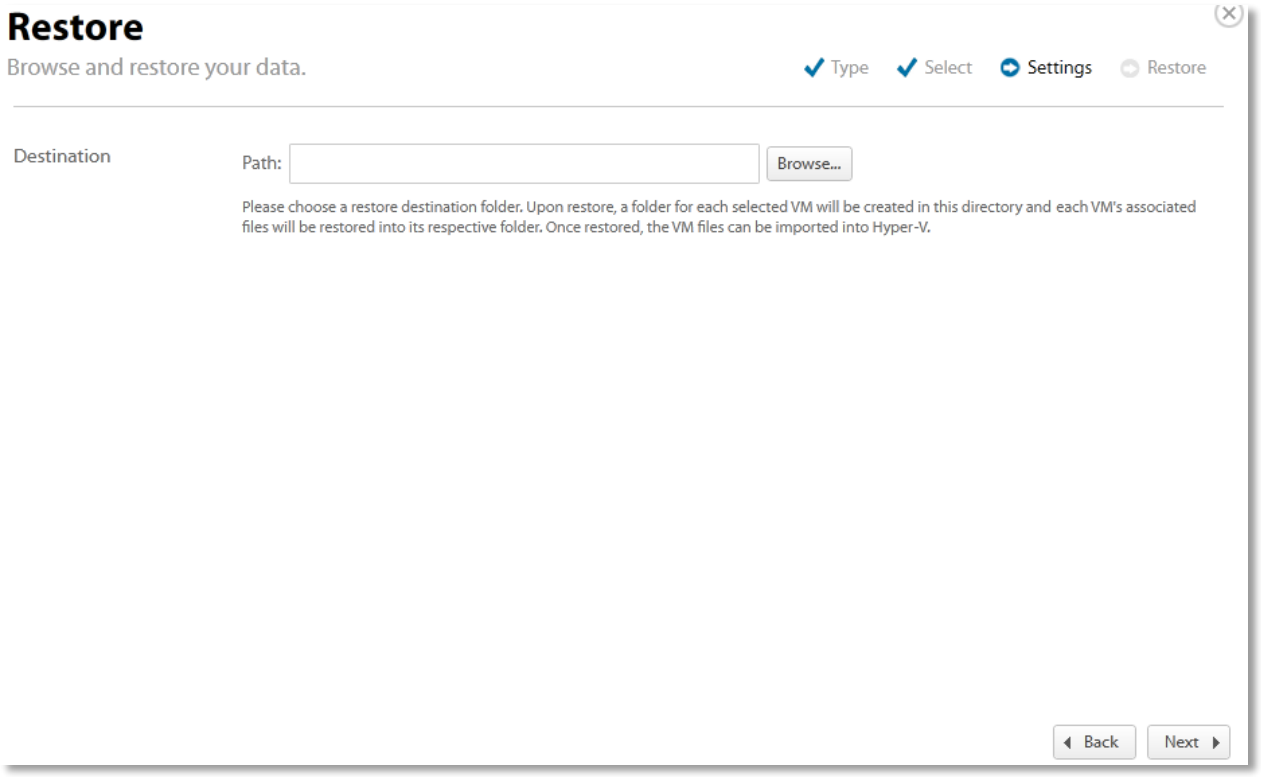


6. In the bottom panel, select the revision you want to restore.

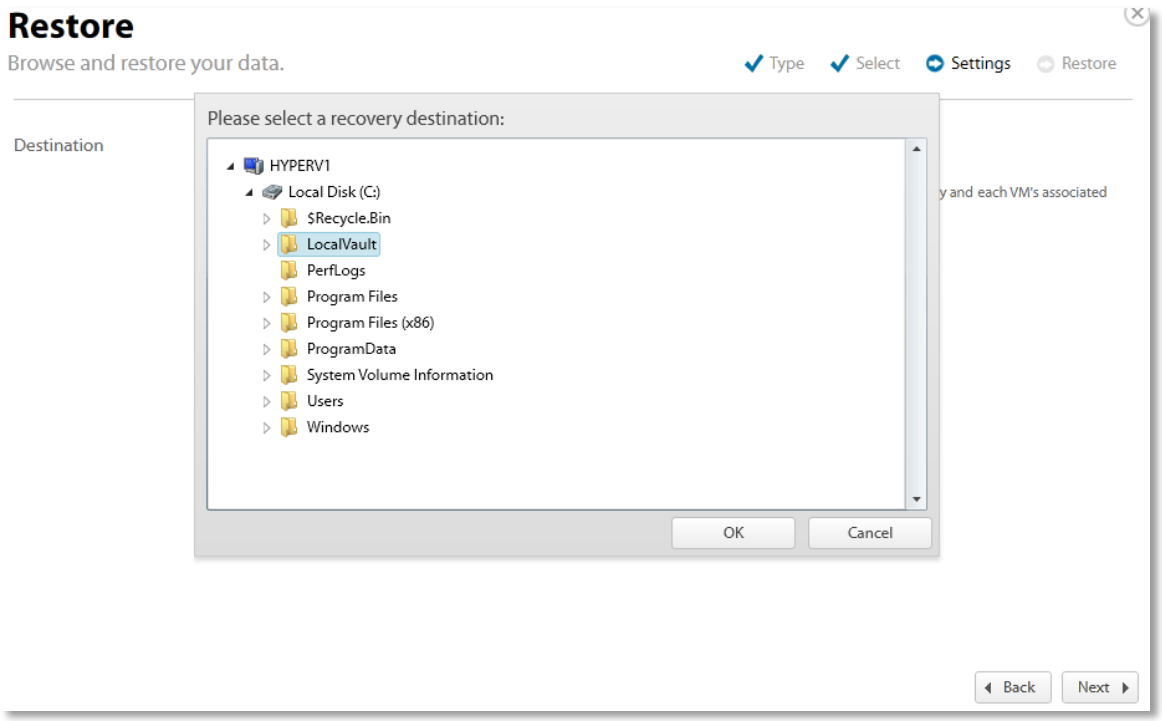
   Note: You can only choose one revision to restore per selected VM.

7. After making your selections, click **Next**.

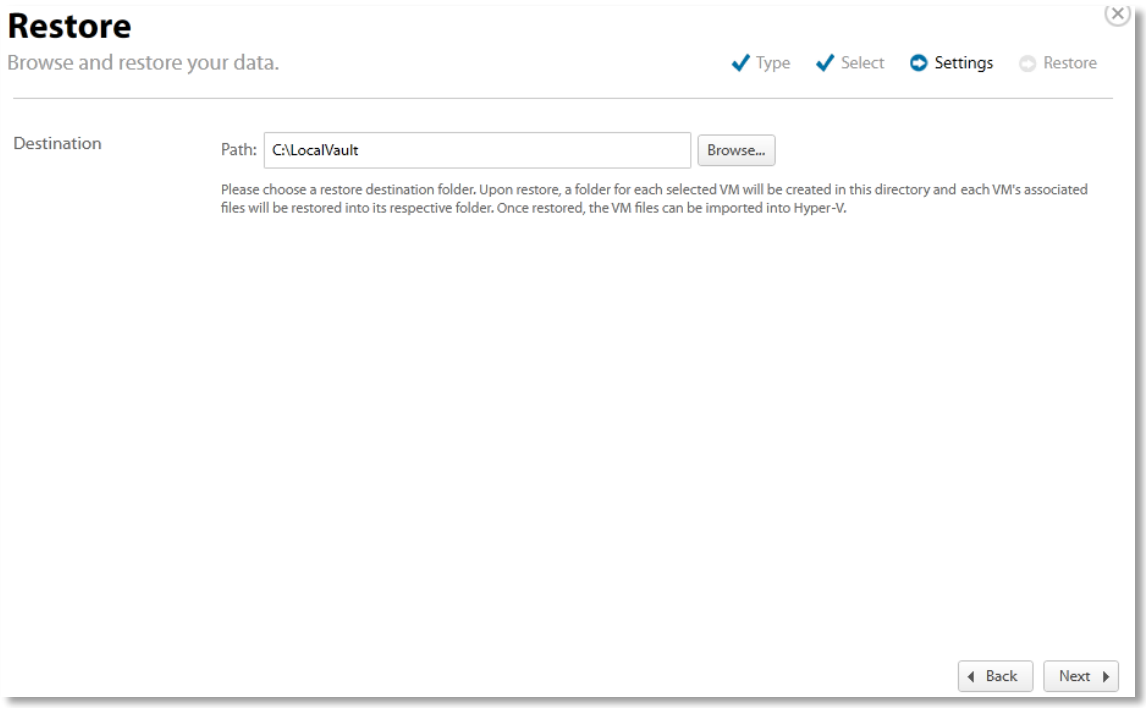
The Destination page is displayed.



8. Type or browse to the destination folder through the pop-up window, and then select a destination.

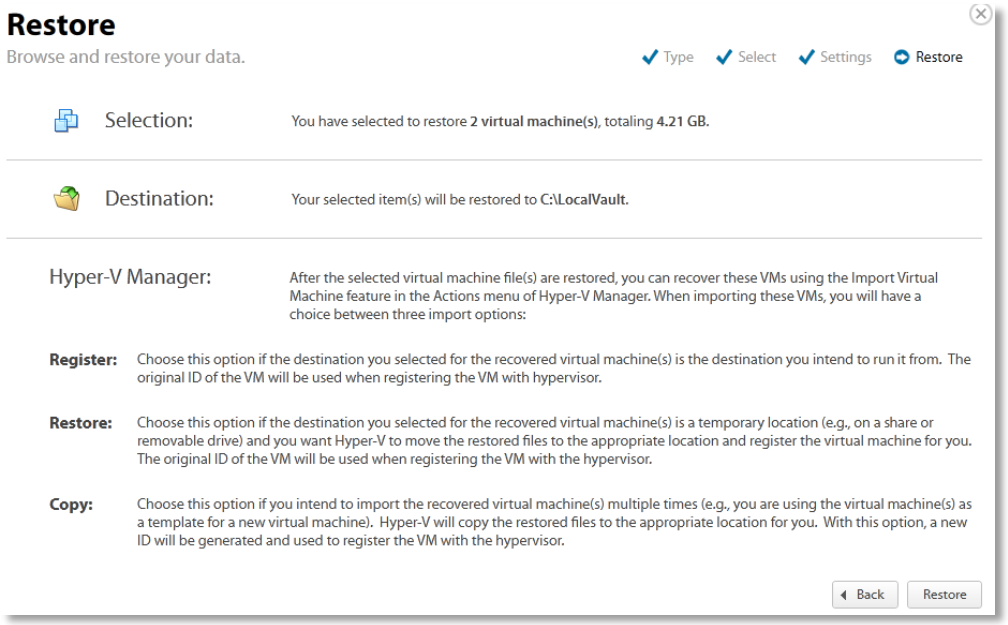


9. Click **OK**. The destination folder is displayed in the field.

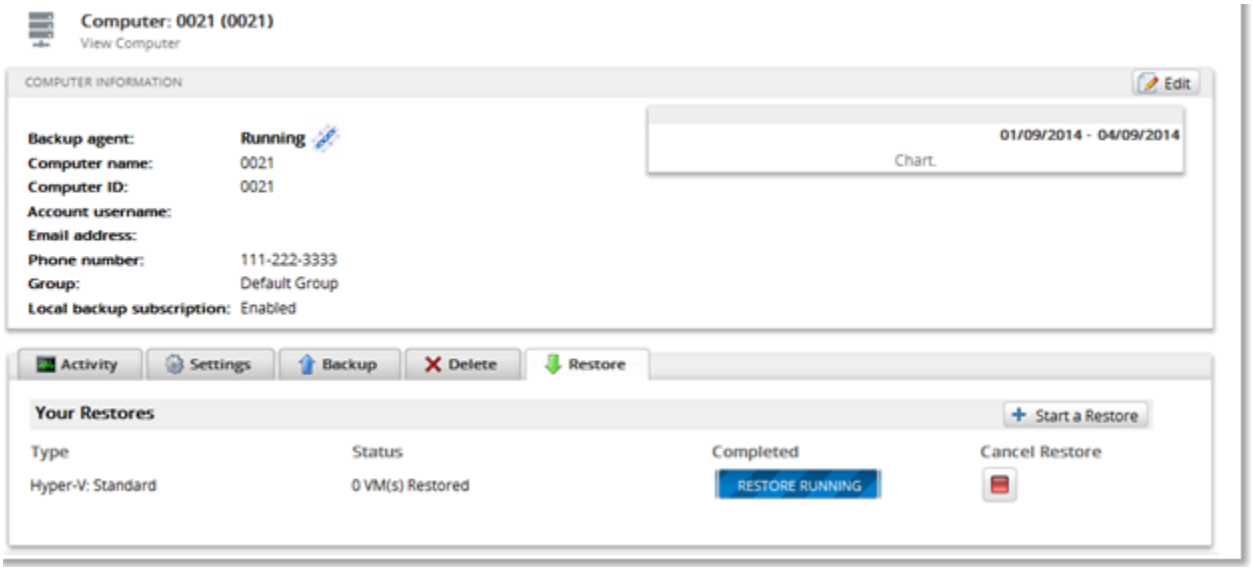


10. Select **Next**.

The Restore page is displayed. See *Hyper-V Manager Virtual Machines Import Options* for more information.

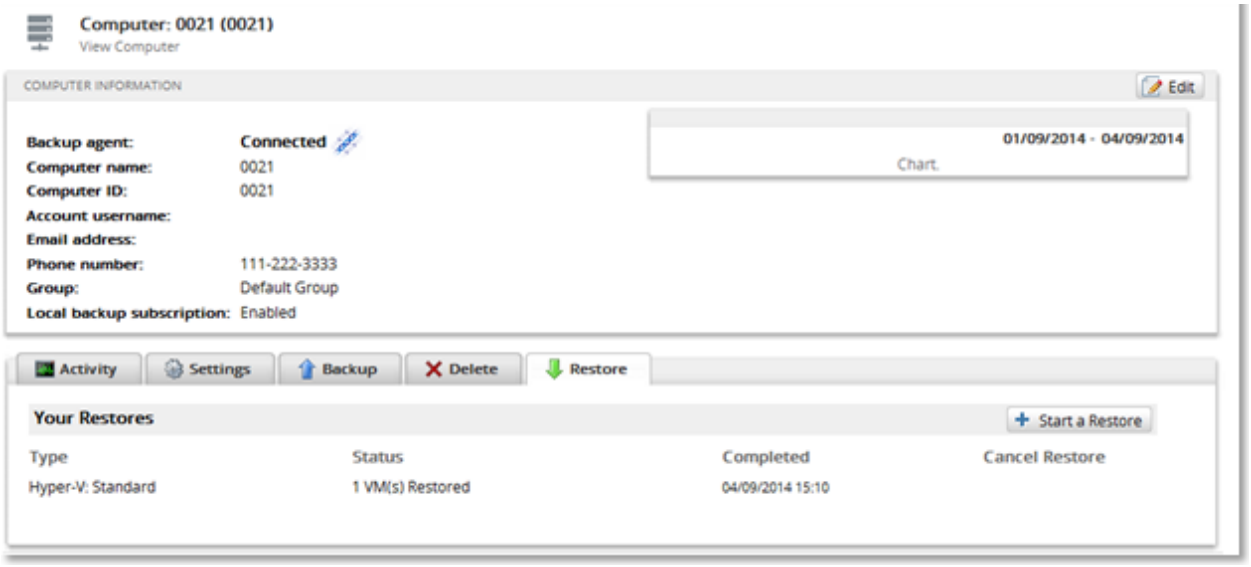


11. Verify the restore selections and then click **Restore**. The Your Restores page is displayed with the status.



12. To cancel a restore, select the **Cancel Restore** icon.

After the restore is complete, the restore status is displayed.



Restoring to a Folder

You can select the restore folder for the desired VM using the Import functionality in Hyper-V manager and import the VM into their environment.

Each VM has its own folder created within the specified restore directory.

Within that folder, the VM files are created with the same folder structure as when they were backed up.

All VHD files (associated with VM disks) and the XML configuration file are restored with a VM restore. If the VM was backed up in offline mode and the memory state needed to be saved, a VM restore also restores those associated BIN and VSV files.

Backup States of Imported VMs

A VM is imported in a certain state depending on the state it was in when backed up. The following table provides the various backup states.

State at Time of Backup	Type of Backup	State after Restore
Running	Online	Off
Running	Offline	Saved
Saved	Offline	Saved
Paused	Offline	Saved
Off	Offline	Off

Hyper-V Manager Virtual Machines Import Options

After you have restored your selected virtual machines, you must Import them into Hyper-V to power on and access the VMs.

To access Hyper-V import options, launch Hyper-V Manager, select **Import Virtual Machine**, and then select the VM directory you have restored.

There are 3 virtual machines import options in Hyper-V Manager:

- Register
- Restore
- Copy

Register

Choose this option if the destination you selected for the recovered virtual machines are the destination you intend to run it from.

The original ID of the VM is used when registering the VM with hypervisor.

Copy

Choose this option if you intend to import the recovered virtual machines multiple times (for example, you are using the virtual machines as a template for a new virtual machine). Hyper-V copies the restored files to the appropriate location for you.

A new ID is generated and used to register the VM with the hypervisor.

See Hyper-V Manager documentation for more information.

Hyper-V Replication

Hyper-V Replication is a feature of Hyper-V 2012 and greater versions that allows users to replicate their production VMs to a secondary host on a near-continuous schedule.

If you are using Hyper-V replication, it is recommended that the Cloud Backup agent is installed on the recovery host and backs up the recovery VMs. This method puts less of a load on the production server. This method also provides more data protection.

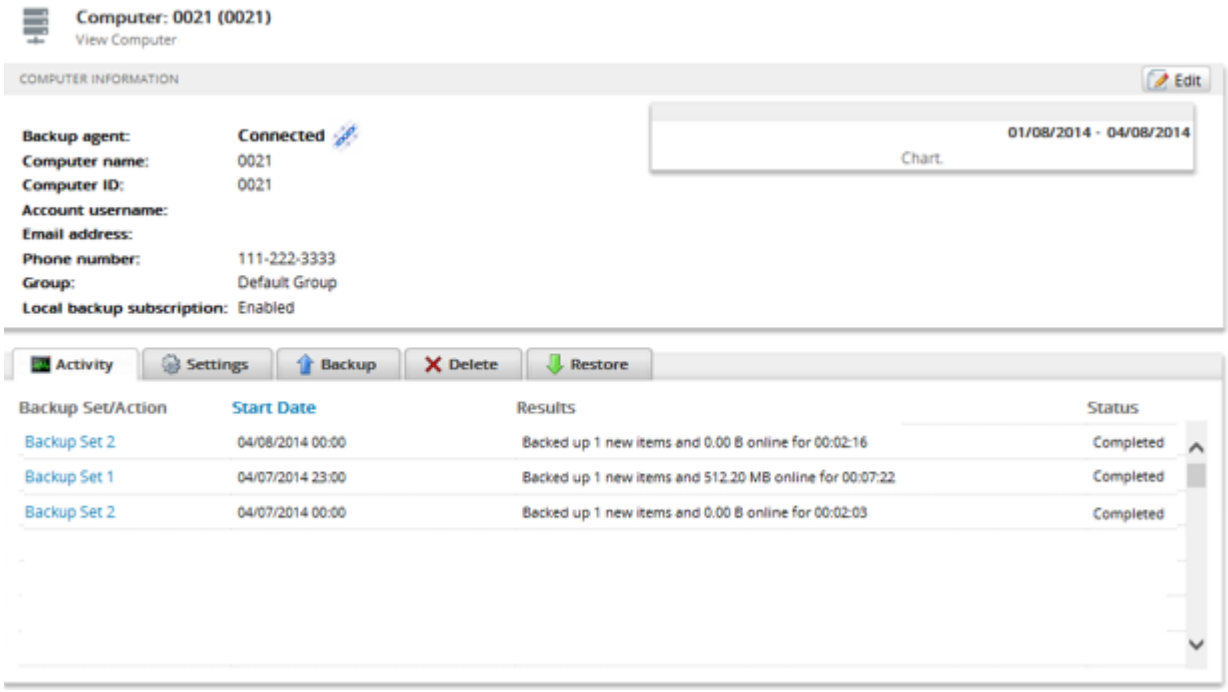
Refer to the third-party Hyper-V Replication documentation for more information.

Deleting Hyper-V Backups

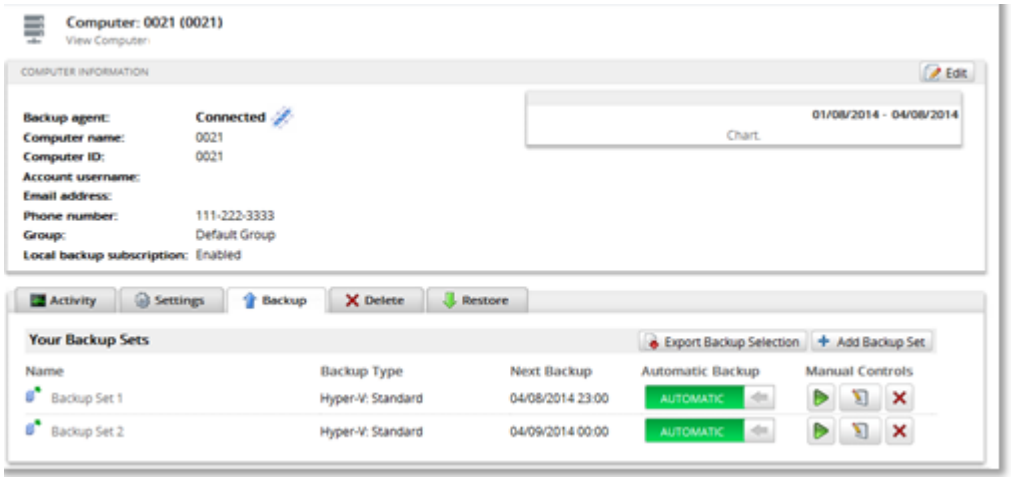
To delete a Hyper-V backup, perform the following steps.

1. Navigate to the Computer Page.

See *Navigate to the Computer Page* for instructions. The Computer page is displayed.

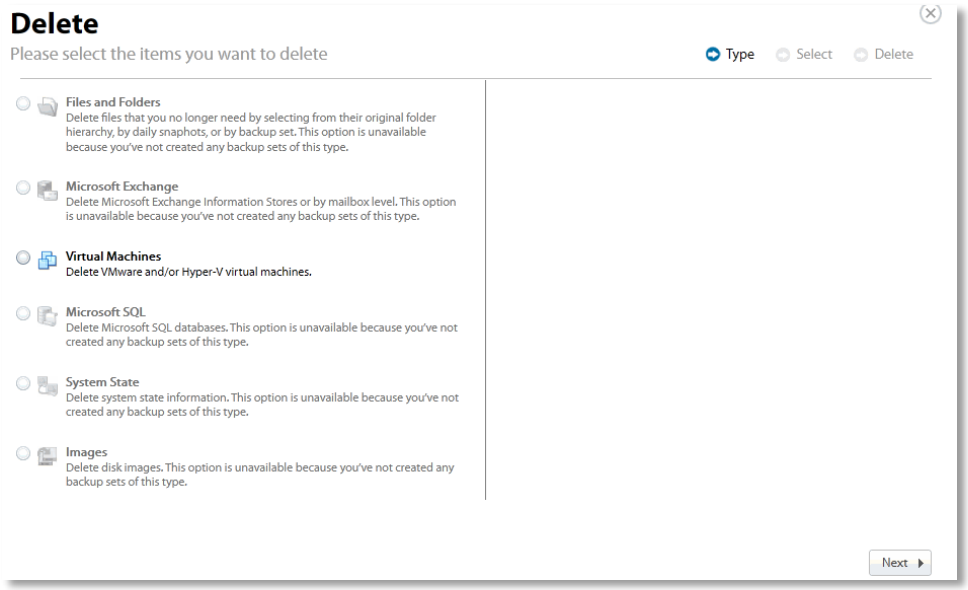


2. Select the Delete tab. The Your Deletes page is displayed.

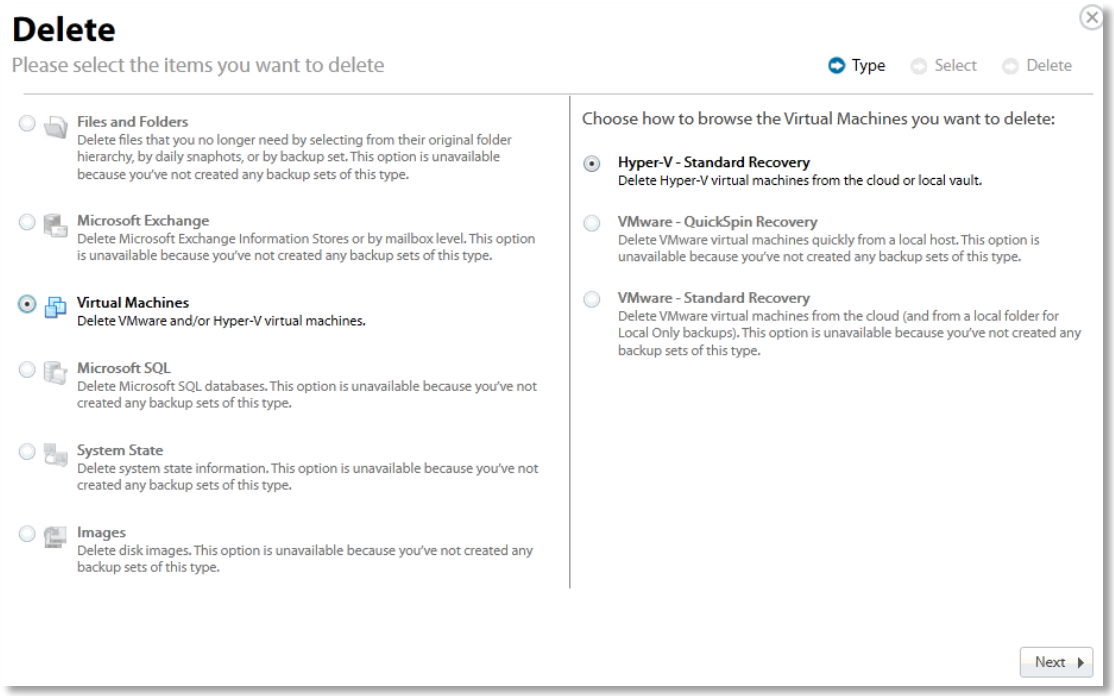


3. Select the **Delete Data** button.

The Delete Type page is displayed.

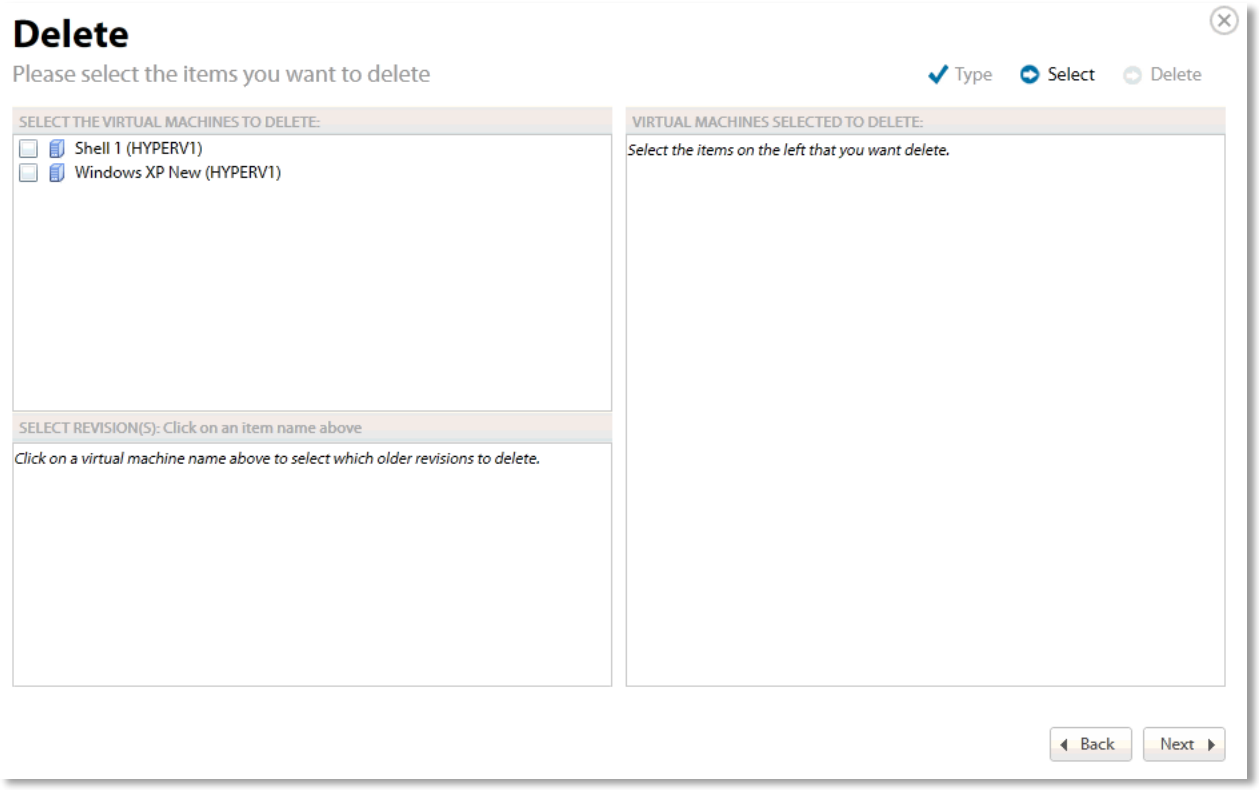


4. Select the **Virtual Machines** radio button.
5. The **Choose how to browse the Virtual Machines you want to delete** options are displayed in the right panel.

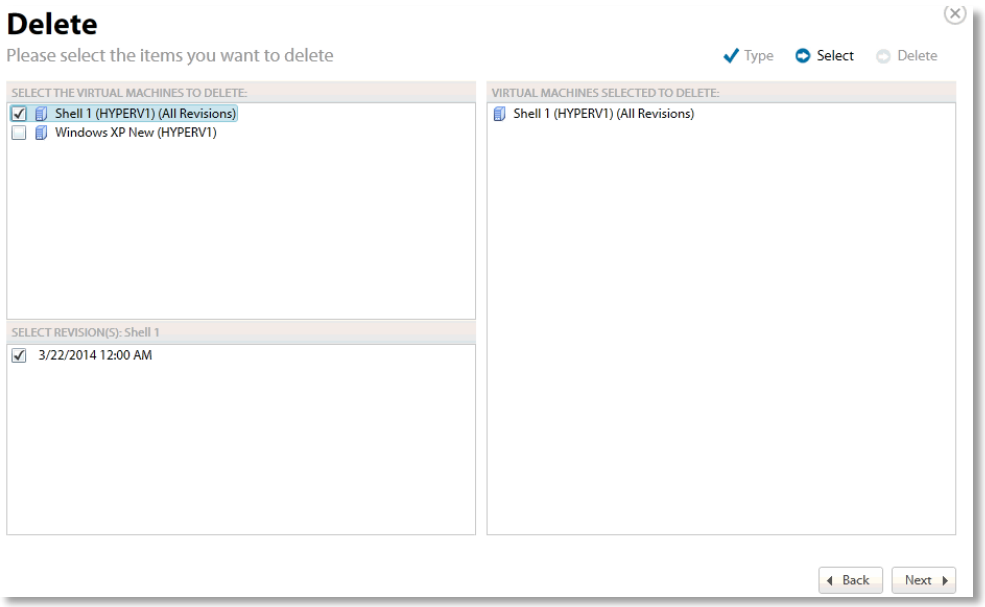


6. Select the **Hyper-V Standard Recovery** radio button, and then click **Next**.

The Virtual Machines are displayed.

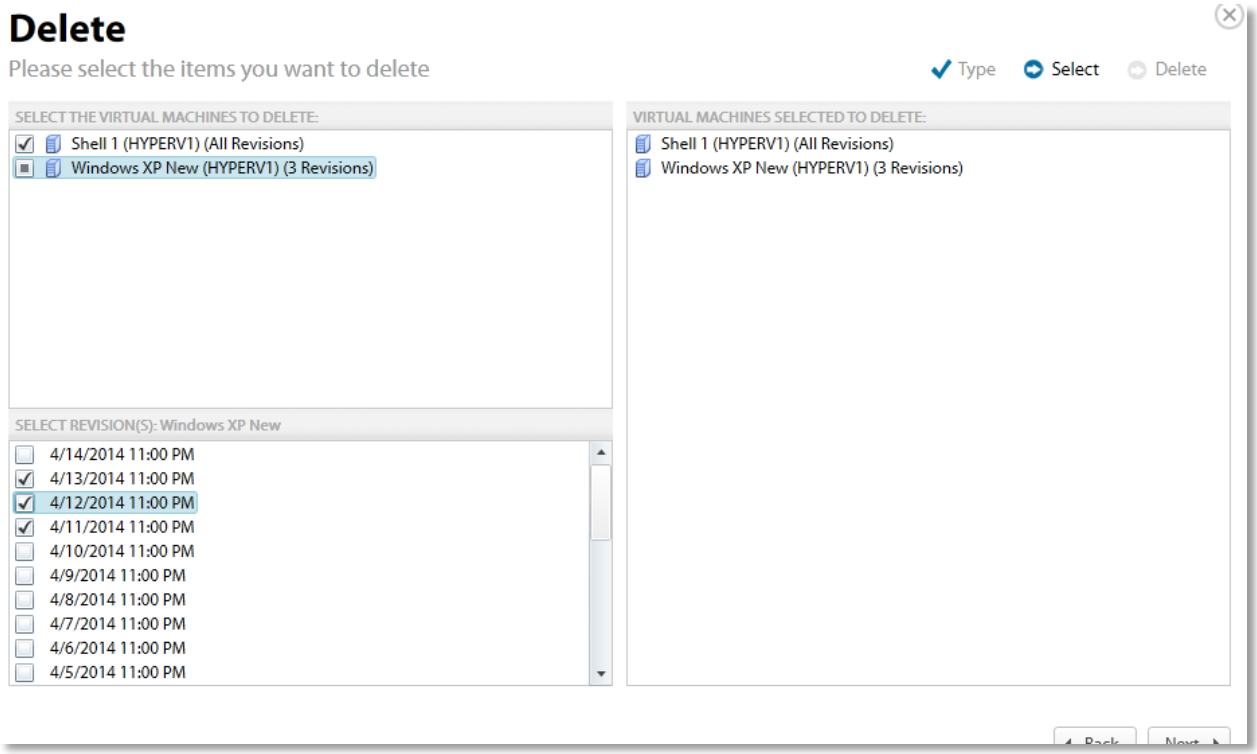


7. Select the virtual machines you want to delete. The selected virtual machines are displayed in the right panel of the screen.

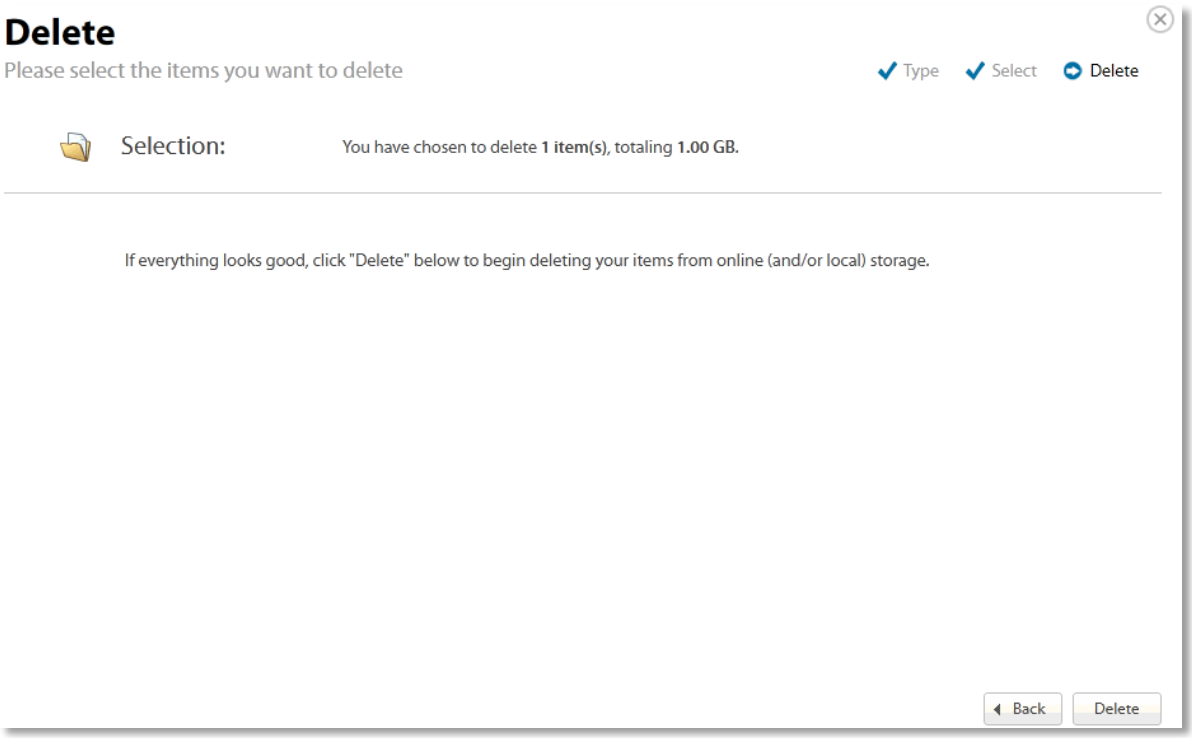


8. In the bottom panel, select the specific revisions of the virtual machines you want to delete.

The following example shows 3 revisions selected.

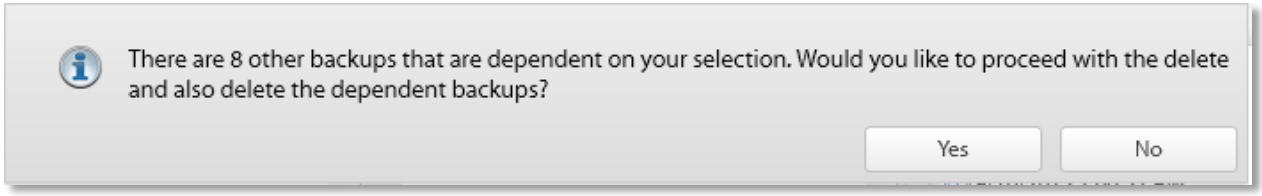


9. After making your selections, click **Next**. The Delete Confirmation page is displayed.



10. Confirm your selection and click **Delete**.

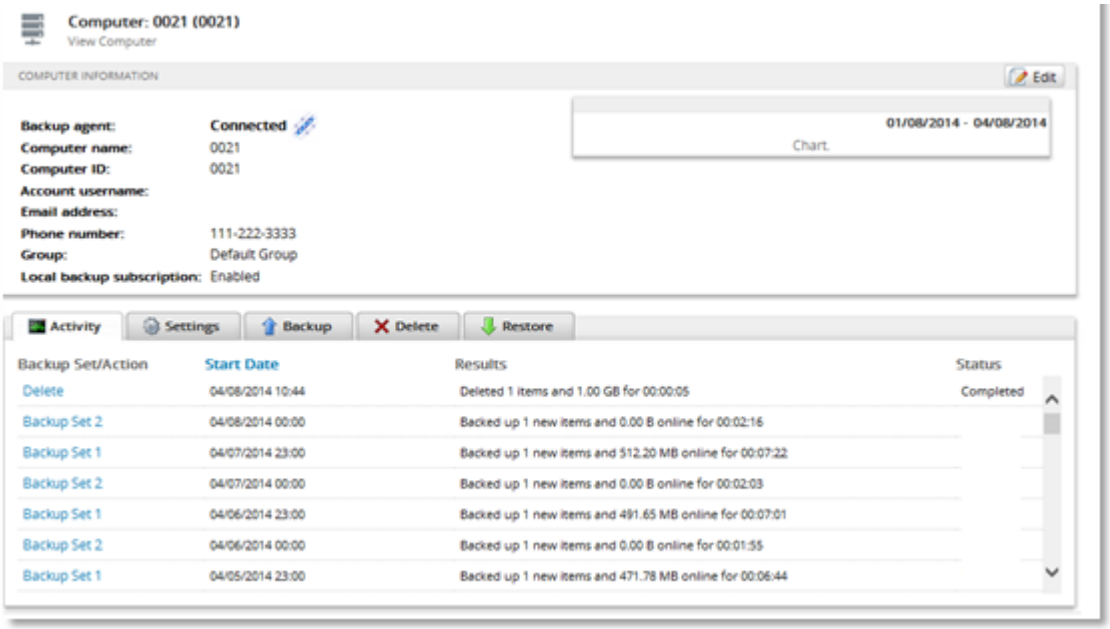
    If you select certain revisions to delete that other revisions (not currently selected for deletion) are dependent on, the following message is displayed.



    If you select **Yes**, the dependent backups are also selected for deletion.

    If you select **No**, nothing is changed. The message is displayed until selections are made that have no dependent revisions.

The Activity Page is displayed with the latest Delete.



VMware Backup and Restore

This section includes the following information:

- VMware Features
- VMware Backup Prerequisites
- VMware Standard Backup and Restore
- VMware QuickSpin Standard Backup and Restore

VMware Features

VMware includes both Standard and QuickSpin backups.

VMware Standard allows you to select multiple VMs running on multiple hosts to back up to the Cloud Backup cloud, the customer's local vault, or both.

You can see, select, and back up VMs that reside on hosts in a cluster. You can restore VMs to a host that is in a cluster.

VMware QuickSpin creates a recovery VM on a local vCenter/ESX host. Also, with QuickSpin, you can create and update a recovery VM on a host that is in a cluster. See *About VMware Clusters* for more information.

VMware Backup Prerequisites

VMware backups have the following prerequisites:

- Minimum Requirements
- VMware Permissions
- VMware Supported Platforms

Minimum Requirements

The following list provides the minimum requirements:

- 2 GHz dual-core CPU
- 1 GB of Total RAM (500 MB free RAM during backup, restore, or delete operation)
- Free disk space equaling twice the size of your largest protected file (not required for VM backups)
- Broadband Internet Connection
- Microsoft .NET Framework 3.5

VMware Supported Platforms

The following platforms are supported by VMware.

- vSphere 4.1, 5.0, 5.1, and 5.5 (including clustered environments)
- All supported versions require a VMware Essentials license or higher

VMware Standard Backup and Restore

This section includes the following topics:

- About VMware Standard Backups

- Creating VMware Standard Backups
- Restoring VMware Standard Backups
- Deleting VMware Standard Backups

About VMware Standard Backups

With VMware Standard Backups you can perform the following actions:

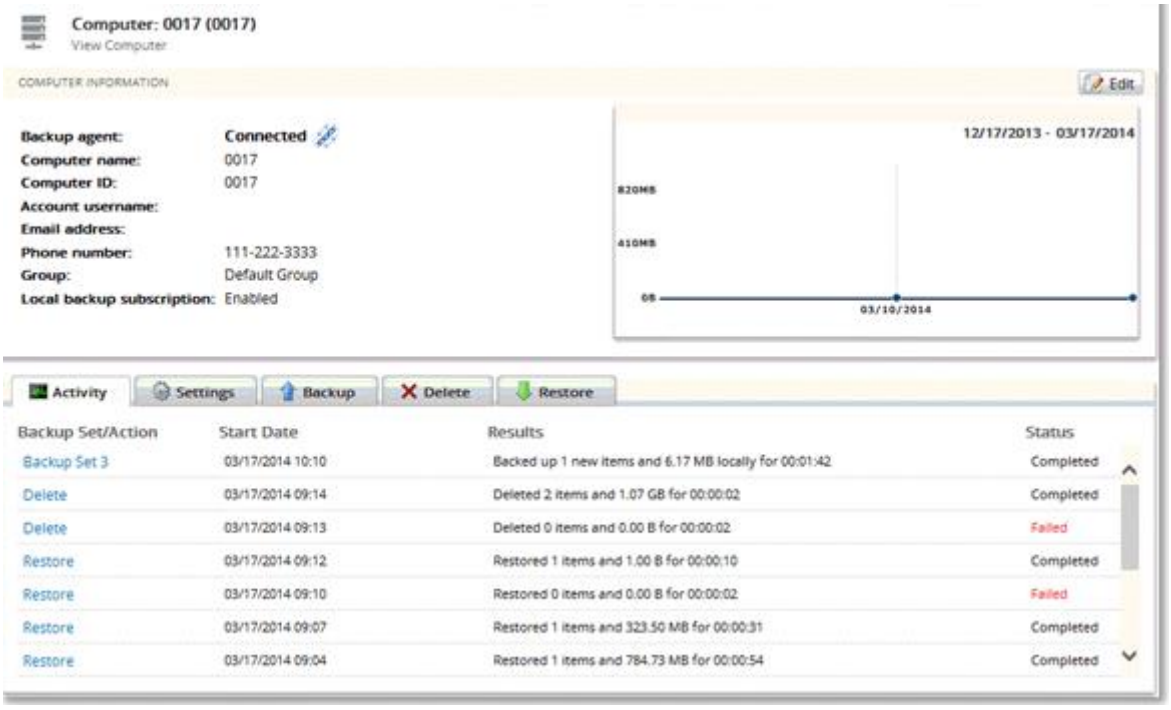
- Backup the VM locally, to the cloud, or both.
- Back up VMs in clustered environments.
- Choose to restore VMs into a sandbox test recovery or as a production recovery.
- Choose whether to attempt to automatically start the VMs upon restore or not.

Creating VMware Standard Backups

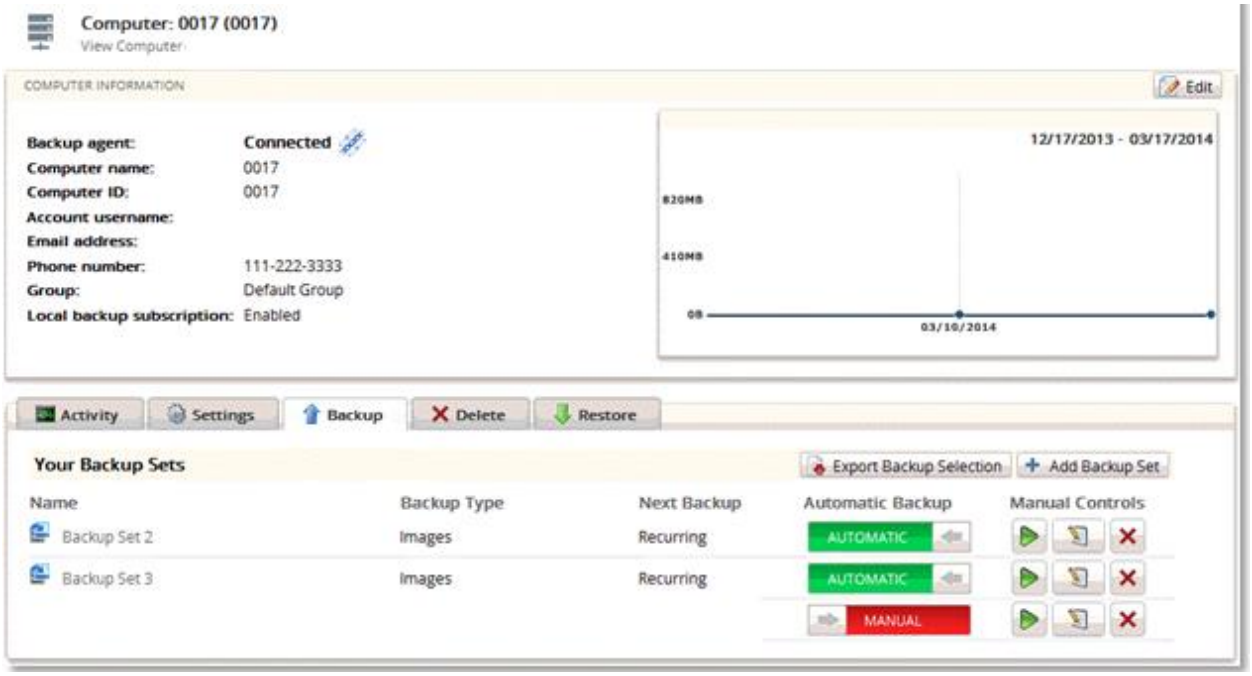
To create a VMware Standard backup, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions.

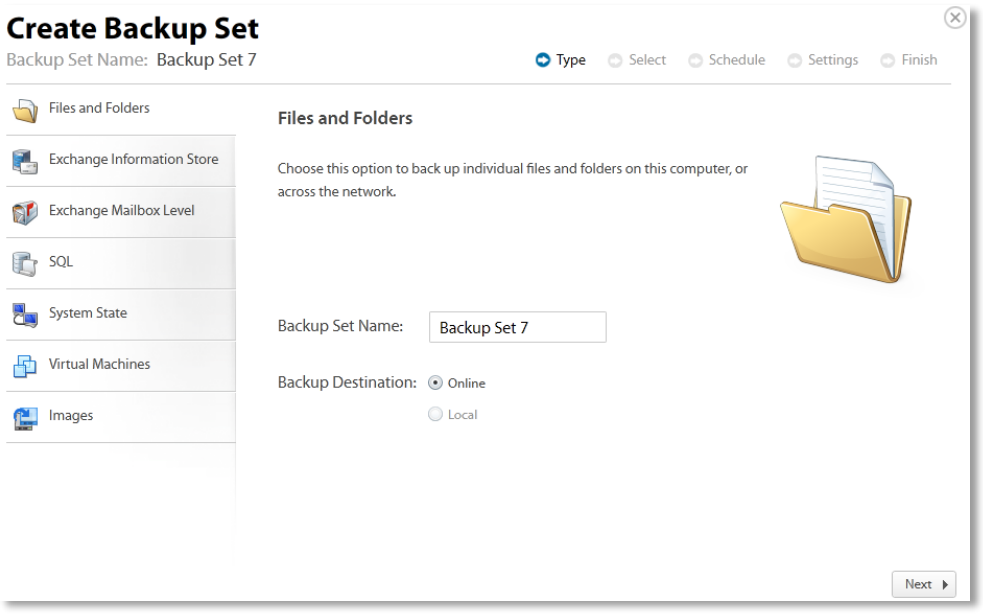
The Computer page is displayed.



2. Click the **Backup** tab. The Your Backup Sets section is displayed.

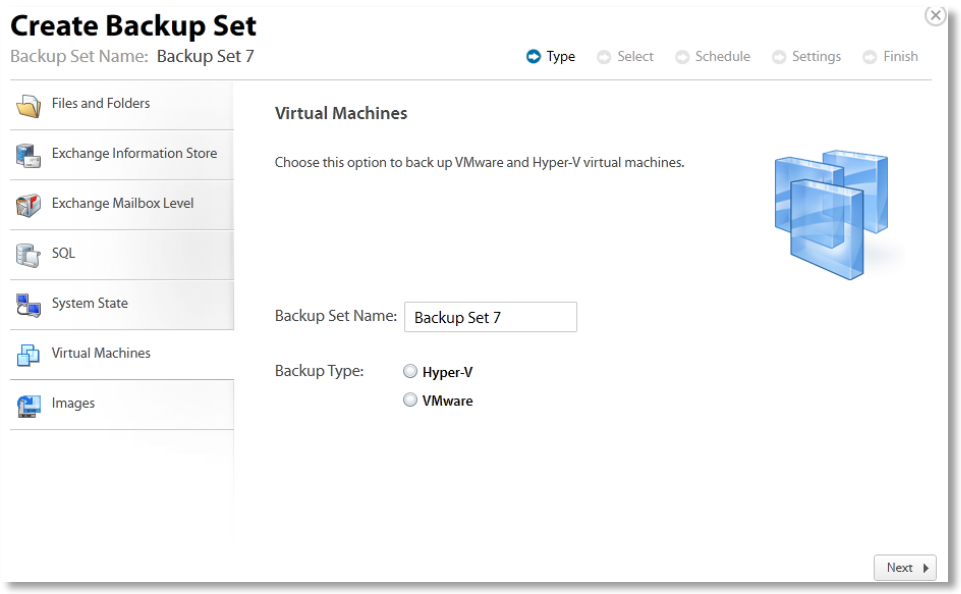


3. Click the **Add Backup Set** button. The Create Backup Set page is displayed.

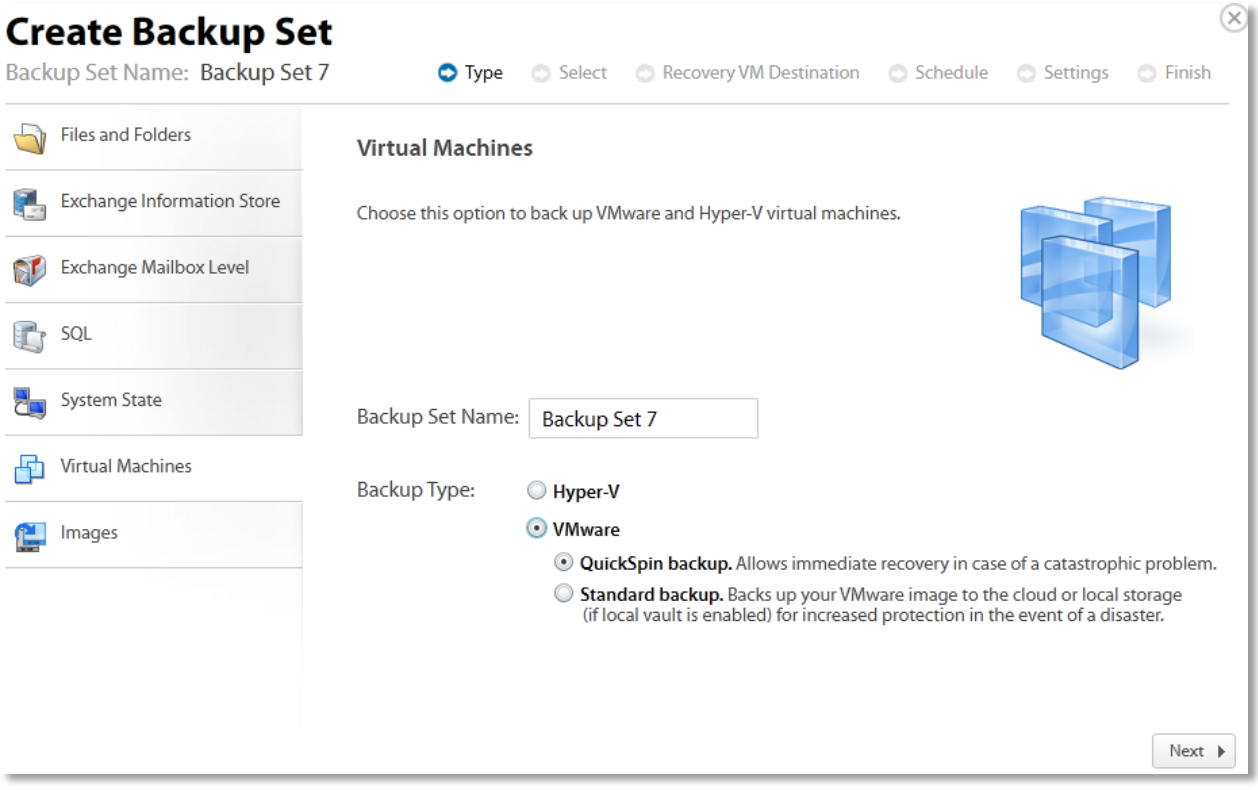


4. Click Virtual Machines.

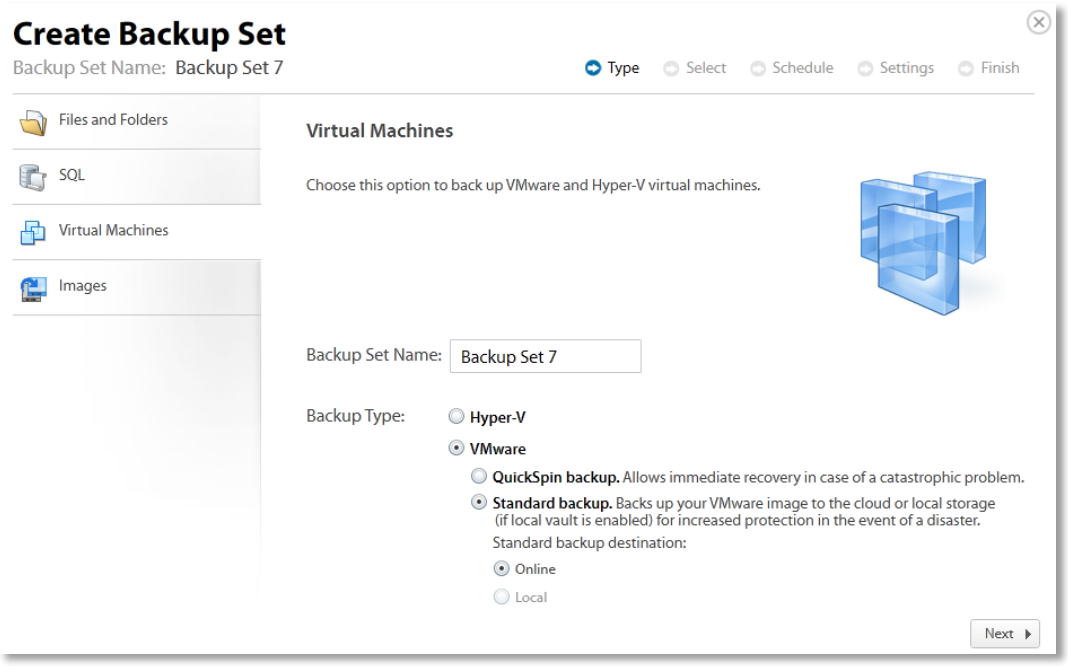
The Create Backup Set Virtual Machines page is displayed.



5. Select the **VMware** radio button. The VMware Backup types are displayed.

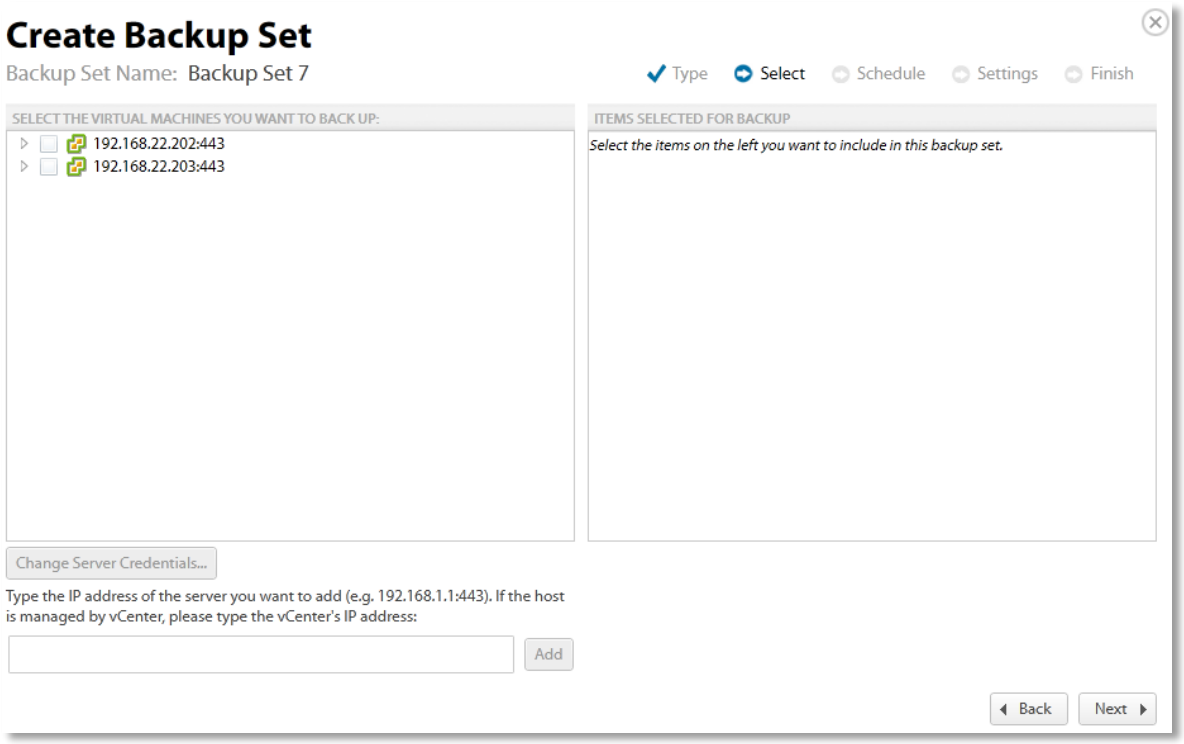


6. Click the **Standard backup**, The Online and Local radio buttons are displayed.

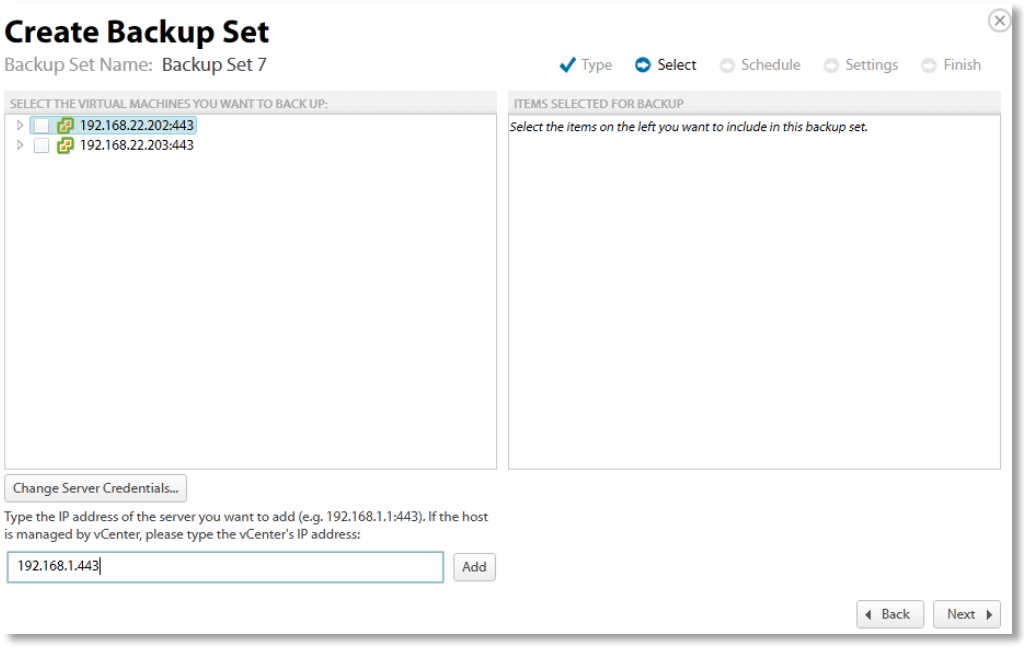


7. Select your option, and then click **Next**. The Select page is displayed. If you've added a host before (by creating another VMware backup set), the host displays. Otherwise no hosts display.

Add either vCenter or stand-alone hosts by typing the IP address in the text box and clicking **Add**.

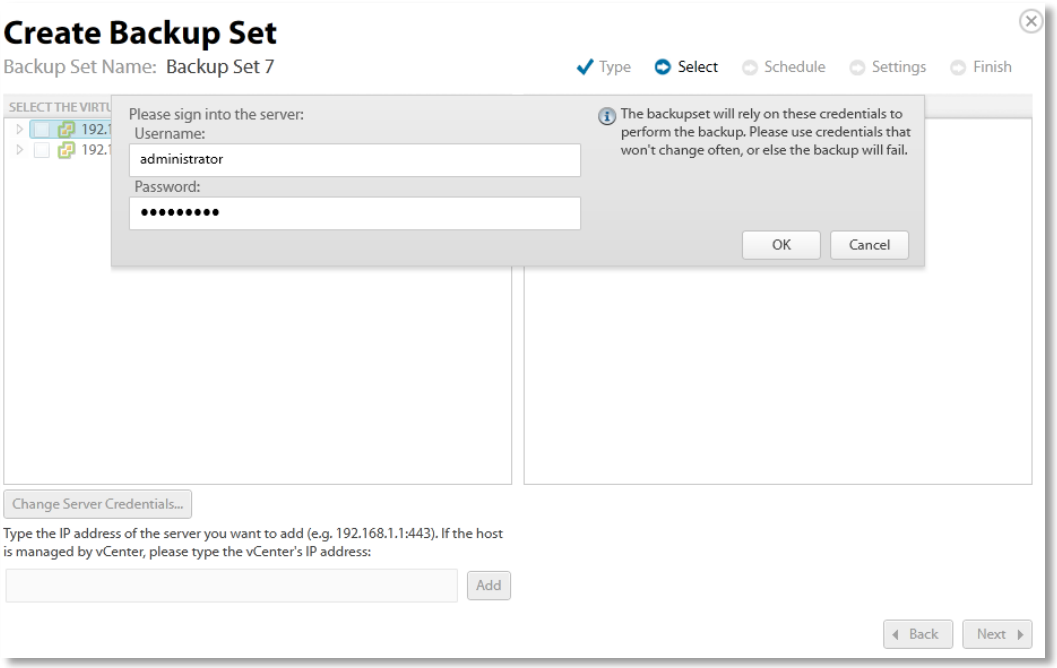


The new IP address is displayed.



8. To change server credentials, select the host and then click the **Change Server Credentials** button. The Credentials pop up is displayed.

Note: You can authenticate to an : Unmanaged ESX host, a vCenter, or an ESX host managed to a vCenter. If you authenticate to a managed host, the dialog is slightly different – it indicates that the host is managed and asks for the credentials for the vCenter.

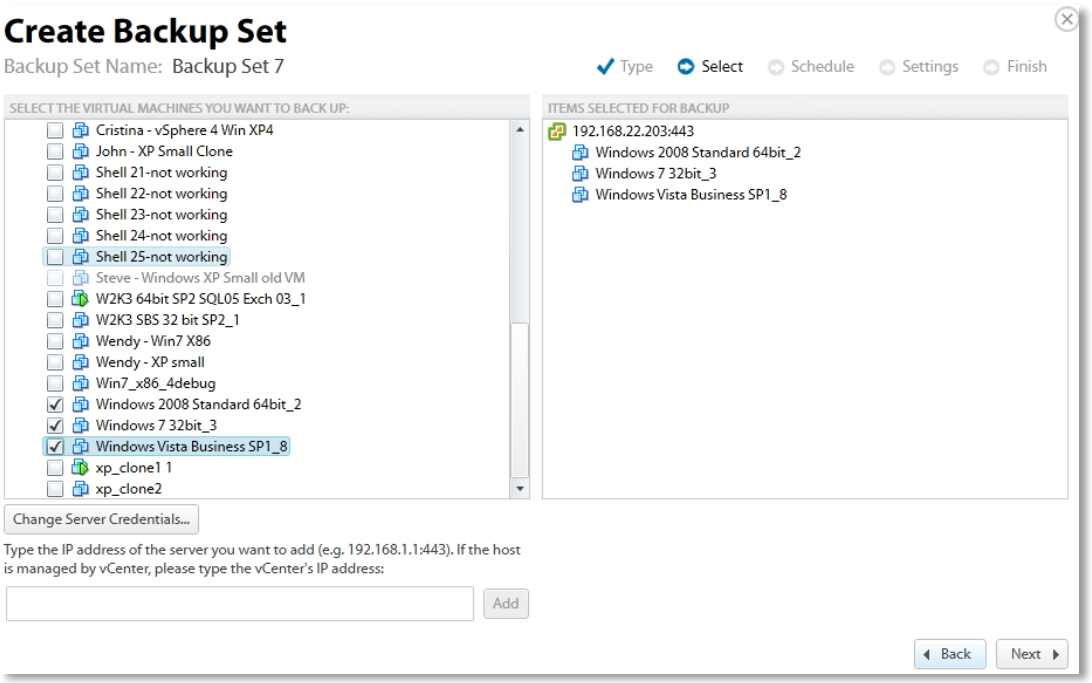


9. Make your changes and click **OK**.

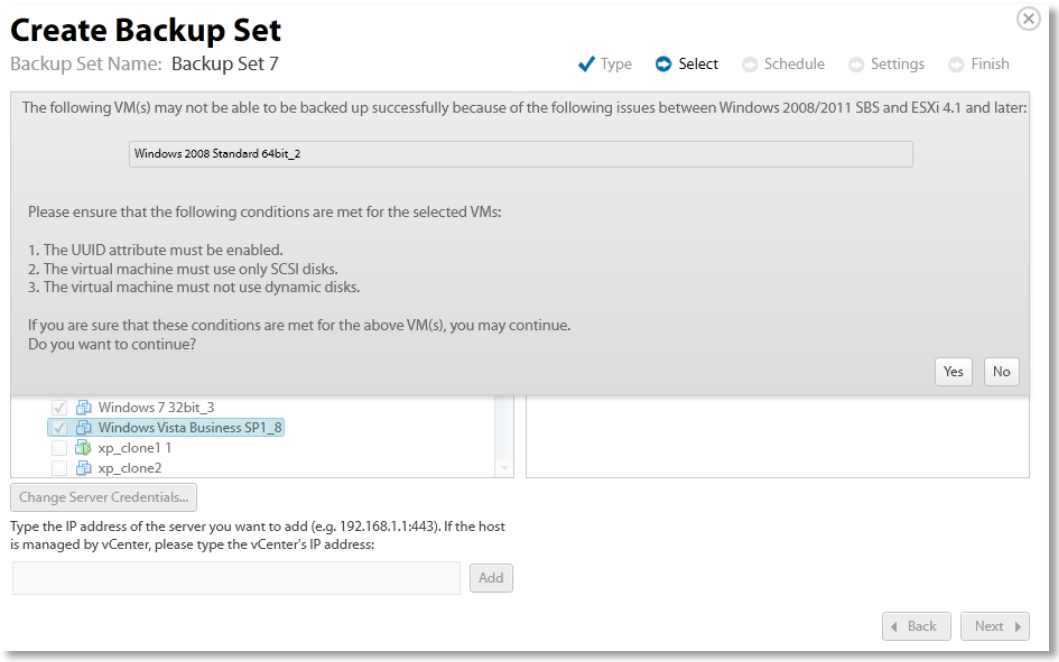
Select the virtual machines to be backed up.

Note: In the left panel, the green display indicates that the VM is powered on. VMs that are from older hosts or have older hardware levels are grayed out.

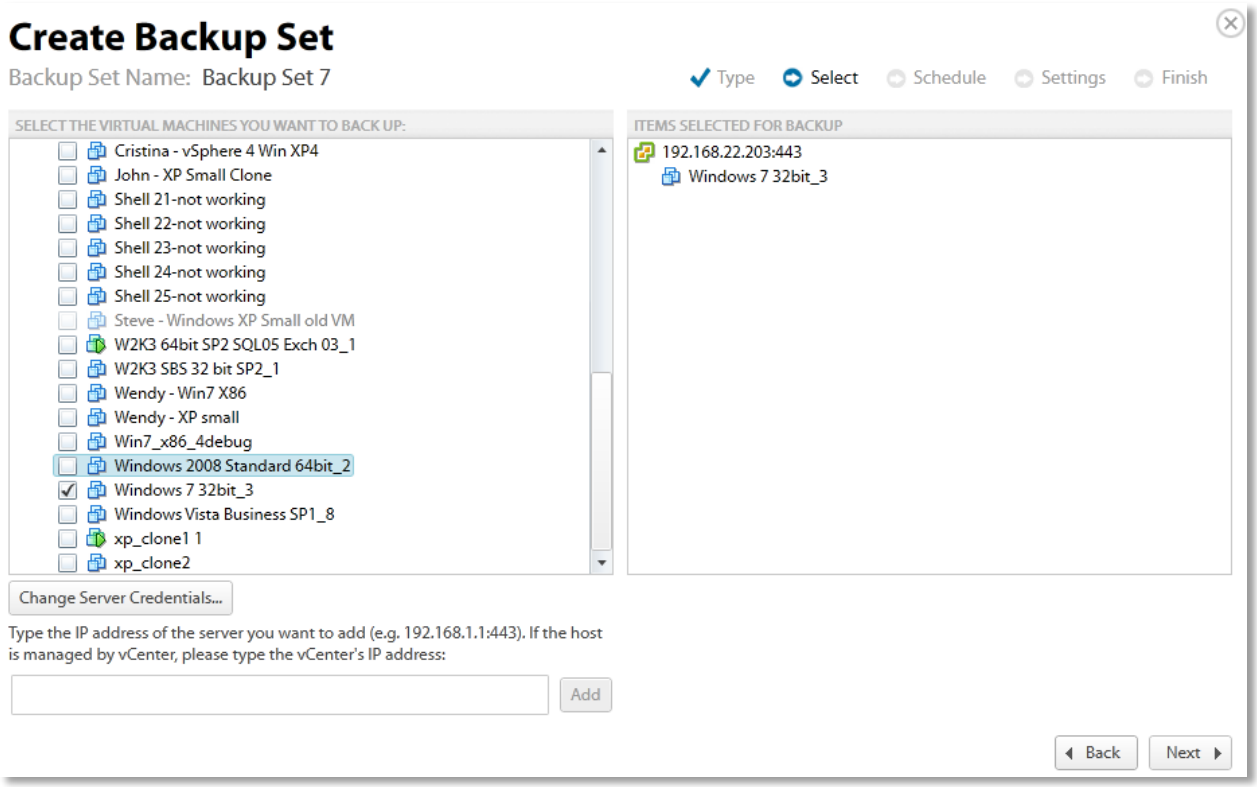
The selected virtual machines are displayed in the right panel of the screen.



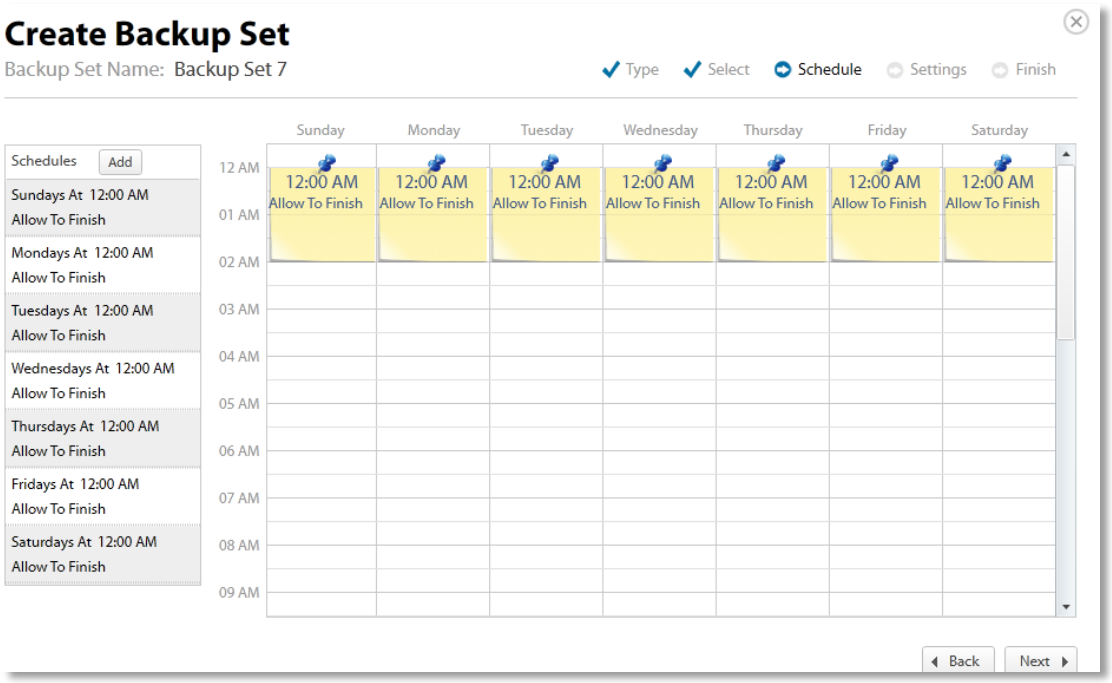
Note: If you selected a VM that requires special considerations, the following message is displayed. Ensure that the conditions listed are met, before clicking **Yes**, or the VM may not back up.



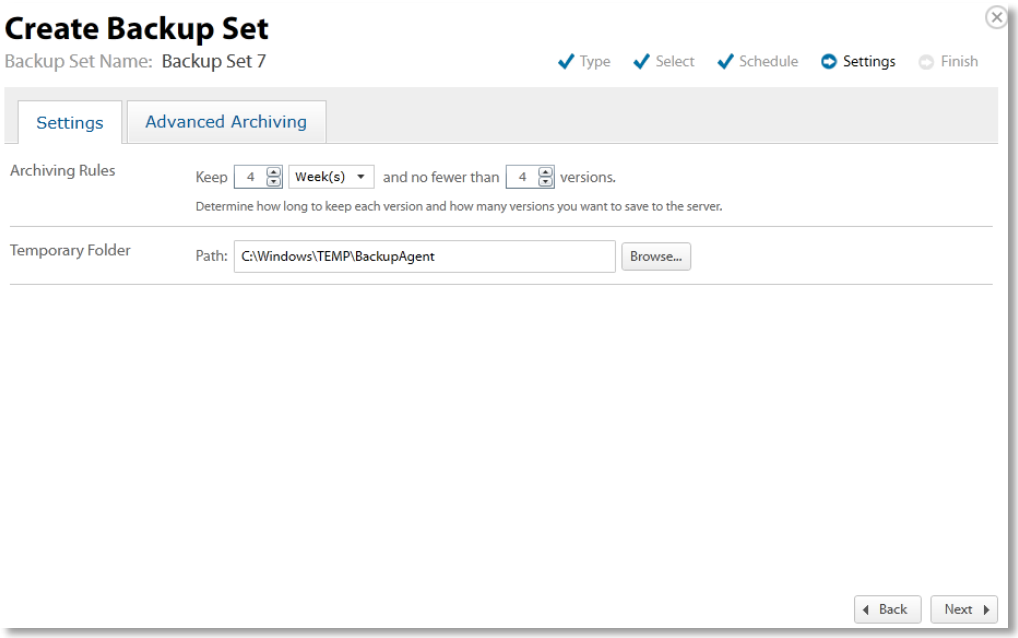
The selected virtual machines are displayed in the right panel.



10. After making your selections, click **Next**. The Create Backup Set Schedule page is displayed. See *About Scheduling Backups* for more information.



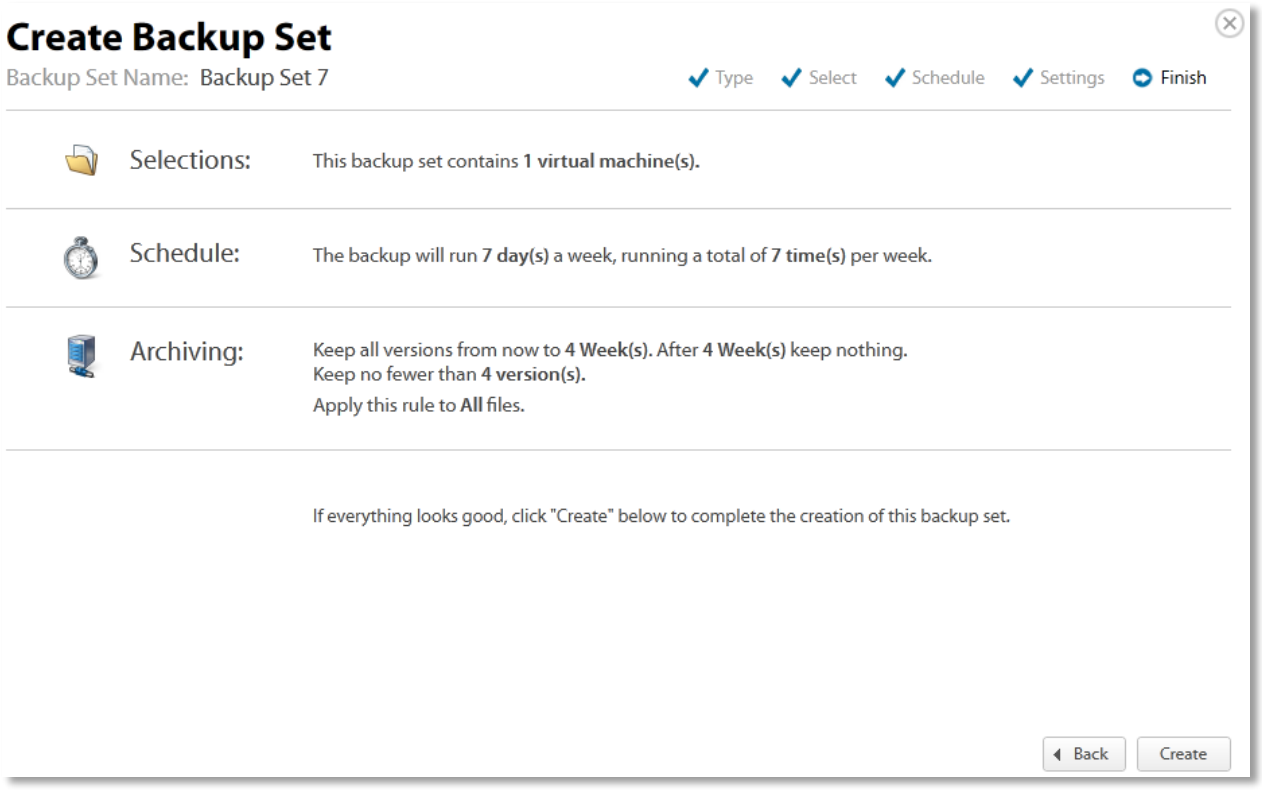
11. Select the schedule for your backup, and then click **Next**. The Create Backup Set Settings page is displayed.



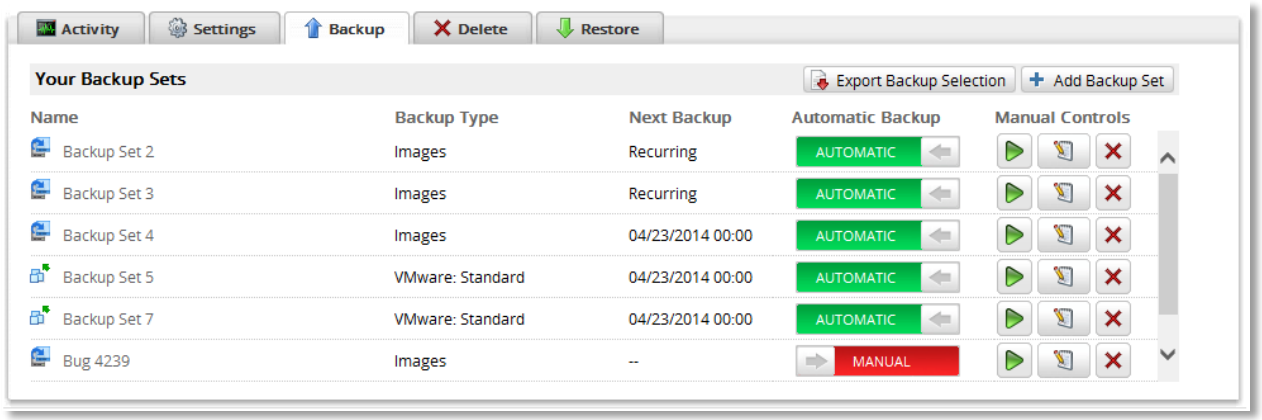
12. Select the archiving settings and temporary folder destination, and then click **Next**. See *Archiving Rules* for more information.

Note: 1 GB of temporary space is recommended for VMware Standard backups.

The Create Backup Set Confirmation page is displayed.



13. Verify your backup selections, and then click **Create**. The Your Backup Sets page is displayed with your current backup status.

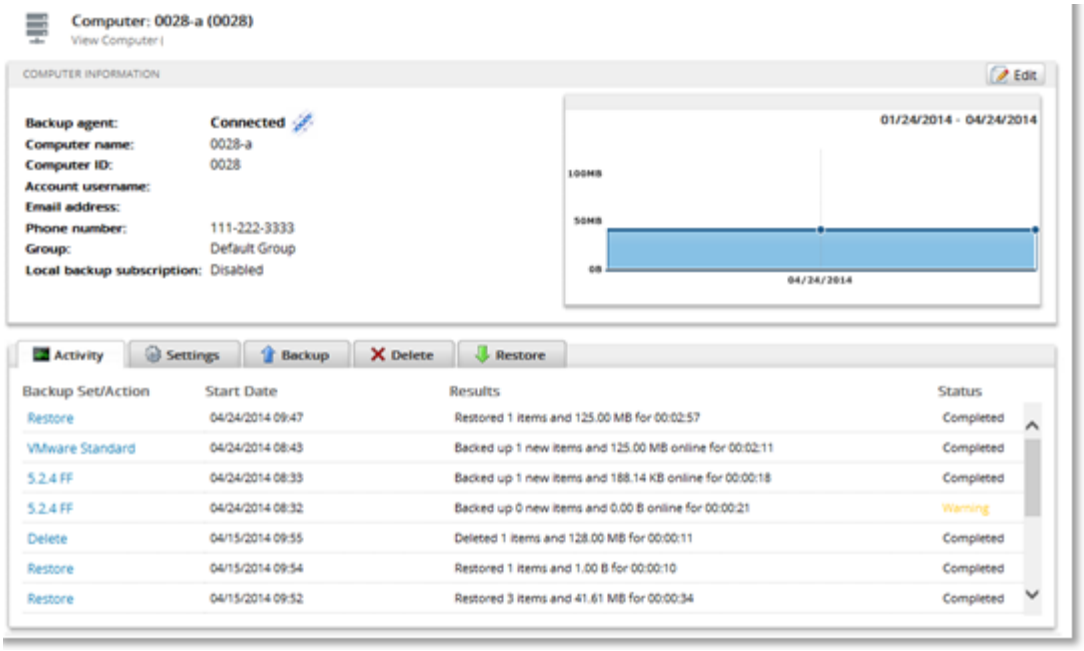


To manually run a backup set, click the green arrow (Play) button under Manual Controls. Also, note the next scheduled automatic backup run time.

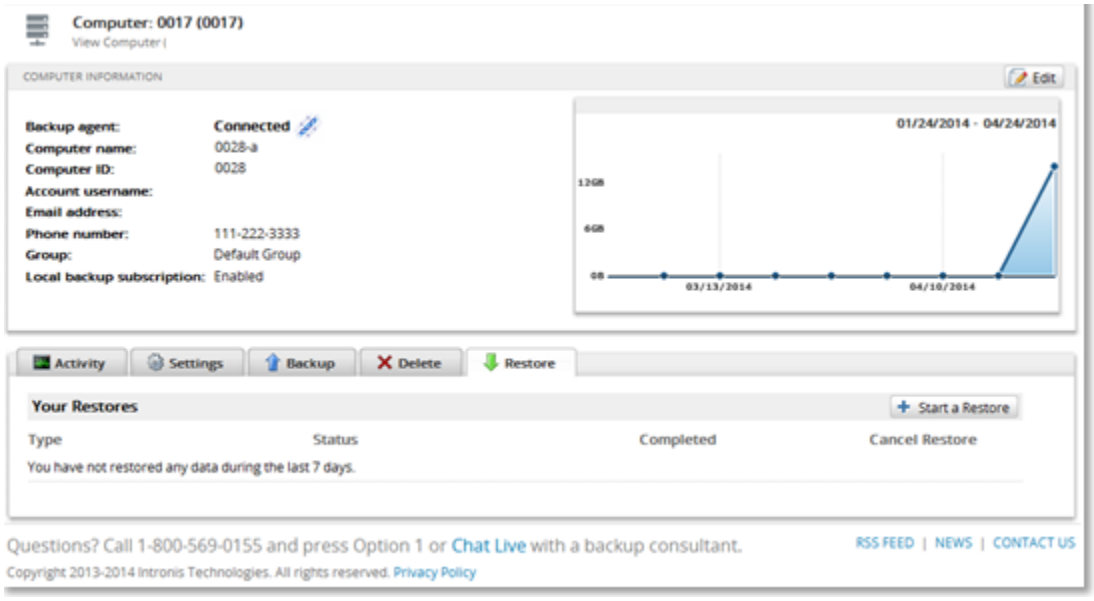
Restoring VMware Standard Backups

To restore a VMware Standard backup, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions. The Computer page is displayed.

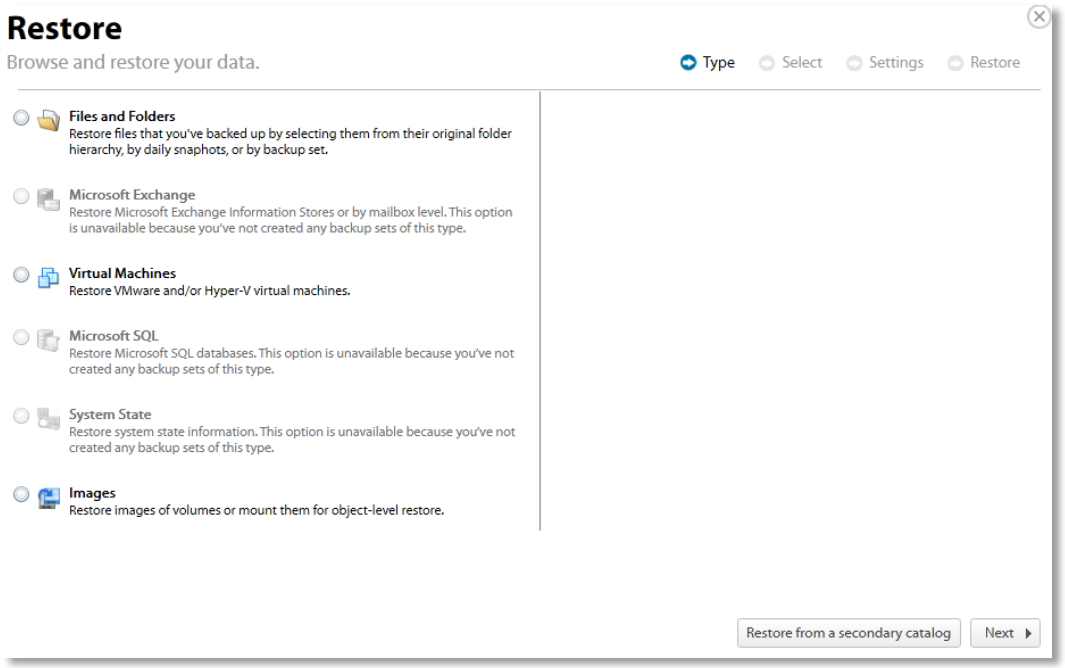


2. Click the **Restore** tab. The Your Restores section is displayed.

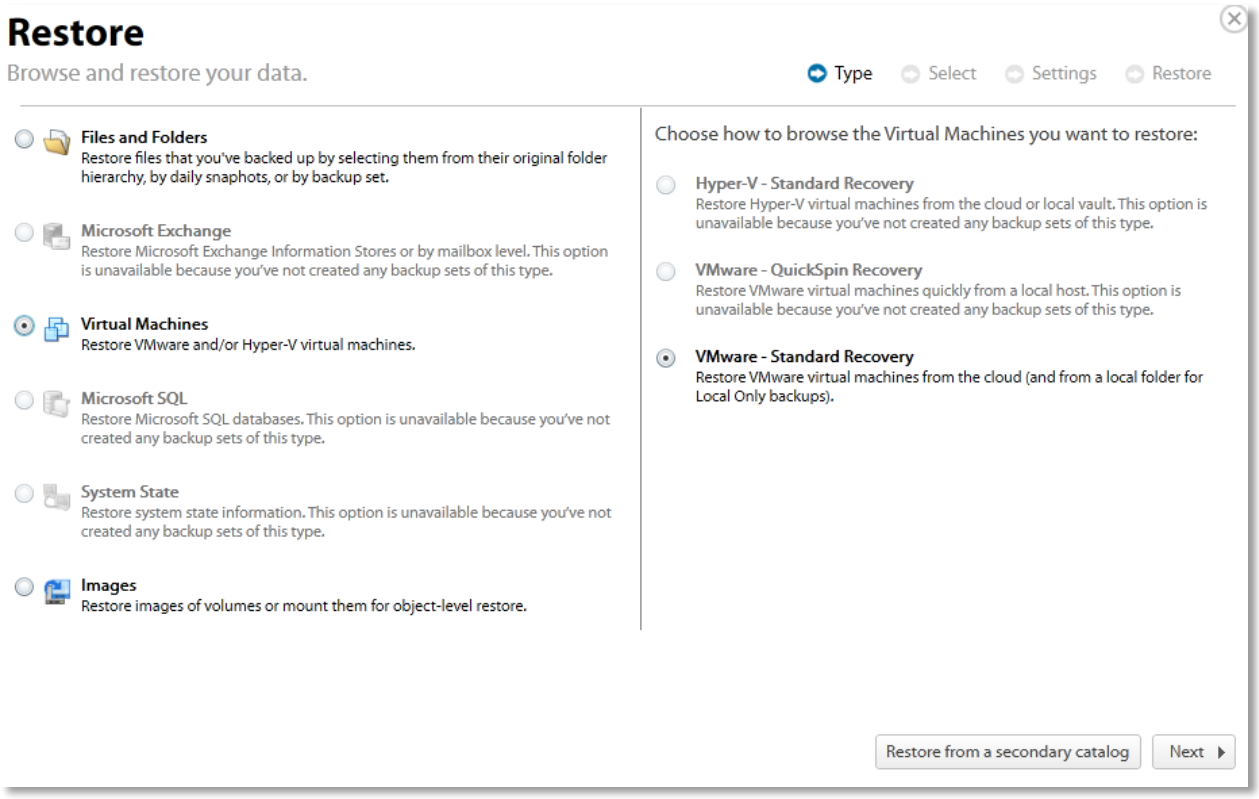


3. Click the **Start a Restore** button.

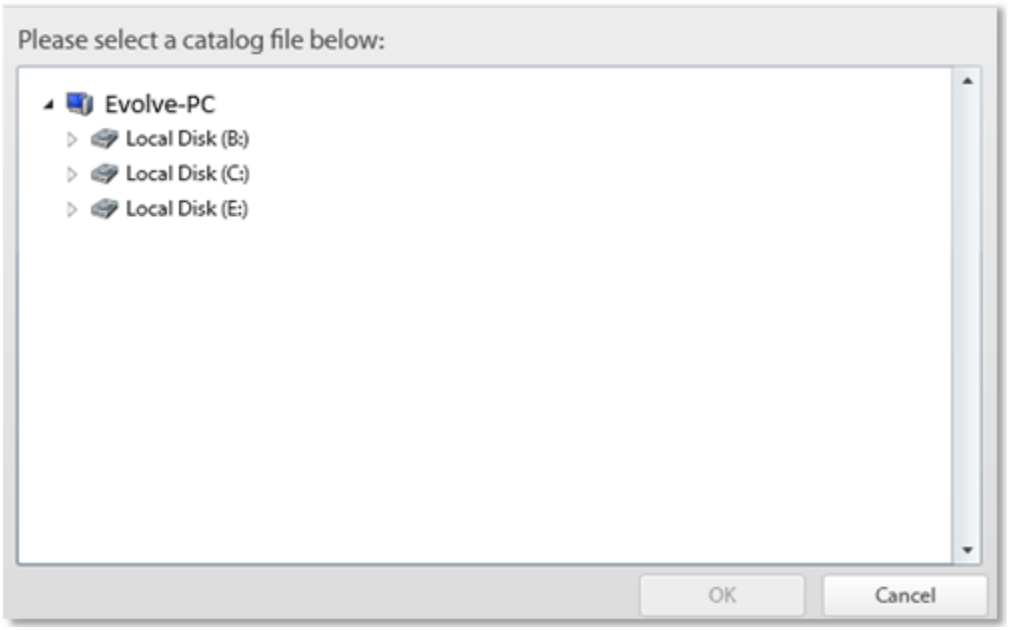
The Restore Type page is displayed.



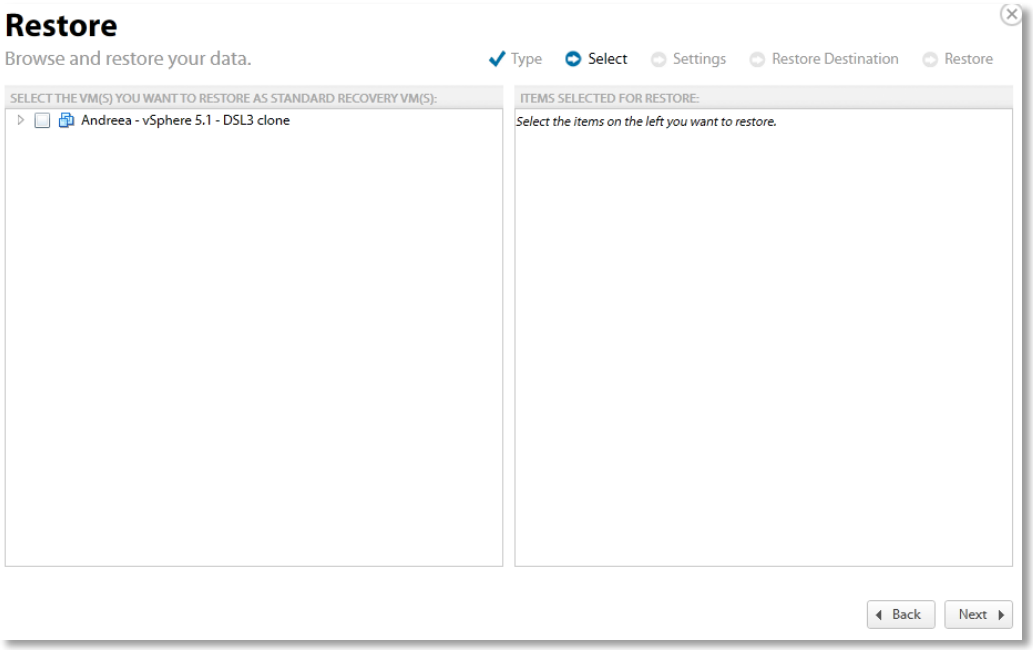
4. Select the **Virtual Machines** radio button. The VMware restore options are displayed in the right panel.



Note: You have the option of restoring from a secondary catalog if you have received a recovery drive from Cloud Backup. To do so, click the **Restore from a secondary catalog** button, and then select from the pop-up window as show below. Click **OK** when done.

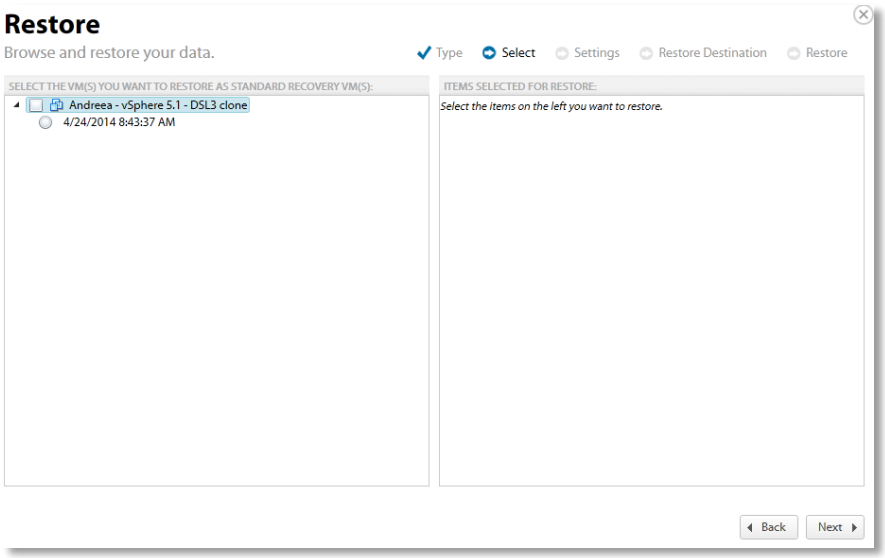


5. Select the **VMware Standard Recovery** radio button, and then click **Next**. The virtual machines are displayed.



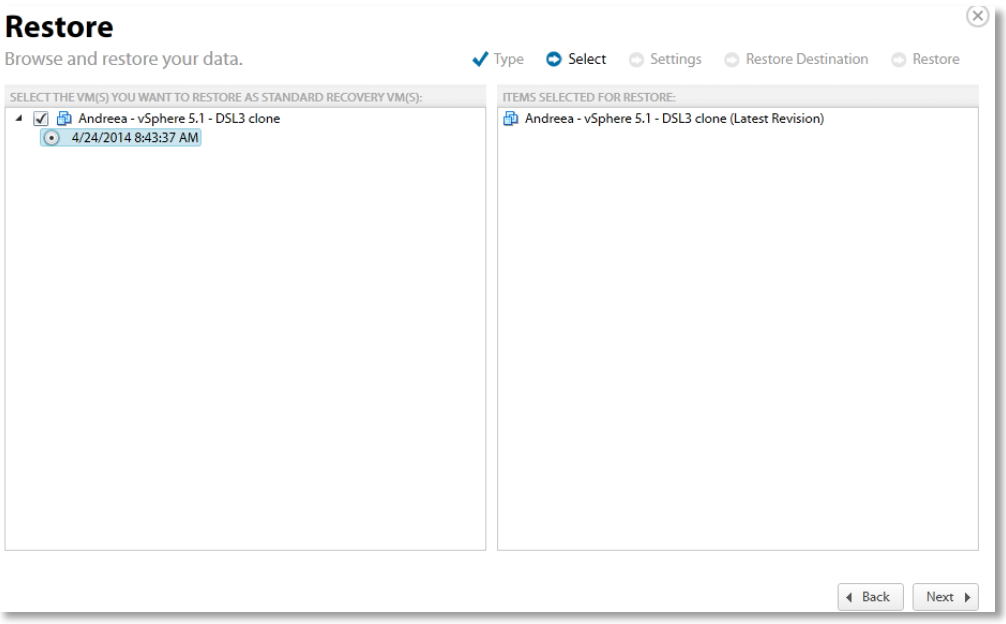
6. Click the virtual machines to be restored.

The virtual machine revisions are displayed.



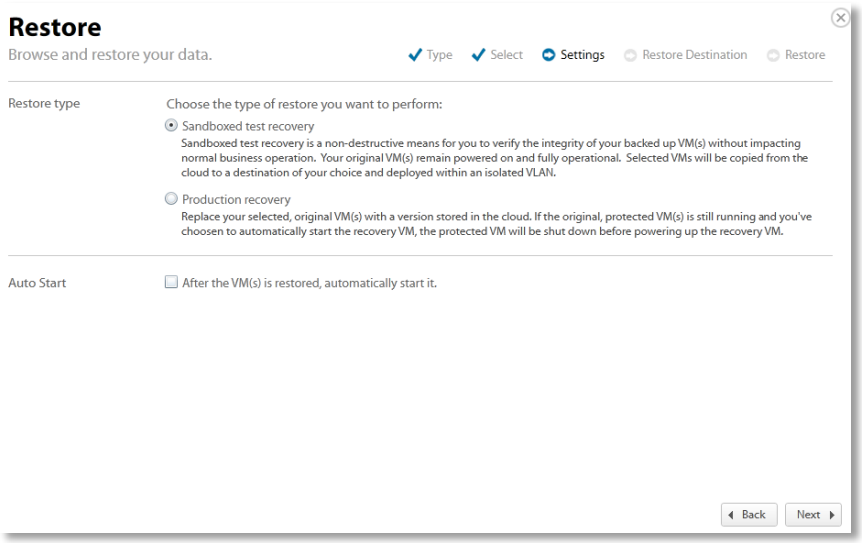
7. In the top left panel, double click the virtual machine to display the revisions, and then select the virtual machine revision radio button you want to restore.

   Your selection is displayed in the right panel of the screen.



8. After making your selections, click **Next**.

The Restore Settings page is displayed.



9. Select a Restore type radio button.

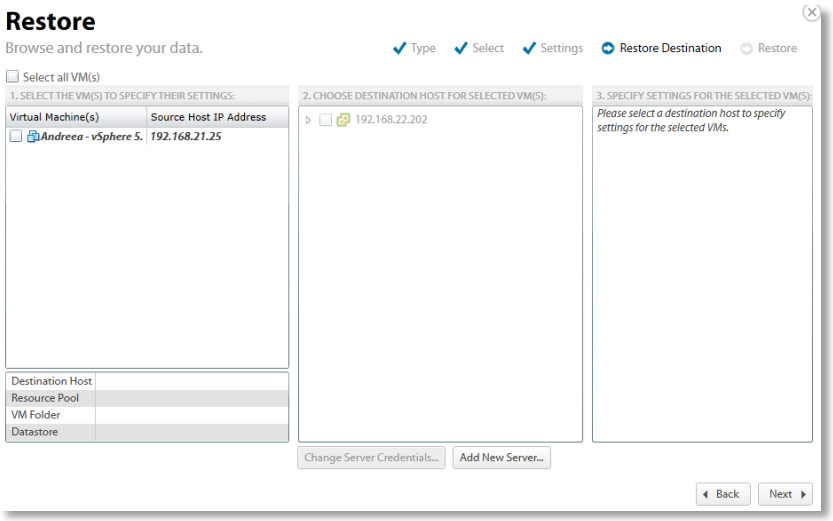
If you select **Sandboxed test recovery** (default option)

- The source/production VMs are not shut down.
- The recovery VMs selected are started on their own separate VLAN to avoid conflicts with the production VMs.

If you select **Production recovery**

- The source/production VMs are shut down (if available).
- The recovery VMs selected are started using the production network. They assume the role of the original production VMs.

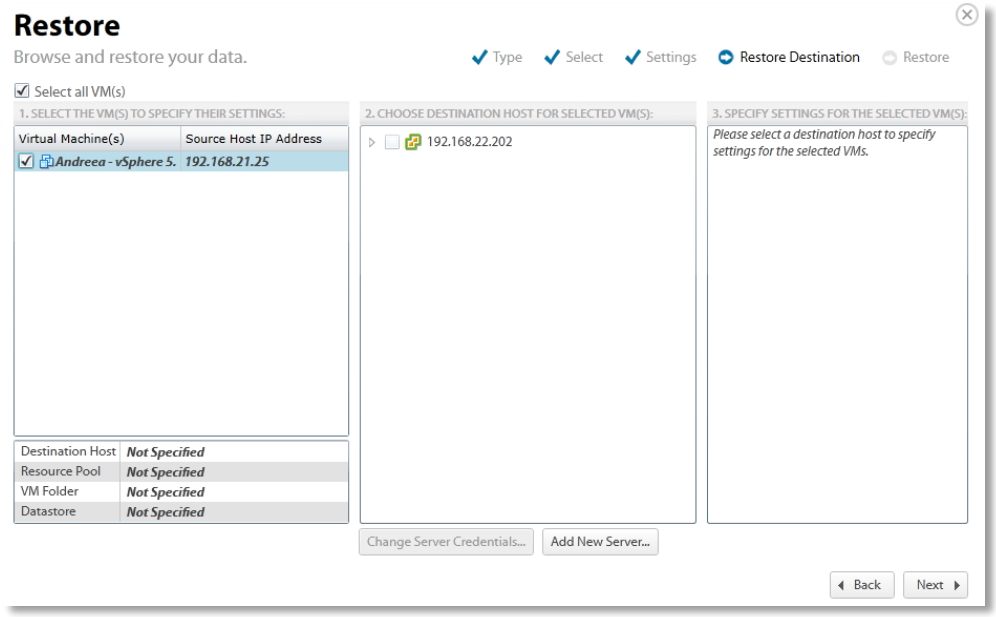
10. After making your selections, click **Next**. The Restore Destination page is displayed.



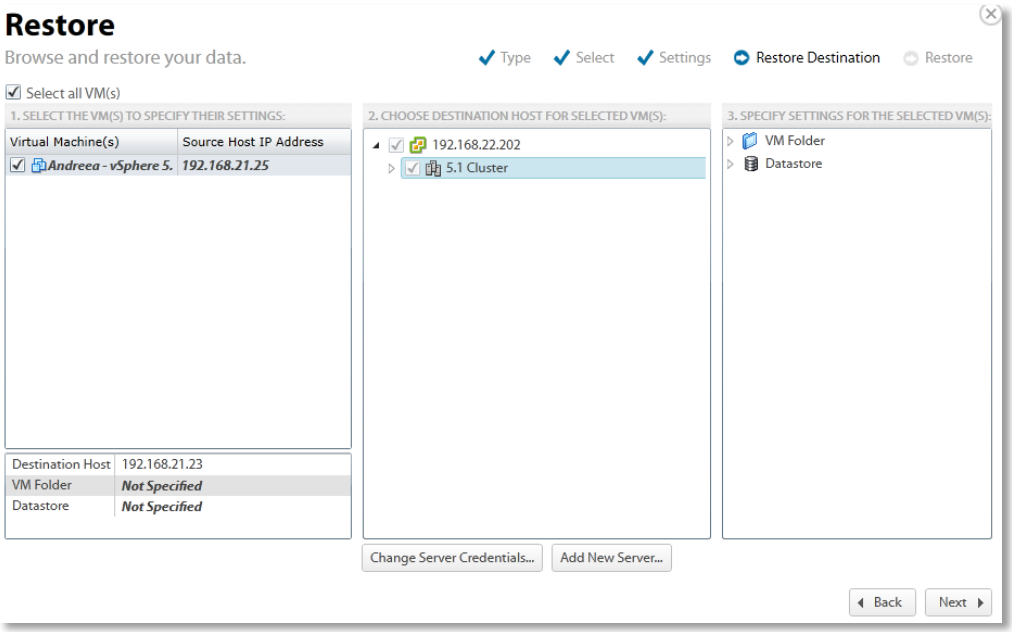
In the left panel, select the VMs for which you want to specify settings.

Option: You can choose the settings for all VMs by selecting the **Select all VMs** checkbox so every VM uses the same Destination Host, Resource Pool, VM Folder, and Datastore.

The bottom left panel displays your selection status.

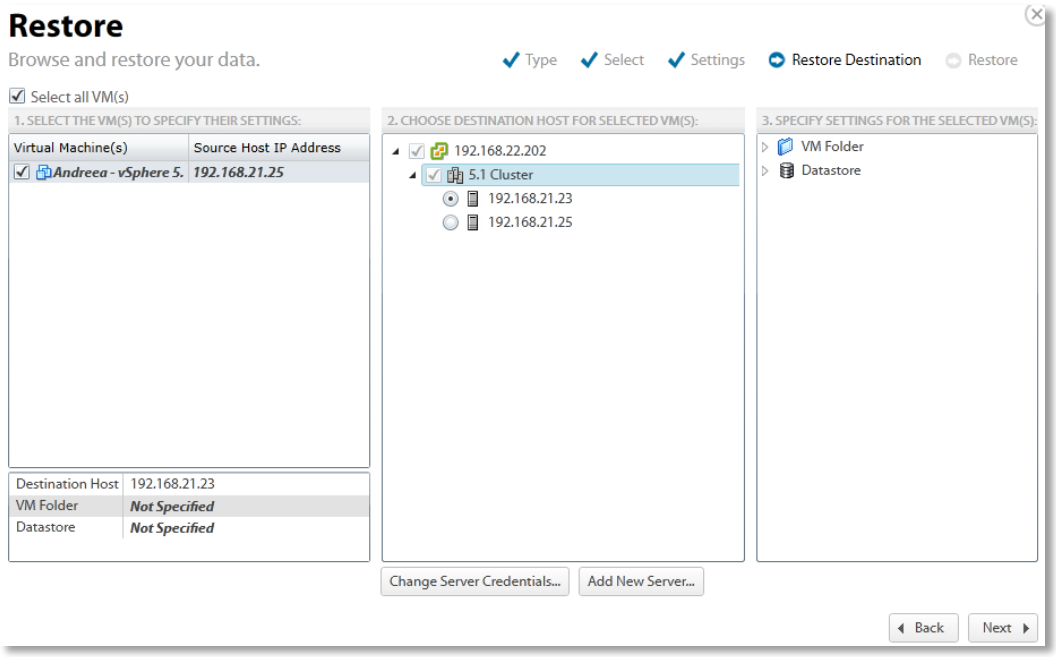


11. In the center panel, select the host on which the recovery VMs should reside as shown in the example below. The Destination Host status is displayed in the bottom left panel.

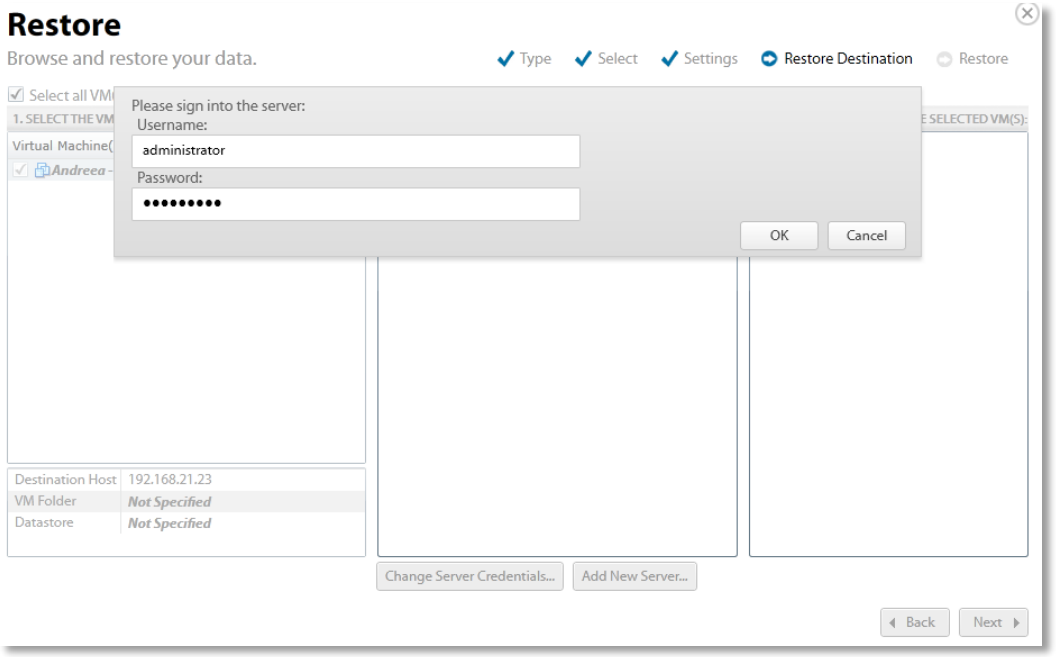


12. If selecting hosts that are part of a cluster, click the Cluster.

The destination hosts are displayed. See *About VMware Clusters* for more information.

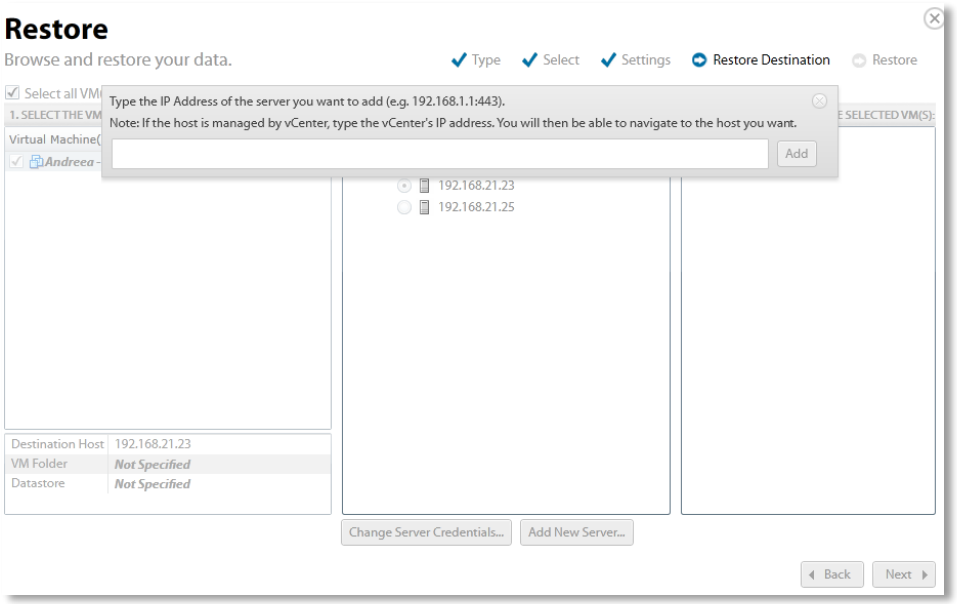


13. Optionally, click the **Change Server Credentials** button to change username and password. The Credentials popup is displayed.

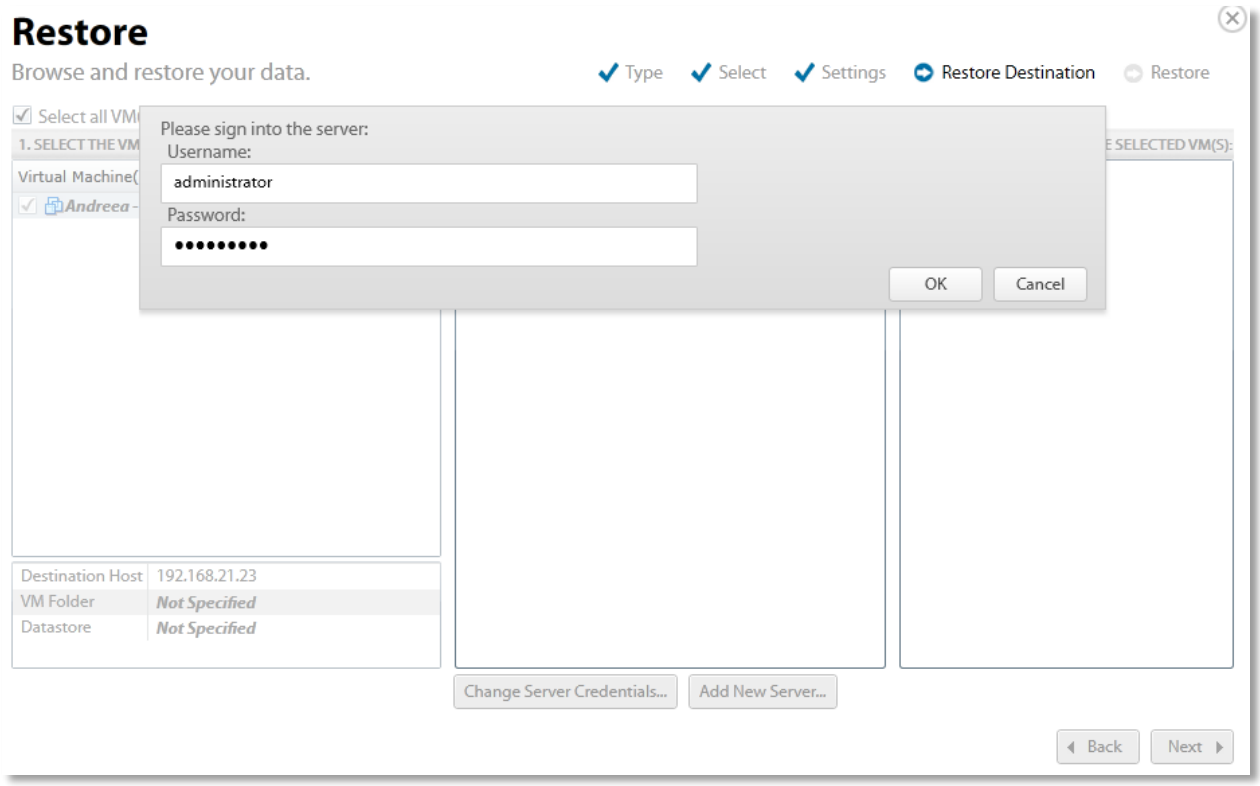


14. Change username and password, and then click **OK**.
15. Optionally, click the **Add New Server** button to add a new server.

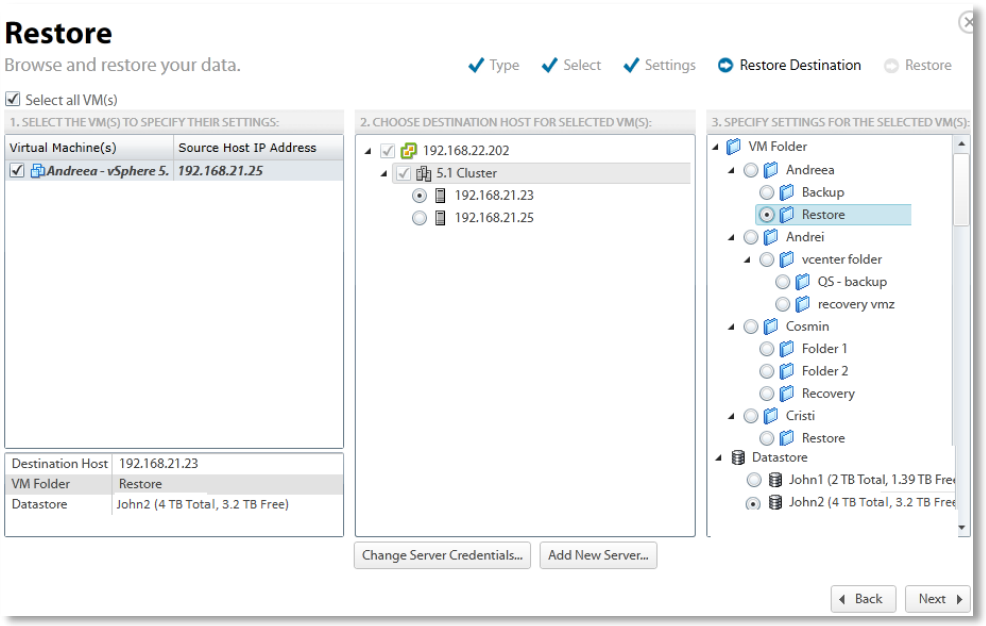
The Add New Server popup is displayed.



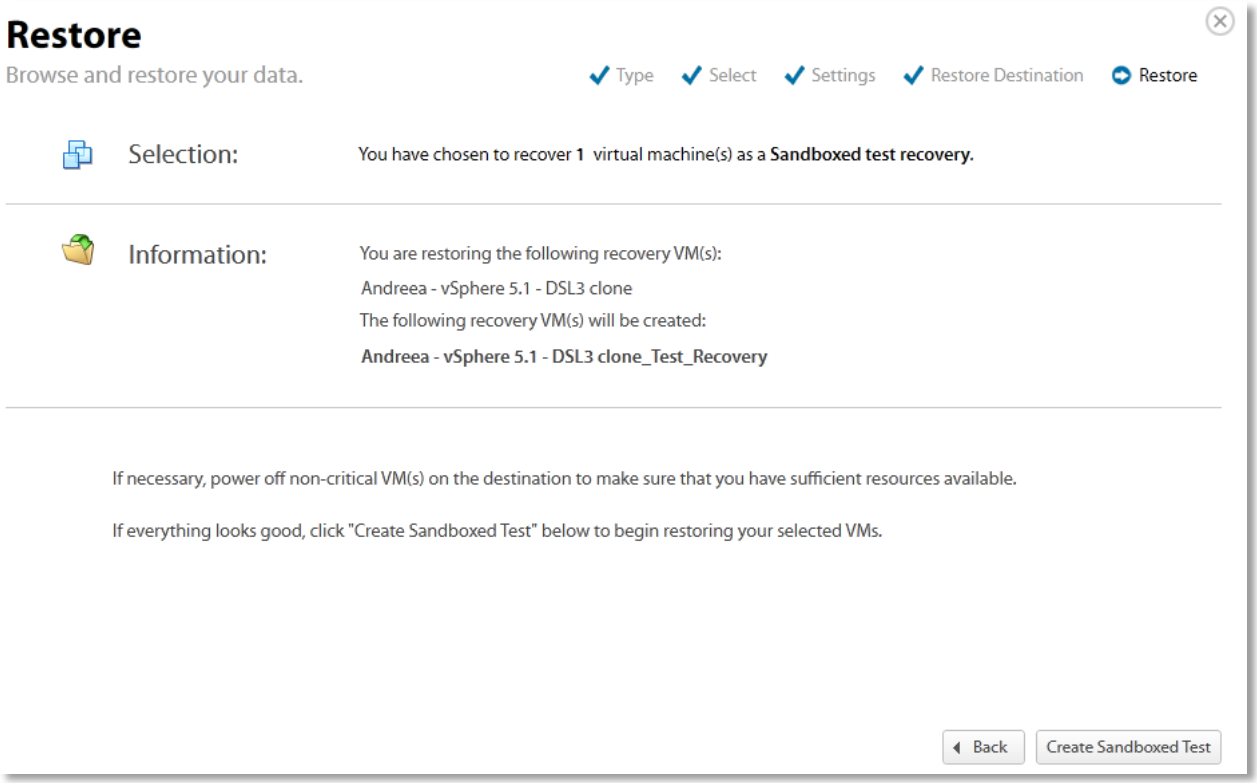
16. Type the IP address in the text box, and then click **Add**. The credential prompt displays and asks you to authenticate.



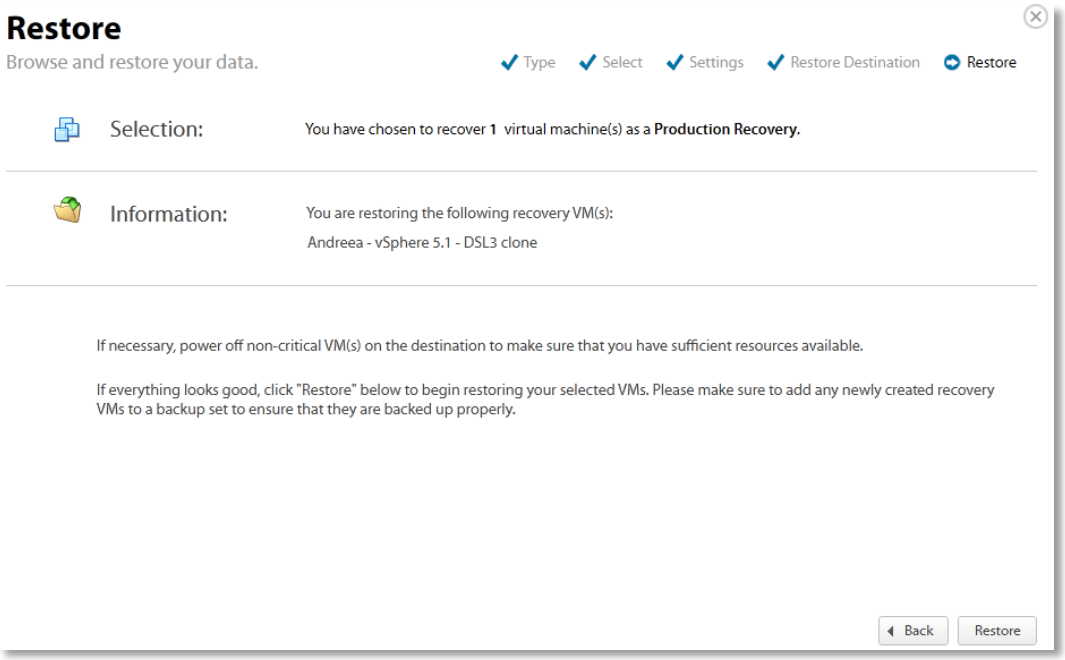
17. At the Restore Destination page, in the right panel, select the Resource Pool, VM Folder, and Datastore for the selected VMs as shown in the example below.



18. When done making your selections, click **Next**. The Restore Confirmation page is displayed.

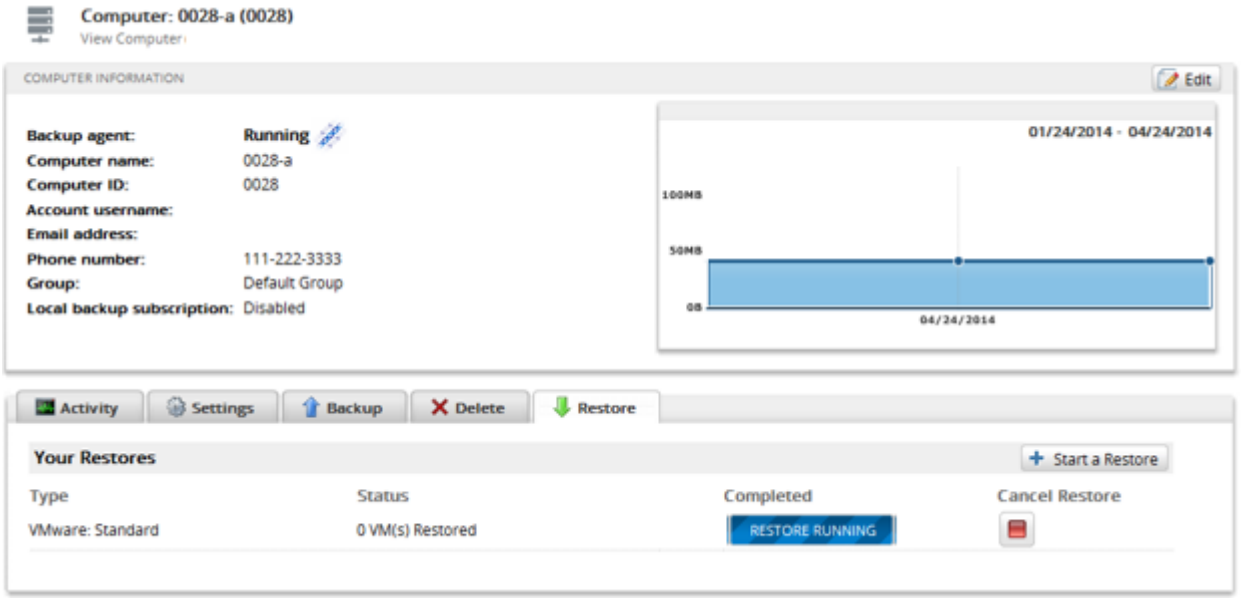


If you selected Production recovery restore type, the following page is displayed.

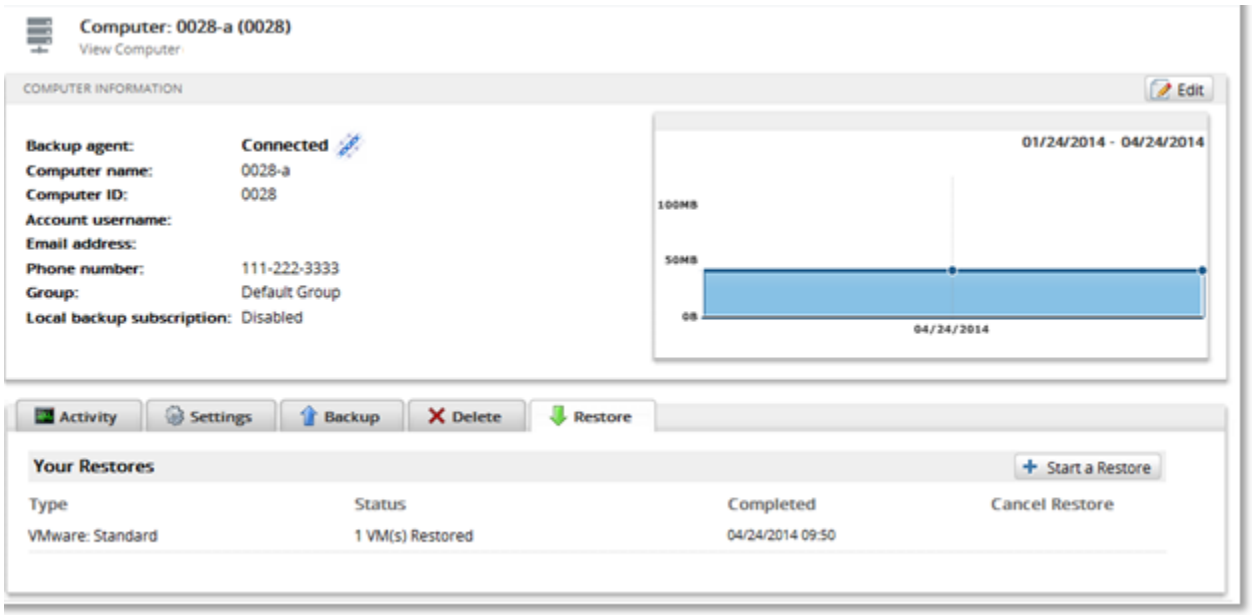


19. Verify your selections, and then click **Create Sandboxed Test** or **Restore** (depending on your restore type).

The Your Restores page is displayed showing status of the restore.



When the restore is complete, the final status is displayed as show below.



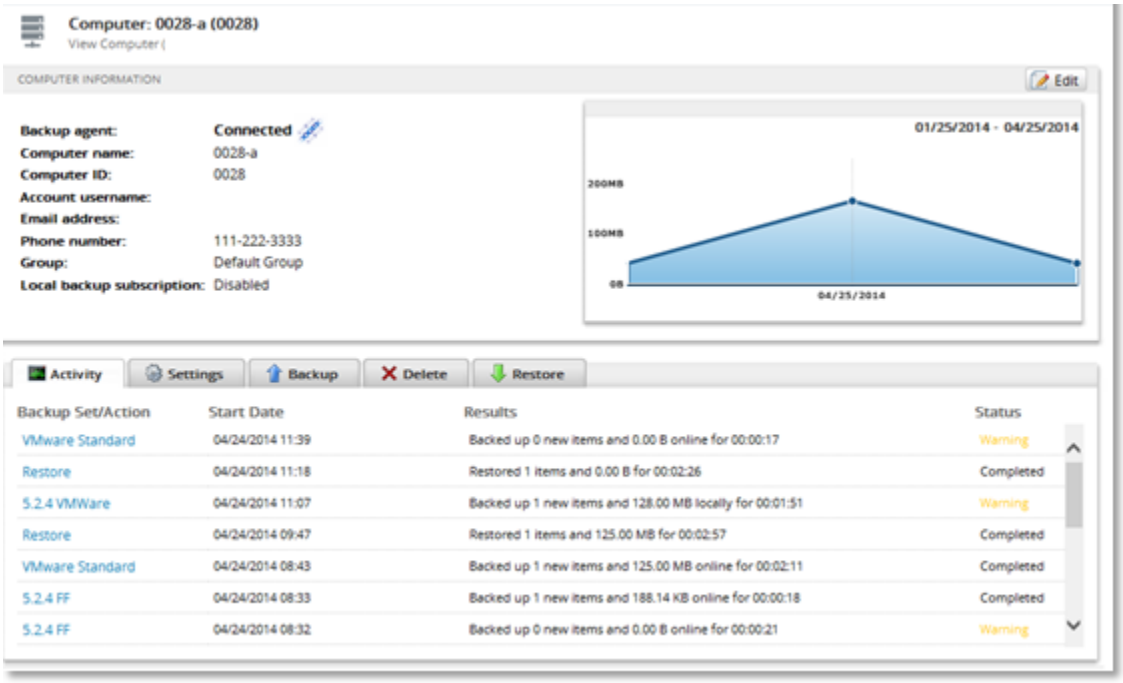
Note: if the host you restore to has a VM with the same name, the restored VM appends _Recovery (or Recovery1 if _Recovery exists).

Deleting VMware Standard Backups

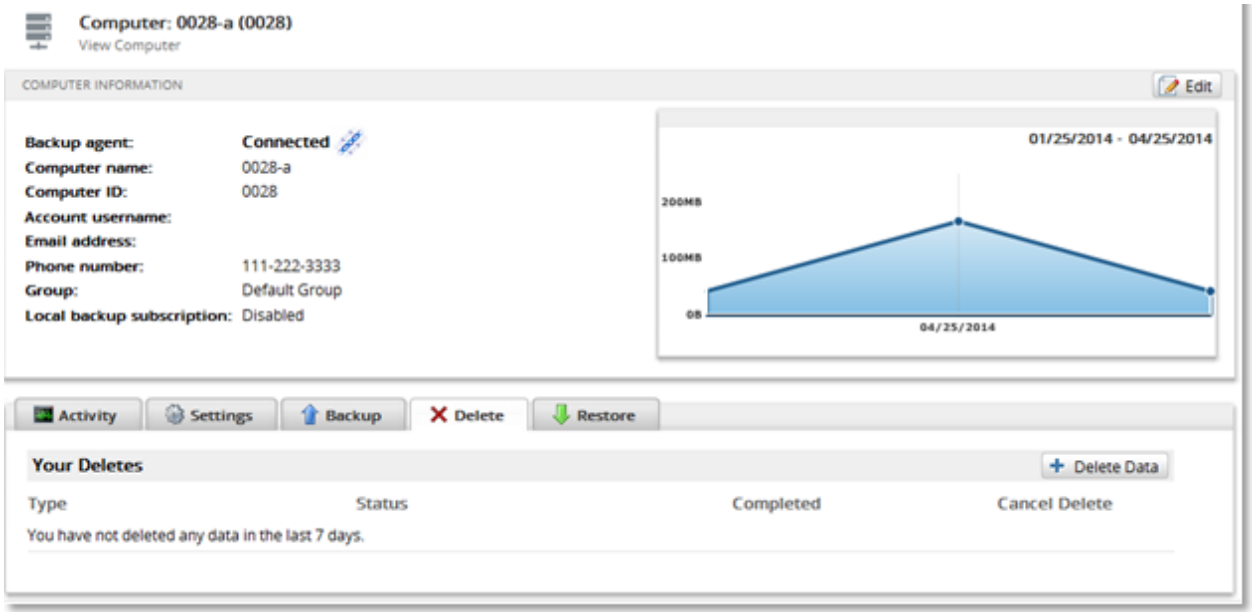
To delete a VMware Standard backup, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions.

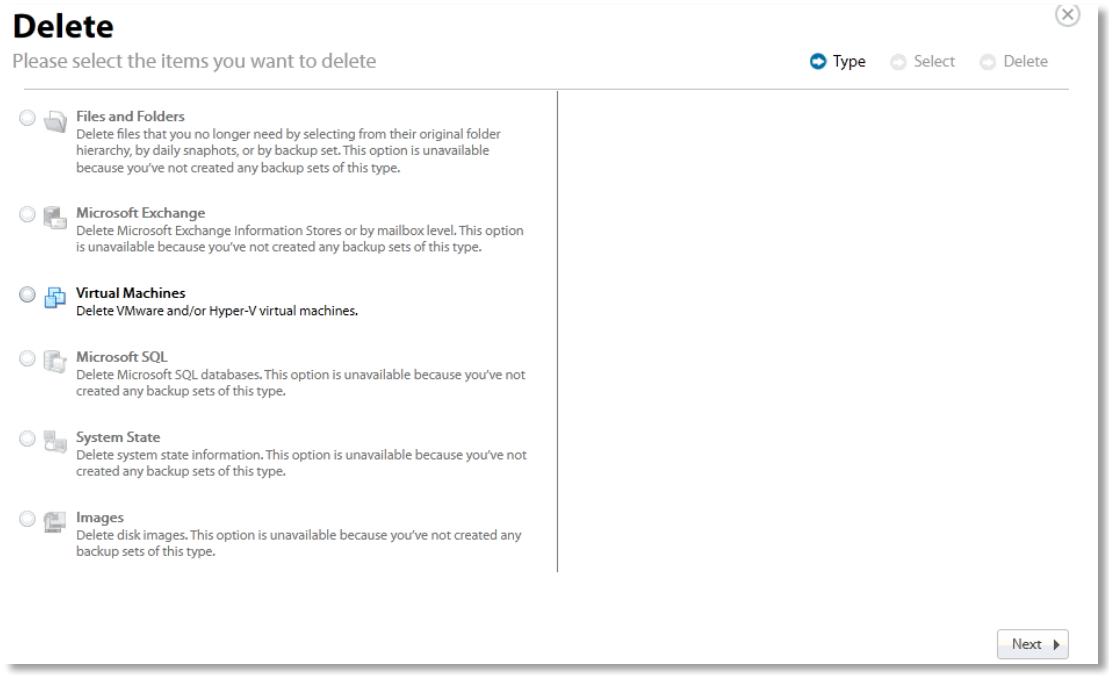
   The Computer page is displayed.



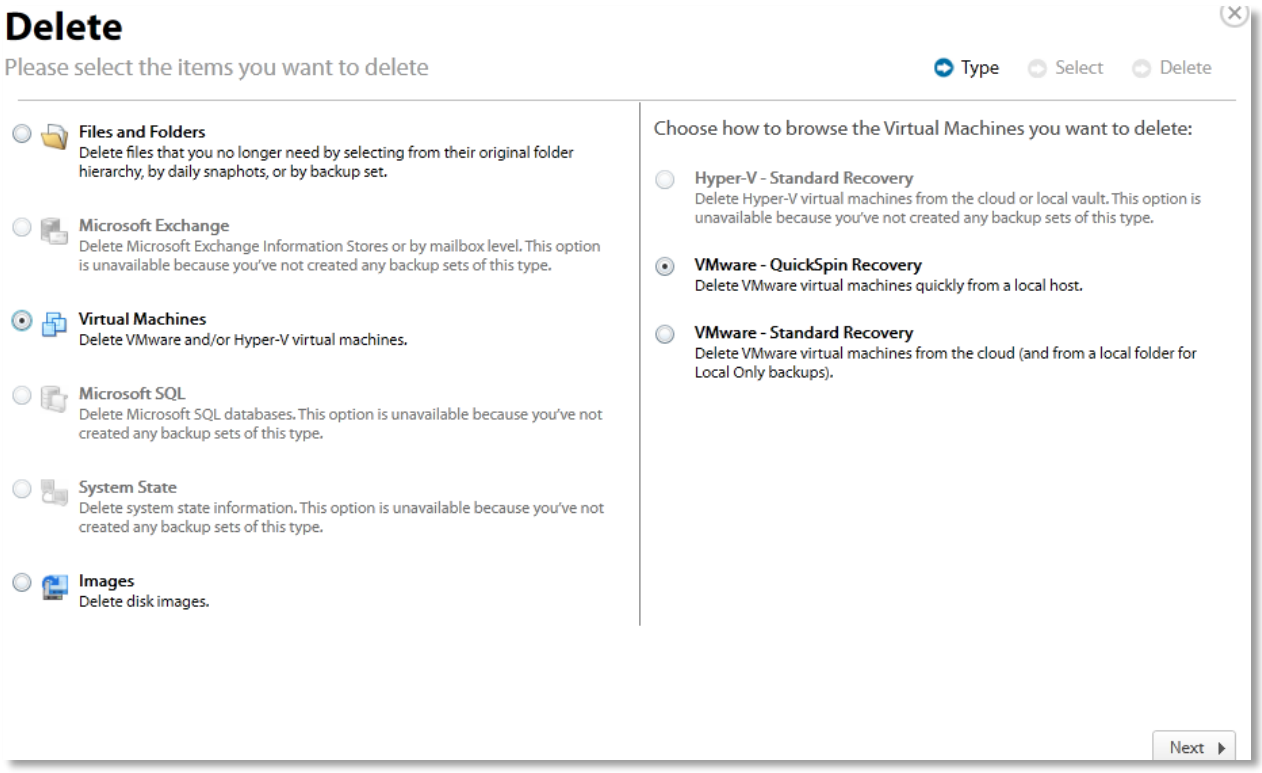
2. Select the Delete tab. The Your Deletes page is displayed.



3. Select the **Delete Data** button. The Delete Type page is displayed.

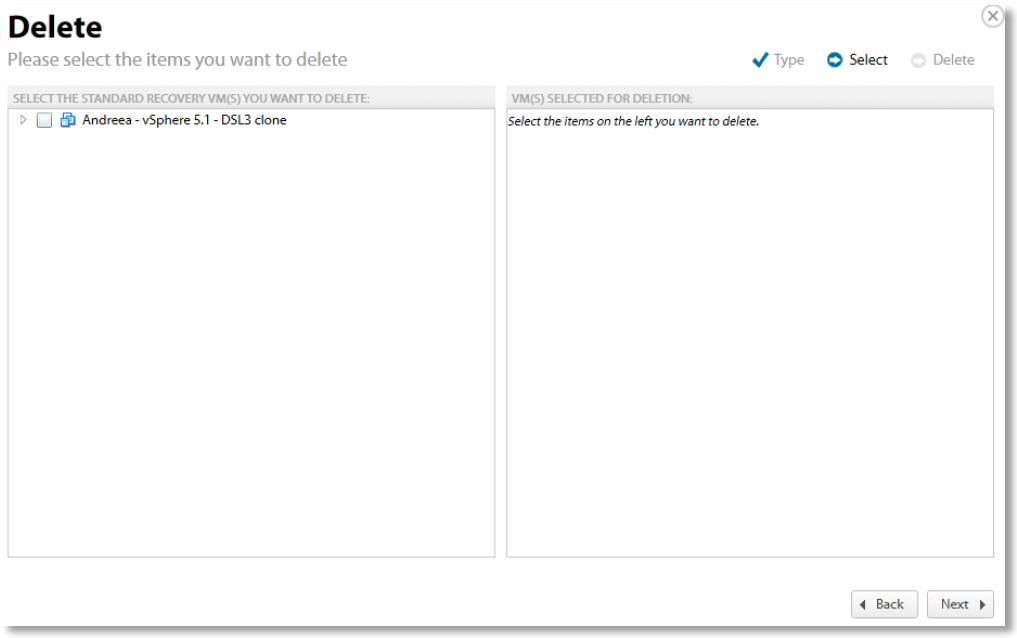


4. Select the **Virtual Machines** radio button. The Virtual Machine options are displayed in the right panel.



5. Select the **VMware Standard Recovery** radio button, and then click **Next**.

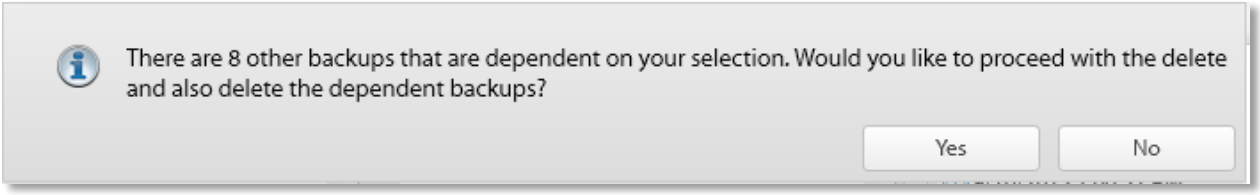
The Virtual Machines are displayed.



6. Select the virtual machines you want to delete. The selected virtual machines are displayed in the right panel of the screen.

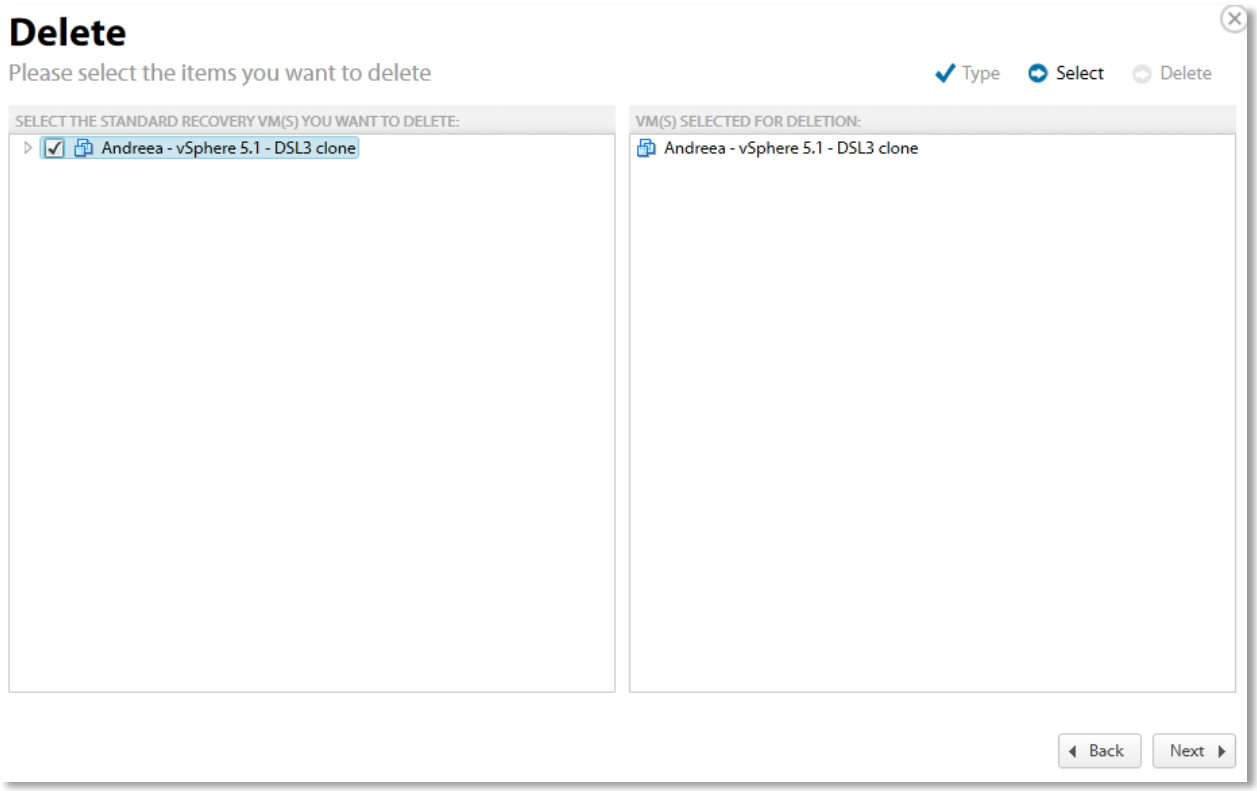
Note: If you click the arrow button next to the VM, a list of revisions are displayed. You can choose to delete specific revisions instead of the entire VM.

If you select certain revisions to delete that other revisions (not currently selected for deletion) are dependent on, the following message is displayed.

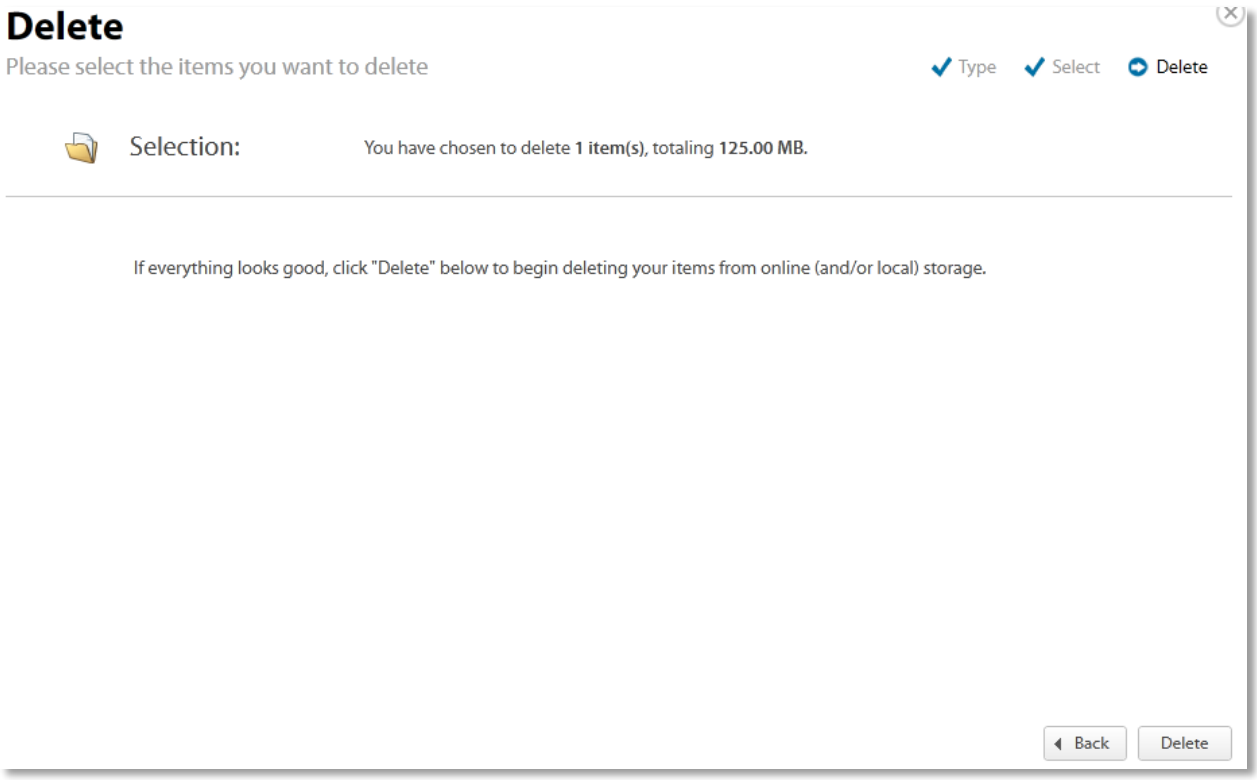


If you select **Yes**, the dependent backups are also selected for deletion.

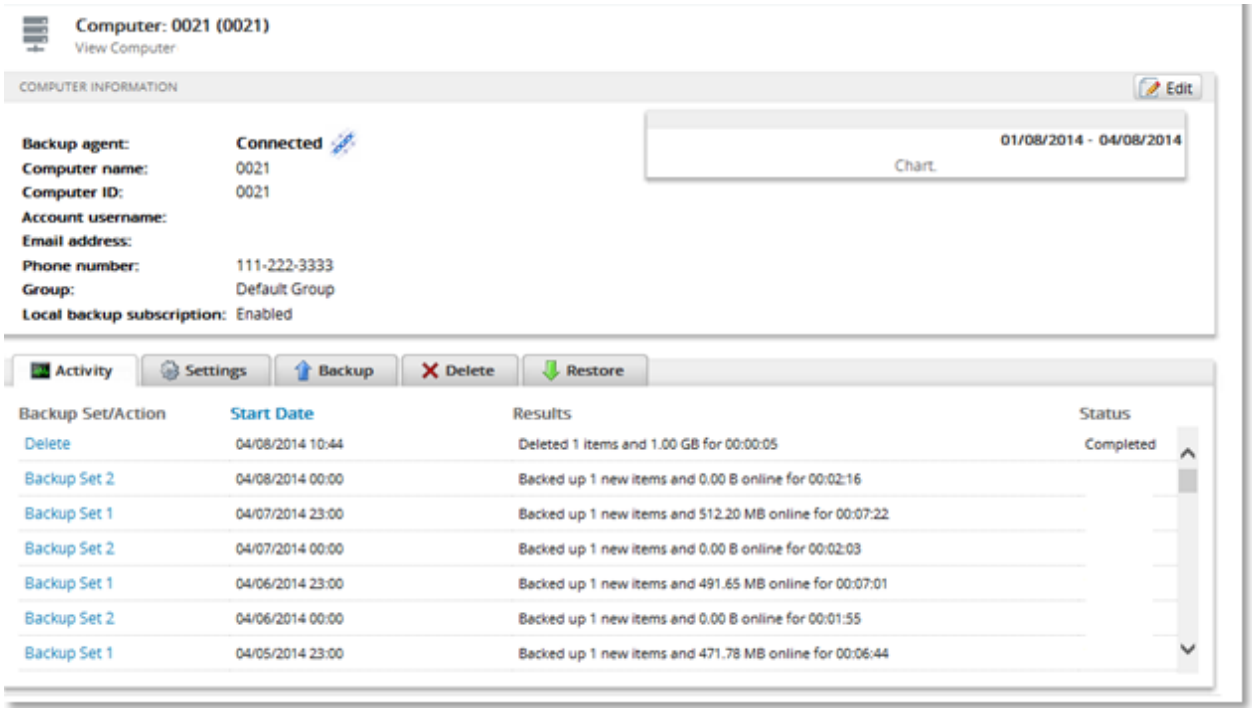
If you select **No**, nothing is changed. The message is displayed until selections are made that have no dependent revisions.



7. After making your selections, click **Next**. The Delete Confirmation page is displayed.



8. Confirm your selection, and then click **Delete**. The Activity Page is displayed with the latest Delete.



VMware QuickSpin Backup and Restore

This section includes the following topics:

- About QuickSpin Backups
- Creating QuickSpin Backups
- Restoring QuickSpin Backups
- Deleting QuickSpin Backups

About QuickSpin Backups

VMware QuickSpin extends VM backup ability to allow you to spin up a standby virtual machine onsite in a matter of minutes in case of a failure with your primary servers.

The VMware QuickSpin backup replicates the source VM data to a standby VM on another host. You need to select the Destination Host and the Datastore that is hosting the recovery VMs.

When the backup runs, the recovery VM is updated so the standby VM is always up-to-date as of the latest backup. Whatever has changed between the last backup and the current backup is then stored in the local storage that you selected.

QuickSpin restores are very simple, partially because the recovery VMs are standing by locally at the customer's site, ready to be started to replace their disabled production counterparts.

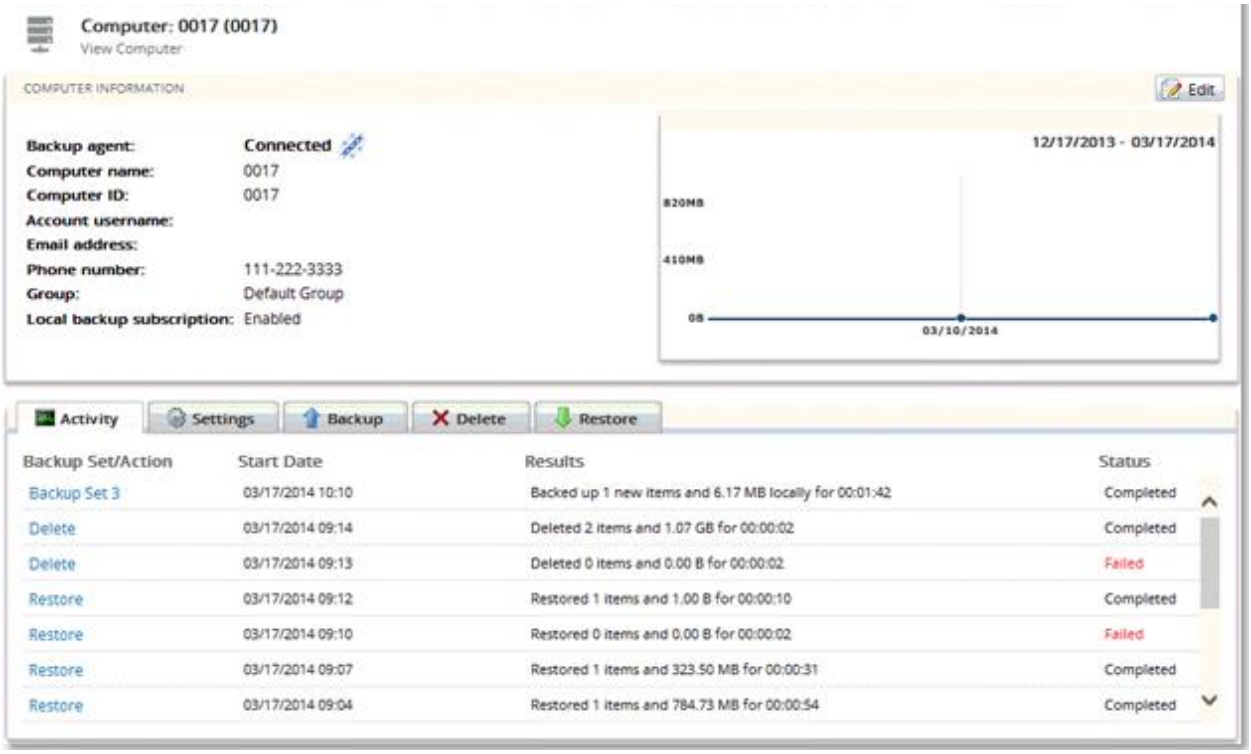
QuickSpin Licensing

License fees for QuickSpin are charged per host. For example, if backup 1 VM is on a host then a fee is charged for a license for that host. If you backup a VM from another host, there is a fee charged for another license. You can back up as many VMs on the host as you would like.

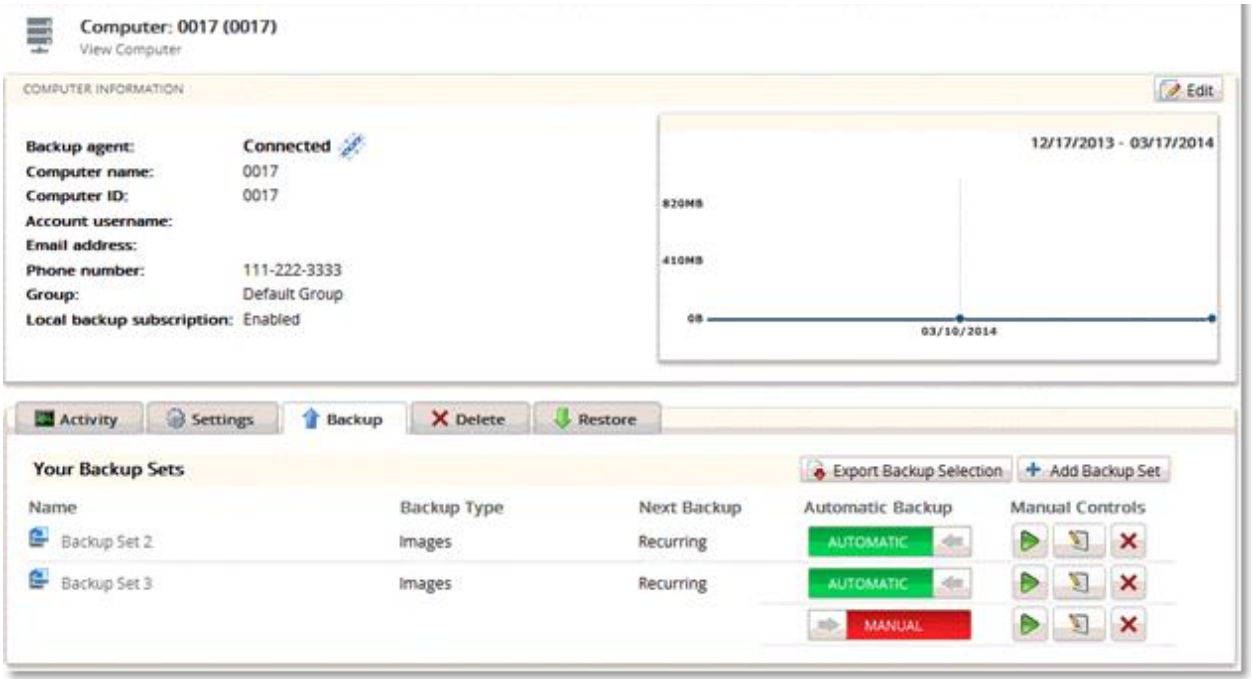
Creating QuickSpin Backups

To create a VMware QuickSpin backup, perform the following steps.

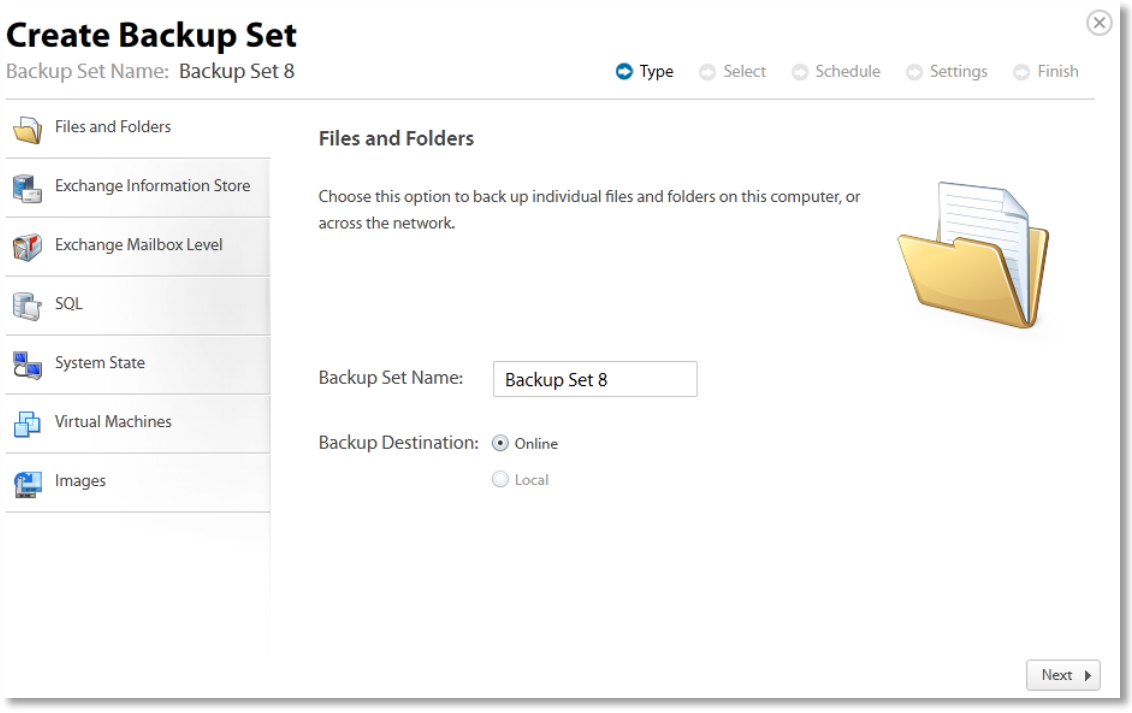
1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions. The Computer page is displayed.



2. Click the **Backup** tab. The Your Backup Sets section is displayed.

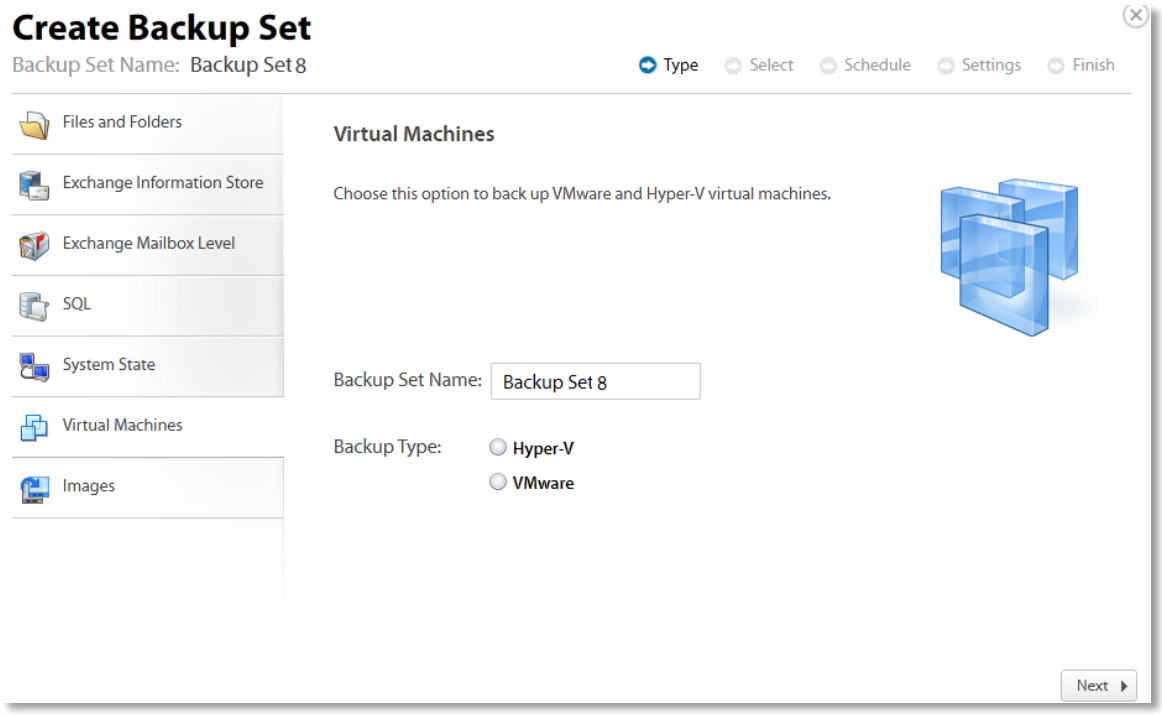


3. Click the **Add Backup Set** button. The Create Backup Set Files and Folders page is displayed.

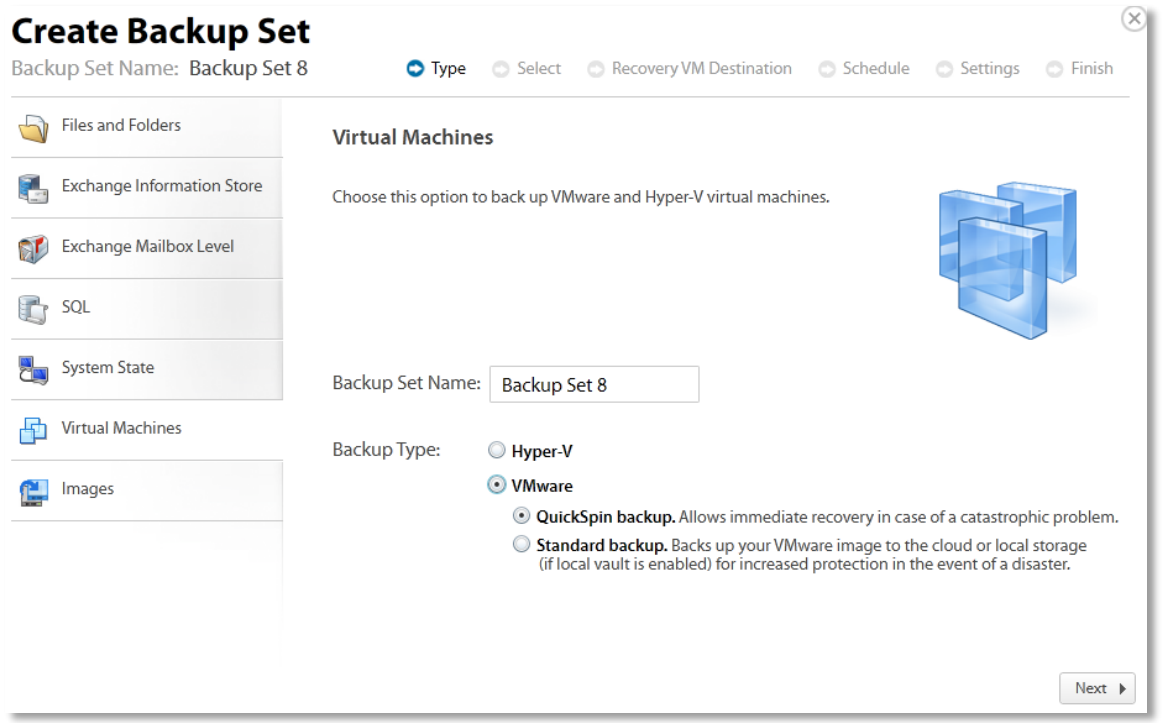


4. Click Virtual Machines.

The VMware Backup types are displayed.

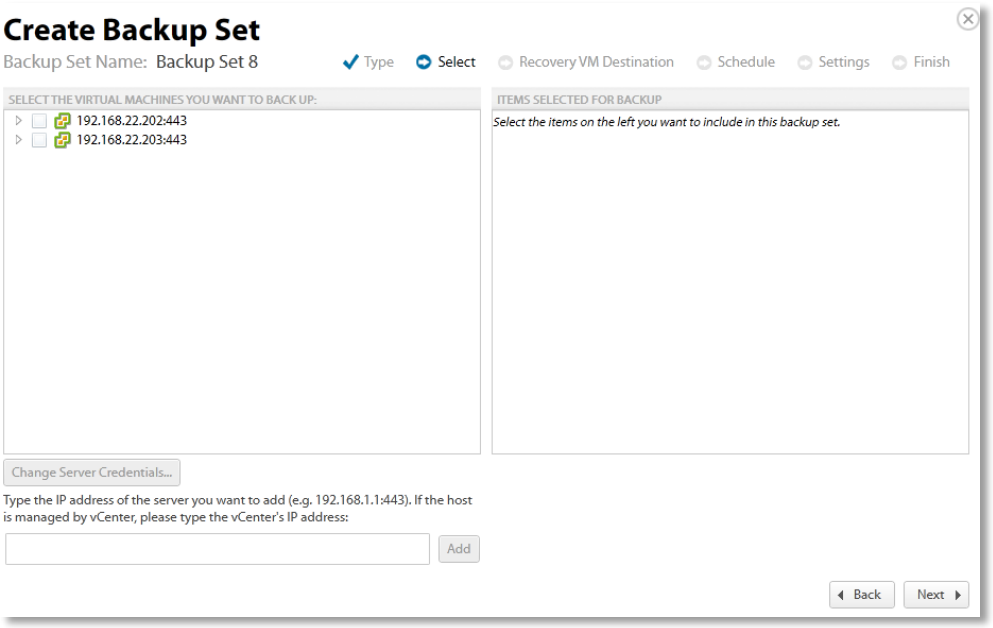


5. Click the **VMware** radio button. The Create Backup Set Virtual Machines page is displayed with QuickSpin selected by default.

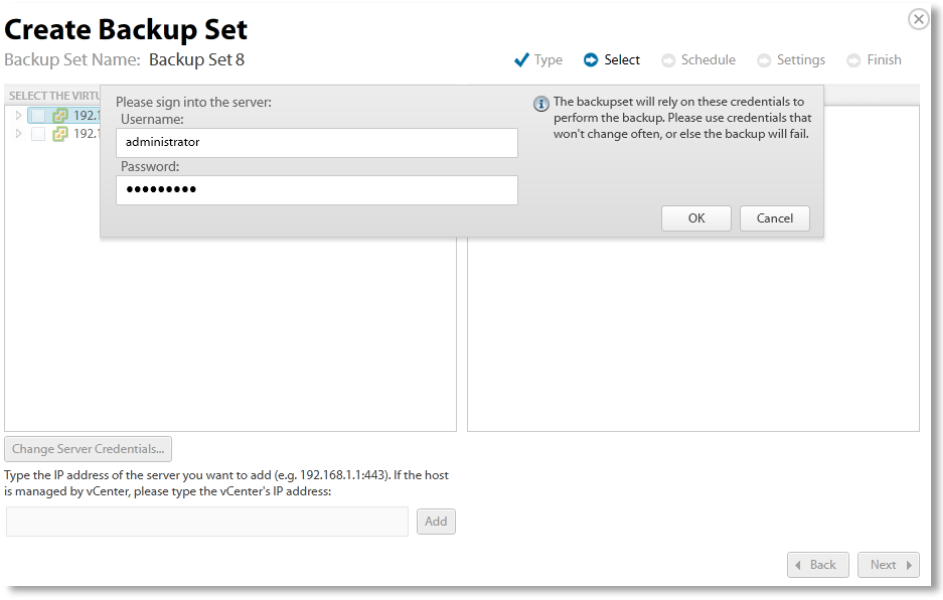


6. Click **Next**.

The Virtual Machine hosts are displayed.



7. Select the host to display the virtual machines. The Change Server Credentials button is activated.
8. To change server credentials, click the **Change Server Credentials** button. The Credentials pop up is displayed.

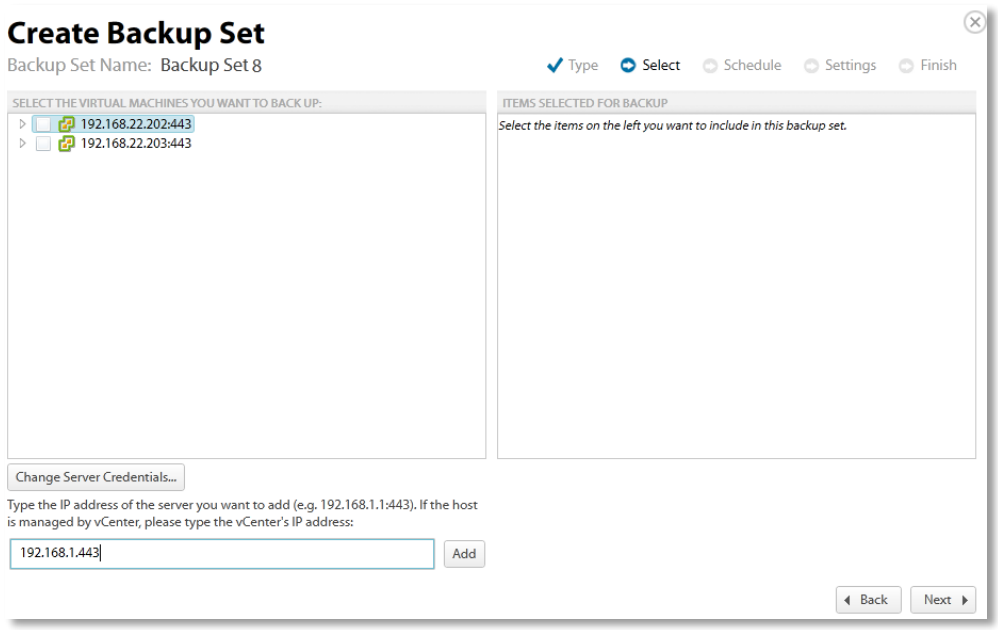


9. Make your changes and click **OK**.
10. To add a new server, type the IP address in the text box and then click the **Add** button.

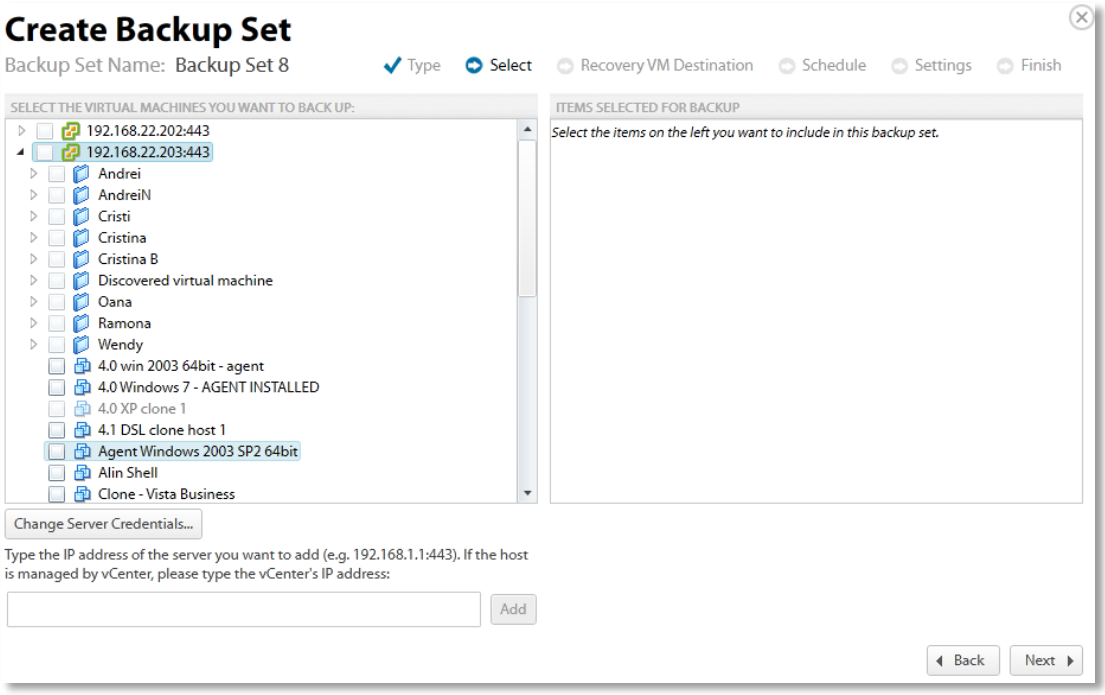
Note: You can authenticate to an Unmanaged ESX host, a vCenter, or an ESX host managed to a vCenter.

If you authenticate to a managed host, the dialog is slightly different – it indicates that the host is managed and asks for the credentials for the vCenter.

The added server is displayed.



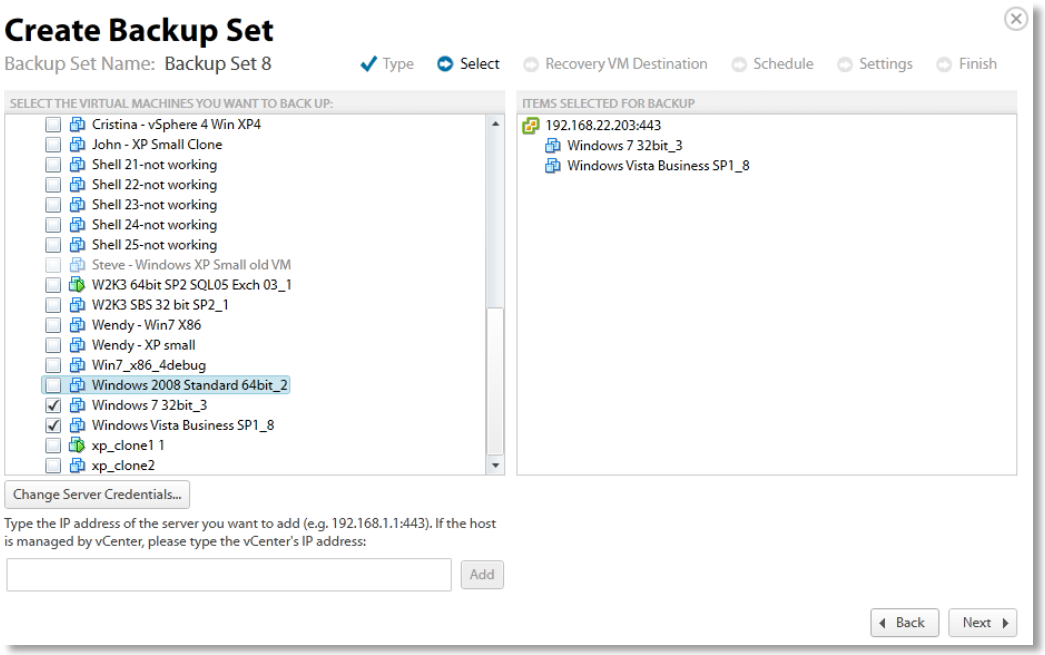
11. Double-click the host name. The virtual machines to be selected for backup are displayed.



12. Select the virtual machines to be backed up.

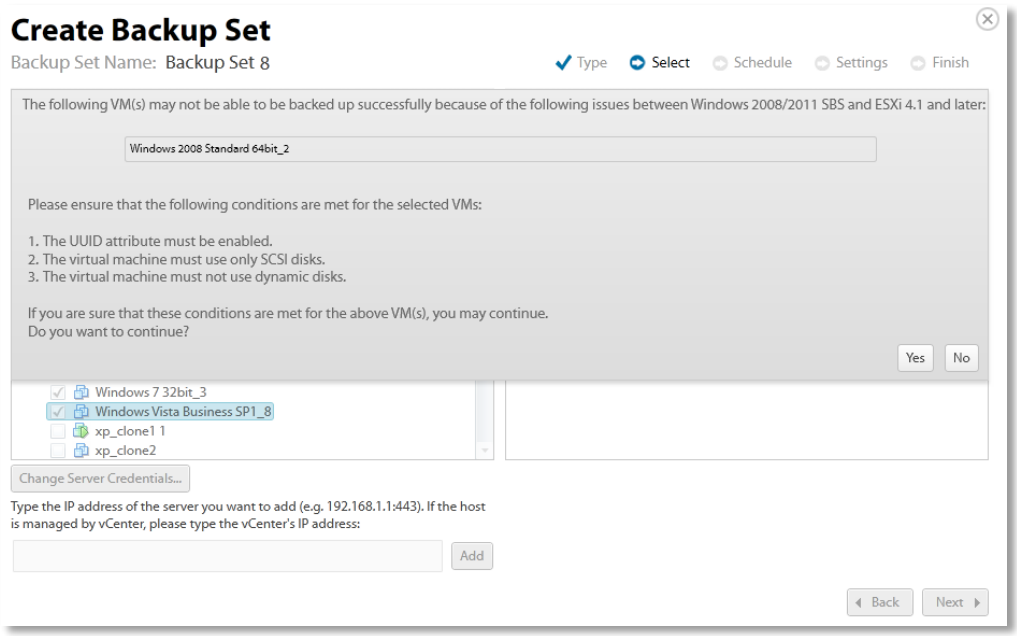
The selected virtual machines are displayed in the right panel of the screen.

Note: In the left panel, the green display indicates that the VM is powered on. VMs that are from older hosts or have older hardware levels are grayed out.

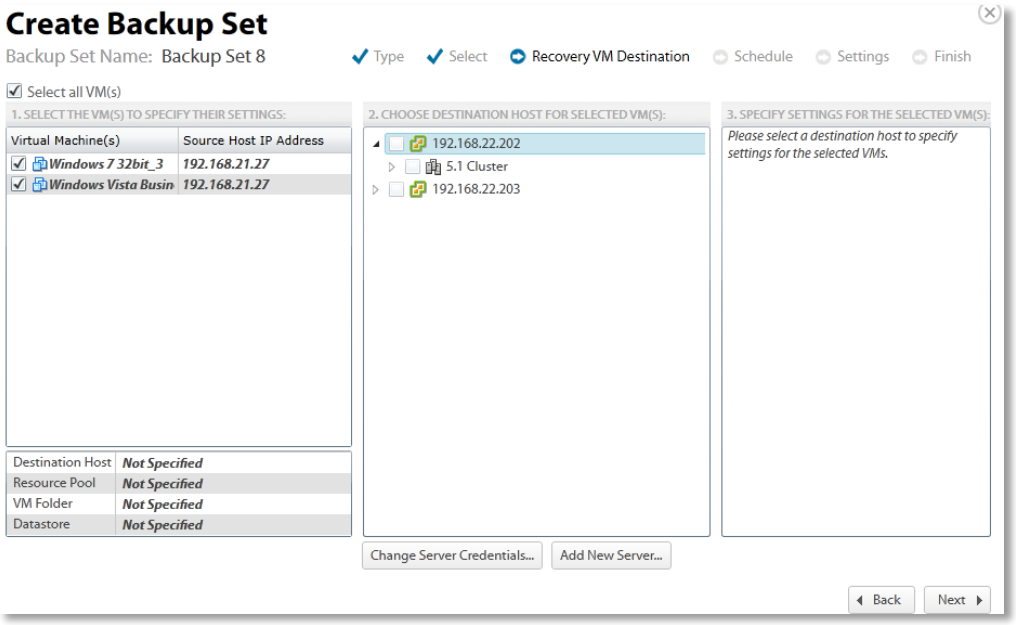


13. After making your selections, click **Next**.

Note: If you selected a VM that requires special considerations, the following message is displayed. Ensure that the conditions listed are met, before clicking **Yes**, or the VM may not back up.



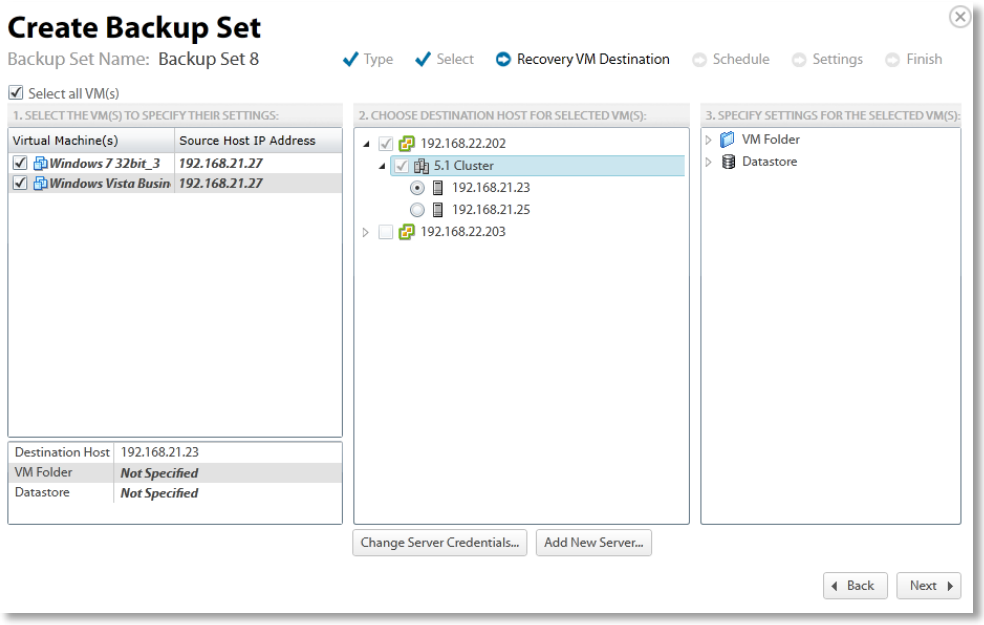
The Recovery VM Destination page is displayed.



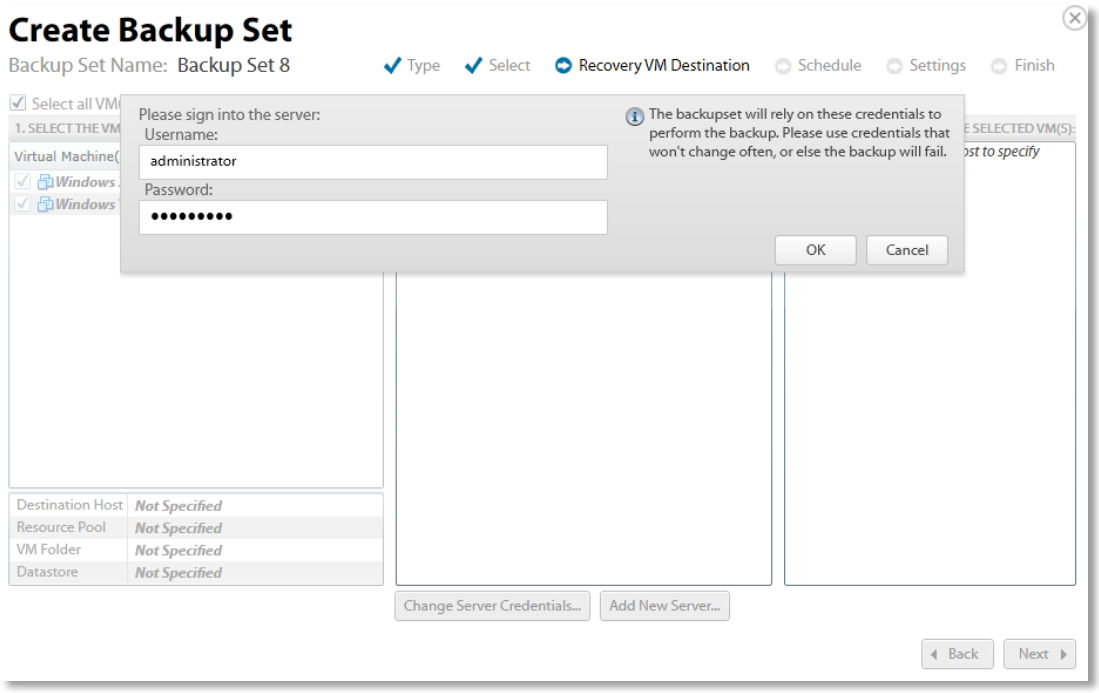
14. In the left panel, select the VMs for which you want to specify settings.

    Note: You can choose the settings for all, one, or some VM(s). With the VMs panel, you can select any number of VMs to edit. VMs that do not have all their settings selected display as **Bold** and *Italic*. Clicking the **Select all VM(s) check box** provides all VMs with the same settings. You also can set the destination for each individual VM.

15. In the center panel, select the host on which the recovery VMs should reside as shown in the example below.

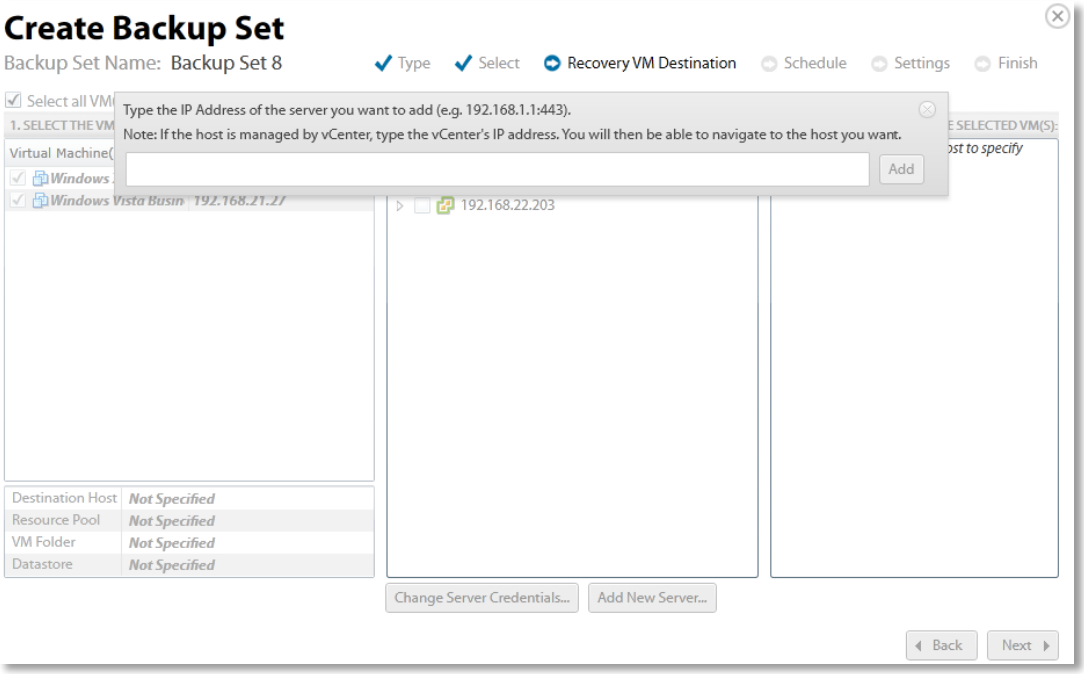


Optionally, click the **Change Server Credentials** button to change username and password.

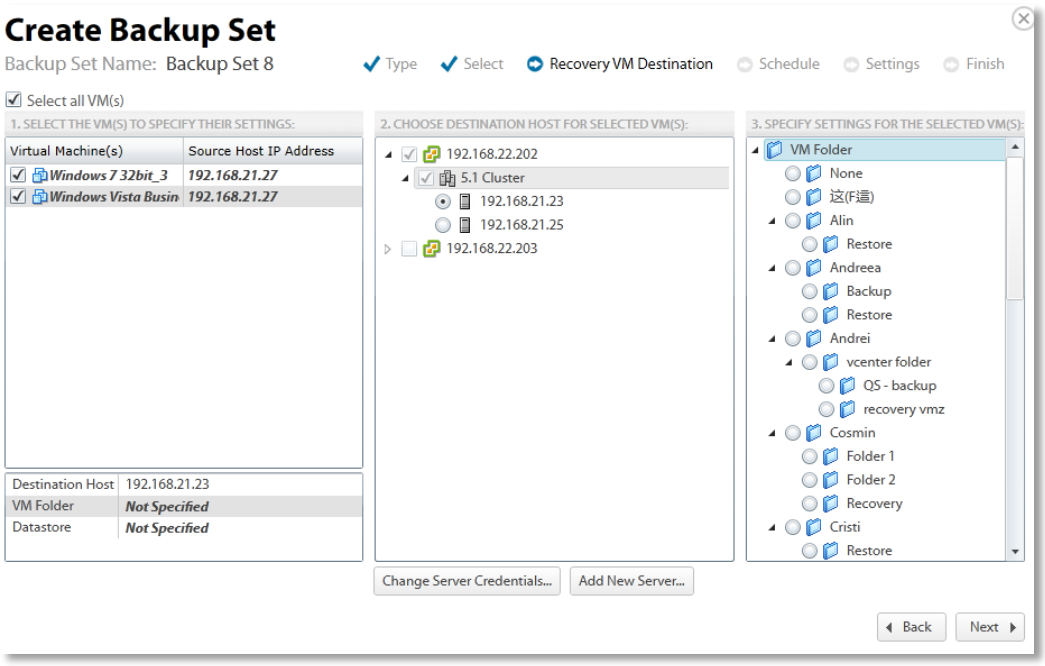


16. Change username and password, and then click **OK**.
17. Optionally, click the **Add New Server** button to add a new server.

The Add New Server popup is displayed.

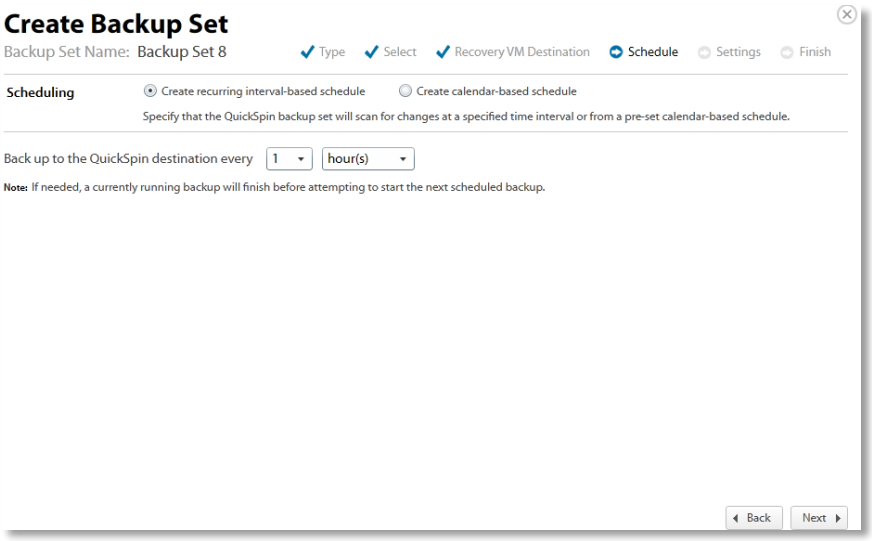


18. Type the IP address in the text box, and then click **Add**.
19. In the right panel, select the Resource Pool, VM Folder, and Datastore for the selected VMs as shown in the example below.



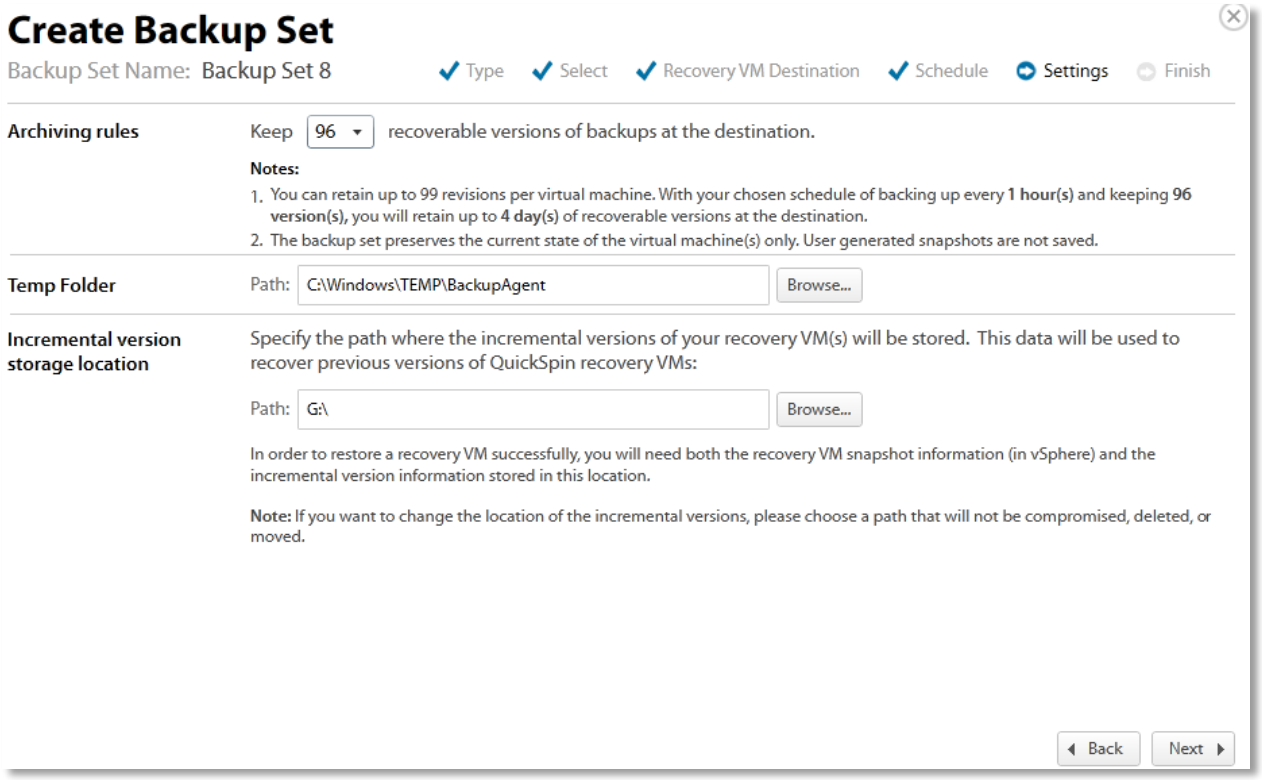
20. Click **Next**.

The Create Backup Set Schedule page is displayed. See *About Scheduling Backups* for more information.



21. Select the schedule for your backup, and then click **Next**.

The Create Backup Set Settings page is displayed.



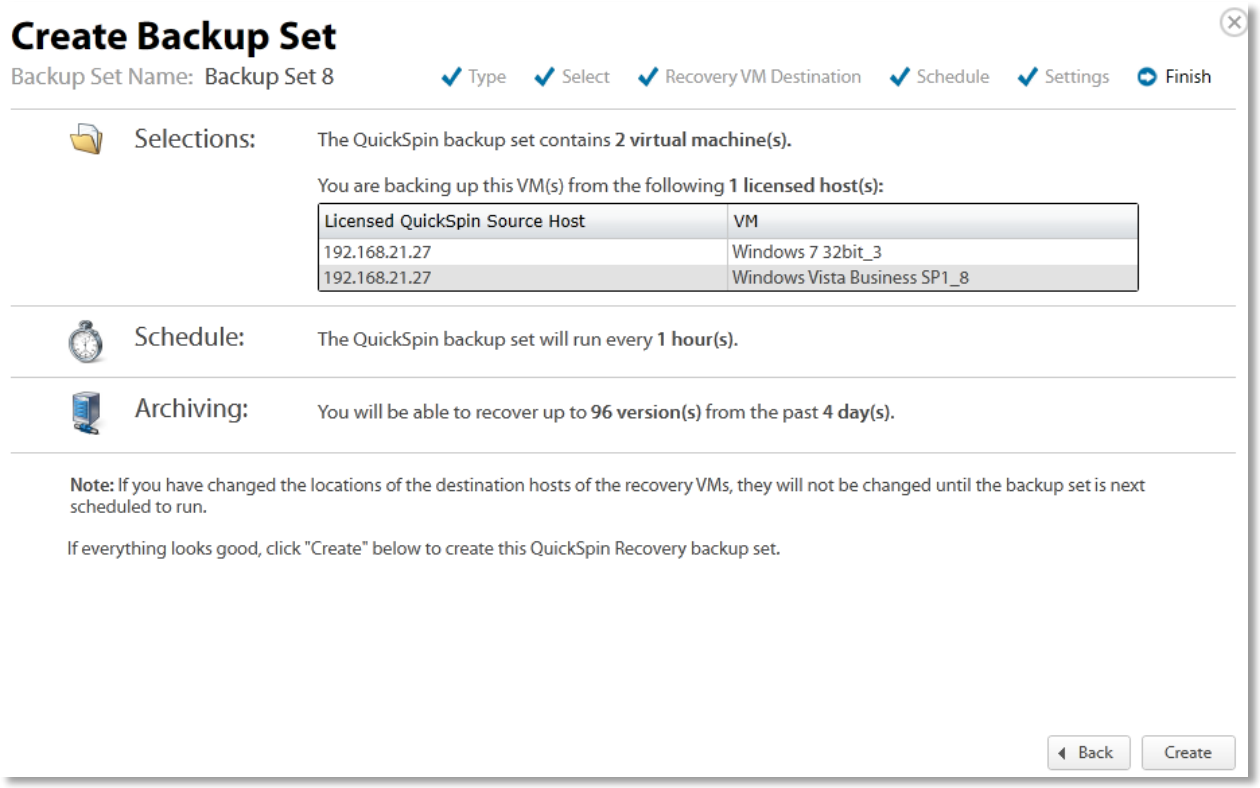
22. Select the archiving rules setting and temporary folder destination.

    See *Archiving Rules* for more information.
    Note: 1 GB of temporary space is recommended for VMware Standard backups.

23. Browse to or type the incremental version storage location in the Path text box, and then click **Next**.

    Note: To restore a VM successfully, you need both the recovery VM snapshot information (in vSphere) and the incremental version information stored in this location. If you want to change the location of the incremental versions, choose a path that cannot be compromised, deleted, or moved.

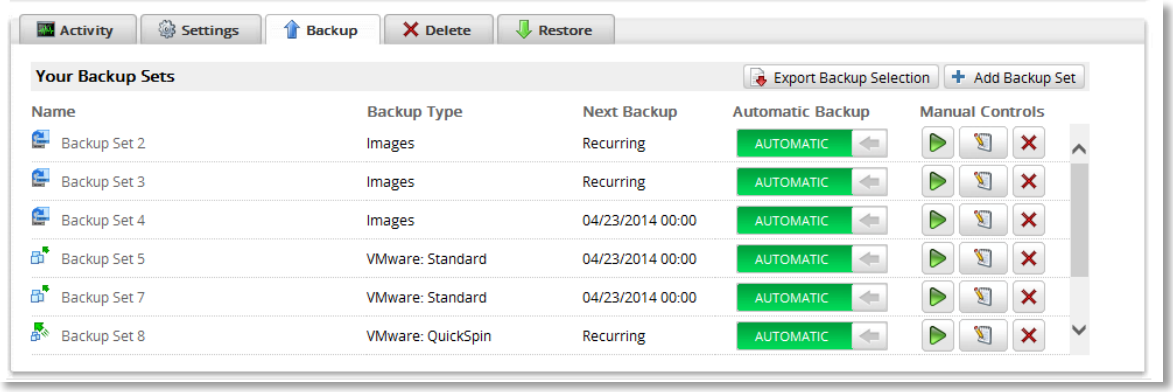
The Create Backup Set Confirmation page is displayed.



24. Verify your backup selections, and then click **Create**.

Note: If you added an unlicensed host and added a VM to backup, the message above would indicate that you would be charged a licensing fee. See *VMware QuickSpin Licensing* for more information.

The Your Backup Sets page is displayed with your current backup status.

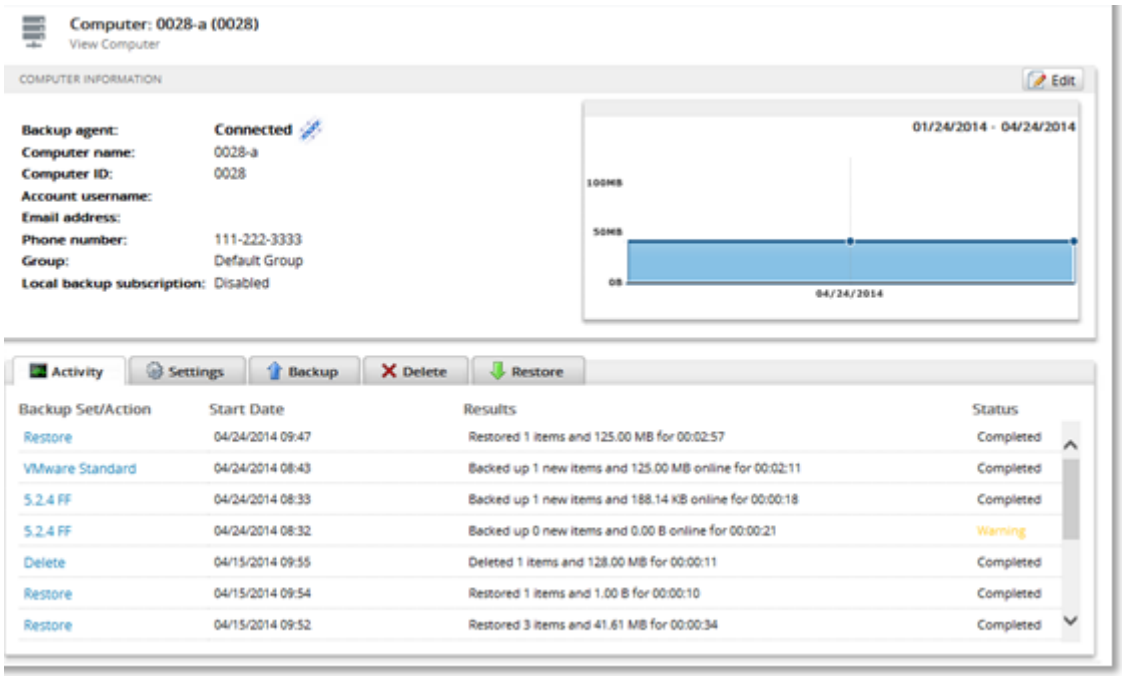


To manually run a backup set, click the green arrow (Play) button under Manual Controls. Also, note the next scheduled automatic backup run time.

Restoring QuickSpin Backups

To restore a VMware QuickSpin backup, perform the following steps.

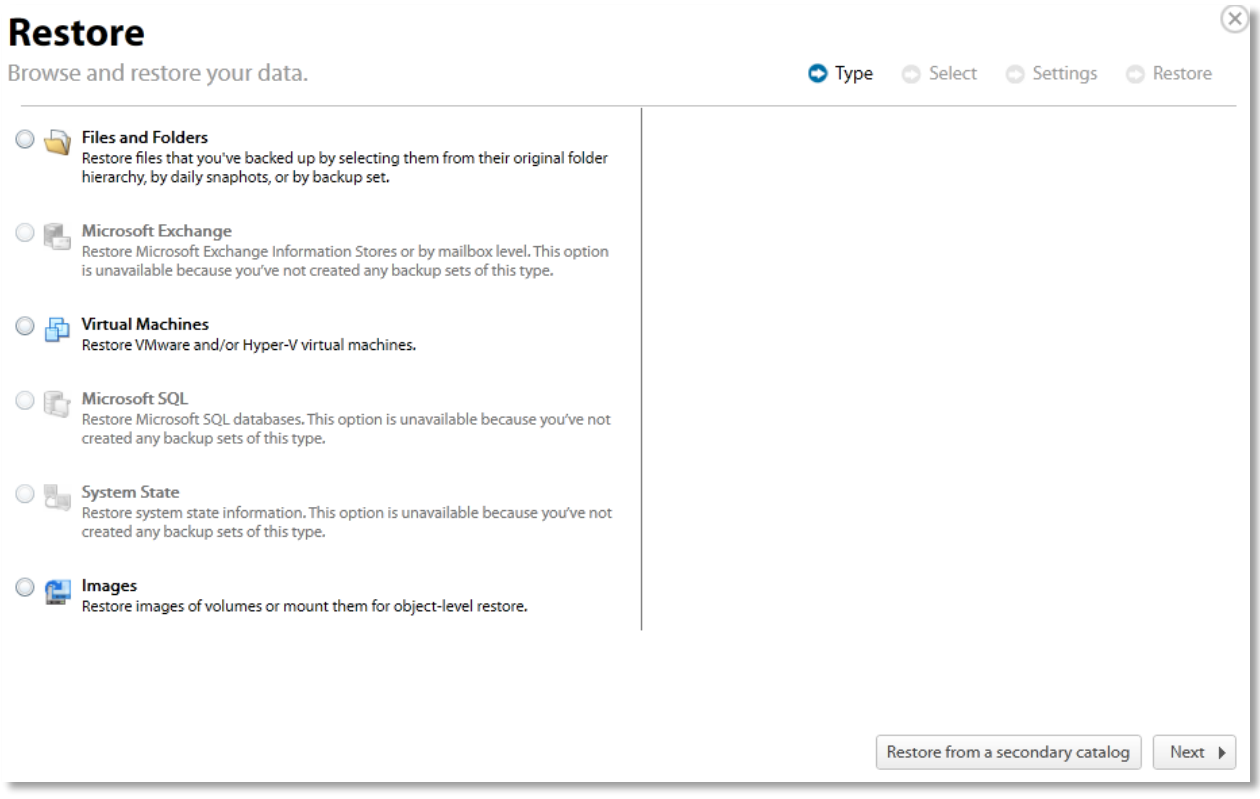
1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions. The Computer page is displayed.



2. Click the **Restore** tab.

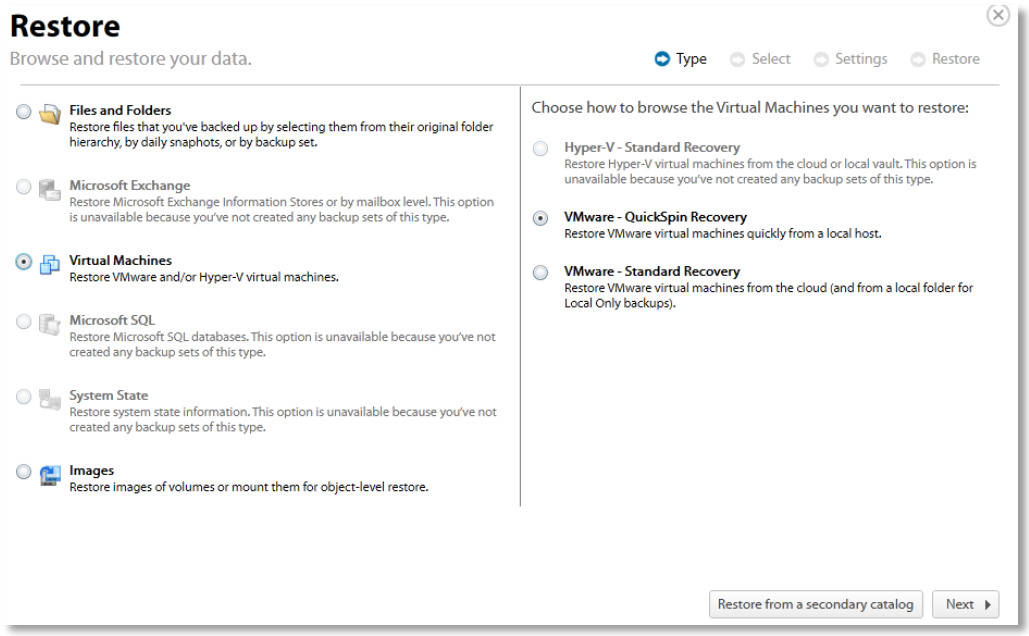
The Your Restores section is displayed.

3. Click the **Start a Restore** button. The Restore Type page is displayed.

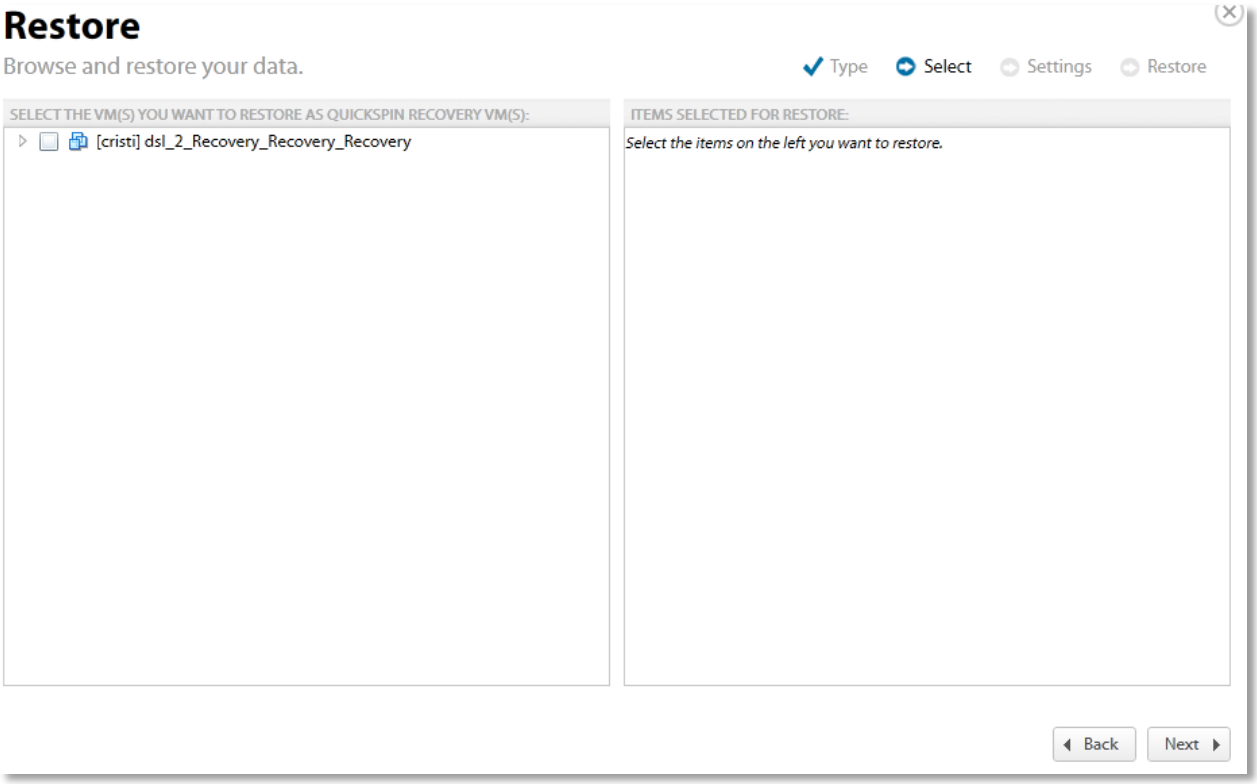


4. Select the **Virtual Machines** radio button.

The Virtual Machine restore types are displayed in the right panel.

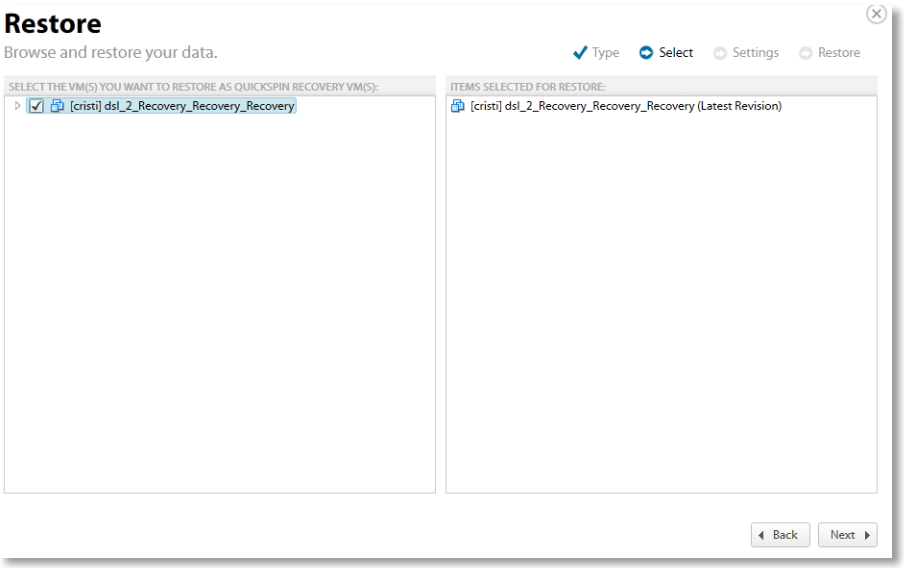


5. Select the **VMware QuickSpin Recovery** radio button, and then click **Next**. The virtual machines are displayed.

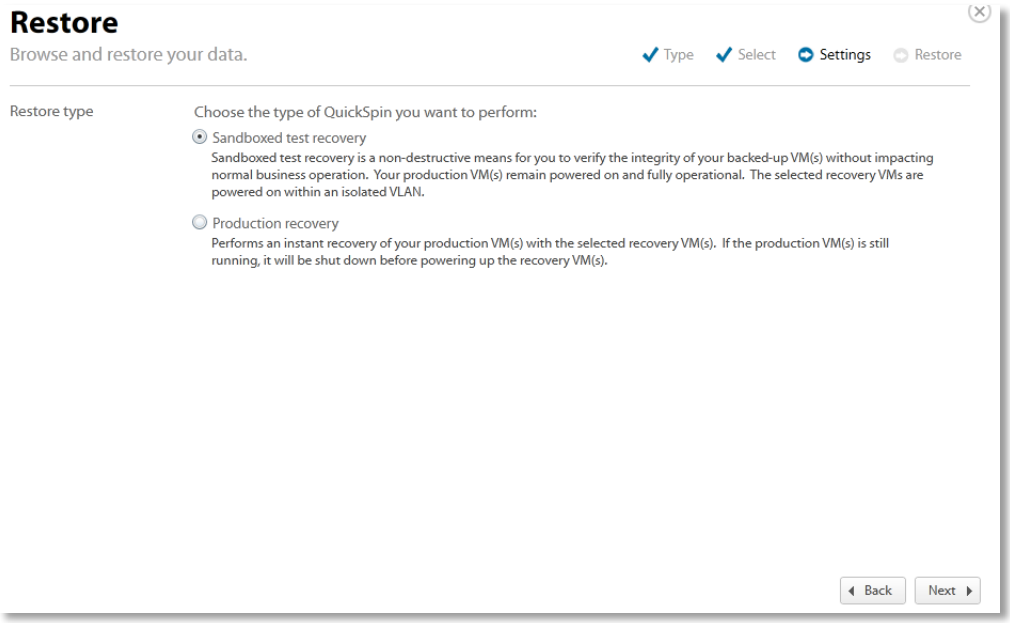


6. In the top left panel, double click the virtual machine to display the revisions, and then select the virtual machine revision radio button you want to restore.

Your selection is displayed in the right panel.



7. After making your selections, click **Next**. The Restore Settings page is displayed.



8. Select a Restore type radio button.

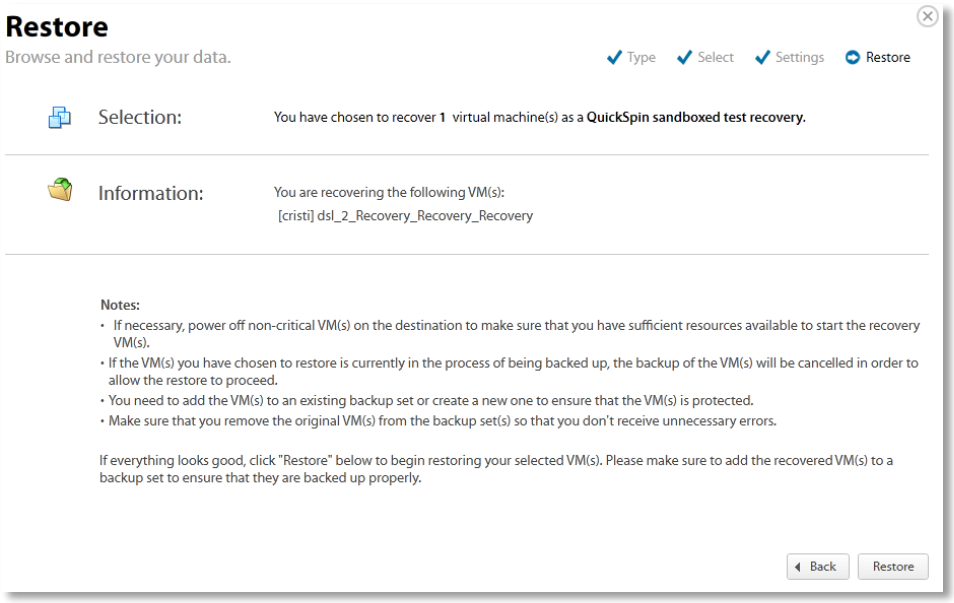
If you select **Sandboxed test recovery** (default option):

- The source/production VMs are not shut down.
- The recovery VMs selected are started on their own separate VLAN to avoid conflicts with the production VMs.
- Backups to the recovery VMs do not continue as long as the recovery VMs are powered on.

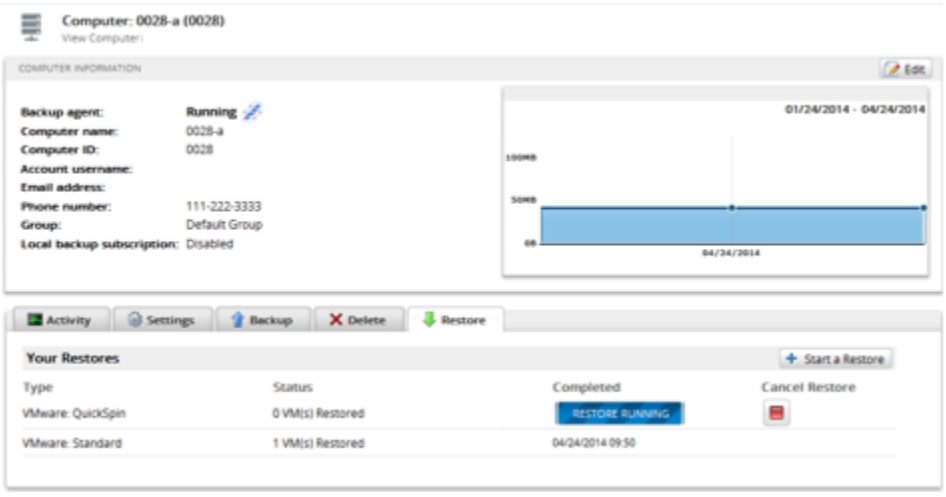
If you select **Production recovery**:

- The source/production VMs are shut down.
- The recovery VMs selected are started on using the production network. They will assume the role of the original production VMs.
- Backups to the recovery VMs will not continue as long as the recovery VMs are powered on.

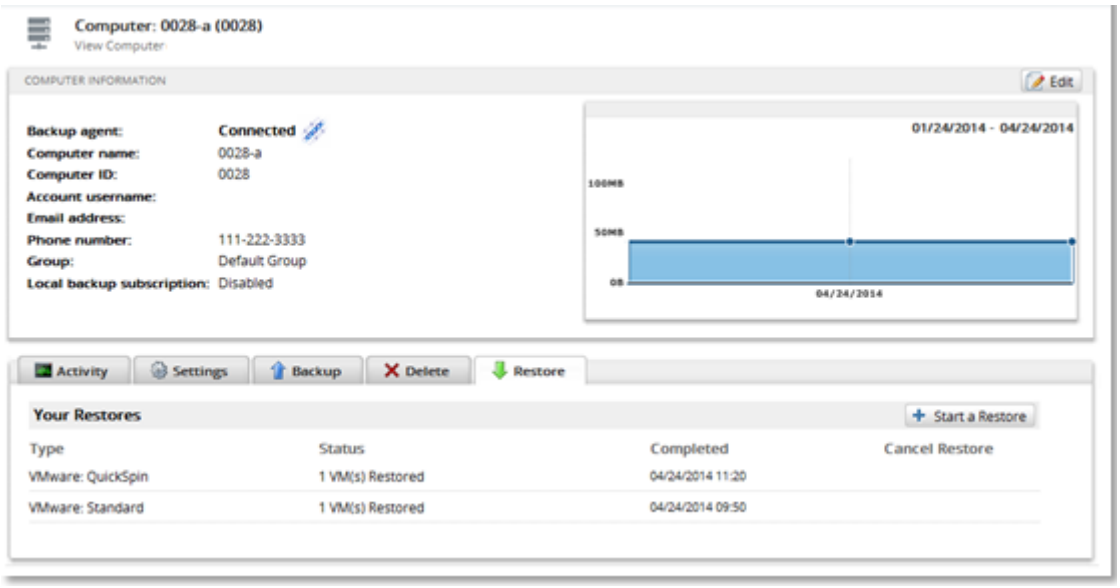
9. After making your selections, click **Next**. The Restore Confirmation page is displayed.



10. Verify your selections, and then click **Restore**. The Your Restores page is displayed showing status of the restore.



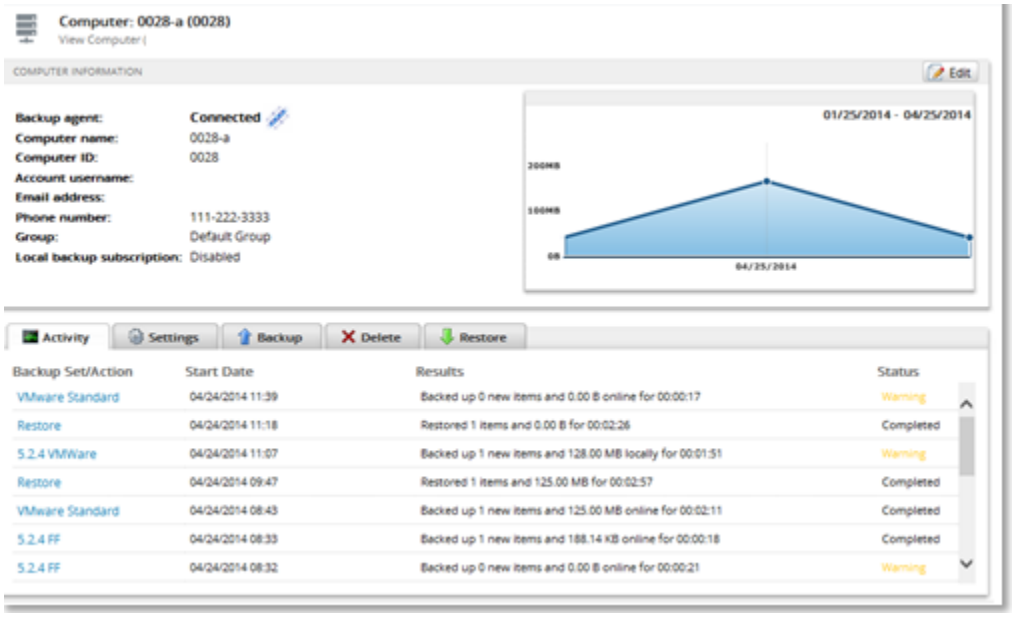
When the restore is complete, the final status is displayed as show below.



Deleting QuickSpin Backups

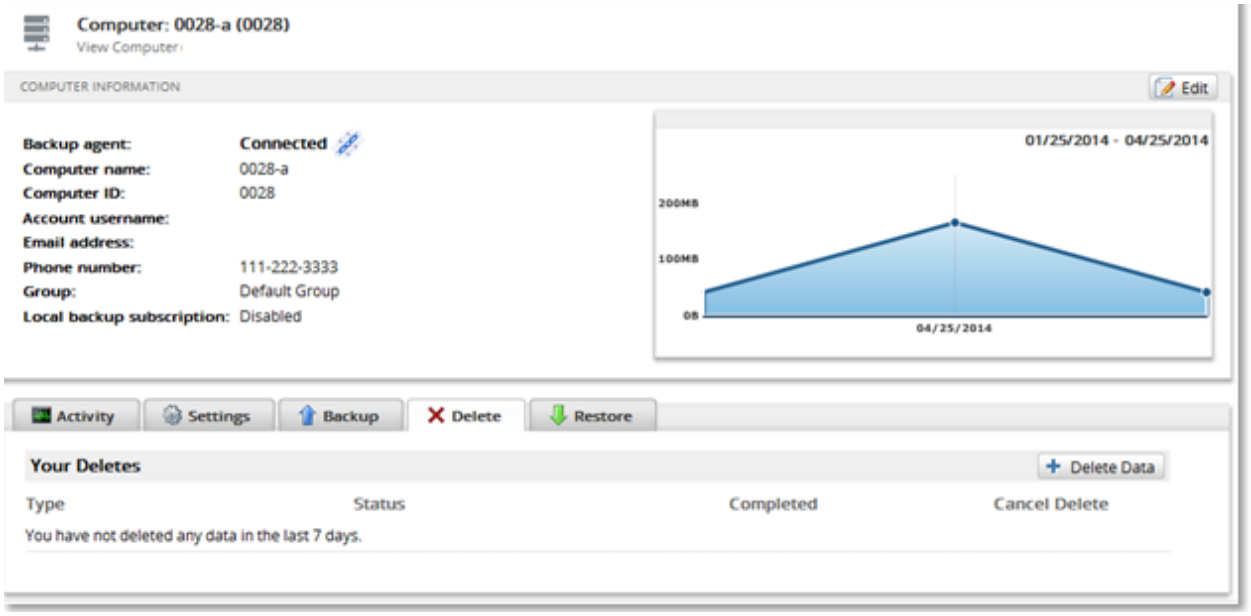
To delete a VMware QuickSpin backup, perform the following steps.

1. Navigate to the Computer Page. See *Navigate to the Computer Page* for instructions. The Computer page is displayed.

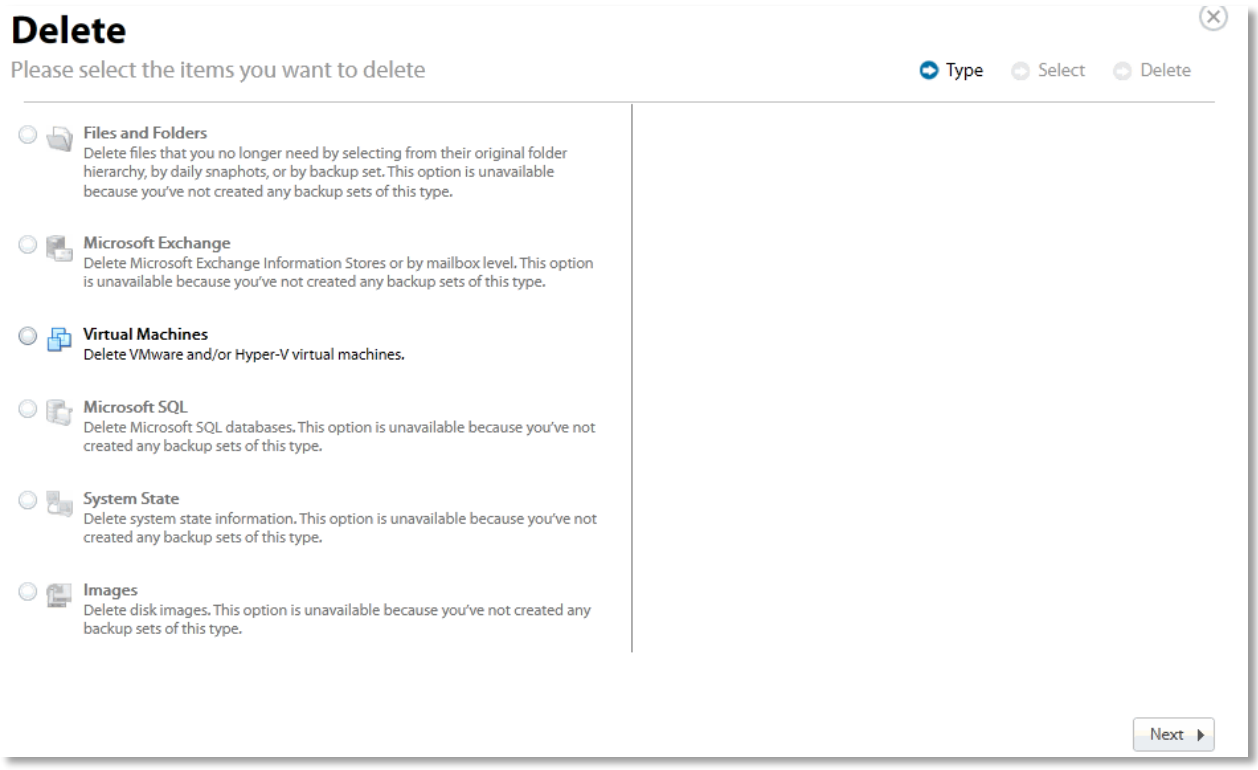


2. Select the Delete tab.

The Your Deletes page is displayed.

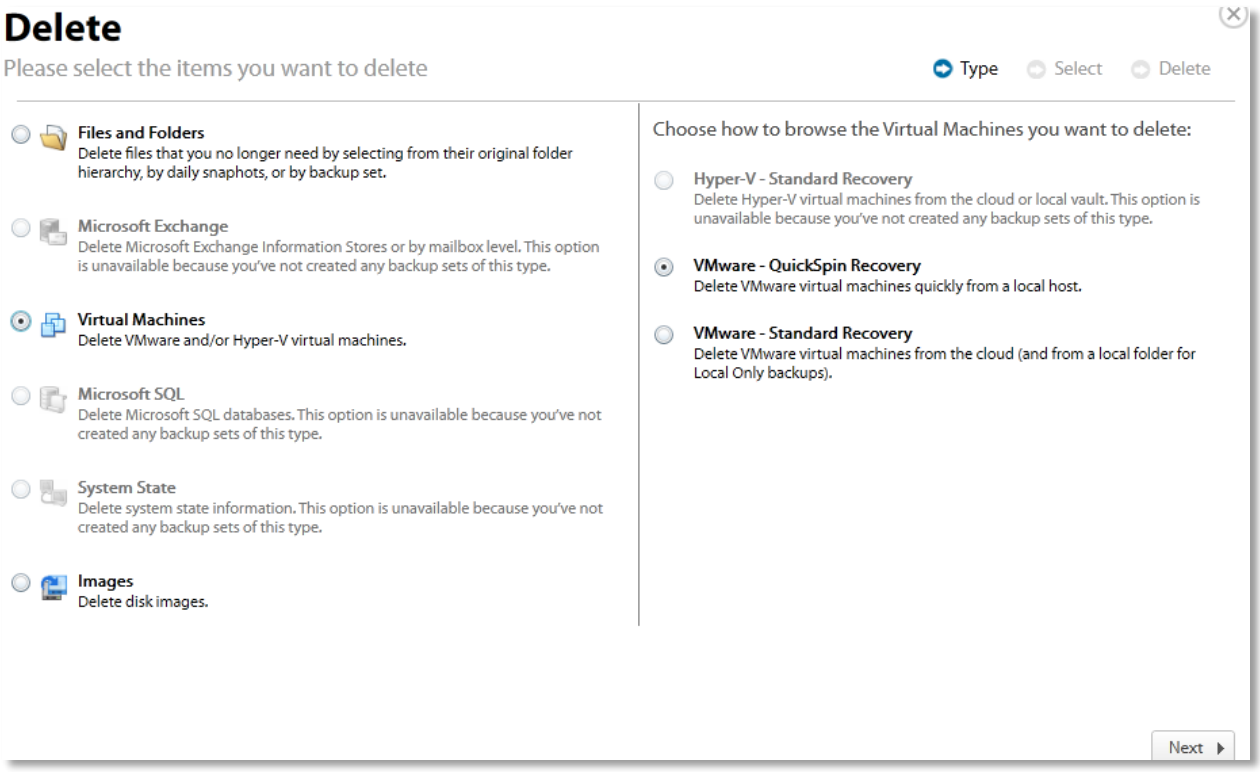


3. Select the **Delete Data** button. The Delete Type page is displayed.

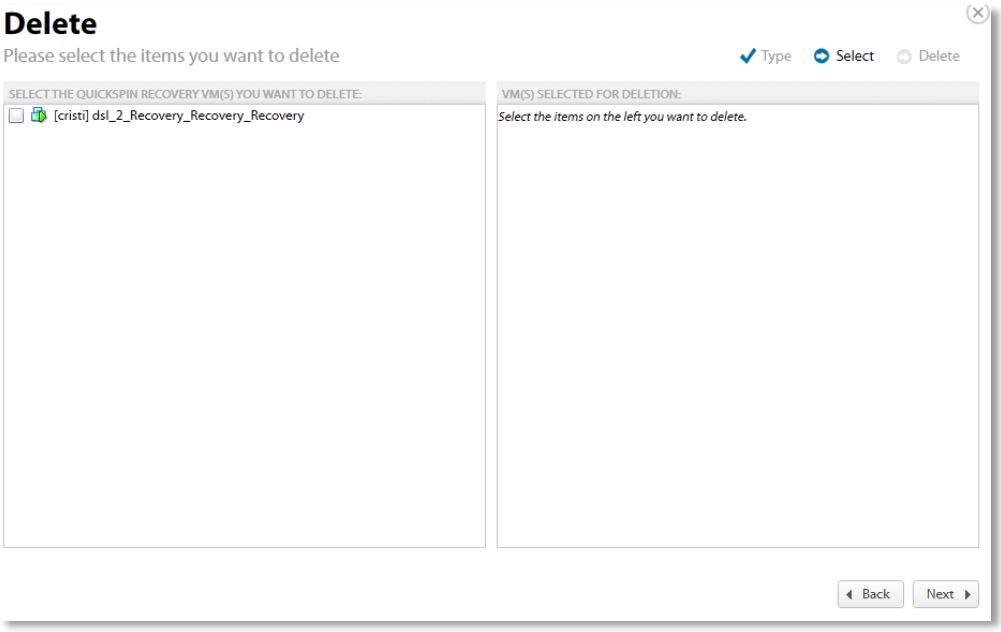


4. Select the **Virtual Machines** radio button.

The Virtual Machine options are displayed in the right panel.

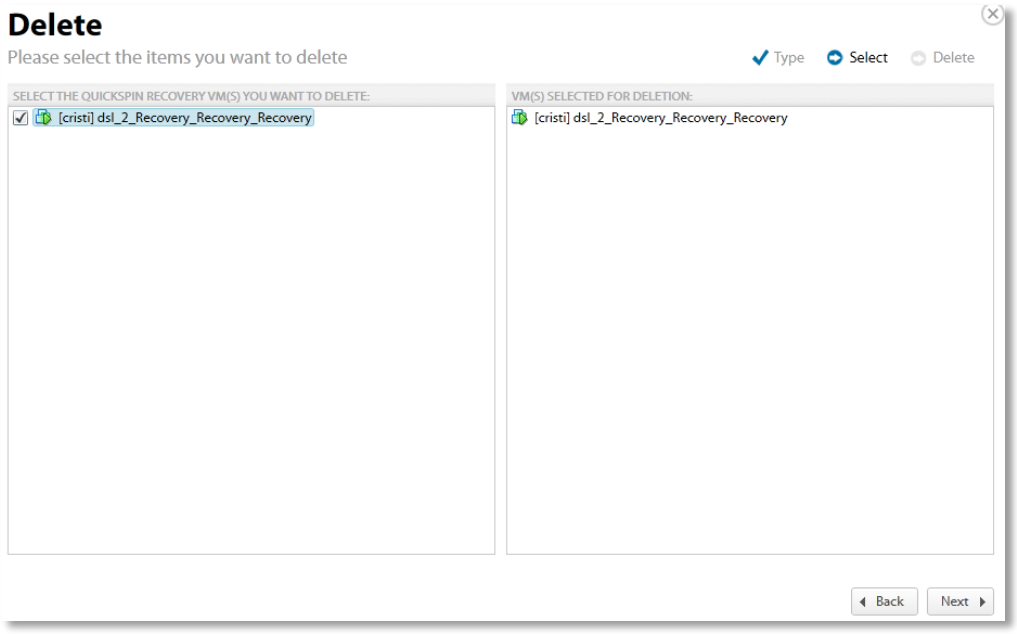


5. Select the **VMware QuickSpin Recovery** radio button, and then click **Next**. The Virtual Machines are displayed.

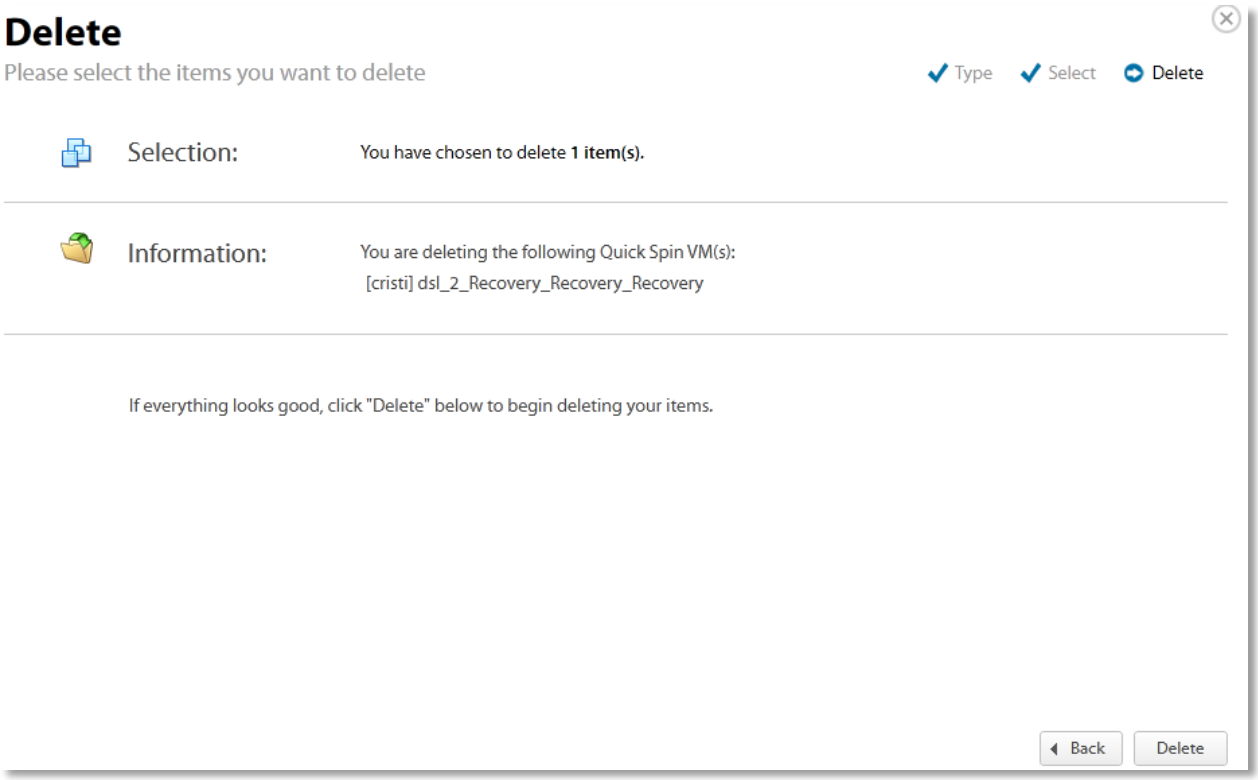


6. Select the virtual machines you want to delete.

The selected virtual machines are displayed in the right panel of the screen.

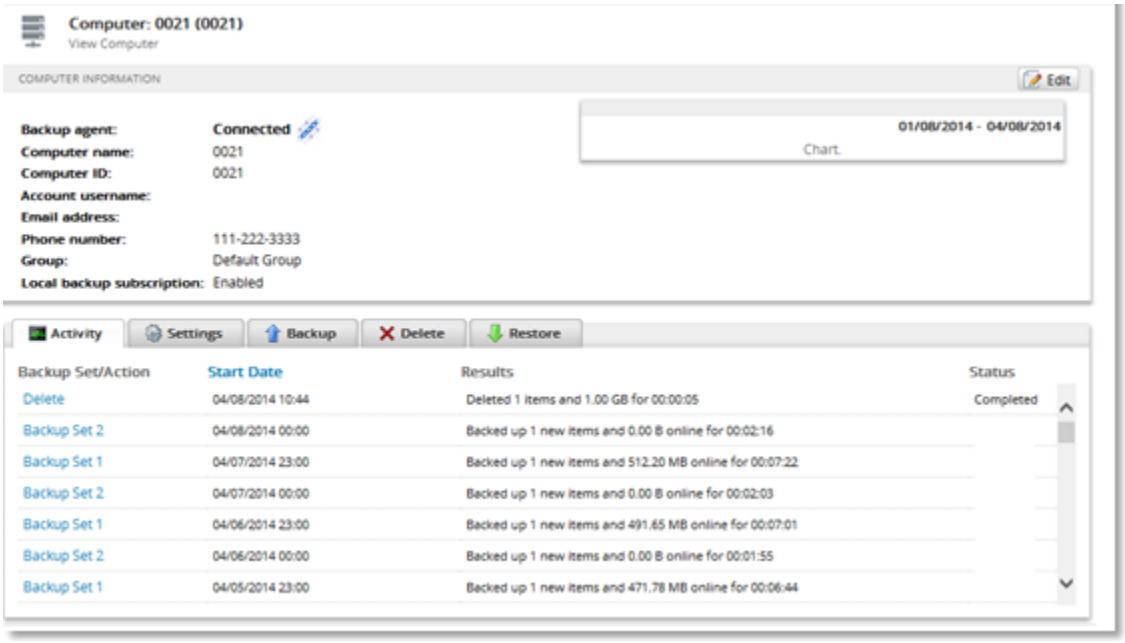


7. After making your selections, click **Next**. The Delete Confirmation page is displayed.



8. Confirm your selection, and then click **Delete**.

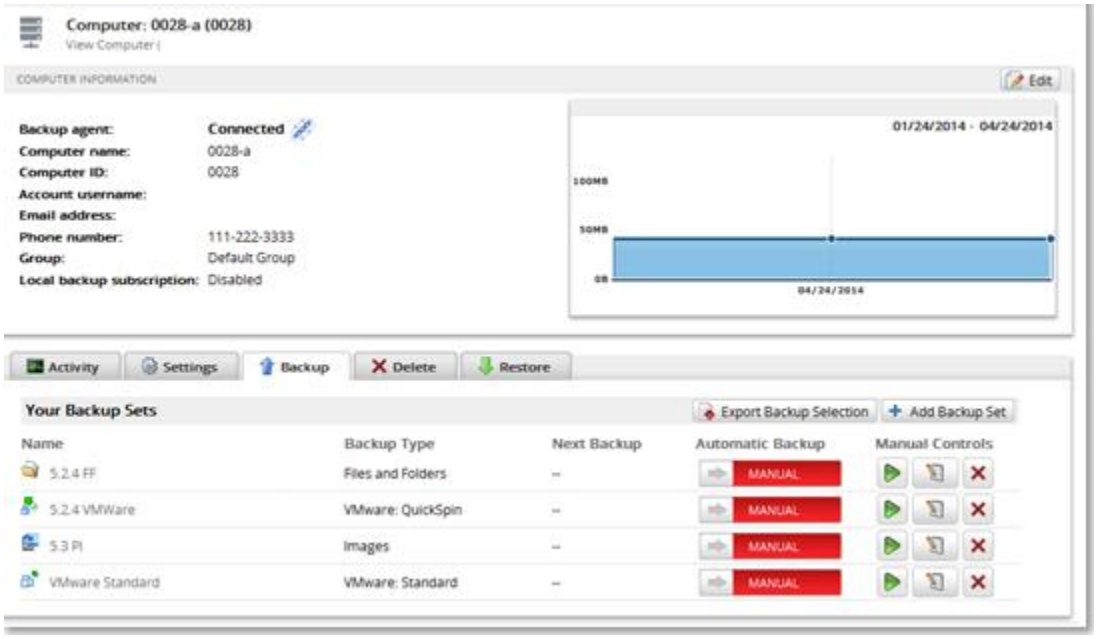
The Activity Page is displayed with the latest Delete.



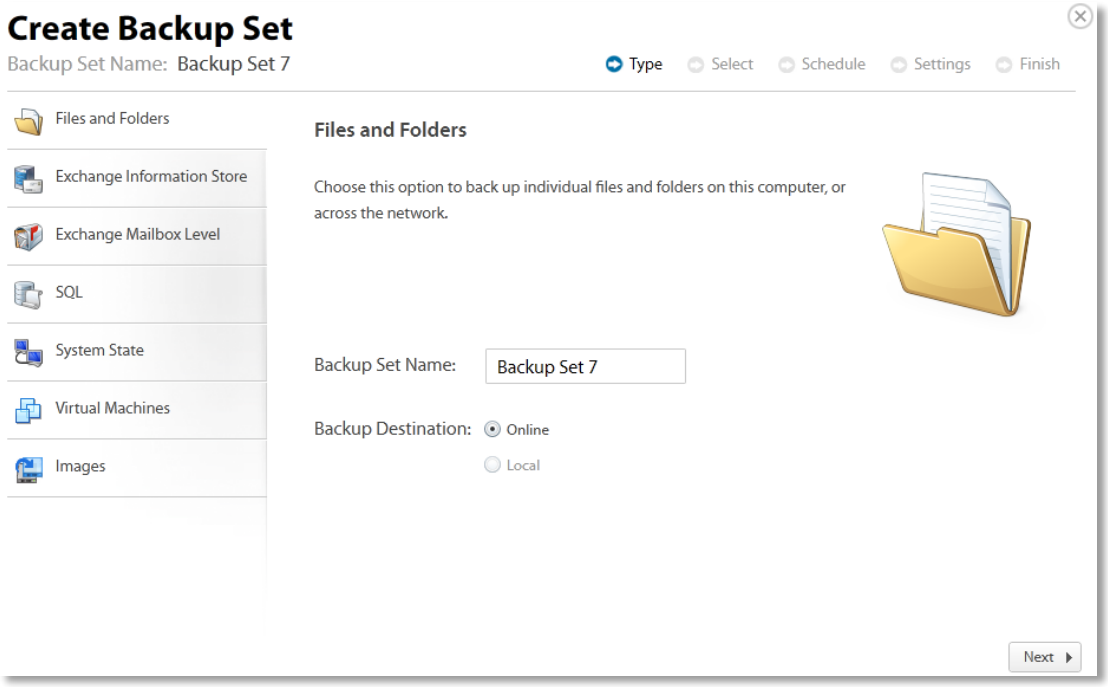
Chapter 3. **Editing Backup Sets**

To edit a backup set, perform the following step.

In the Manual Controls column at the Your Backup Sets section, select the edit icon of the backup set you want to edit.



The Edit Backup Set wizard is displayed. You can select the type of backup you want to edit from the left column.



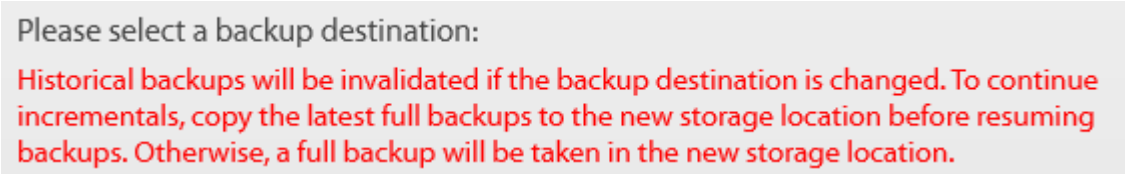
About Editing Backup Sets

The Edit Backup Set wizard is similar to the Create Backup Set wizard you used to originally create the set, so the steps are essentially the same. Note that you may encounter the following prompts:

- A backup destination has changed
- An Imaging source volume is no longer present
- A file or folder selected for backup is no longer found
- A QuickSpin host destination has changed
- A QuickSpin incremental version storage location has changed

A Backup Destination Has Changed

If you changed the backup destination, the following prompt is displayed.

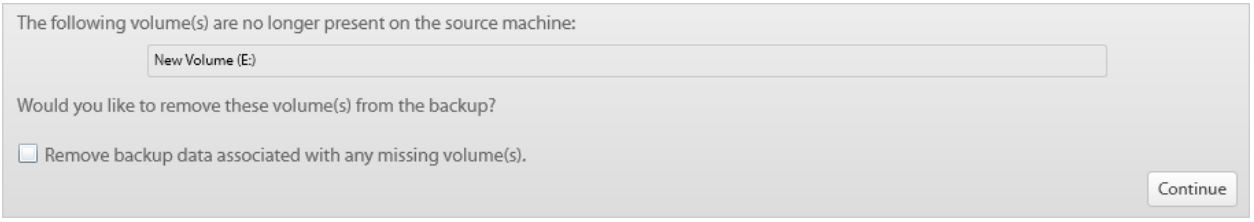


If you changed the backup destination, historical revisions are invalidated. As a result, the next backup is a full unless you copy the full backup.

You can continue incremental backups by copying the full backups to the new destination from the original storage location prior to making the change.

An Imaging Source Volume Is No Longer Present

If a source volume is no longer present, the following prompt asks you whether or not you would like to keep it in the backup set.

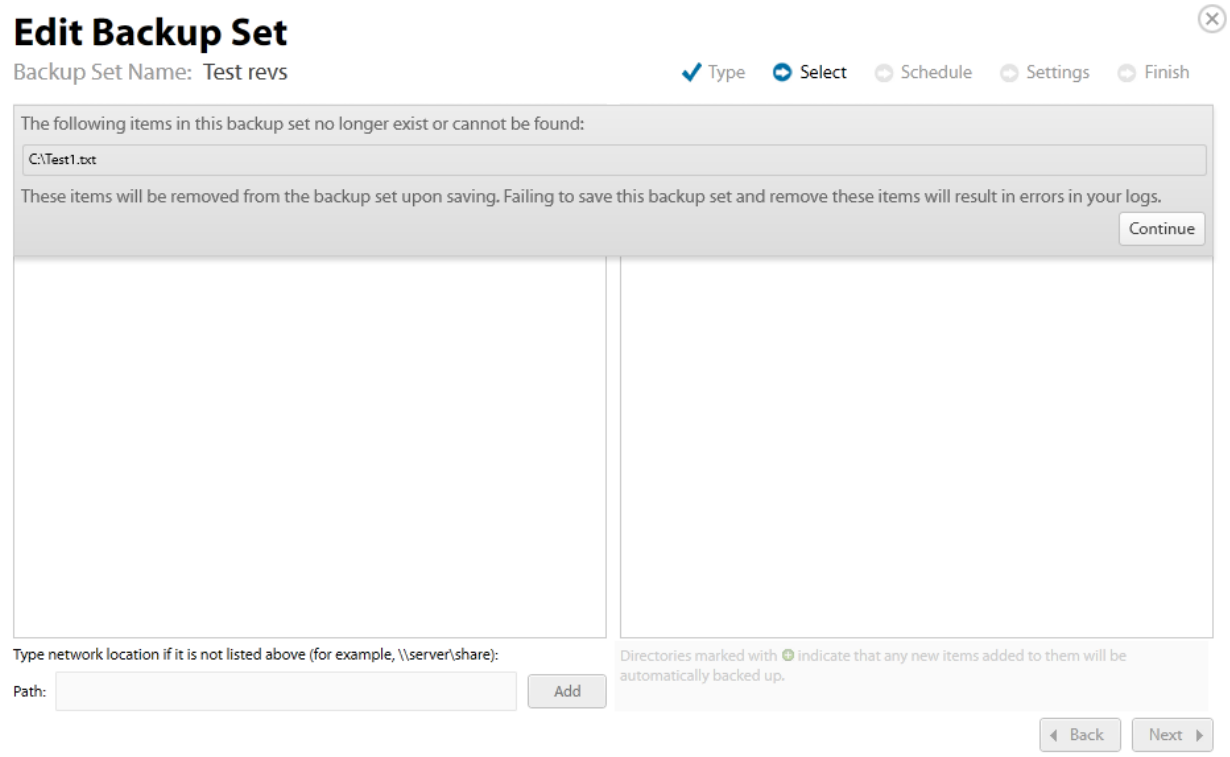


Caution! Only click **Remove backup data associated with any missing volume(s)** if you are certain you do not need to retain backups related to these volumes. You can always remove backup data from these volumes later on using the delete wizard.

A File or Folder Selected for Backup Is No Longer Found

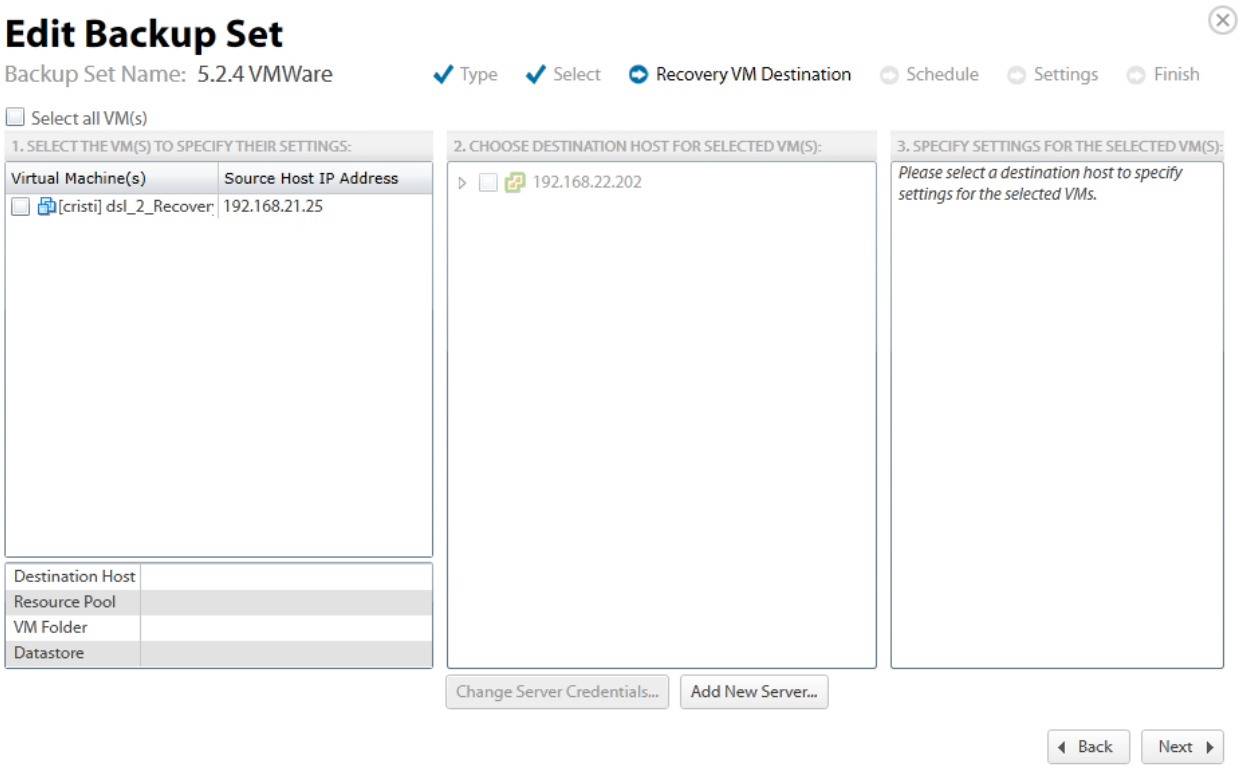
When editing a File and Folder backup, if a file or folder that was explicitly selected for backup is no longer found, the prompt below is displayed and asks if you would like to remove that file or folder from the backup set.

Clicking **Continue** removes the listed items from the backup set after the backup set is updated and saved. Failure to save this backup set and remove the listed items causes errors in your logs.

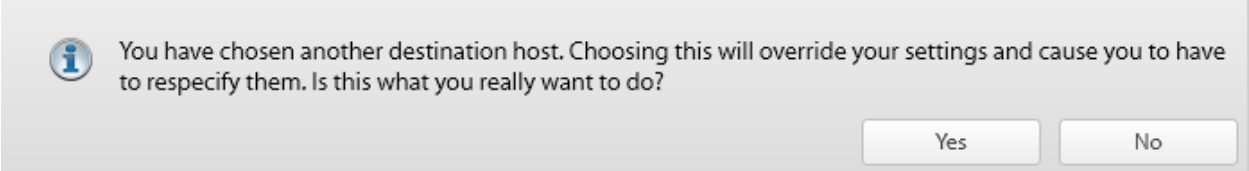


A QuickSpin Host Destination Has Changed

At the QuickSpin Edit Backup Set Recovery VM Destination page, you can change the Host Destination.



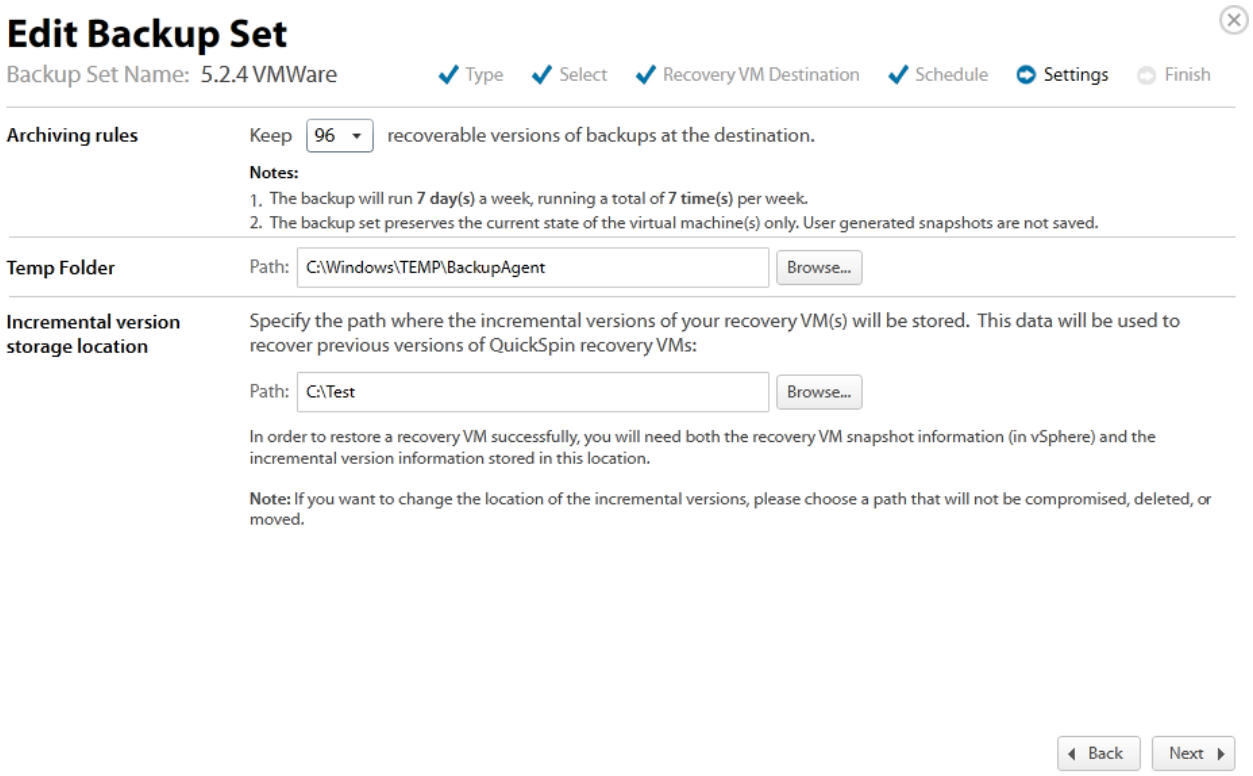
If you change the host destination, the following prompt is displayed.



If you select **Yes**, then the Specify Settings column is activated. You must re-specify the destination Resource Pool, VM Folder, and Datastore settings.

A QuickSpin Incremental Version Storage Location Has Changed

At the QuickSpin Settings page, you can specify the path where the incremental versions of your recovery VMs are stored.



Caution! If you change the incremental version storage location, all revisions become invalidated and the next backup is a full. It is recommended you choose a location on the same drive as your Local Vault, if you have one set up.

Appendix

This appendix includes the following topics:

- Restoring Revisions for Hyper-V and Imaging
- Archiving Rules
- About Scheduling Backups
- About the Backup Monitor
- Backup Options
- About VMware Clusters

About Restoring Revisions for Hyper-V, VMware, and Imaging

With Hyper-V and Imaging, you can restore from a specific revision. By default you get the latest.

For example, if you backup a Hyper-V VM once at 1 p.m., once at 3 p.m., and once at 6 p.m., you would have 3 revisions and you can select to restore any of these revisions.

About Archiving Rules

Selecting the drop-down for Add a New Archiving Rule allow you to create a new rule of one of the following types:

- Age
- Versions
- Disk Usage
- Date Range

The default options and archiving rules for Hyper-V and Imaging backup sets match those for VMware standard. The Hyper-V and Imaging backups default retention span is 4-weeks.

You can set the minimum number of days to hold revisions with the **Keep at least ___ days** option.

Archiving rules dictate how many versions of each file Cloud Backup' systems keep and are set during the creation or the editing of a backup set. The maximum is 99 versions. You can set the minimum number of file versions with the **at least __ versions** option.

Rules can be deleted by using the Delete icon at the beginning of the row when in edit mode.

How Archiving Works for Imaging

You can choose to store a number of revisions in local storage. For example, if you would like to retain a week's worth of backups and you're running backups once per day, you should set your retention policy to keep 7 versions.

How Archiving Works for Hyper-V and VMware

The first backup includes a true full copy of the files. After the first backup, just the changes to the files are copied. These changes constitute a revision of that file to restore.

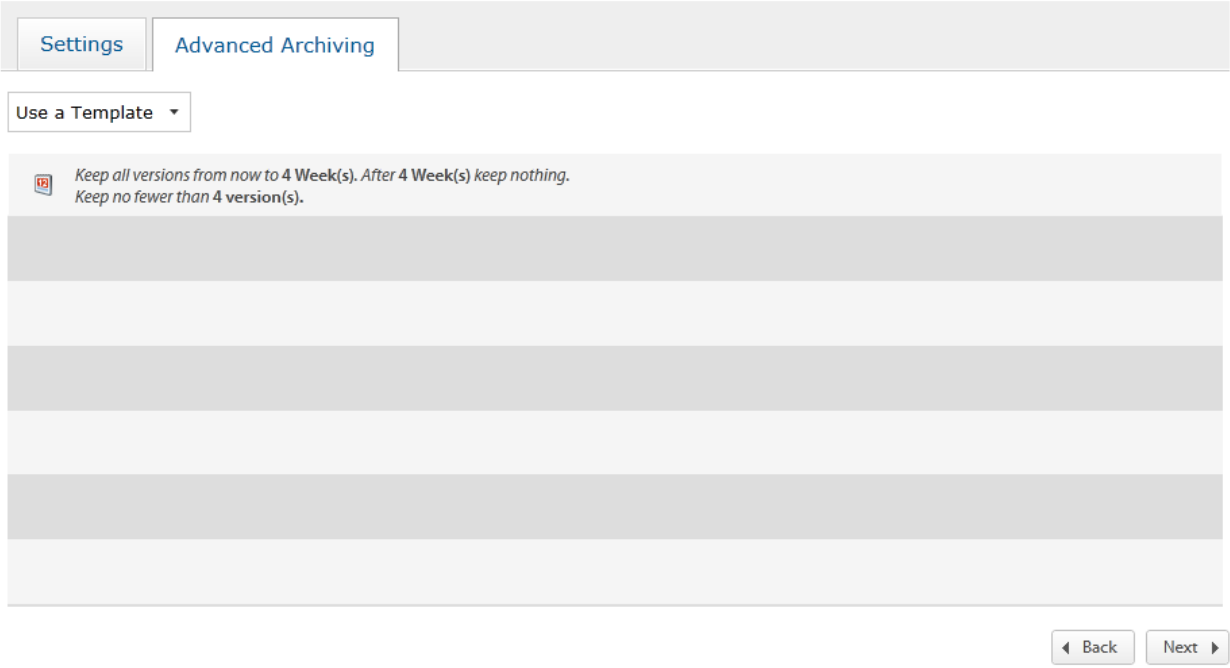
If you choose to keep a large number of revisions then you store more data. If you choose a lower revision rule, there are fewer revisions and fewer file options for a restore, and therefore reduced risk.

Archiving rule options differ based on the type of data being backed up and the rules that the customer configures.

About Advanced Archiving

Advanced archiving allows you to add a rule, edit a rule, or delete a rule.

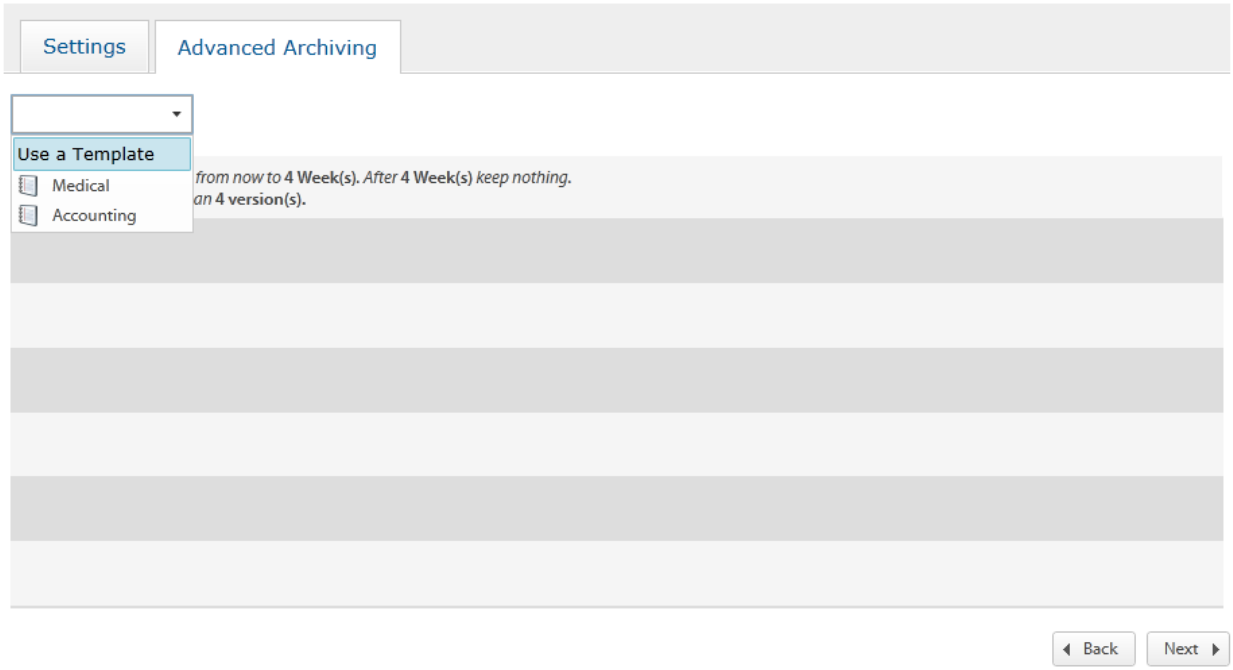
At the Settings page in the backup wizard, you have the option of selecting the Advanced Archiving rules tab. The following page is displayed.



Double-clicking anywhere in the row in which a rule resides sets that rule to edit mode.

The **Save** button saves the rule as currently specified.

If you select the **Use a Template** drop-down, the following page is displayed.



You have the ability to use a Medical or Accounting template as the starting point for creating an archiving rule.

The values of these templates are listed below:

Medical

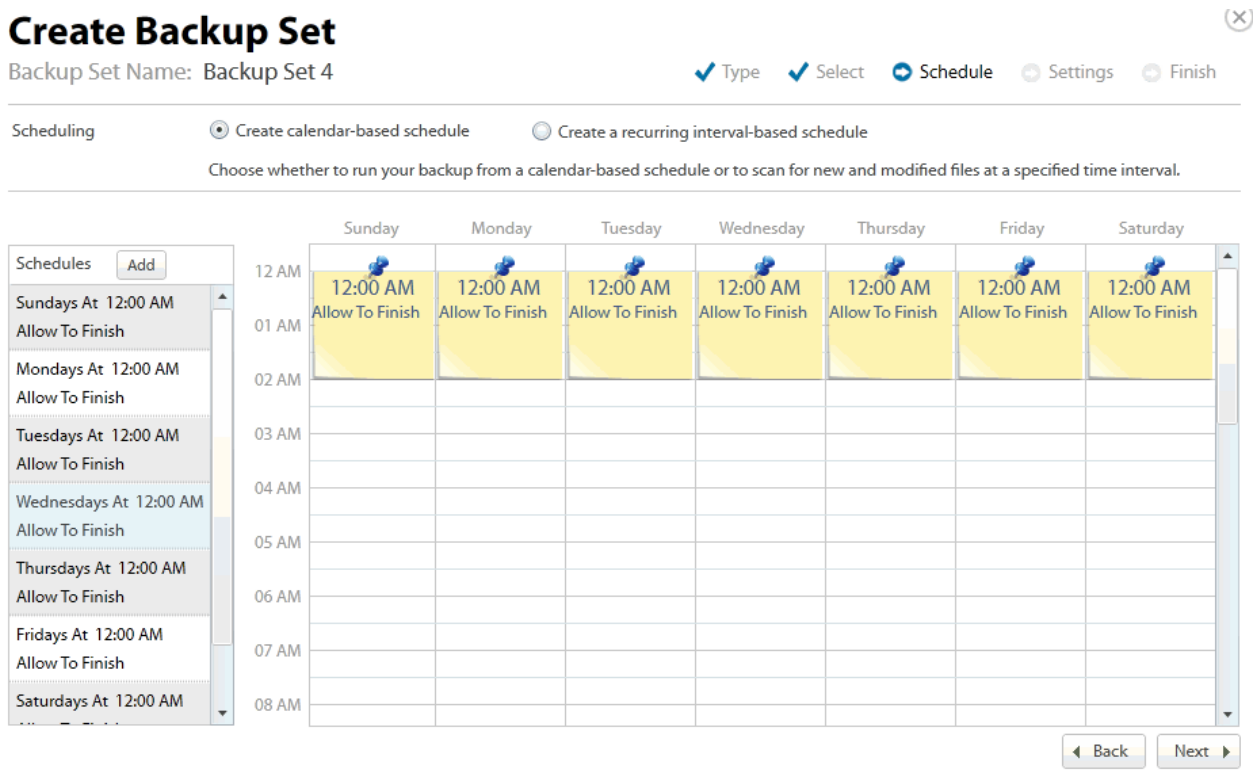
- Type: Date Range
- Line 1: Keep all versions from now until 1 month
- Line 2: After 1 month, keep monthly versions for 1 year
- Line 3: After 1 year, keep yearly versions for 7 years
- Line 4: After 7 years, keep nothing.
- Keep no less than: 1 version
- Applies to: All

Accounting

- Type: Date Range
- Line 1: Keep all versions from now until 1 month
- Line 2: After 1 month, keep monthly versions for 3 year
- Line 3: After 3 years, keep yearly versions for 7 years
- Line 4: After 7 years, keep nothing.
- Keep no less than: 1 version
- Applies to: All

About Scheduling Backups

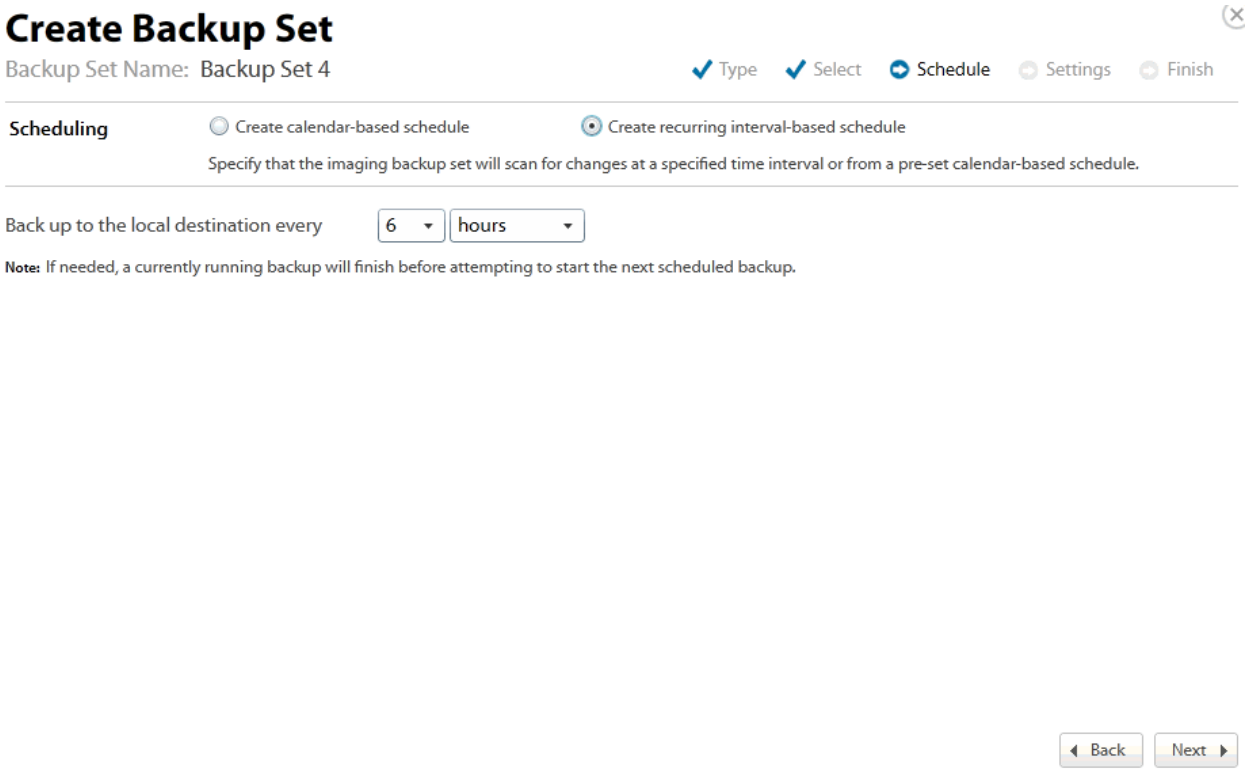
With the Imaging option, when performing a backup, you can choose between Calendar and Interval scheduling when the following page is displayed:



Calendar scheduling makes it easy to do once per day backups. This option is the default. Interval scheduling is not available using Hyper-V.

A recurring-interval schedule is the default. This defaults to backing up to the recovery VM every hour, but can be set as often as every 15 minutes.

Interval scheduling allows for more than once per day. The Interval schedule page is displayed below.



About the Backup Monitor

The Backup Monitor can be used to perform the following tasks:

- Run a Hyper-V, VMware, and Image backup
- Delete a Hyper-V, VMware, and Image backup
- View logs related to image and VMware actions
- View image and VMware backups in the Account Summary and Backup Sets screens

You cannot create or edit Hyper-V, VMware, or Image backups using the Backup Monitor.

You can create these backups using the management portal at *https://manage.Cloud Backup.com*.

About Backup Options

During the Backup procedure, you have the following options:

- Online only
- Local only
- Online and local

Note: Online and Local is only shown if the Local Vault is set up for this computer. The Local Only option is available if the Local Vault is set up and the computer has a Local Backup subscription assigned.

Online Only

You are backing up to the cloud only.

Local Only

Local only backup works in conjunction with an existing feature called the *Local Vault*. These backups are not stored on Cloud Backup servers and do not count toward your remote storage. Local Only also requires a Local Backup subscription. Without it, back up to both the local vault and the cloud.

Using the Local Vault as the storage space, the local-only backup feature allows you to create backups that are stored only on the Local Vault. This feature is ideal for data that needs to be backed up but that may not be the best candidate for online backup. Some reasons to use Local Only Backups are:

- For media files such as mp3s, movs, jpgs that won't change and don't need daily revisions.
- For any other personal data that is not critical.
- For any data that the client does not want to pay for but still wants backed up (music and/or video libraries).
- For Exchange Mailbox backups – the messages are available locally in the event that a client is missing an e-mail (the recommendation is to then backup the Exchange Info Store databases online for Disaster Recovery).

About VMware Clusters

Clusters are a group of hosts that are linked in such a way as to be managed as a group. A cluster can act as a single larger, more powerful host by sharing the resources of all hosts.

Some benefits of host clusters include:

- High Availability (HA)
- Sharing of Resources
- Live Migration of VMs between hosts

High Availability

If a host in the cluster goes down, the VMs that resided on that host can be started up on one of the other hosts in the cluster.

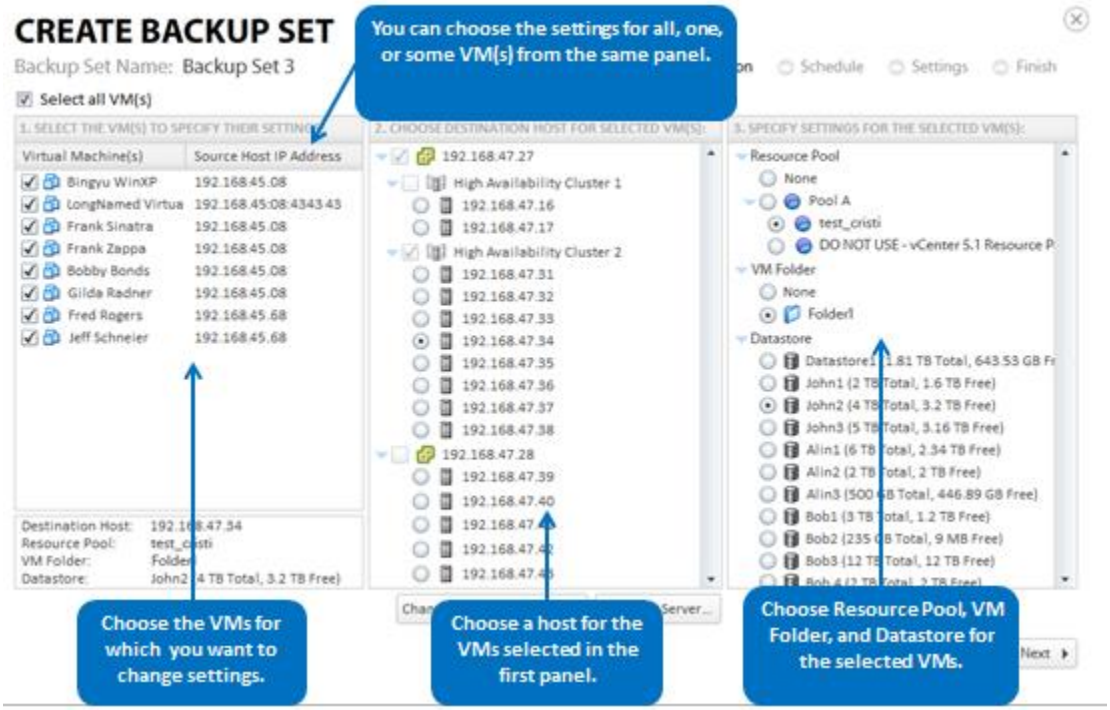
Sharing of Resources

VMs can effectively be load balanced across hosts to most efficiently utilize the resources (CPU, Memory, etc.) of the cluster with VMware Distributed Resource Scheduler (DRS).

vMotion

Clustering hosts allows the use of vMotion, which is the live migration of VMs across hosts in the cluster without having to power them down.

The following graphic shows a page from the Cloud Backup Backup wizard that highlights the advantages of clustering.



Glossary

The following table provides definitions for some of the terms used in this guide for cloud computing restore and backup functions.

Term	Definition
Archive Rules	Used to control the number of revisions that are stored, by removing unneeded revisions indicated in the rule. When the backup set is run, each rule is applied in the order listed within the set's revision rule list. The Standard Rules Types are: ▪ Disk Usage ▪ Number of Revisions ▪ Disk Usage ▪ Date Range
Asynchronous	An attribute of a Before and After Action. If designated for a Before action, the action starts at the start of a backup set, but may not completely finish before the backup set begins. If designated for an After action, the backup set may not completely finish before the action is run.
Backup Set	A selected set of data and folders that are backed up when run, either manually, or automatically based on an associated schedule. Backup sets can include files and folders, VMware and Hyper-V virtual machines (VMs), an image of one or more physical drives or SQL and Exchange data.
Cloud Archive	Data that no longer needs to be accessed on a regular basis is maintained and backed up remotely by a cloud storage service provider.
Cloud Application	A software application that is never installed on a local machine and is always accessed over the Internet.
Cloud Provider	A company that provides cloud-based platform, infrastructure, application, or storage services to other organizations and/or individuals.
Computer ID	A unique four digit code used to keep track of multiple subaccounts that are associated with a single main account. The first computer you install Online Backup Solution.com on has the computer ID 0000. Subsequent subaccounts have the next sequential computer ID of 0001, 0002, and so on.
Cluster	A group of hosts that are linked for the purpose of providing high availability.

Term	Definition
Differential Backup	A type of backup associated with SQL Server, for File and Folder, VMware Standard, and Hyper-V Standard backup sets. After the initial full backup is completed, a differential backup backups only data that has changed since the prior full backup.
FAT	File allocation table. A file system developed mostly for hard drives.
File Catalog	A list of all of data, and revisions that are contained within backup set. The catalog is transmitted to the backup servers with every backup.
GPT	Globally unique identifier(GUID) partition table. A standard for the layout of the partition table on a physical hard disk using globally unique identifiers.
Hypervisor	A platform that allows multiple operating systems to run on a host computer at the same time.
Image-level (volume-level) Backup	A process that backs up an entire storage volume.
Incremental Backup	Backs up only the data changed since the last backup. Microsoft Exchange, Imaging, and VMware QuickSpin support the use of Incremental backups.
IntelliBlox	A proprietary technology that uploads only the changed blocks of a file. At your next backup, the data is scanned and any changes at the block level are detected; only these changes are uploaded.
Local Vault	Keeps a mirror copy of backup data stored on Cloud Backup and local servers.
MBR	Master boot record. The first sector on a hard drive occupied by code necessary to start the operating system startup process.
MSP	Managed Service Provider. Provides delivery and management of a variety of services which include but are not limited to: network-based services (online backup), applications, and equipment.
NTFS	New technology file system. The standard file system of all supported Microsoft operating systems.
Quiescing	A process of bringing the data on a disk of a physical or virtual computer into a state suitable for backups.

Term	Definition
Restore	The process of retrieving backed up data. You can restore your data to their original locations, or to a different folder.
Revision	The state of data at a particular point of time.
Revision Rules	See *Archive Rules*.
Snapshot	A reproduction of the virtual machine as it was when you took the snapshot, including the state of the data on all the virtual machine's disks and the virtual machine's power state (on, off, or suspended).
Synchronous	An attribute of a Before and After action. If designated for a Before action, the action completely finishes before the backup set begins. If designated for an After action, the backup set completely finishes, before the action is run.
UNC	Uniform Naming Convention. Specifies a well-formed syntax to describe the location of a network resource, such as a shared file, directory, or printer.
vCenter Server	The management tool used to administer the various available servers in the enterprise. These servers can be ESX or ESXi, each tied to a physical server and able to host a number of virtual machines.
vCenter Server Database	A persistent storage area for maintaining the status of each virtual machine and user that is managed in the vCenter Server environment. Located on the same machine as vCenter Server.
vMotion	The live migration of VMs across hosts in a cluster without having to power them down.
VMware ESX/ESXi	VMware hypervisors that are installed on bare metal and run on the host computer.
VMware vSphere	The name of the VMware virtualization system.
VMware Virtual Machine Console	An interface that provides access to one or more virtual machines on the local host or on a remote host running vCenter Server.
VSS	Volume Shadow Copy Service. A Windows service for capturing and creating snapshots called shadow copies.

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