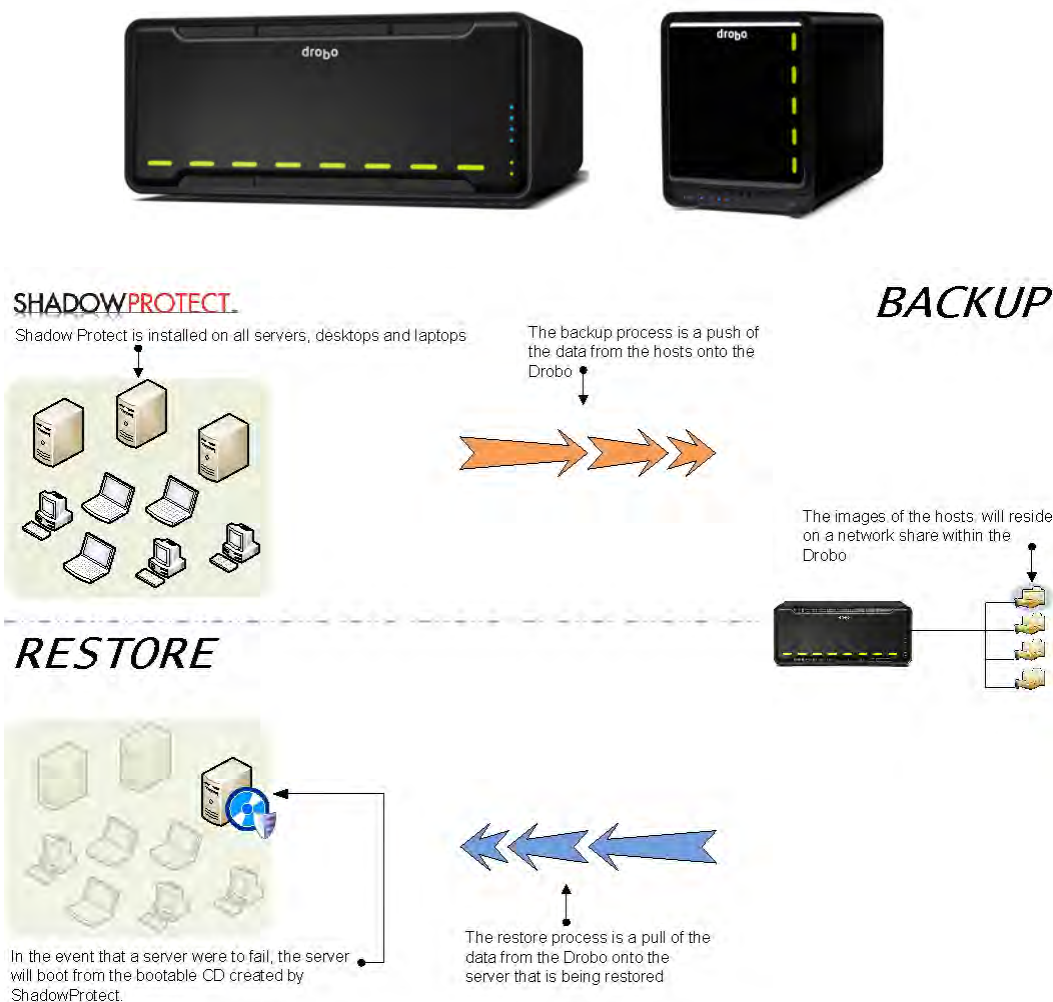




Drobo storage is an excellent backup-to-disk destination when used with StorageCraft ShadowProtect, allowing you to protect critical assets on your Windows servers, workstations, and notebooks. ShadowProtect provides disk-based backup that captures full, differential, and incremental point-in-time backup images of an entire system including the operating system, applications, configuration setting, and data. ShadowProtect has number of flexible recovery options including bare metal recovery, recovery to similar hardware, dissimilar hardware or virtual environments.

This guide describes how to implement a fast and reliable backup and disaster recovery solution using StorageCraft ShadowProtect and Drobo file sharing (FS or B800fs) storage.



Topics

- Pre-flight checklist
- Create a backup image and save it to the Drobo
- Full bare metal recovery
- Recover to virtual environment (VMware ESX) with hardware-independent restore



What You Will Need

- Drobo file sharing storage system (Drobo FS or Drobo B800i)
- Drobo Dashboard management software (latest version)
- Enterprise-grade 7200 RPM SATA disk drives recommended
- StorageCraft ShadowProtect version 4.1
- If restoring onto a virtual machine, VMware ESXi 4.1 or later

Pre-flight Checklist

In this guide, the Drobo model B800fs is used as the storage repository for the images created by ShadowProtect. With the Drobo B800fs, IT administrator can easily create network shares that can be accessed by Windows and Mac systems using file sharing network protocols (CIFS/SMB, AFP).

In order to create a share on the Drobo to be used as the repository for the backed-up images:

- Click **Shares** and then click **Shares Settings** at the top right.
- Click the plus sign (+) sign to create a new share.

The share hosting the images must be password protected (username and password).



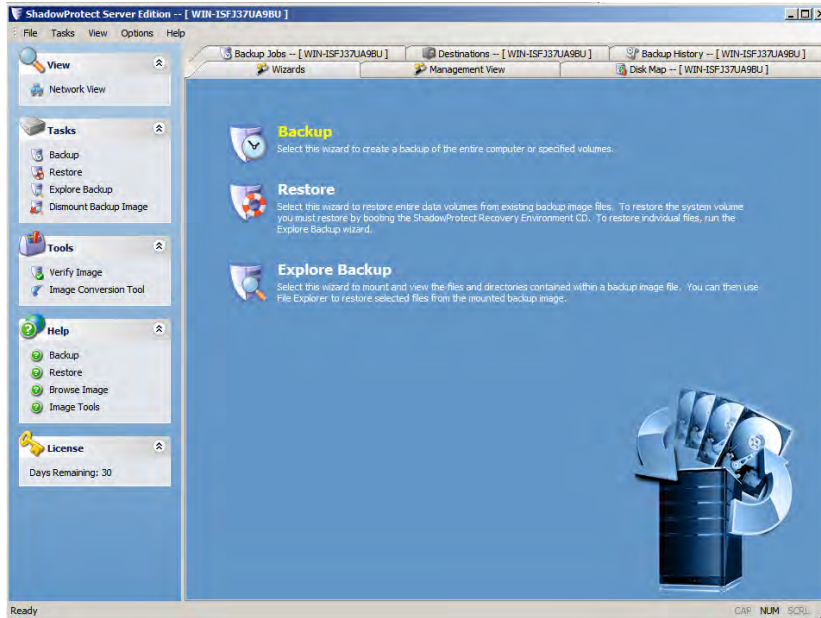
For information on how to create a share and secure it, refer to the *Online User Guide*:
http://dashboardhelp.drobo.com/guide/200/en/Drobo_Online_User_Guide.htm



Create a Backup Image and Save It To the Drobo

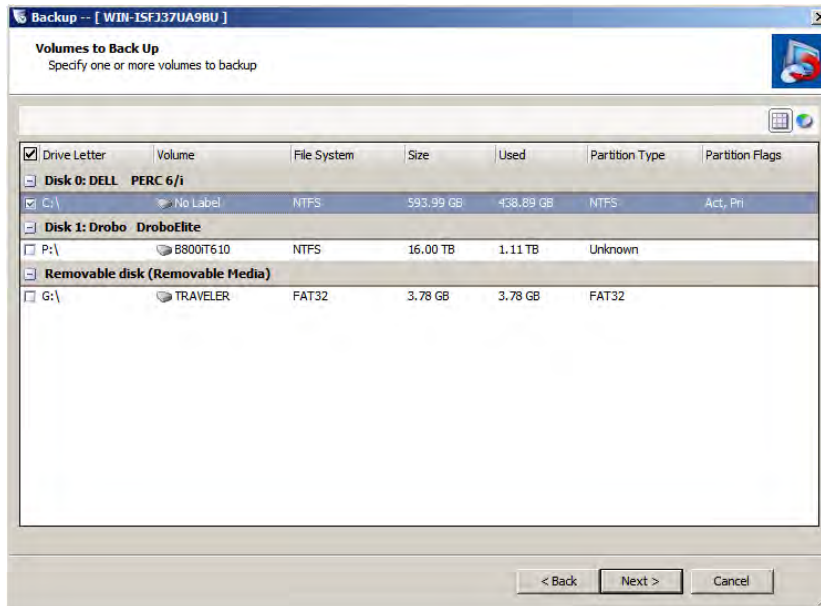
Now that the Drobo is ready to be used as the target for the images, create a backup image.

STEP 1



Install ShadowProtect from StorageCraft. For more information refer to the *ShadowProtect Administrator's Guide*. Then launch ShadowProtect and click **Backup** in the Wizards tab.

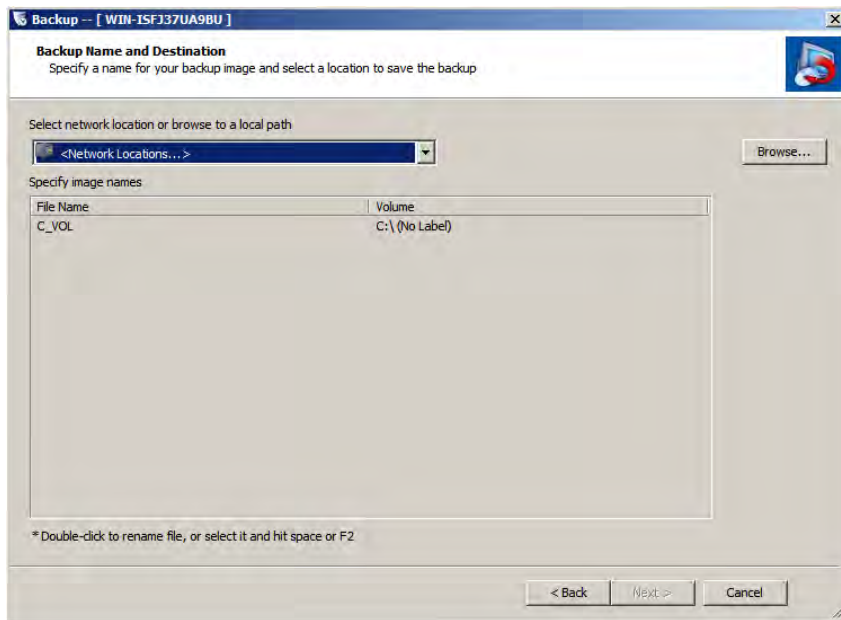
STEP 2



Select a volume to back up.



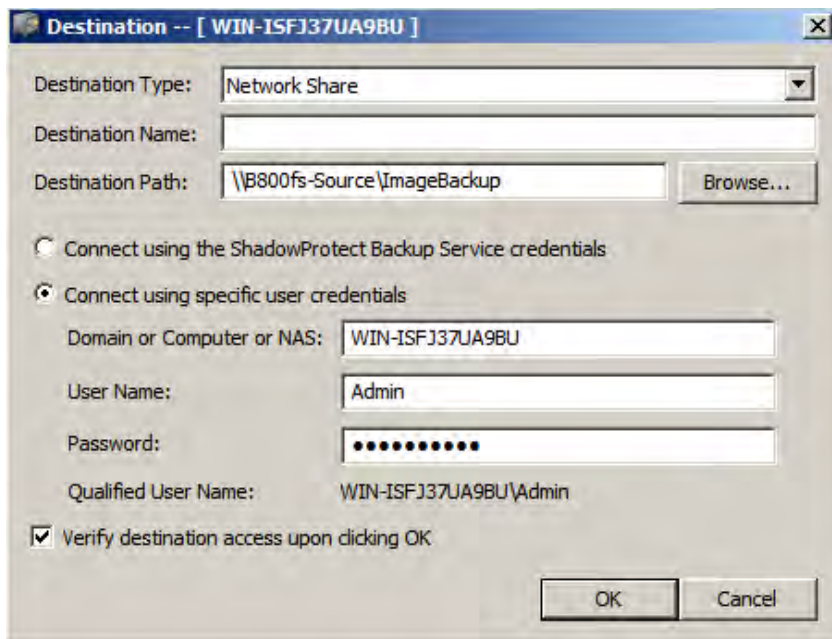
STEP 3



Select **Network Locations** to specify a destination.

NOTE: Drobo devices are automatically thin-provisioned. For this reason and because the amount of data can quickly grow in a backup environment, IT administrators should monitor storage utilization in the Drobo.

STEP 4



Type the information for the backup destination, in this case, Drobo information

- Destination type: Network Share
- Destination name: (anything)

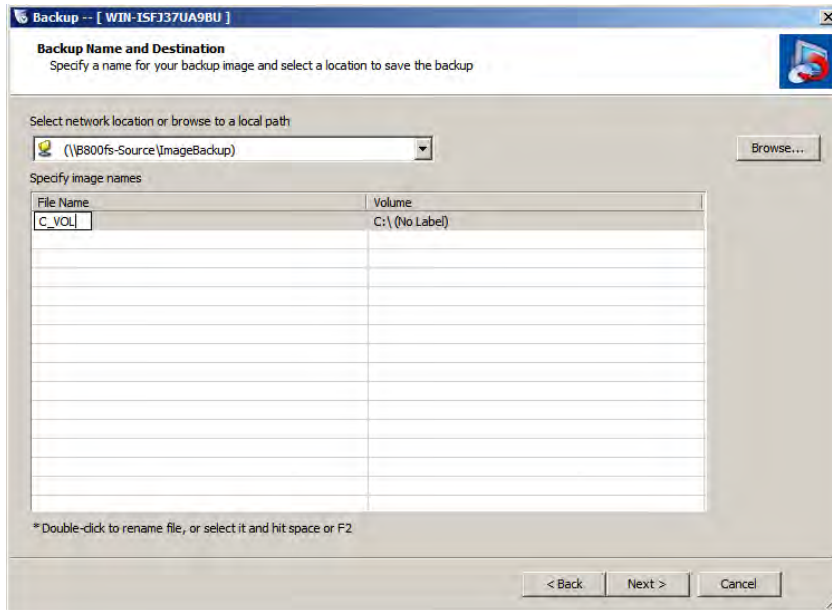
Destination Path: Path to share created on the Drobo B800fs. You can use the name of the Drobo or the IP address (for example, \\B800fs-Source\ImageBackup or [\\172.32.16.50\ImageBackup](#))

Select "Connect using specific user credentials" and then enter the Drobo B800fs's login account that you set on the share.

Click **OK** to verify destination access.

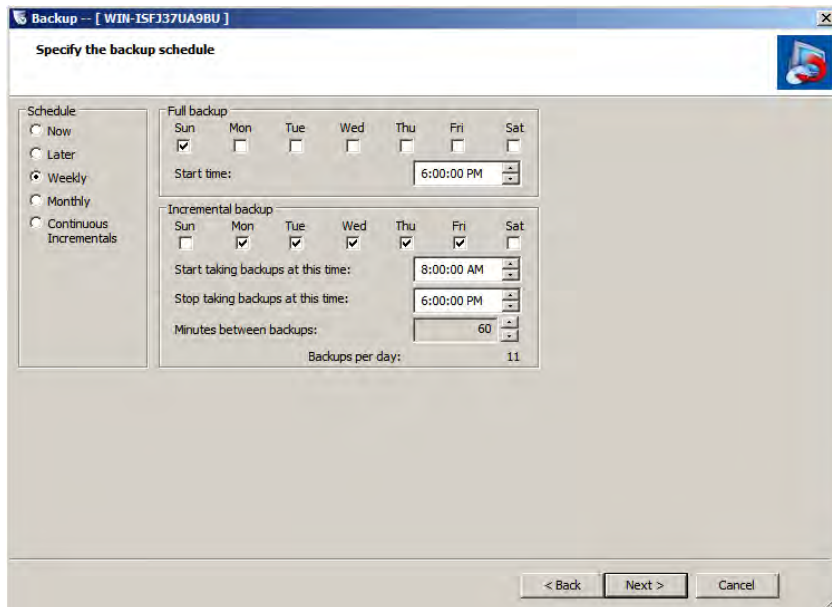


STEP 5



Double-click under the image names to rename the file name, that is, the name of the backup image for the volume you will be protecting.

STEP 6



Follow onscreen directions for the rest of installation wizard to create and schedule the backup image job.

It is recommended that you use both full and incremental backups. Refer to the *ShadowProtect Administrator's Guide* for information about the different types of backup schedules—any of which you can use with Drobo.



Full Bare Metal Recovery

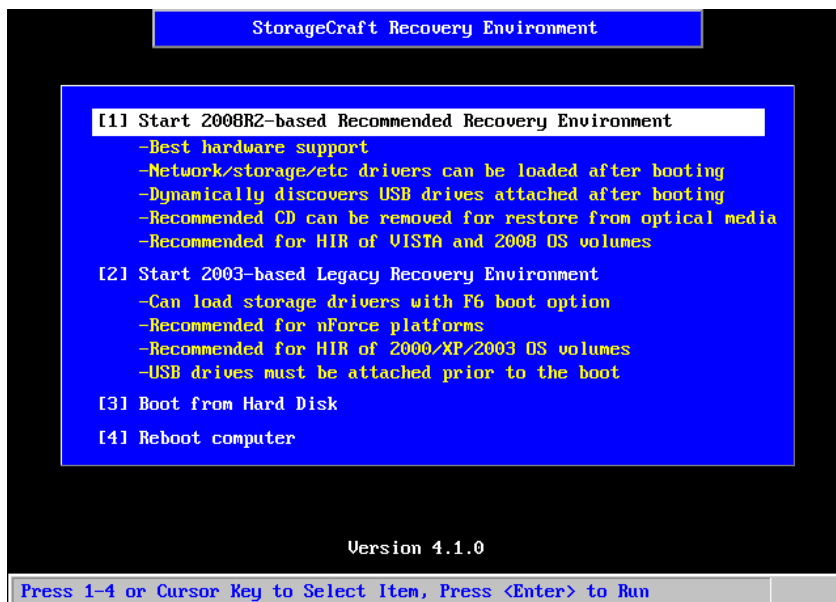
In the event that a host/server were to fail, an IT administrator can easily restore the server from a backed-up image. Booting the server using the bootable Recovery Environment disk, allows ShadowProtect to load its restore engine and pull the backed-up image from across the network. Once the image is pulled and written onto the local server hard drive(s), they will be ready to be rebooted and restored from the backed-up image.

STEP 1

Create a bootable Recovery Environment disk, by using the CD that came with ShadowProtect if you purchased a physical copy or download the ISO image from <http://www.storagecraft.com/release/sprelease.asp>

You can use any CD burning application; ISOTool.exe is the ISO burning tool that is included with ShadowProtect.

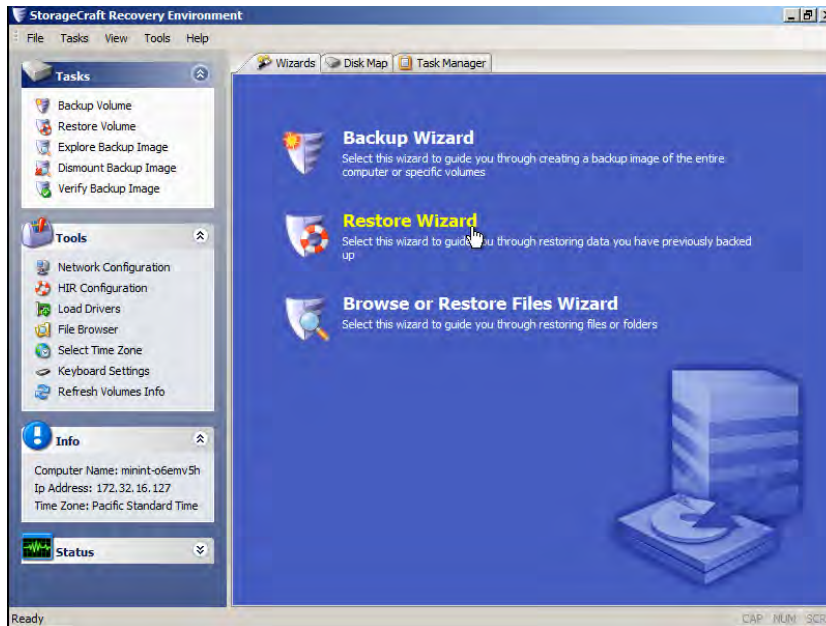
STEP 2



Insert the bootable CD into the server that needs bare metal recovery and select the recovery environment.

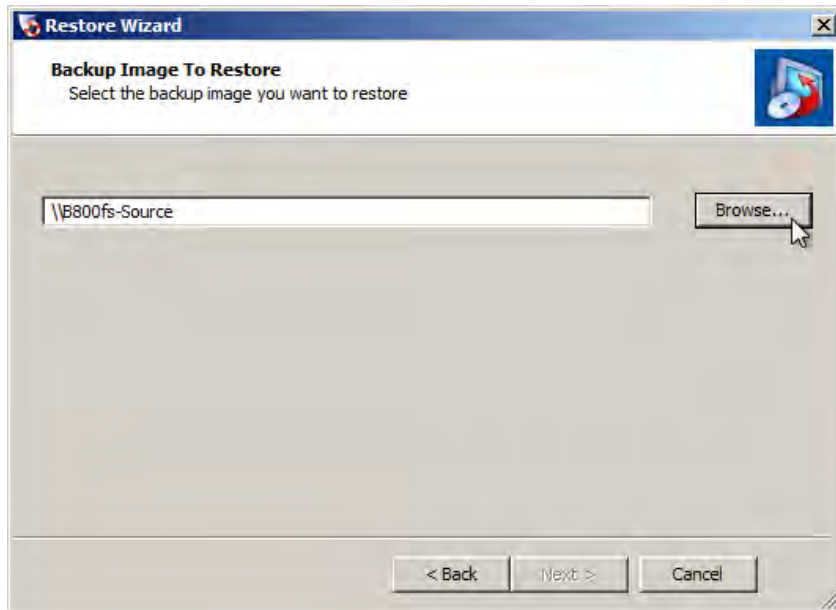


STEP 3



In the Wizards tab, select **Restore Wizard** to begin bare metal recovery.

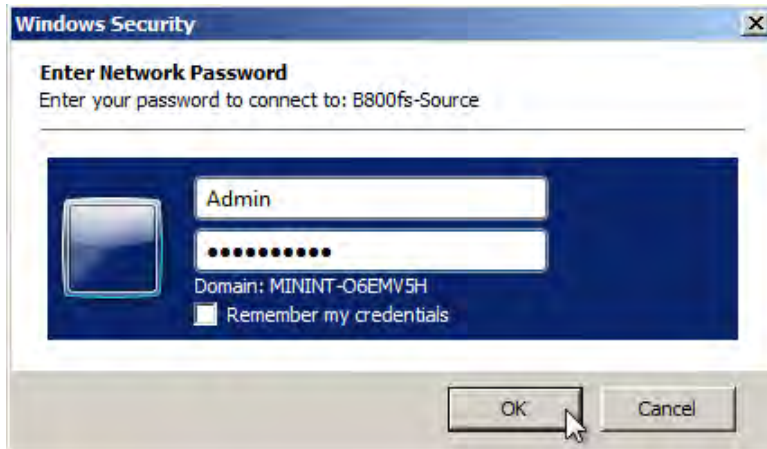
STEP 4



Specify the location of the backup image file, in this case, enter the name of the Drobo B800fs.

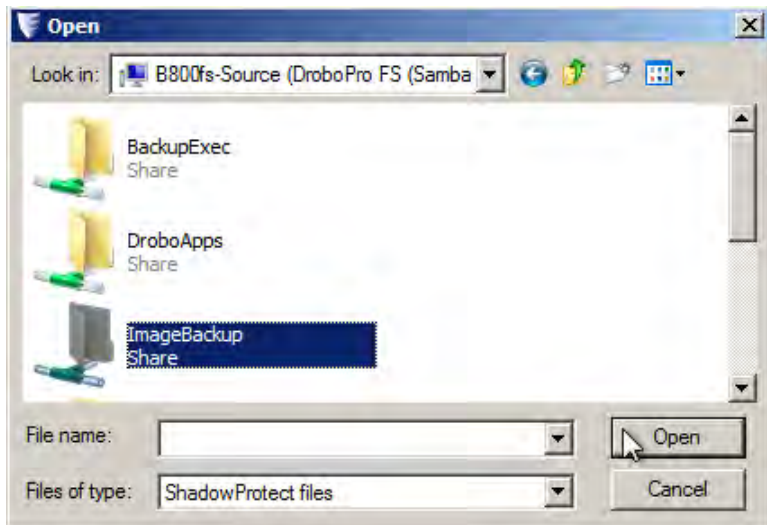


STEP 5



When prompted, enter the login username and password that was set on the share that hosts the images.

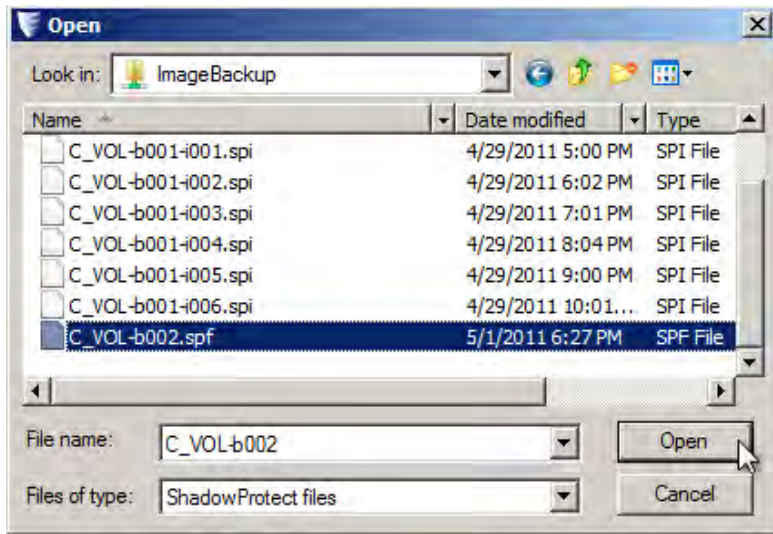
STEP 6



Specify the location of the backup image file.

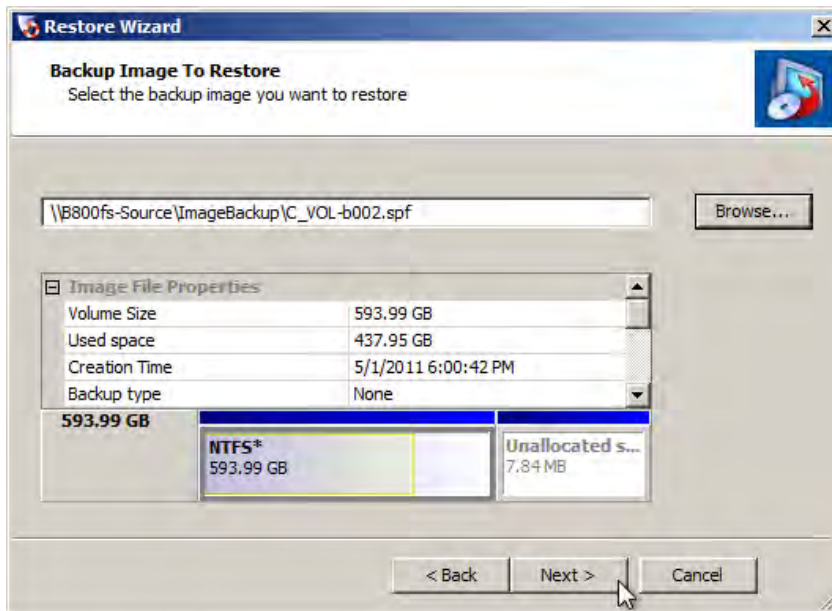


STEP 7



Specify the backup image file, typically it's the most recent one, unless you need to restore from further back in time.

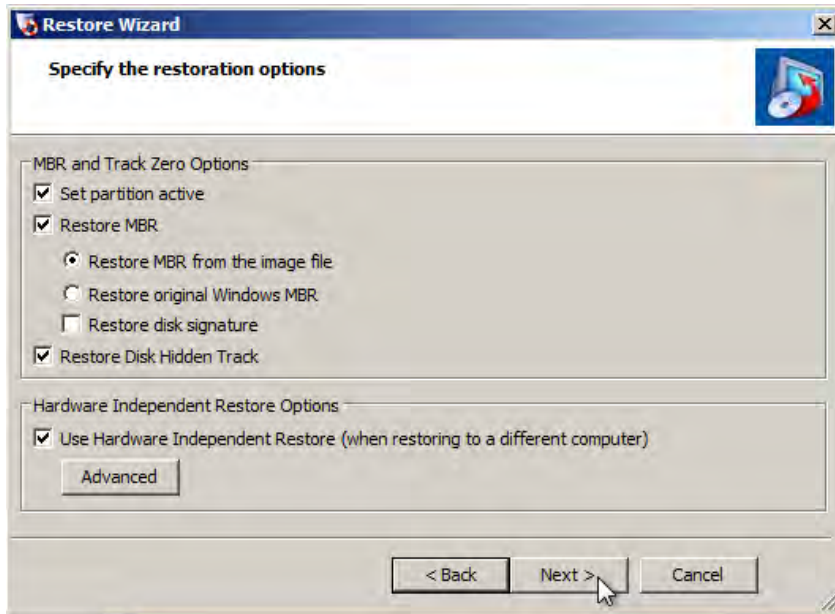
STEP 8



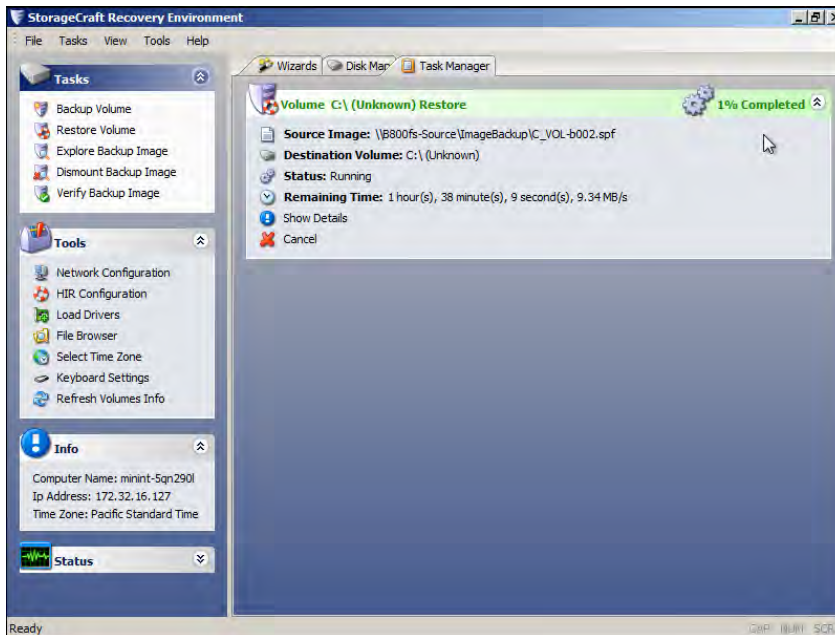
Verify the backup image to restore.



STEP 9



Specify the restore options. It is recommended to leave these settings as default. Refer to the *ShadowProtect Administrator's Guide* for explanations of these options.

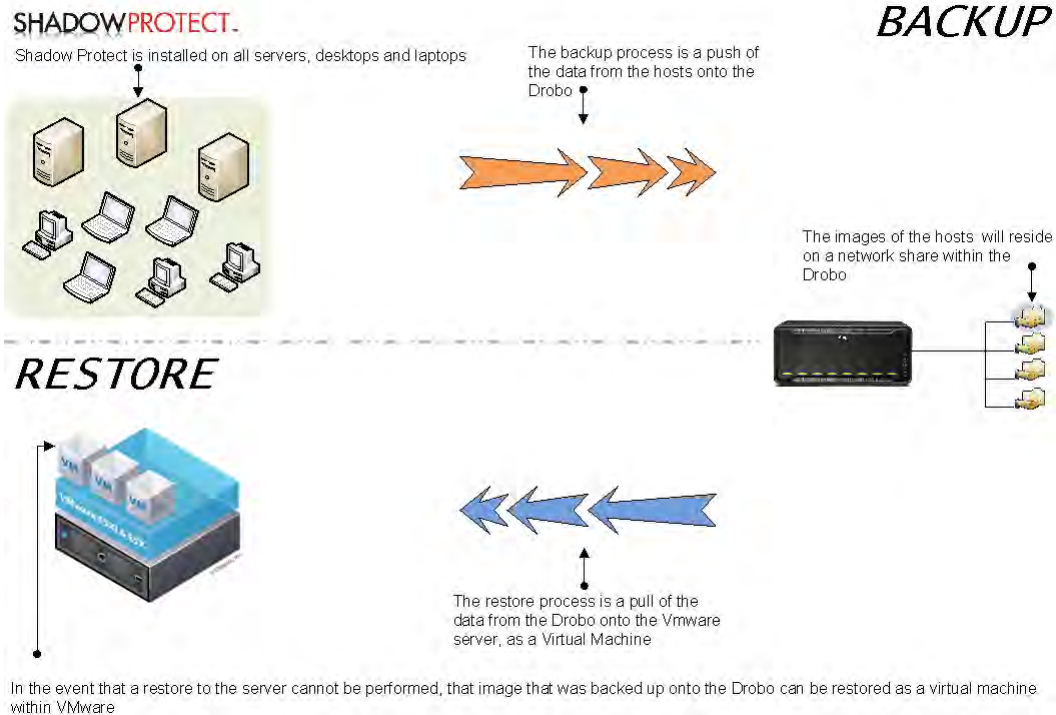


The status of the recovery is now displayed.



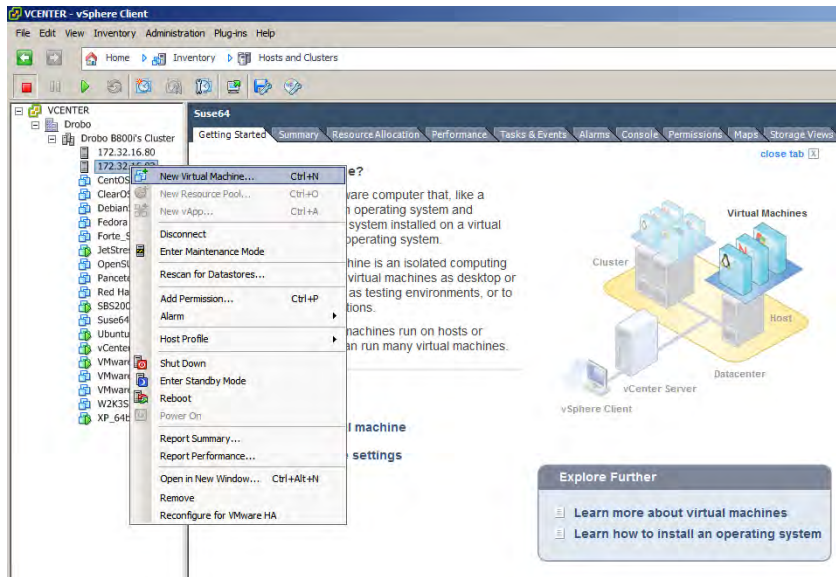
Recover to Virtual Environment (VMware ESXi) with Hardware-Independent Restore

When a server fails due to hardware, then the only option to regain access to the data that resided on the failed server is to restore the backup image onto another piece of hardware, or a virtual machine. Using a virtual machine to temporarily host the image from the failed server is the most cost-effective and fastest-to-recover solution. This of course assumes that a virtualization technology (for example, VMware) can be used. Within minutes the failed server will now be restored onto a virtual server, allowing access to the services/data that were on the failed server, as shown below.



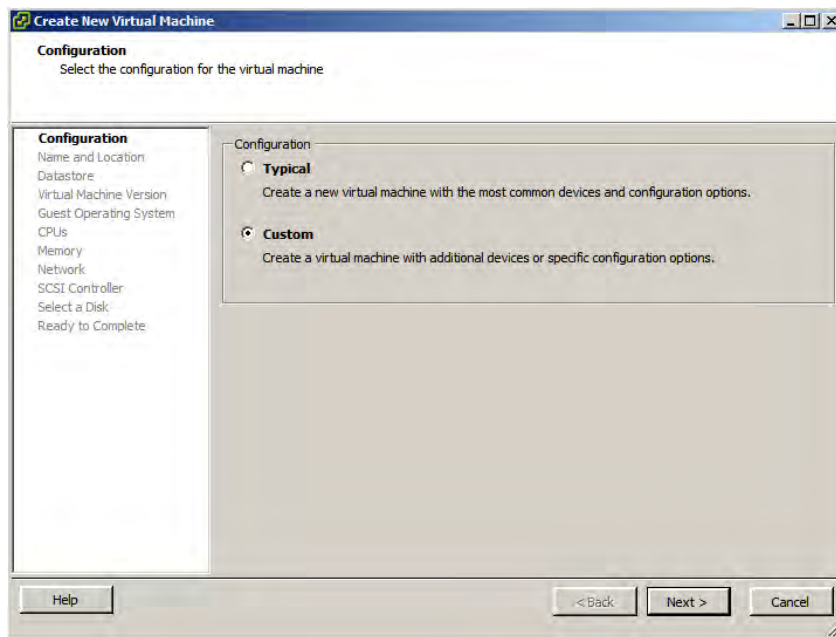


STEP 1



Log in to the VMware environment using vCenter and create a new virtual machine. (You can also use hosted versions of VMware, but this example uses vSphere/ESXi.)

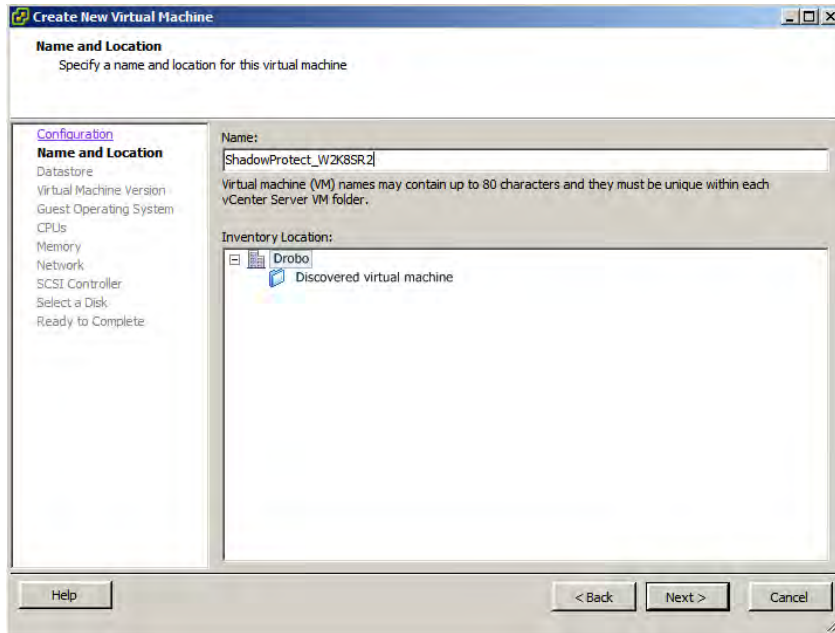
STEP 2



Select **Custom** configuration.

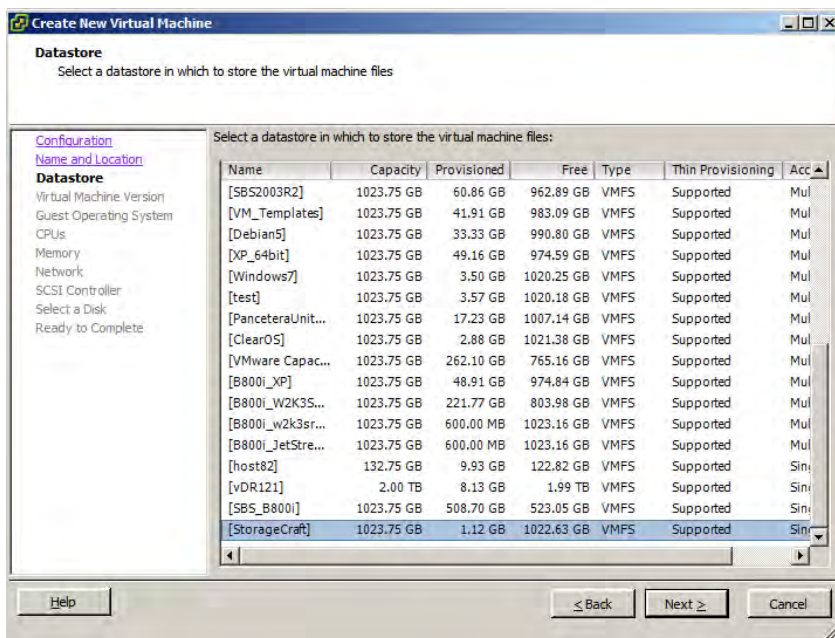


STEP 3



Enter a name for the virtual machine.

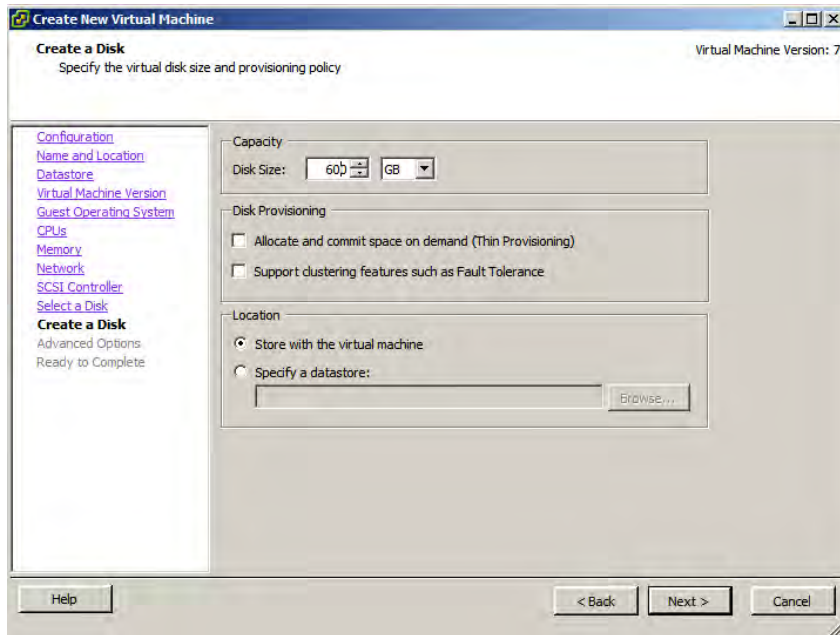
STEP 4



Specify the datastore location on where the VM will reside.



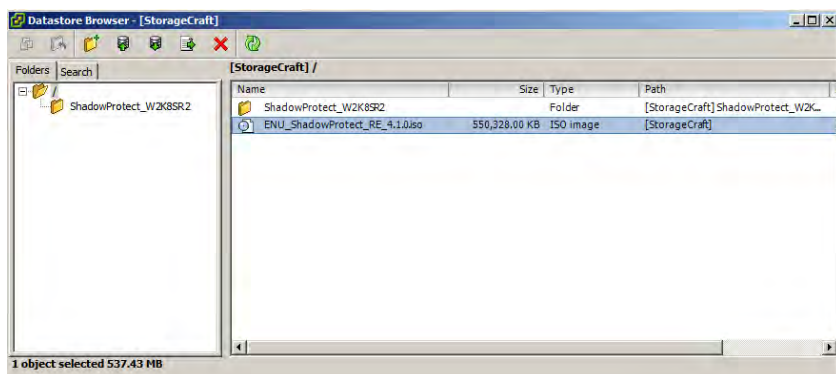
STEP 5



Specify the disk size for this virtual machine.

NOTE: The disk size must be equal to or larger than the size of the server's volume(s) to be restored onto the virtual machine. Under provisioning will cause the restore to fail.

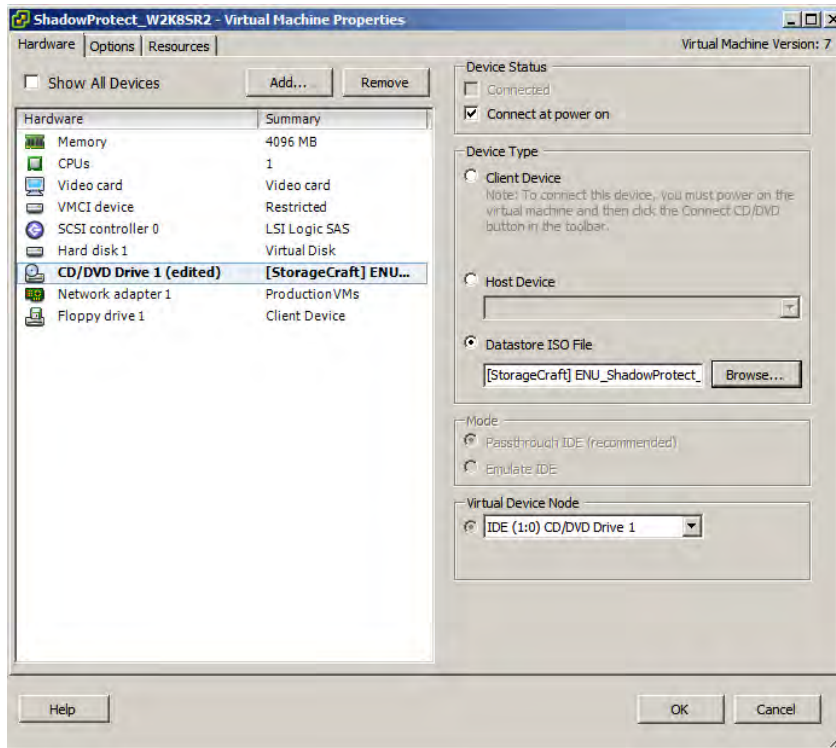
STEP 6



Upload the ShadowProtect bootable ISO file to the ESXi datastore.

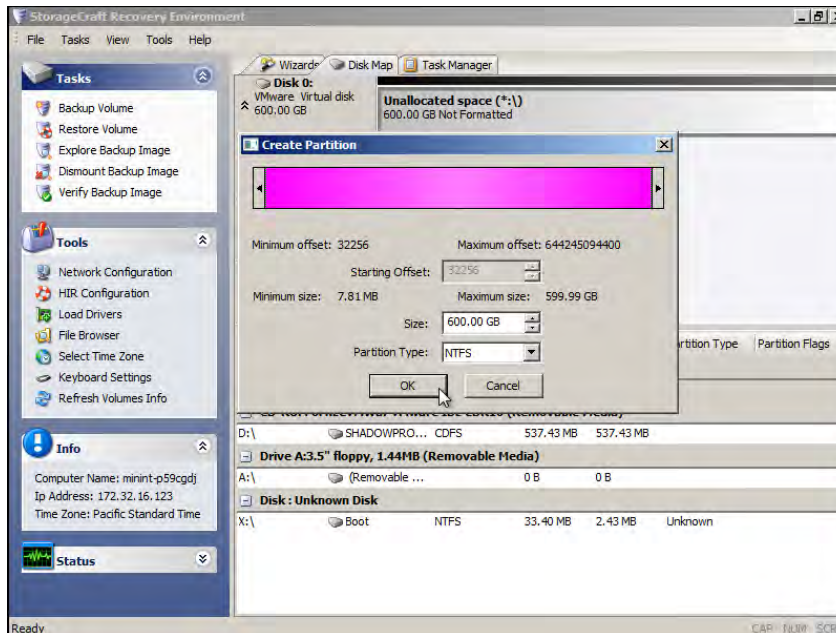


STEP 7



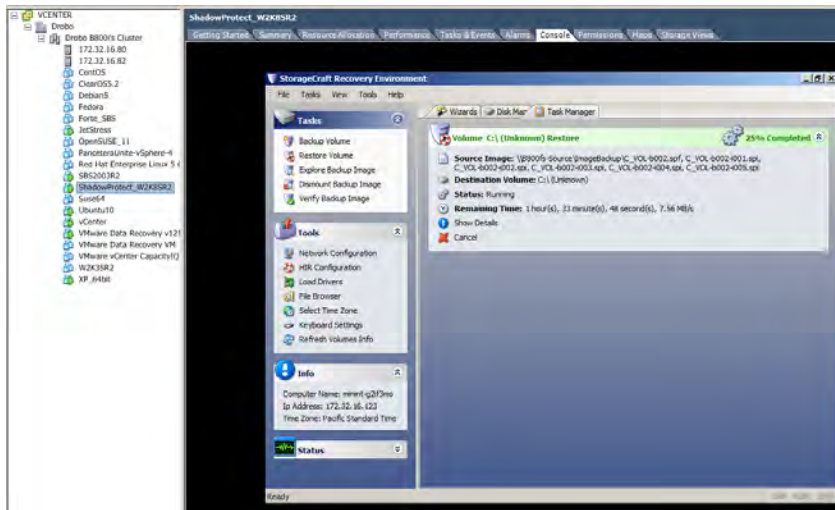
Edit the recovery virtual machine settings by specifying the location of the ShadowProtect bootable Recovery Environment ISO file.

STEP 8



Power on the recovery virtual machine to begin restores, see “Full Bare Metal Recovery” instructions section.

To start recovery to the virtual machine, perform one additional step. In the Disk Map tab, right-click on the VMware Virtual Disk and select **Create Partition**.



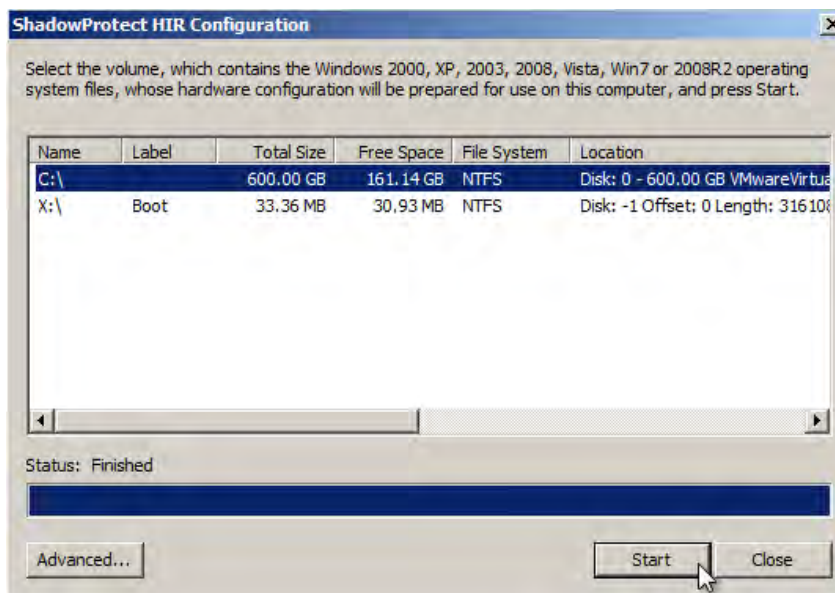
The status of recovery to the virtual machine is displayed.

STEP 9

Perform Hardware Independent Restore (HIR) to the new restore volume.

Click **HIR Configuration**, and then select the new restore volume (typically the C: drive.).

STEP 10



Click **Start**, and once the restore is complete, the status will be displayed as Finished.

Then simply close the ShadowProtect program and a reboot will follow.

It is recommend that you install VMware Tools after successfully rebooting and logging in.

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