

Drobo How-To Guide

Use Symantec Backup Exec 2010 R3 to Back Up to Drobo iSCSI Storage



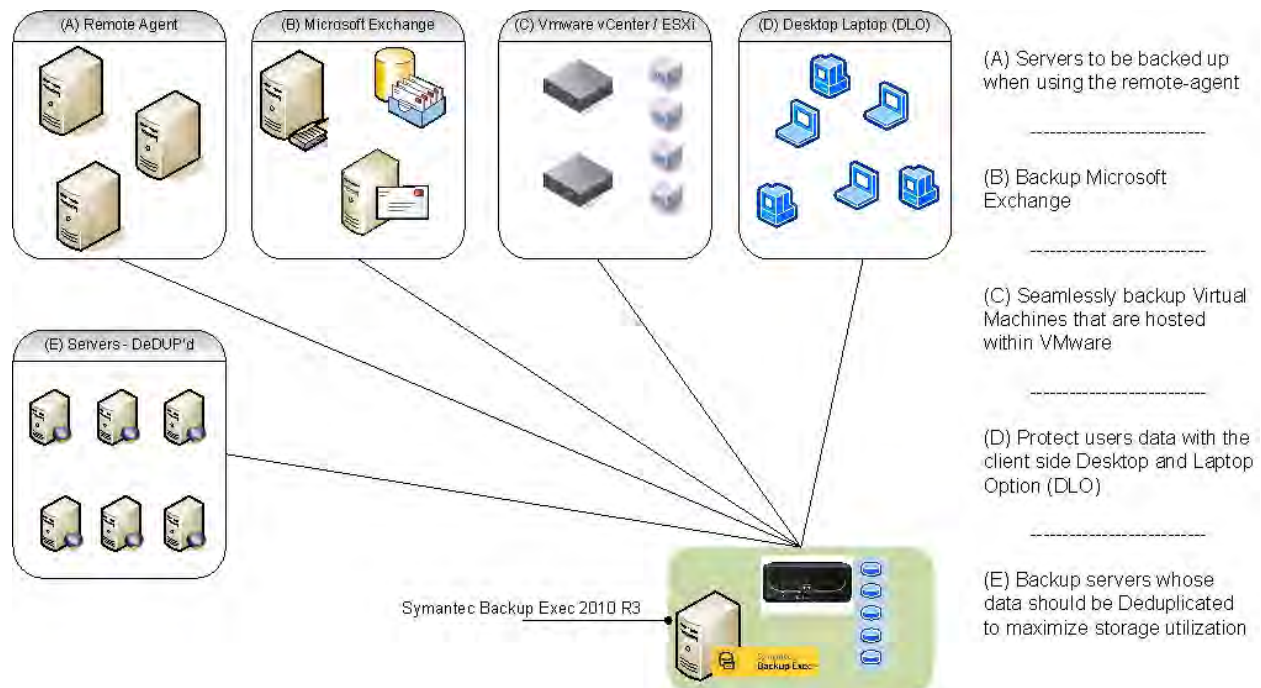
To protect critical digital assets in your business, Drobo storage is an excellent backup-to-disk destination used with Symantec Backup Exec. This guide explains the best way to use Drobo as a backup-to-disk destination for Symantec Backup Exec 2010 R3. It also discusses selected sources to back up to the Drobo, such as VMware virtual machines (VMs) and an Exchange Server.

This document focuses on key areas such as job setup, job monitoring and device system requirements.

NOTE: Symantec Backup Exec 2010 R3 has many other components that are beyond the scope of this document.

Topics

- Setup checklist
- Adding a Backup-to-Disk folder
- Backing up your local server
- Remotely backing up agent-based servers
- Protecting your Exchange Server
- Backing up VMware VMs easily
- Adding a storage location for desktop and laptop options
- Maximizing storage capacity with deduplication



What You Will Need

- Drobo iSCSI SAN storage system
- Drobo Dashboard management software (also firmware update if not up-to-date)
- Enterprise-grade 7200RPM SATA disk drives recommended
- Symantec Backup Exec 2010 R3 running on a server

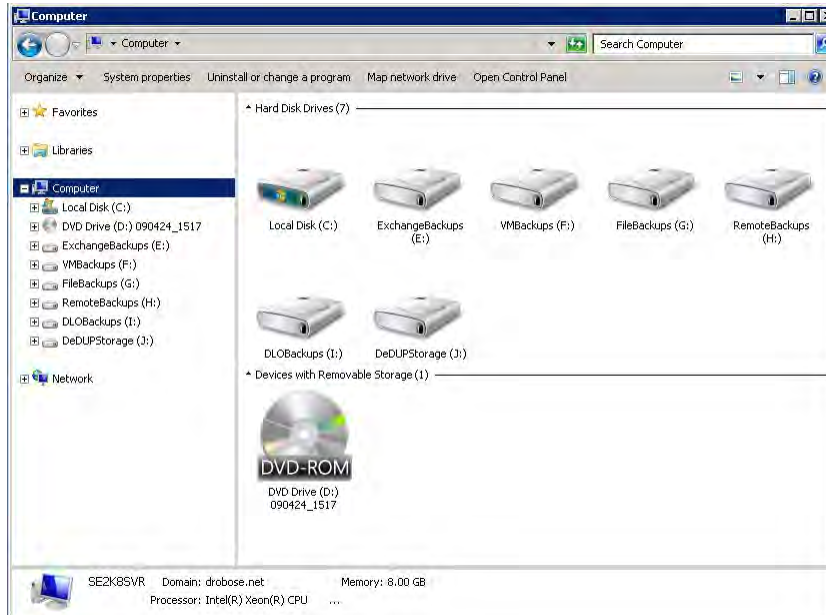
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Setup Checklist

In Backup Exec, ensure that the Logon Accounts have been configured on your resources before proceeding.

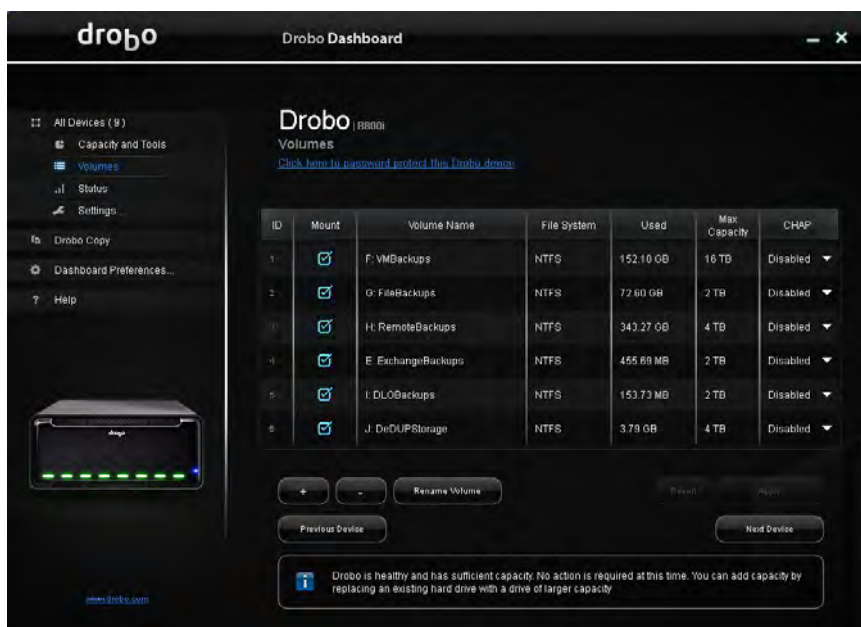


It is important to understand that Drobo iSCSI storage devices will present their volumes as block devices to the server. This means that Backup Exec can use the Drobo as a locally attached NTFS volume.

To learn more about Drobo and iSCSI, visit: <http://www.drobo.com/resources/iscsi.php>

Follow the directions in the Drobo Online User Guide to configure the Drobo:
<http://www.drobo.com/support/documentation.php>

In this document, a unique volume is created for each backup type, as shown below.

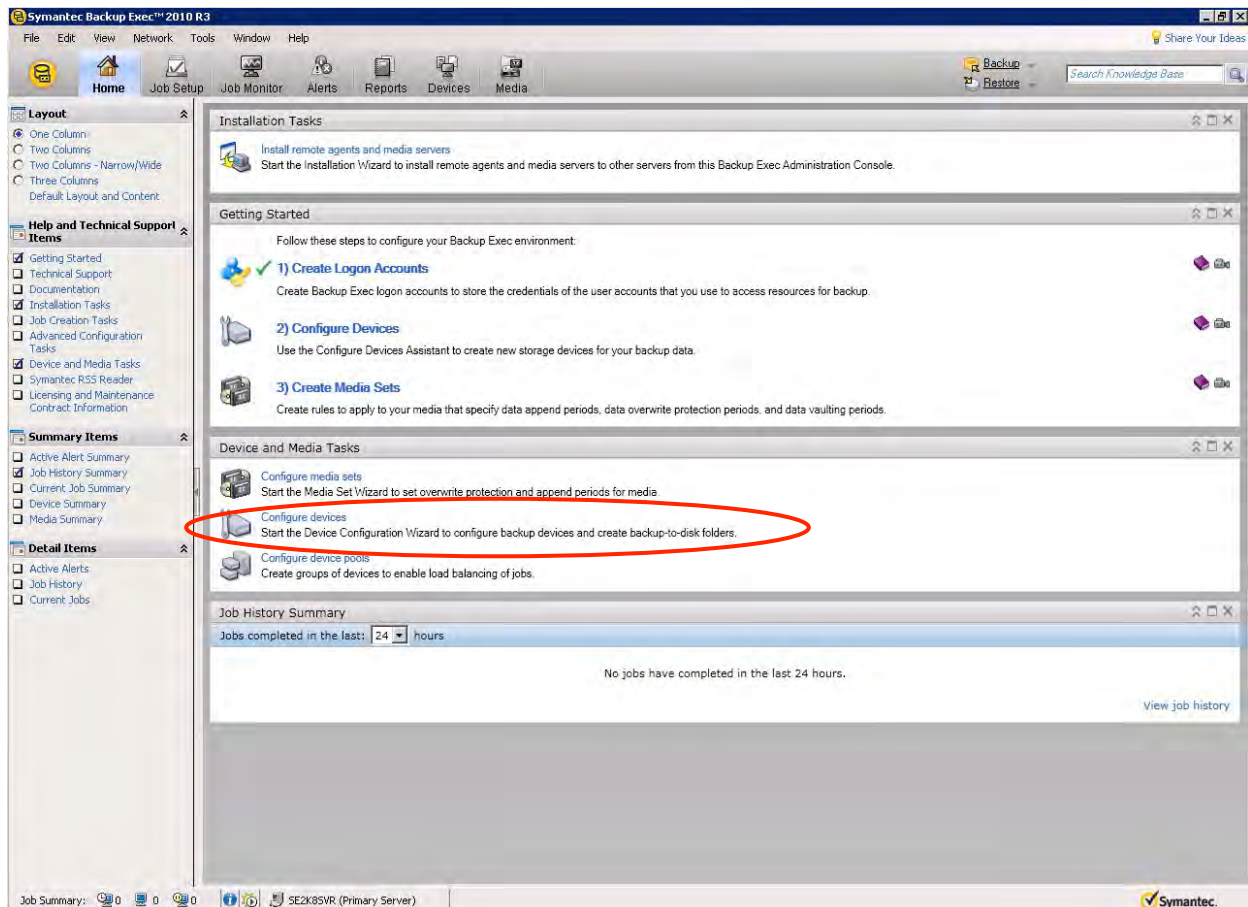




Adding a Backup-To-Disk Folder

STEP 1

Make sure you are under Home in the top navigation menu. Click **Configure Devices** in the Device and Media Tasks section to create and configure a new device to be used by Symantec Backup Exec.



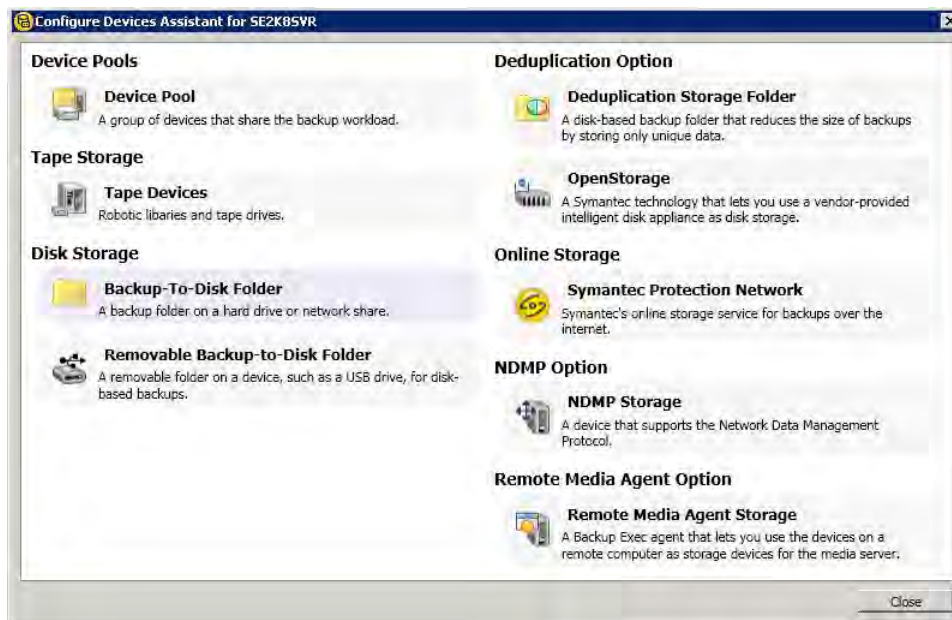
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STEP 2

Select the Backup-To-Disk folder in the Disk Storage section.



STEP 3

In the wizard Welcome screen, click **Next**.





STEP 4

Enter a name for the new Backup-To-Disk folder.

Backup-to-Disk Wizard

Backup-to-Disk Folder Name
Name the backup-to-disk folder.

Enter a name for the backup-to-disk folder:
Main_Server

< Back Next > Cancel

STEP 5

Choose a folder on the Drobo volume that will be used as a backup-to-disk destination.

NOTE: A top-level directory cannot be used as a destination—it needs to be a folder.

Backup-to-Disk Wizard

Backup-to-Disk Folder Path
Enter the path where the folder is to reside.

Enter a path for the backup-to-disk folder:
...

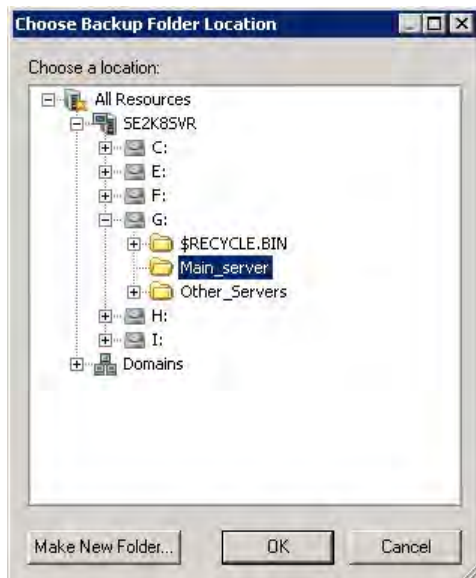
Example: C:\Folder name

< Back Next > Cancel



STEP 6

Select a directory/folder and click **OK**. (You can also create a new folder if you wish.)



You'll now see that the directory/folder you specified (\$drive:\Directory in this case) is used as the destination.





STEP 7

Follow the on-screen instructions making choices that best fit the needs of your organization. For example, when prompted to define the low disk space threshold, it is a good practice to set a number that will guarantee that the Drobo will not run out physical space.

NOTE: Volumes on the Drobo are automatically thin-provisioned. Because of this and that fact that data in a backup environment can rapidly increase, IT administrators should not over-provision volumes exceeding the raw/physical capacity.



At the end, a summary displays which settings are chosen for your backup-to-disk destination. If they look OK, click **Next**. If you want to make further changes, click **Back**.

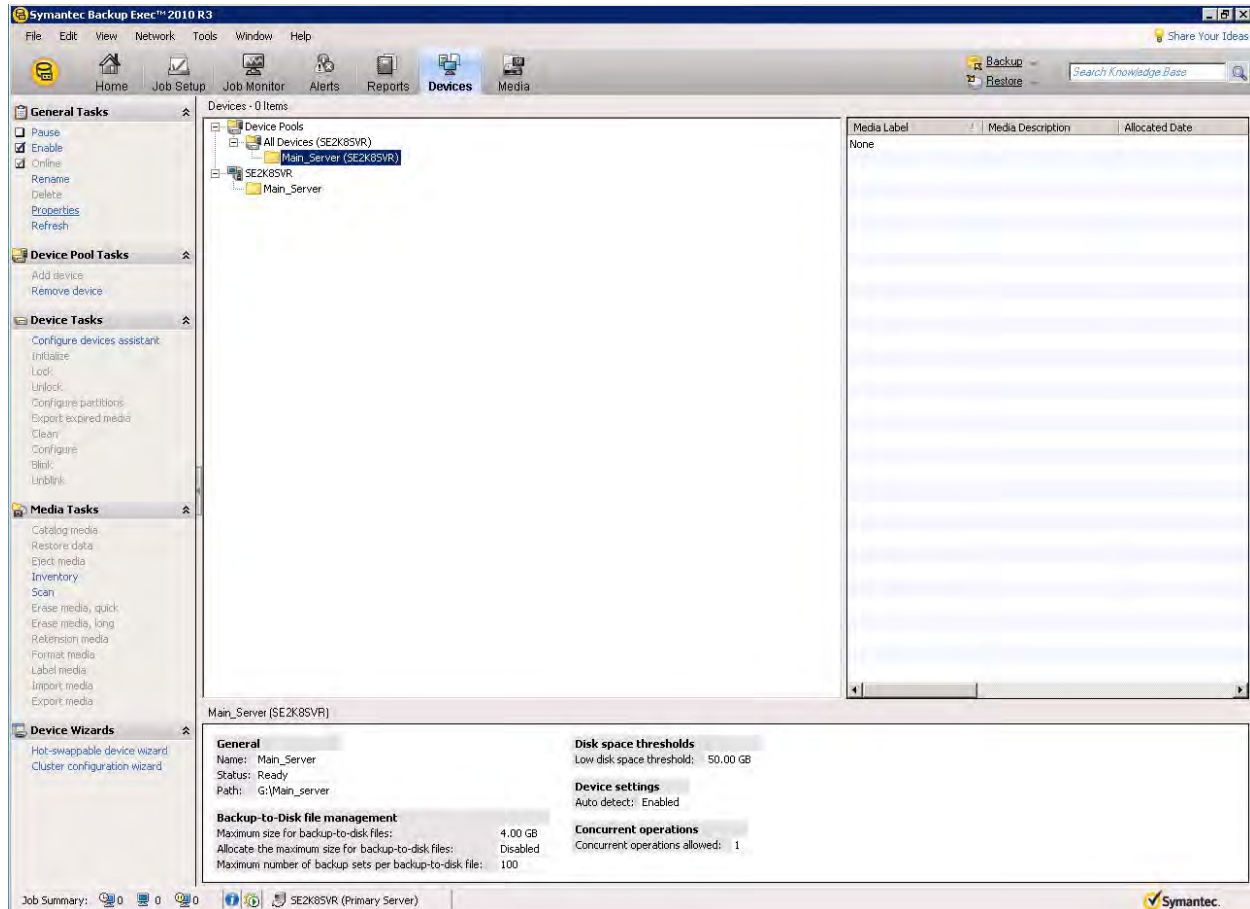


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In the Devices area, you'll now see that the backup-to-disk media has been created and can now be used as a destination for your backups.

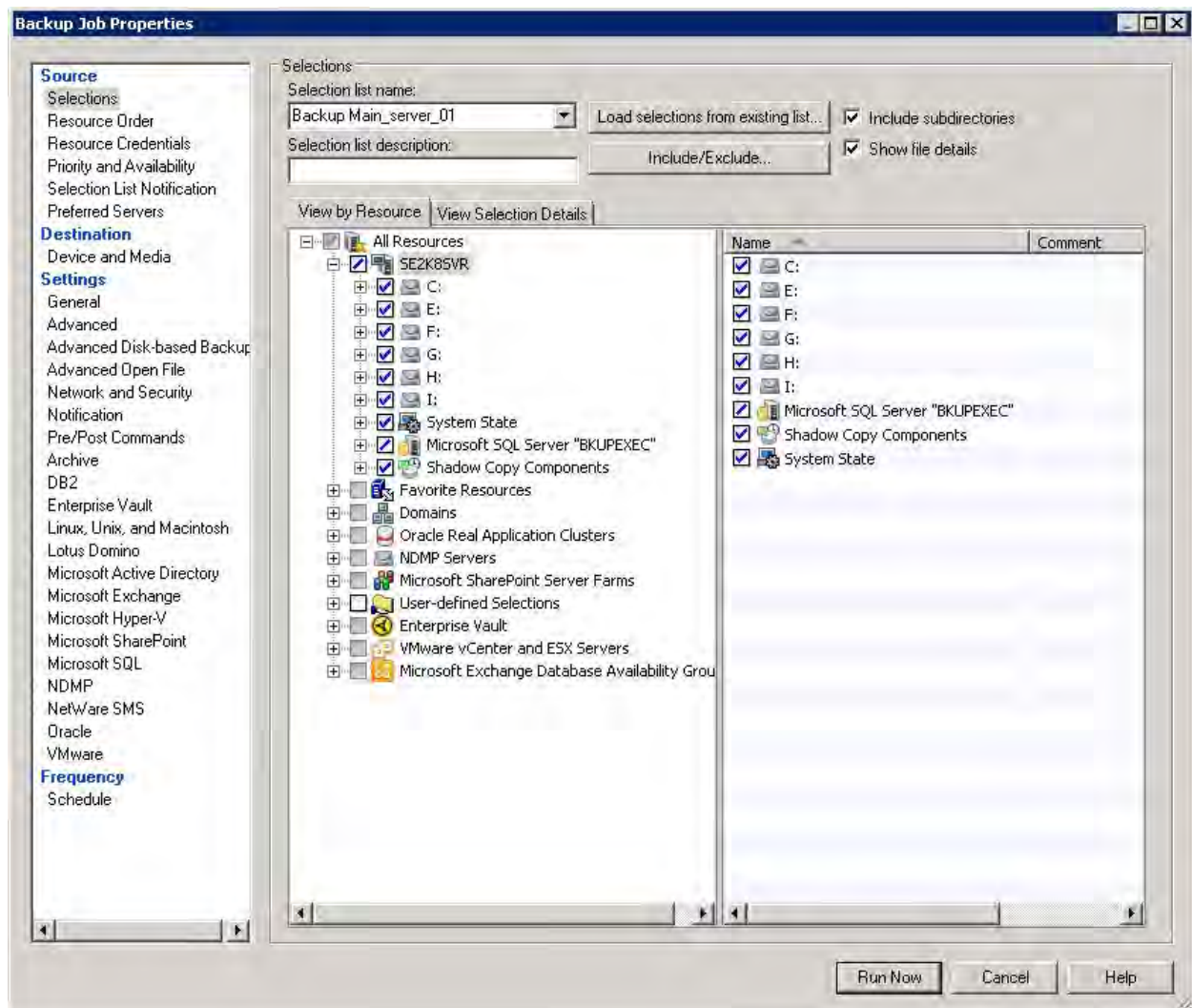




Backing Up Your Local Server

STEP 1

To start a backup job from the local server to the previously created backup-to-disk media, select **Job Setup > New Job**. In the Backup Job Properties window, under Source in the left navigation, click **Selections**. Enter a new selection list name and select the host or sub-options to be backed up.



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STEP 2

In the left navigation, under Destination, select **Device and Media**. In the Device list box, select the newly created media "Main_Server" and modify other settings if you wish. Click **Run Now** to start the backup job.

The screenshot shows the 'Backup Job Properties' dialog box with the 'Device and Media' tab selected. The left-hand navigation pane lists various settings categories: Source, Destination, Settings, and Frequency. Under 'Destination', 'Device and Media' is highlighted. The main area of the dialog is divided into several sections:

- Device:** A dropdown menu showing 'Main_Server' as the selected device. Below it, a list box shows 'Device Pool' with sub-items 'All Devices (SE2K8SVR)' and 'SE2K8SVR'. The 'Main_Server' is highlighted in blue.
- Media set:** A dropdown menu showing 'Keep Data for 4 Weeks'.
- When this job begins:** Three radio button options: 'Overwrite media', 'Append to media, overwrite if no appendable media is available' (which is selected), and 'Append to media, terminate job if no appendable media is available'.
- Eject media after job completes:** An unchecked checkbox.
- Retention media before backup:** An unchecked checkbox.
- Use Write Once Read Many (WORM) media:** An unchecked checkbox.
- Multiple data streams (Oracle and DB2 only):** Two spin boxes. The first is labeled 'Maximum number of devices to use for resources that support multiple data streams:' and is set to '1'. The second is labeled 'Minimum number of devices, terminate job if fewer devices are available:' and is also set to '1'.

At the bottom right of the dialog, there are three buttons: 'Run Now', 'Cancel', and 'Help'.

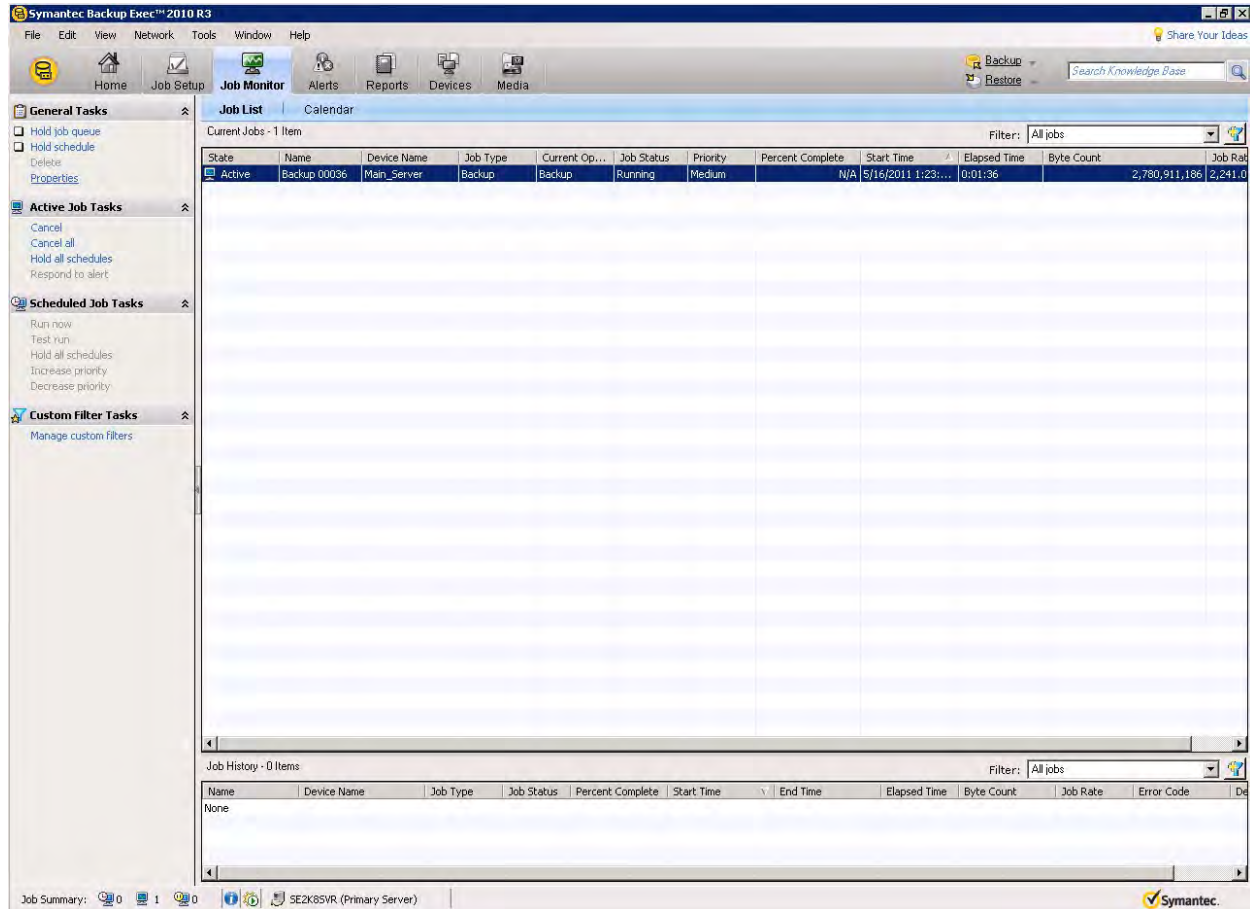
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STEP 3

Under Job Monitor in the top navigation menu, a new job is displayed. Notice that the destination "Device Name: Main_Server" is the backup-to-disk directory that is stored on the Drobo.

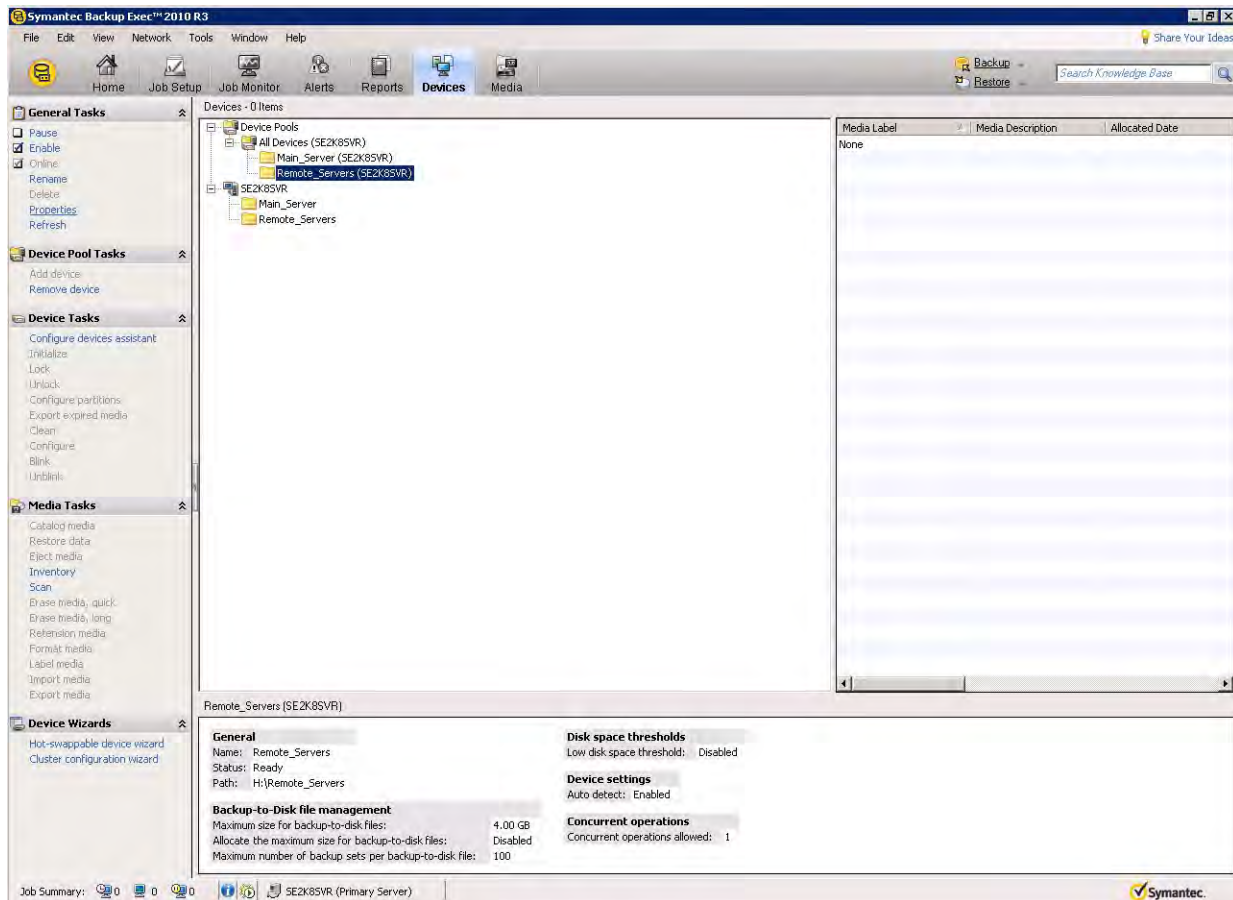




Backing Up Agent-Based Servers Remotely

STEP 1

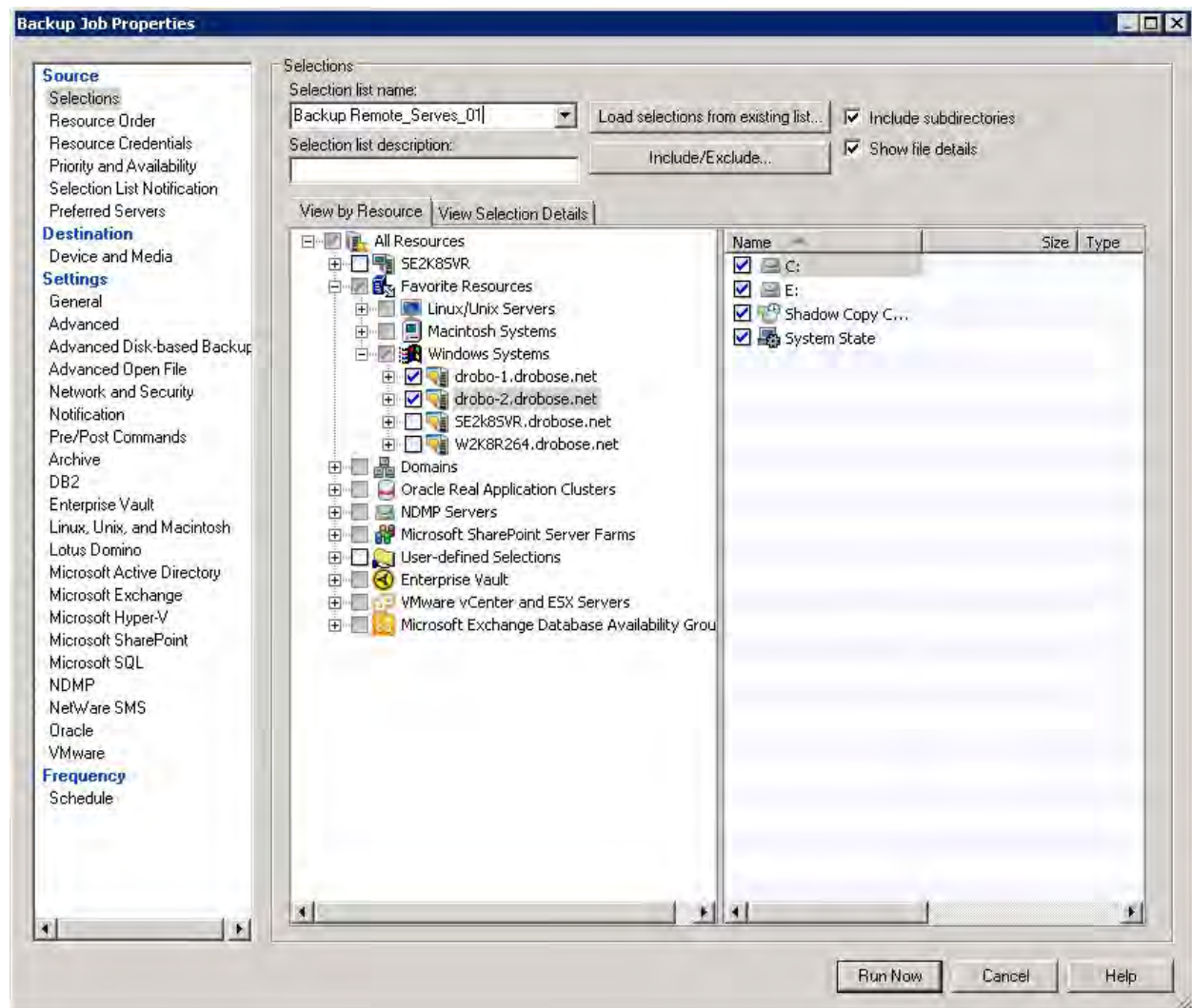
Backing up remote servers using Symantec Backup Exec is quite easy. Simply follow the instructions in the *Backup Exec Administrator's Guide* to install the remote agent. If needed, follow the instructions at the beginning of this guide to create a new backup-to-disk folder. As you can see below, you will now create a different backup-to-disk folder to be used as destination for this type of backup.





STEP 2

Once the new backup-to-disk folder is created, create a new job by going to **Job Setup > New Job**. Within the Backup Job Properties under Source-Selections, create a new name for this selection and select the remote servers that you installed agents on to be backed up.





STEP 3

In the left navigation, in the Destination section, select **Device and Media**. In the Device section in the right pane, click to display available options. Select the newly created media "Remote_Servers" and modify other settings that if you wish. Click **Run Now** to start the backup job.

Backup Job Properties

Source

- Selections
- Resource Order
- Resource Credentials
- Priority and Availability
- Selection List Notification
- Preferred Servers

Destination

- Device and Media**

Settings

- General
- Advanced
- Advanced Disk-based Backup
- Advanced Open File
- Network and Security
- Notification
- Pre/Post Commands
- Archive
- DB2
- Enterprise Vault
- Linux, Unix, and Macintosh
- Lotus Domino
- Microsoft Active Directory
- Microsoft Exchange
- Microsoft Hyper-V
- Microsoft SharePoint
- Microsoft SQL
- NDMP
- NetWare SMS
- Oracle
- VMware

Frequency

- Schedule

Device and Media

Device:

All Devices (SE2K8SVR)

Device Pool

- All Devices (SE2K8SVR)
- SE2K8SVR
- Main_Server
- Remote_Servers**

☒ Use media server deduplication

Deduplicate the data on the media server if the device supports it; otherwise the data is passed through the media server to the OpenStorage device for appliance deduplication.

Media set:

Keep Data for 4 Weeks

When this job begins:

- ☐ Overwrite media
- ☒ Append to media, overwrite if no appendable media is available
- ☐ Append to media, terminate job if no appendable media is available

☒ Eject media after job completes

☐ Retension media before backup

☐ Use Write once, read many (WORM) media

Multiple data streams (Oracle and DB2 only)

Maximum number of devices to use for resources that support multiple data streams: 1

Minimum number of devices, terminate job if fewer devices are available: 1

Run Now **Cancel** **Help**

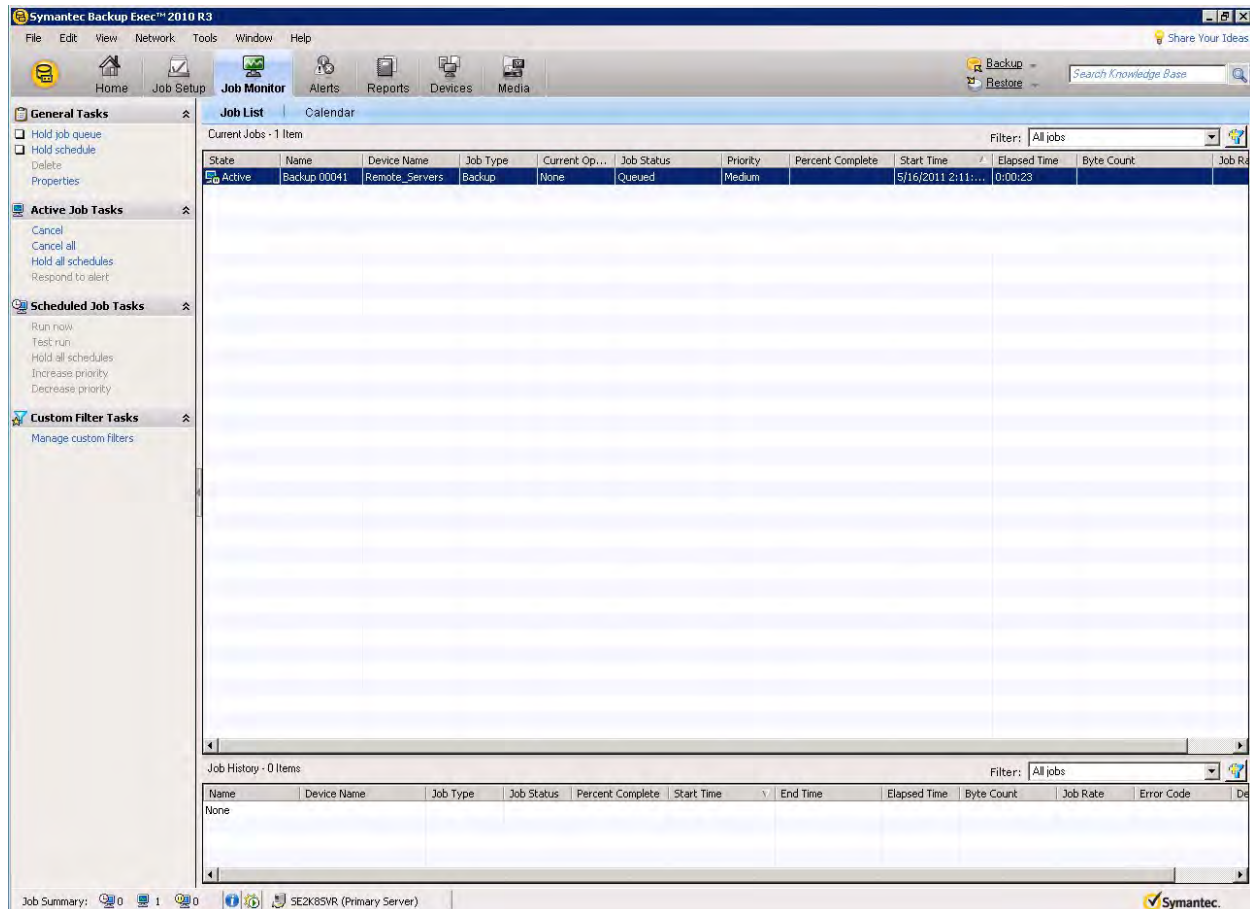
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STEP 4

Under Job Monitor in the main menu at the top, a new job is displayed. Notice that the destination "Device Name: Remote_Servers" is now an additional backup-to-disk folder on the Drobo.

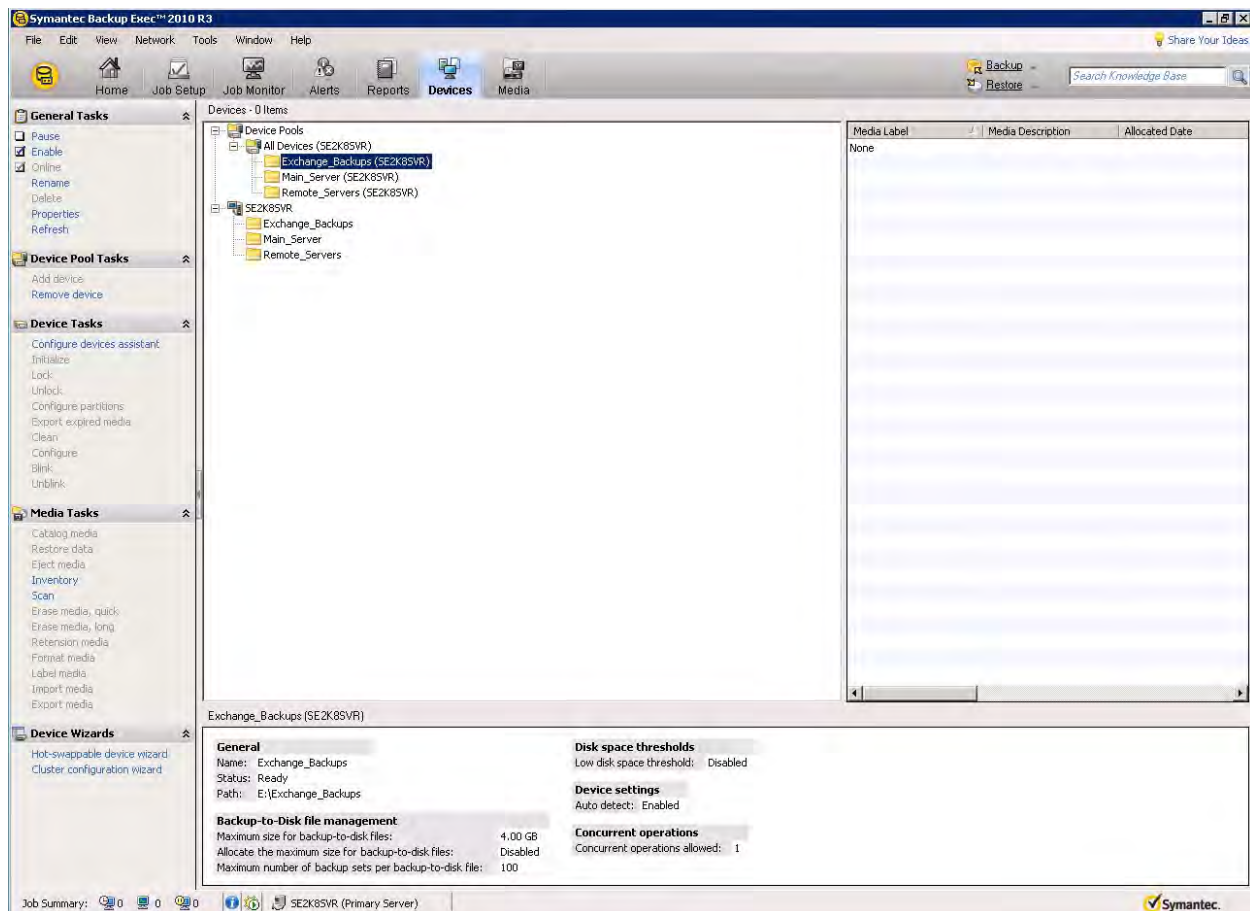




Protecting Your Exchange Server

STEP 1

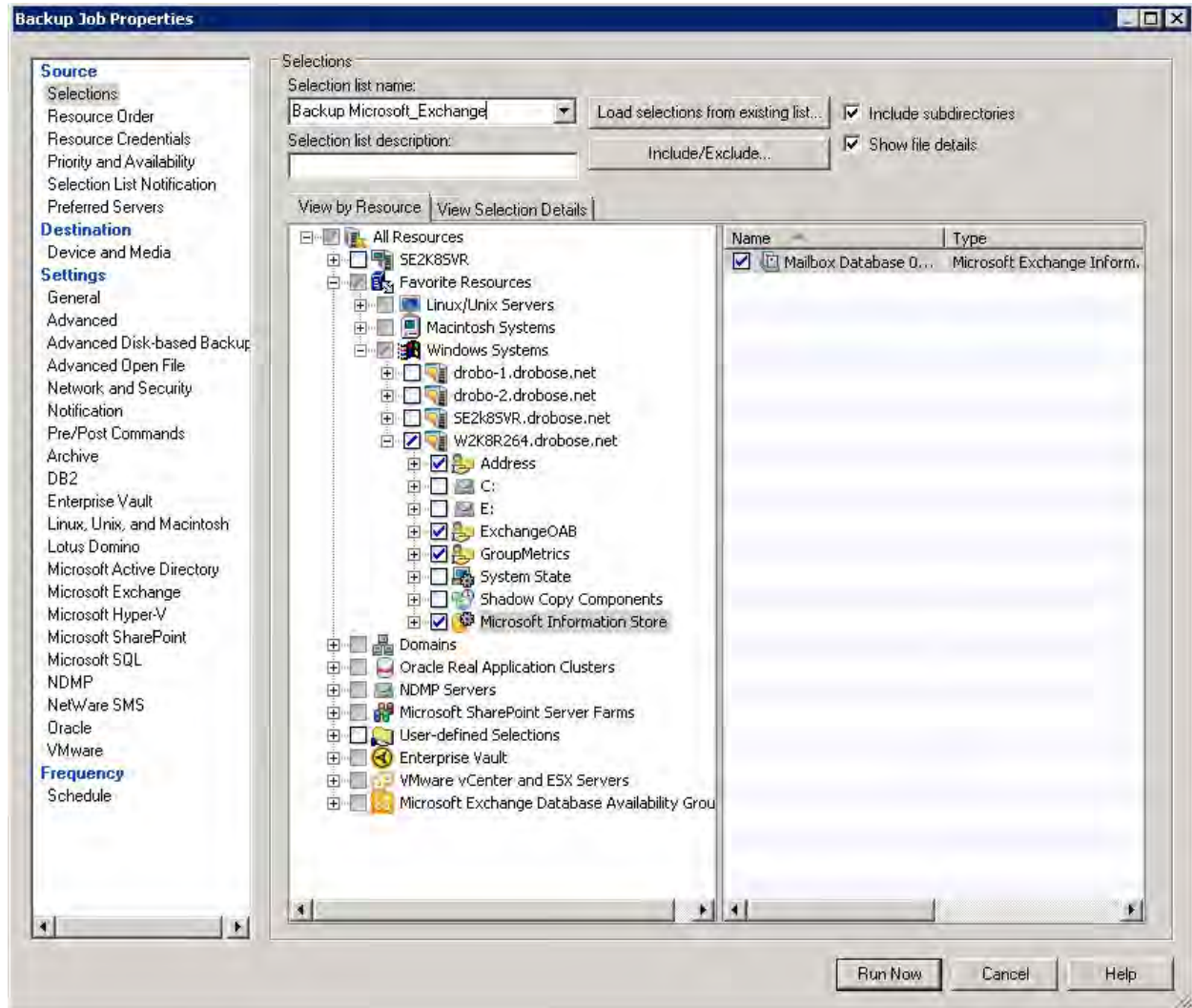
Symantec Backup Exec can also help organizations back up up their Microsoft Exchange Servers without any downtime. Follow the instructions on the *Backup Exec Administrator's Guide* to install the remote agent, which will allow you to select the Microsoft Exchange components as a source. It is recommended that Exchange backups be kept on a separate volume. Follow the instructions at the beginning of this guide to create a new backup-to-disk folder.





STEP 2

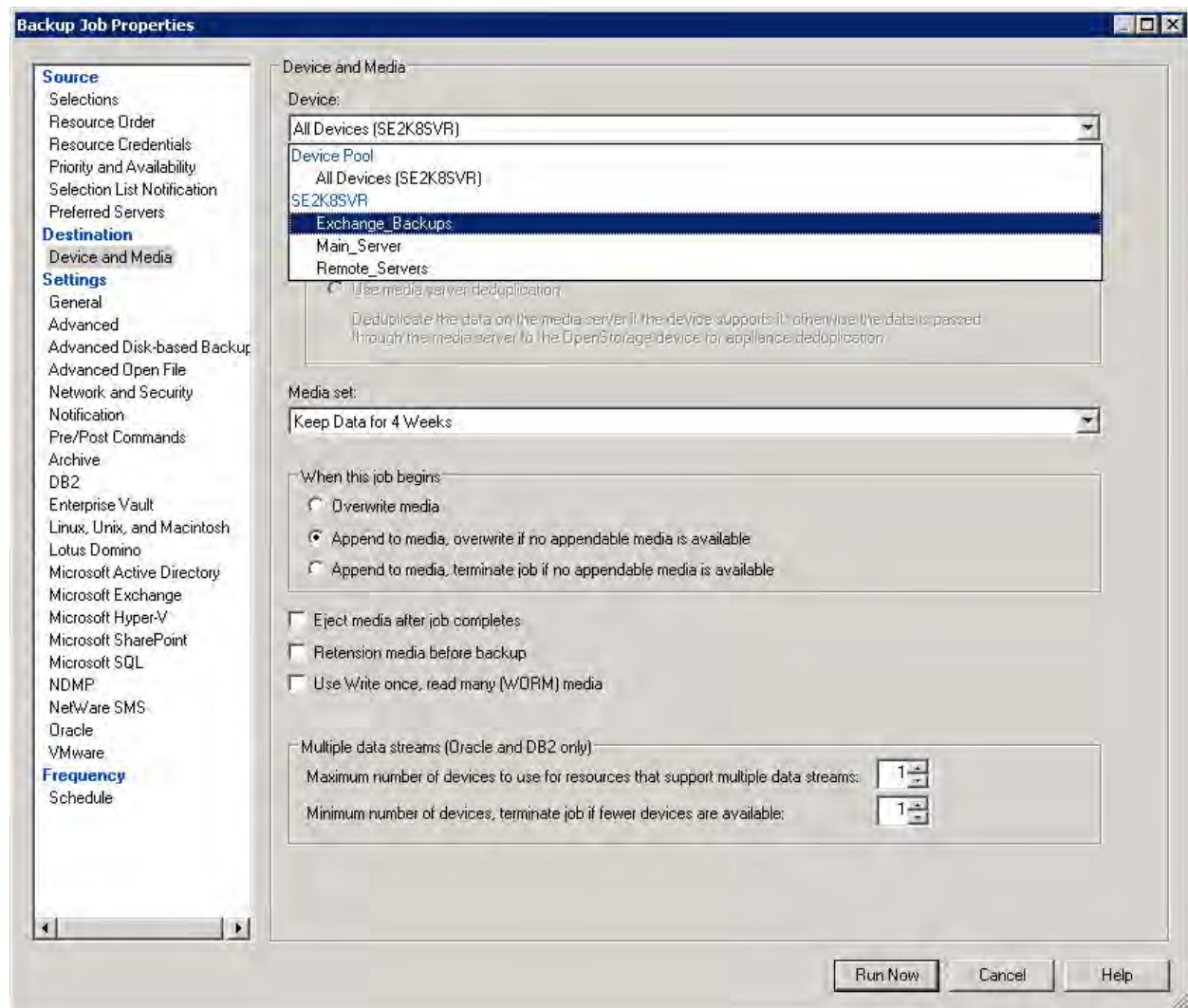
Now go to **Job Setup > New job**. In the Backup Job Properties window, click **Source > Selections**, Create a new name for this selection and select the Microsoft Exchange components to be backed up.





STEP 3

In the left navigation, in the Destination section, select **Device and Media**. In the Device section, click to display available options. Select the newly created media "Exchange_Backups" and modify other settings if you wish. Click **Run Now** to start the backup job.



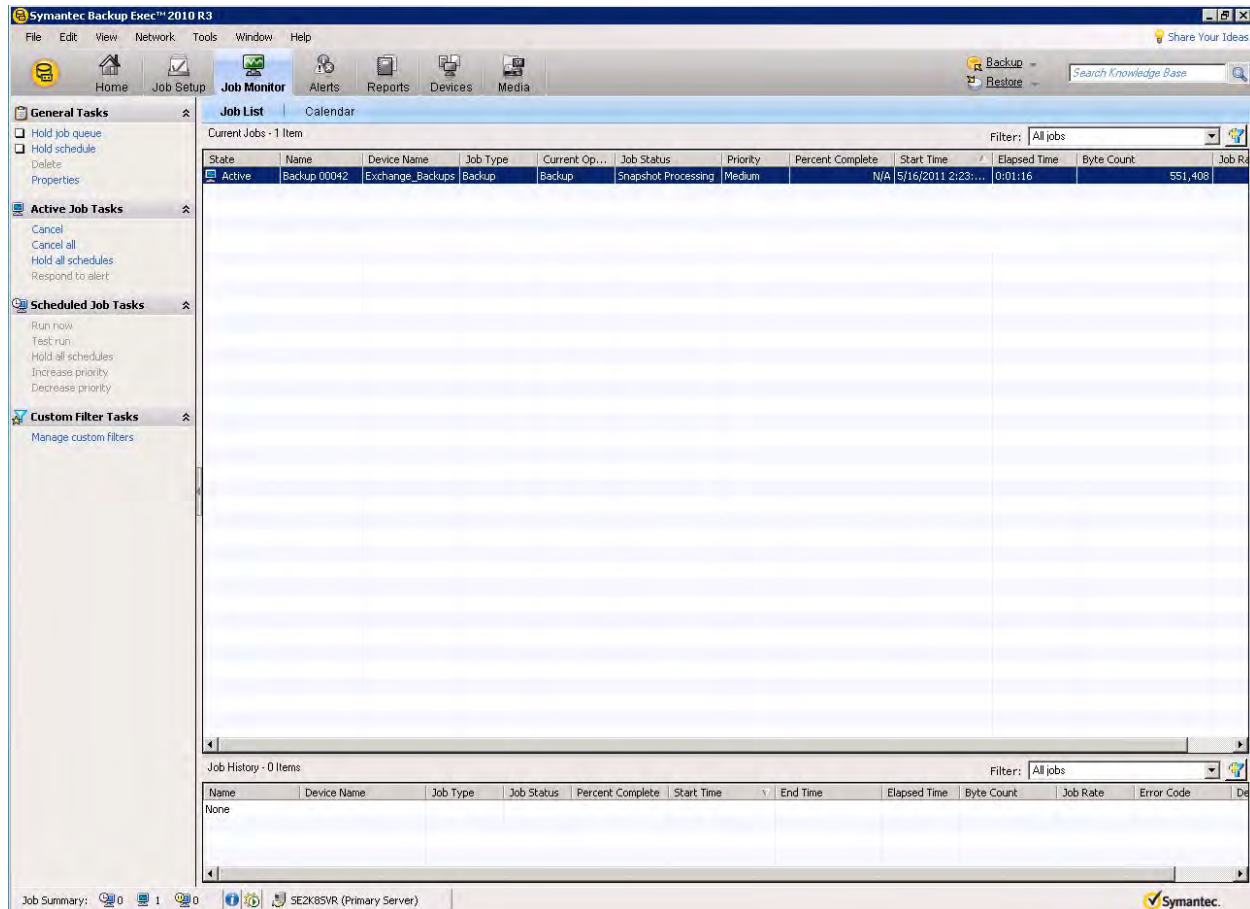
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STEP 4

Under Job Monitor in the main menu at the top, a new job is displayed. Notice that the destination "Device Name: Exchange_Backups" appears as another backup-to-disk directory stored on the Drobo.



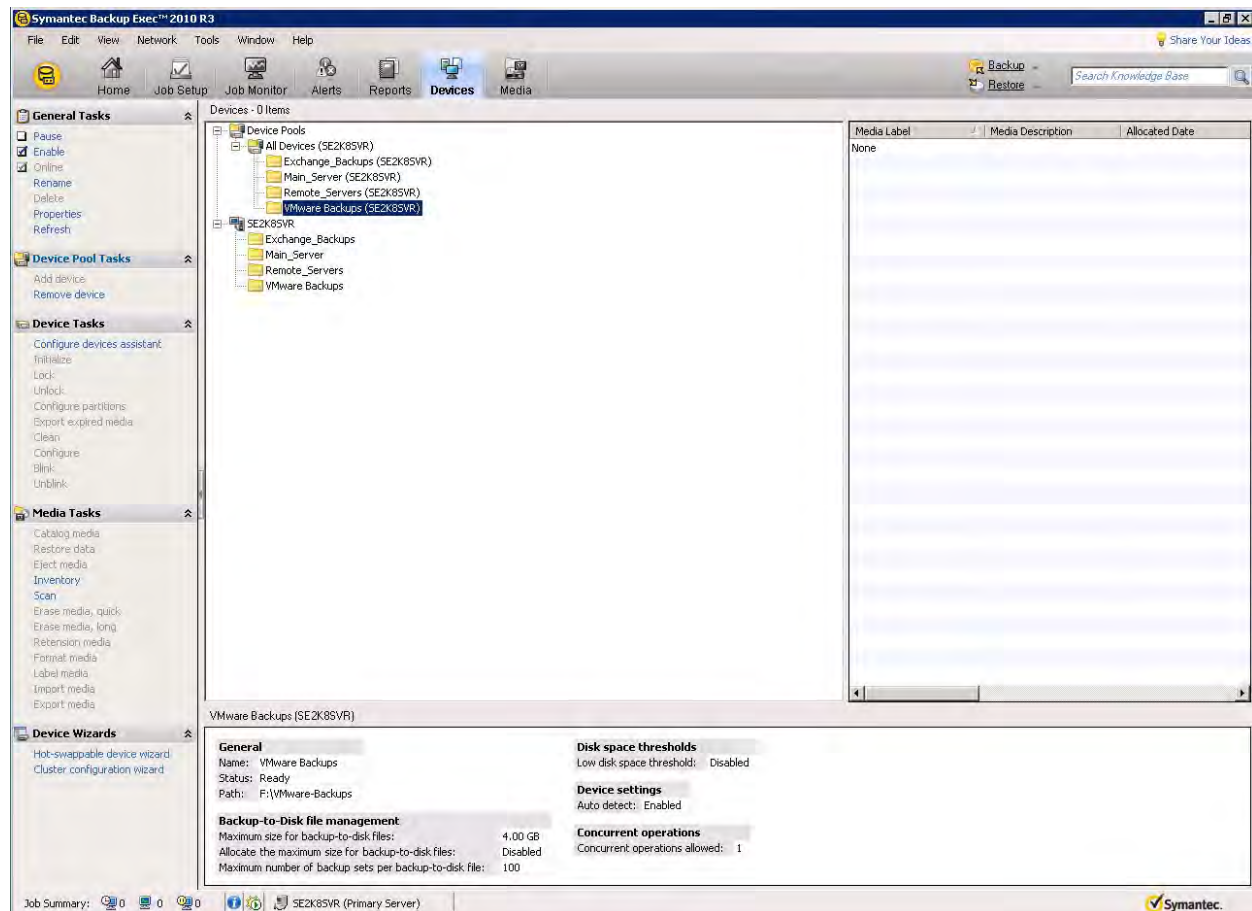


Backing Up VMware VMs Easily

STEP 1

With Backup Exec, you can also back up virtual machines that reside in a VMware virtualized environment. To allow Backup Exec to protect these VMs, create a Logon Account in Backup Exec. These credentials are the username and password used to access VMware vCenter or a single ESXi host.

Once this is complete, add new backup destinations following the procedure at the beginning of this guide.



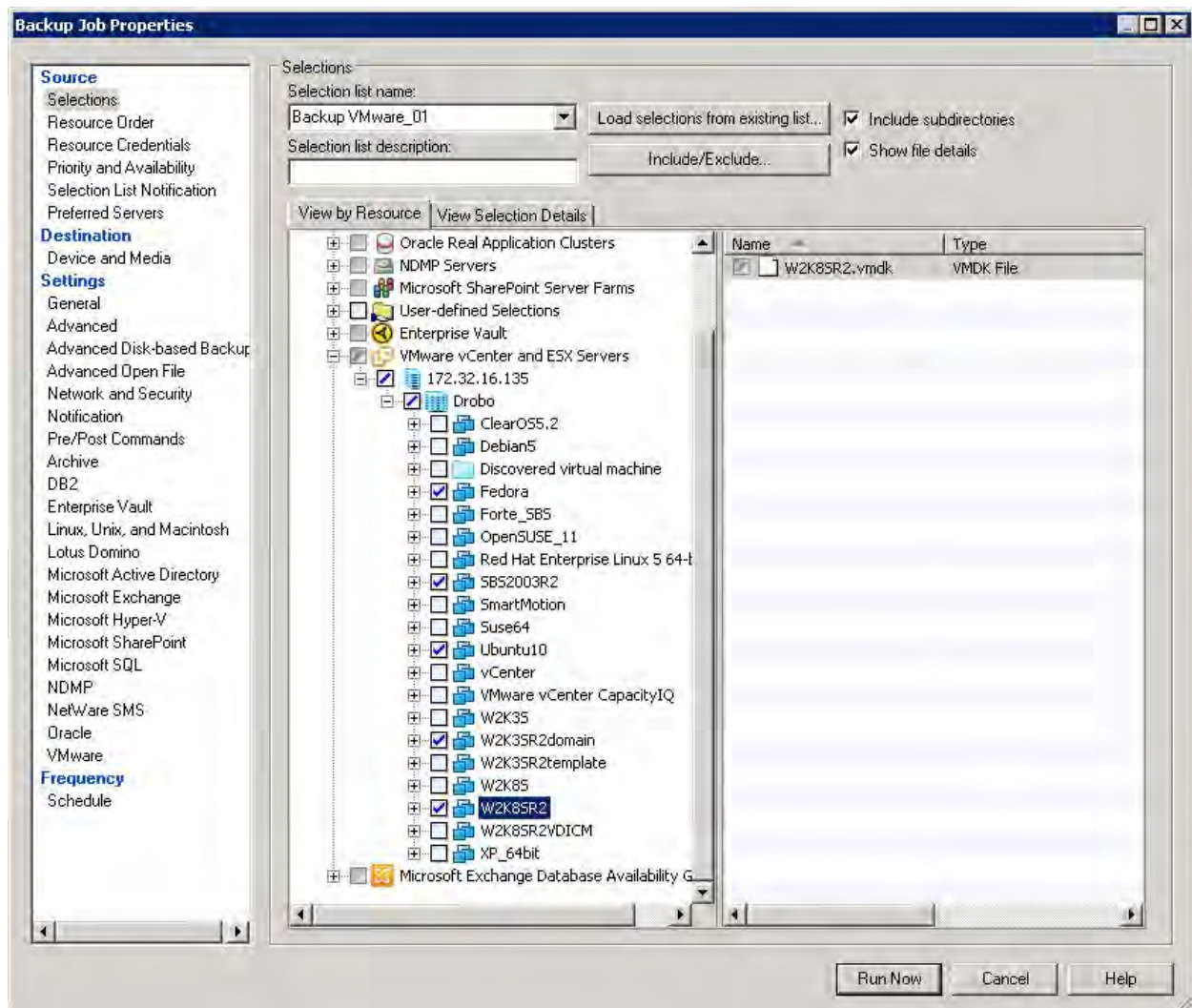
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STEP 2

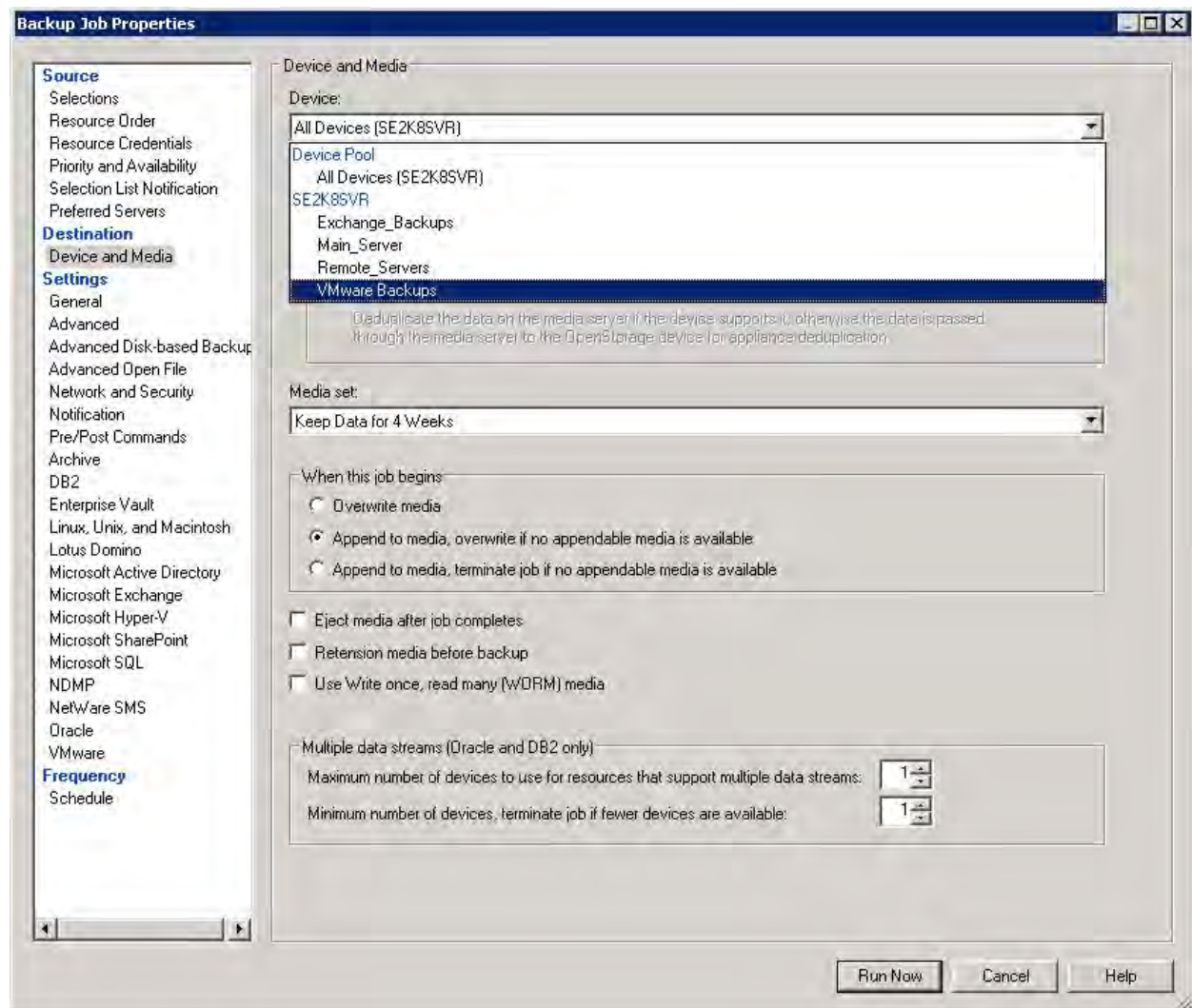
Now go to **Job Setup > New job**. In the Backup Job Properties window, click **Source > Selections**, create a new name for this selection and choose the resource "VMware vCenter and ESX Servers". Then select the VMs to be backed up.





STEP 3

In the left navigation pane, click **Destination > Device and Media**. In the Device section, click to display available options. Select the newly created media "VMware Backups" and modify other settings if you wish. Click **Run Now** to start the backup job.



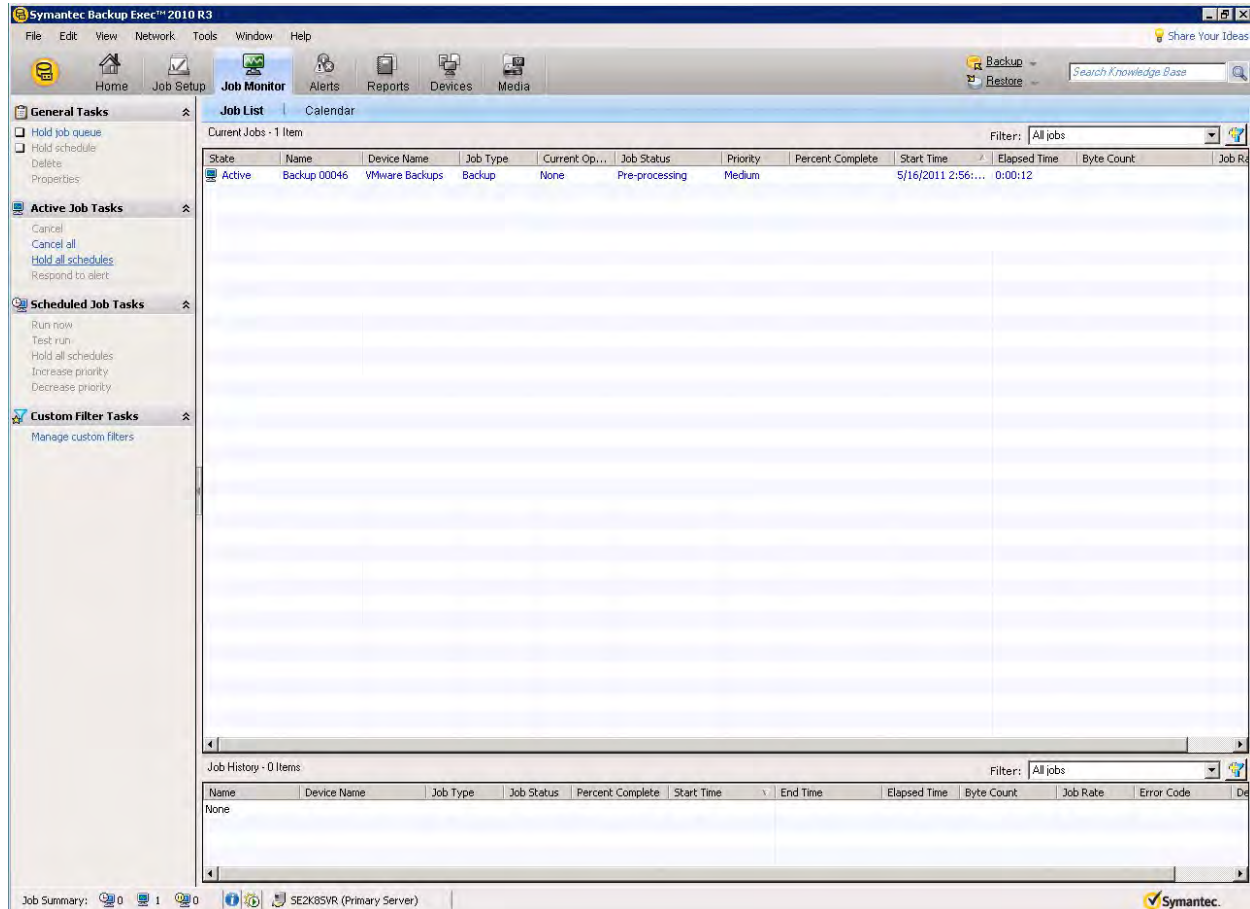
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STEP 4

Under Job Monitor, the new job is displayed. Notice that the destination "Device Name: VMware backups" is an additional backup-to-disk folder stored on the Drobo.





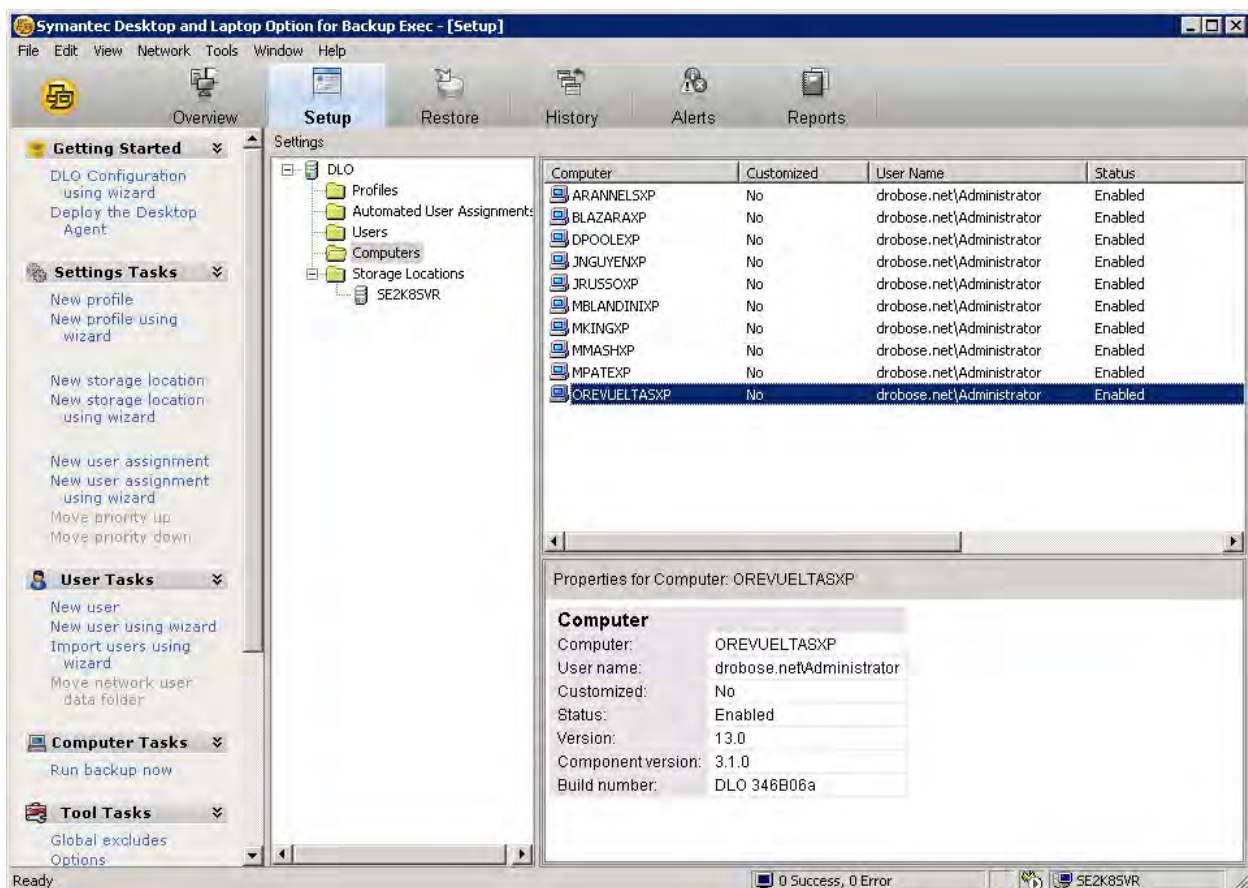
Adding a Storage Location for Desktop and Laptop Options

STEP 1

Symantec Backup Exec enables a seamless backup workflow for end user data. DLO (Desktop and Laptop Option) is a feature/agent in Symantec Backup Exec that enables remote backup of user data. This option works only with specific versions of Windows, so refer to the *Backup Exec Administrator's Guide* for more information. Assuming that the DLO agent has been installed and you now have end user systems listed in the DLO manager, add a storage repository to which data will be backed up.

Under Setup, go to **Backup Strategy Tasks > Configure desktop and laptop backups.**

If the DLO agent is deployed, you can now see the hosts listed under "DLO > Computers."



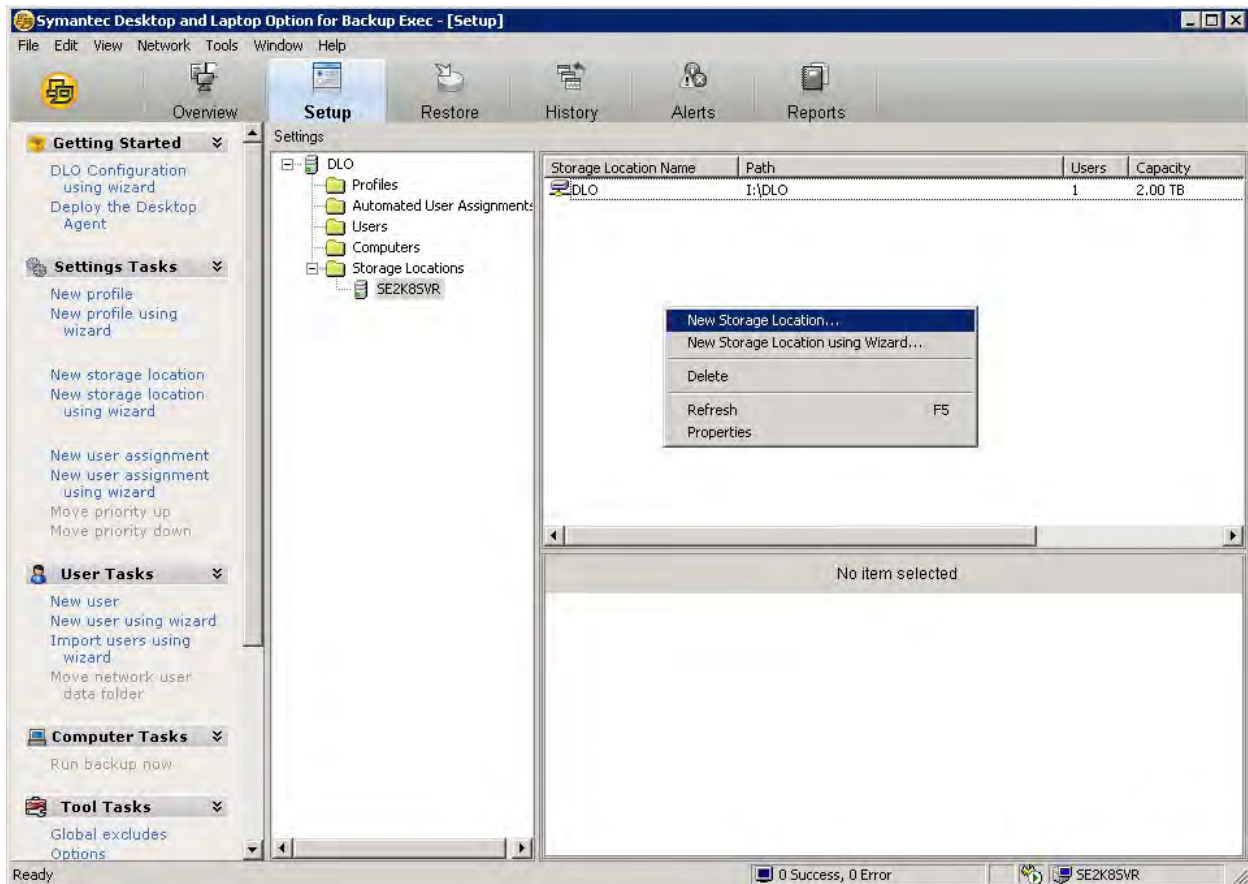
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STEP 2

Now click **DLO > Storage Locations** in the left navigation of the Settings pane. Notice that if there are multiple Backup Exec servers, any server can be used as the backup destination for the DLO agents. This will allow you segregate the traffic across multiple servers. In this example, we will only use one server where Backup Exec is installed. Right-click in the DLO setup area and select **New Storage Location** from the menu.





STEP 3

Enter the information and select the path to where the DLO backups are to be stored. This can be a root-level drive or a directory/folder within a drive.

New Storage Location

Storage Location:

Computer name: SE2K8SVR Browse...

Path: I:\DLO_Desktops Browse...

Storage location name: DLO_Desktops

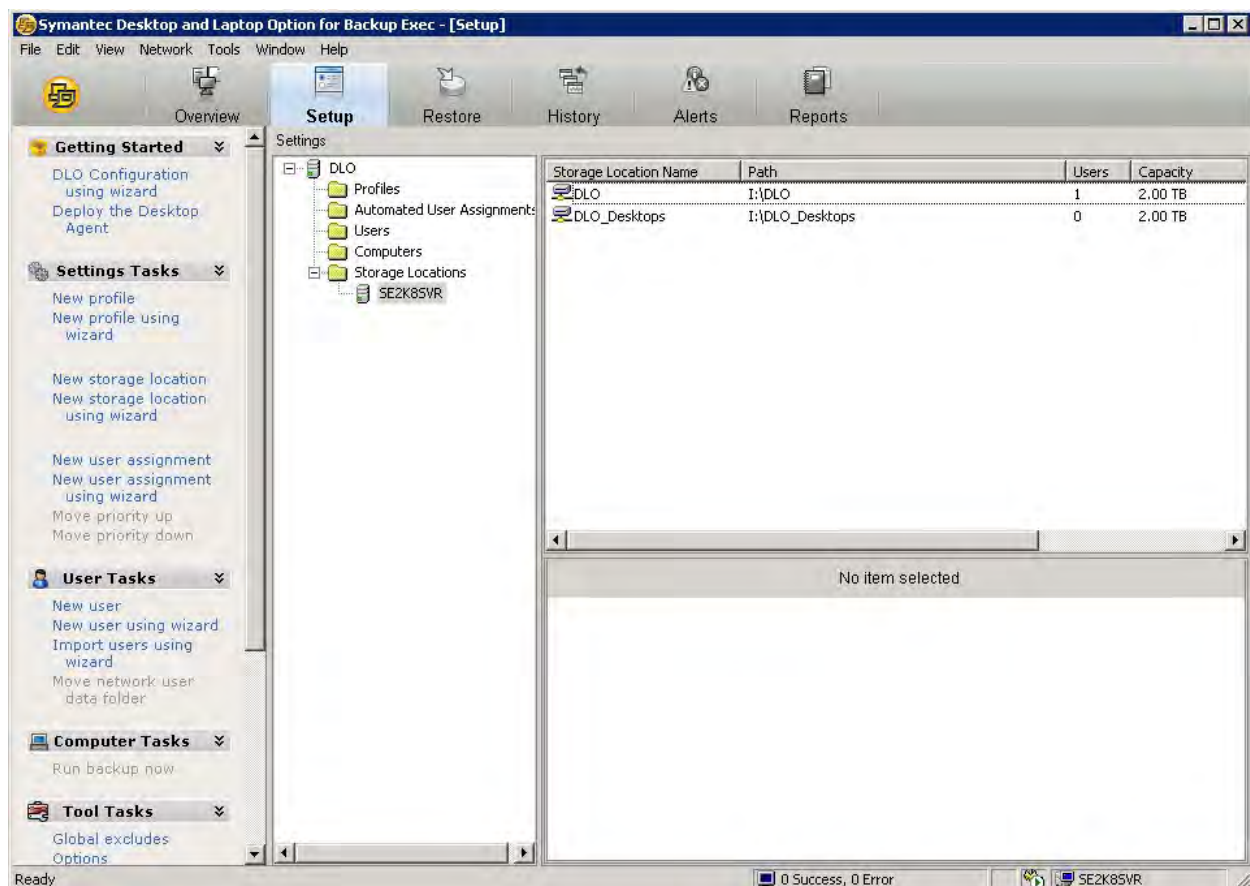
Summary:

Users assigned to this storage location will back up desktop data to user data folders created in the following location and format:

\\SE2K8SVR\DLO_Desktops\%USERDOMAIN%\%USERNAME%

OK Cancel Help

You will see that a new storage location has been added.



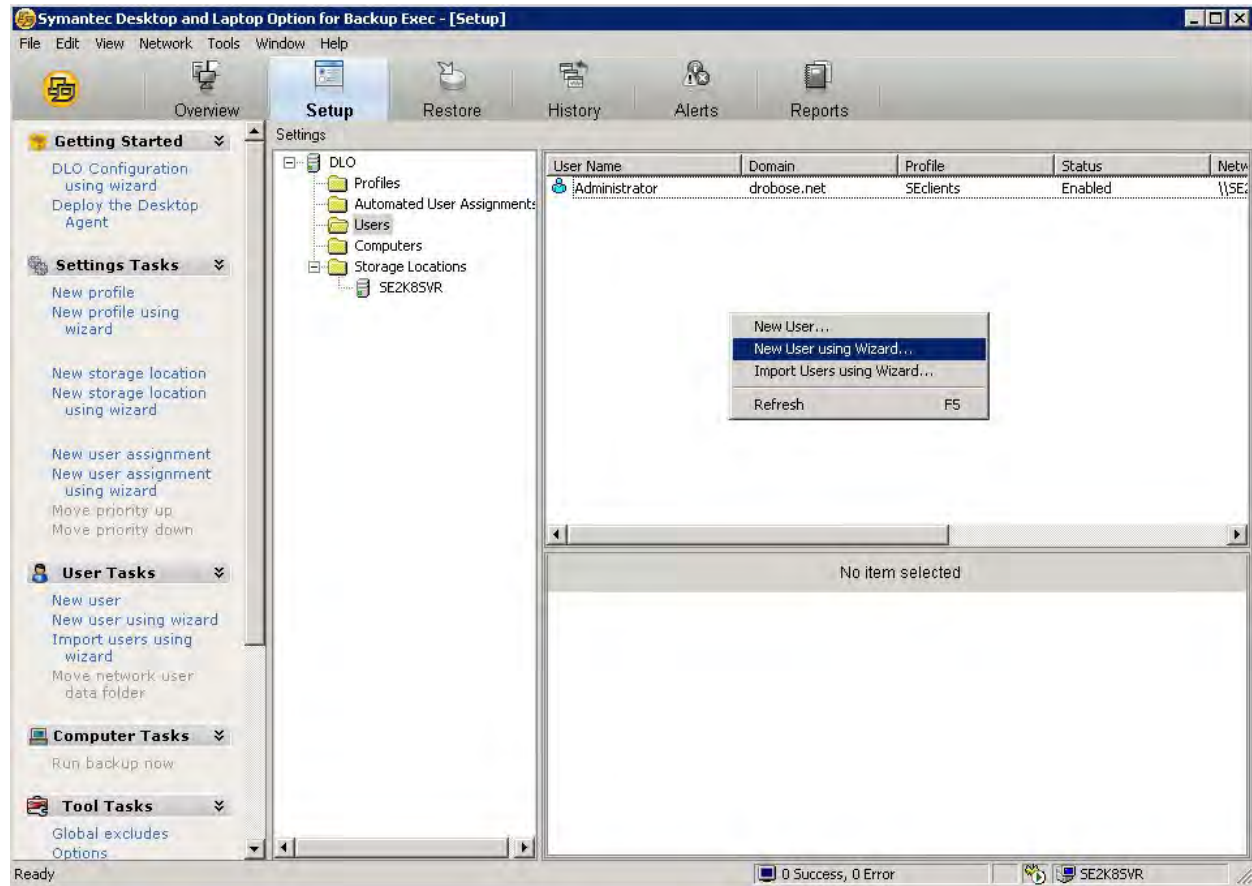
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STEP 4

If users have already been defined, then the path to backup locations can easily be changed. To add a user or a groups of users, use the wizard and follow the on-screen instructions.



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Once the process is complete, you will see users that were added along with their backup storage repository paths.

The screenshot shows the Symantec Backup Exec 2010 R3 Setup window. The 'Setup' tab is active, displaying a tree view on the left with 'Storage Locations' expanded, showing 'SE2K8SVR'. The main pane shows a table of storage locations:

Storage Location Name	Path	Users	Capacity
DLO	I:\DLO	1	2.00 TB
DLO_Desktops	I:\DLO_Desktops	0	2.00 TB
DLO_OREVUELTAS	I:\DLO_OREVUELTAS	0	2.00 TB

Below the table, the 'Properties for Storage Location: DLO_OREVUELTAS' are shown:

Storage Location
Computer name: SE2K8SVR
Storage location name: DLO_OREVUELTAS
Path: I:\DLO_OREVUELTAS
User data folder: \\SE2K8SVR\DLO_OREVUELTAS\%USERDOMAIN%\%USERNAME%

Statistics
Number of users: 0
Capacity: 2.00 TB

The status bar at the bottom indicates '0 Success, 0 Error' and 'SE2K8SVR'.

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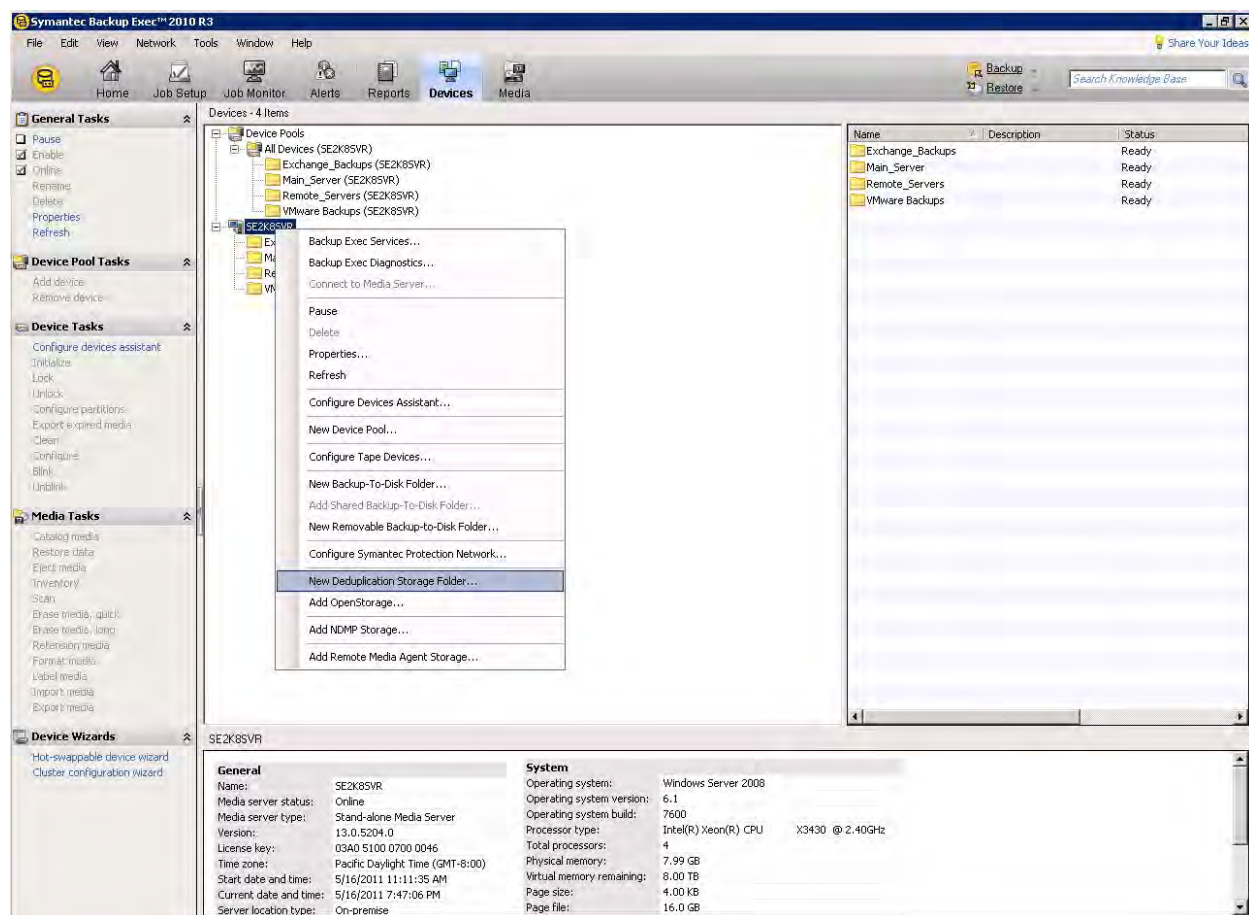


Maximizing Storage Capacity with Deduplication

Deduplication is a technology that allows IT system administrators to maximize the storage capacity in their environments. With Backup Exec, an administrator can define which backup types (Local, Remote, SQL/Exchange, and so on) should be deduplicated. These steps show how easy it is to use a Drobo iSCSI volume as the storage repository for deduplication tasks.

STEP 1

Start by going to the Devices area. This is the screen where all your devices that are used as destination are listed. To create the new folder, right-click on the Symantec Backup Exec media server and select **New Deduplication Storage Folder**.





STEP 2

In the General tab, enter the required information. Note that you will need another logon account that is NOT the default System Logon Account.



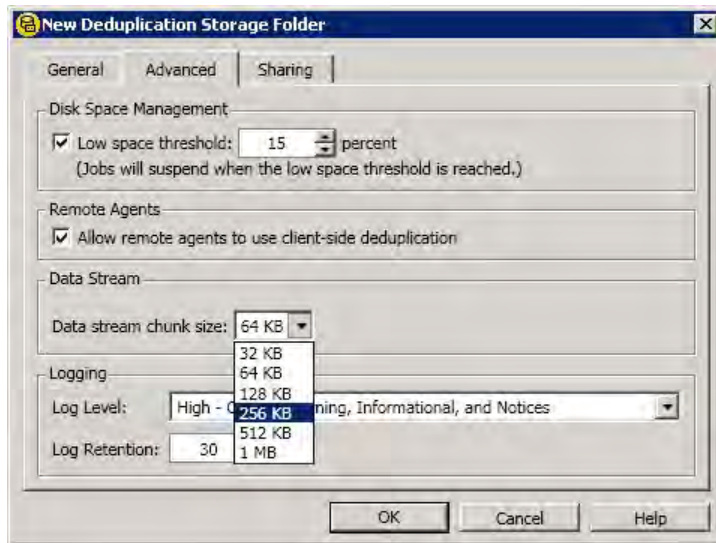
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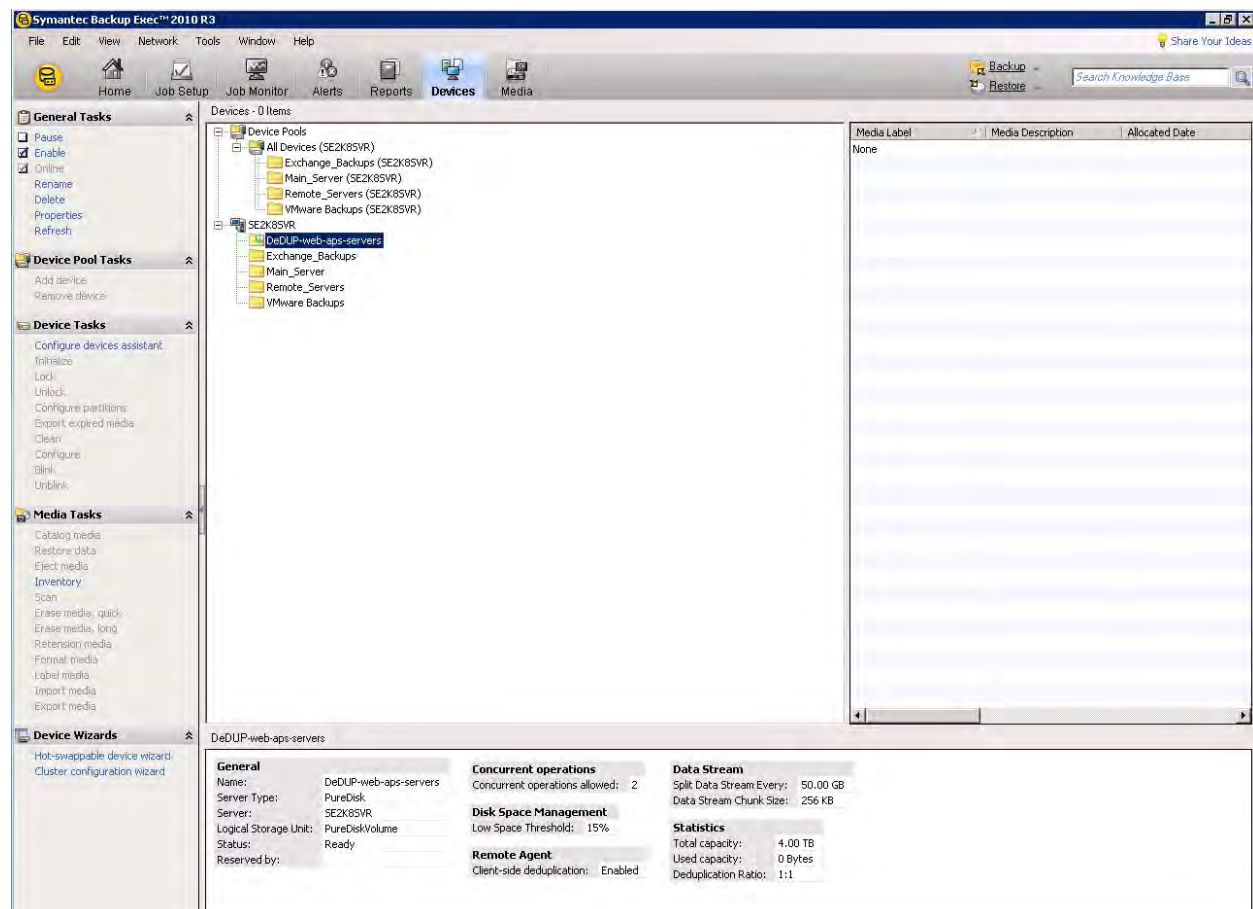


STEP 3

In the Advanced Tab, fill in the configuration, paying extra attention to the Data Stream Chunk Size in the Data Stream section. Select a recommended value of 256 KB for optimal performance. Click **OK** to finish this part of the procedure.



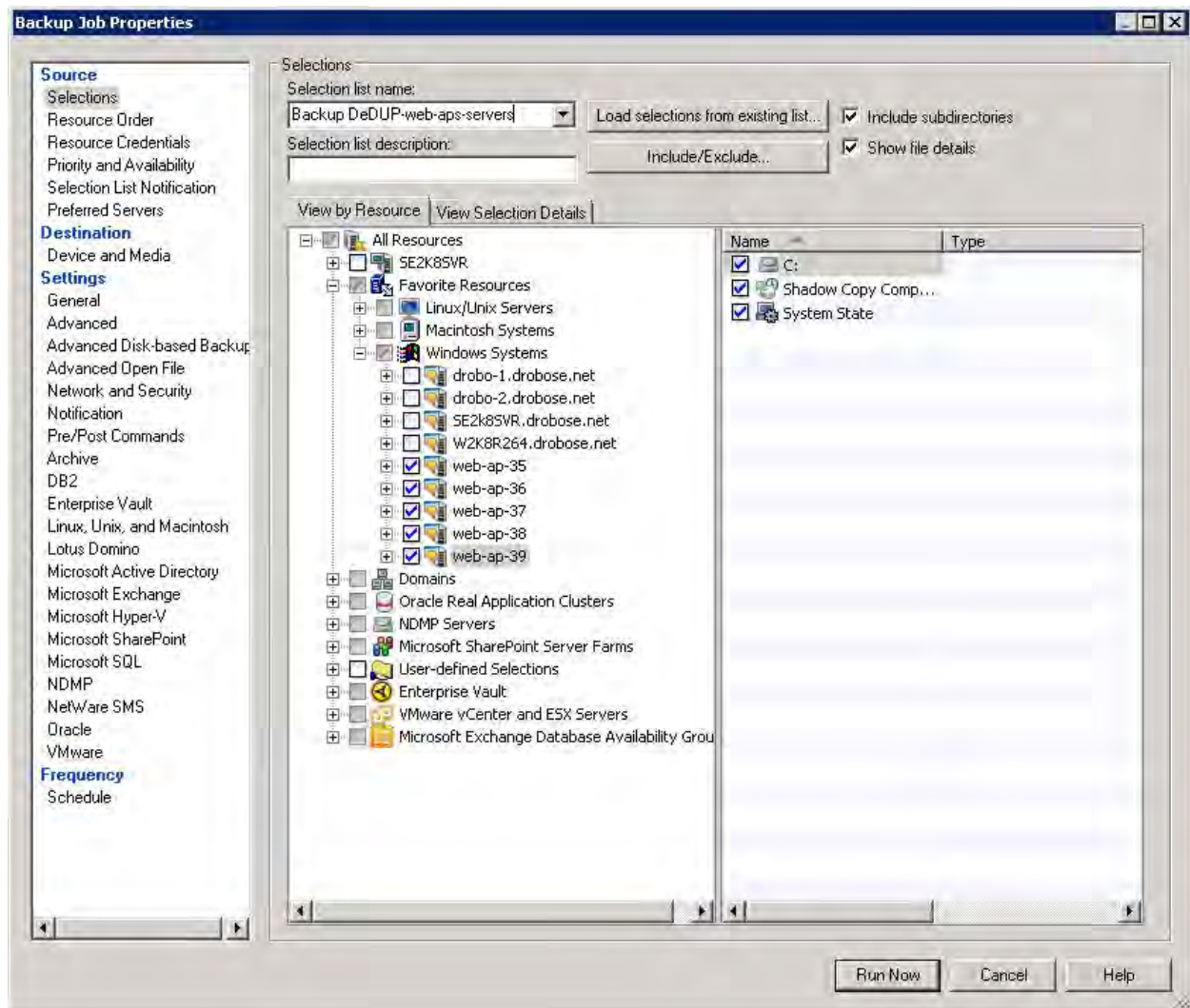
You will now see that the deduplication folder has been added to your media server.





STEP 4

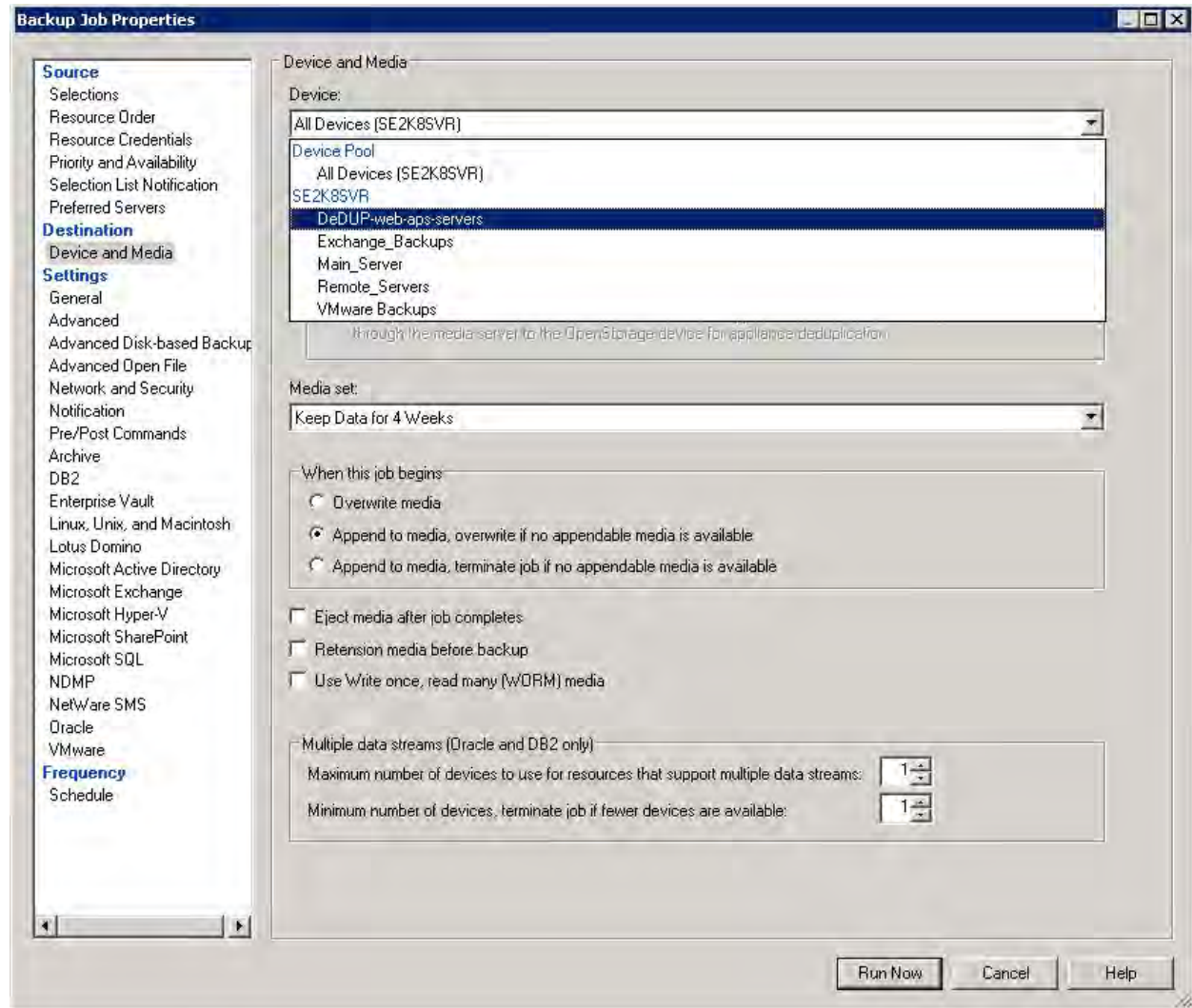
To add a new job for which the source will be deduplicated, go to **Job Setup > New job** and click **Source > Selections**. Then select which resources should be deduplicated.





STEP 5

In the left navigation, click **Destination > Device and Media**. In the Device section, click to display available options. Select the newly created media "DeDUP-web-apps-servers."



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STEP 6

Note that at this point when a deduplication storage folder is used, two different options will appear to allow you to select either "Use client-side deduplication" or "Use media server deduplication."

Select **Use client-side deduplication** to alleviate CPU resource constraints on the server side.

Click **Run Now** and finish.

Backup Job Properties

Source

- Selections
- Resource Order
- Resource Credentials
- Priority and Availability
- Selection List Notification
- Preferred Servers

Destination

- Device and Media

Settings

- General
- Advanced
- Advanced Disk-based Backup
- Advanced Open File
- Network and Security
- Notification
- Pre/Post Commands
- Archive
- DB2
- Enterprise Vault
- Linux, Unix, and Macintosh
- Lotus Domino
- Microsoft Active Directory
- Microsoft Exchange
- Microsoft Hyper-V
- Microsoft SharePoint
- Microsoft SQL
- NDMP
- NetWare SMS
- Oracle
- VMware

Frequency

- Schedule

Device and Media

Device: DeDUP-web-aps-servers

Deduplication

☐ Use client-side deduplication
Deduplicate the data on the client (remote agent) if the device supports it; otherwise the data is sent directly to the storage device for media server or appliance deduplication

☒ Use media server deduplication
Deduplicate the data on the media server if the device supports it; otherwise the data is passed through the media server to the OpenStorage device for appliance deduplication

Media set: Keep Data for 4 Weeks

When this job begins

☐ Overwrite media

☒ Append to media, overwrite if no appendable media is available

☐ Append to media, terminate job if no appendable media is available

☐ Eject media after job completes

☐ Retention media before backup

☐ Use Write once, read many (WORM) media

Multiple data streams (Oracle and DB2 only)

Maximum number of devices to use for resources that support multiple data streams: 1

Minimum number of devices, terminate job if fewer devices are available: 1

Run Now **Cancel** **Help**

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STEP 7

Under Job Monitor, a new job is displayed. Notice that the destination "Device Name: DeDUP-web-apps-servers" is another backup-to-disk folder stored on the Drobo.

The screenshot shows the Symantec Backup Exec 2010 R3 Job Monitor window. The 'Job List' tab is selected, showing a table of current jobs. The 'Job History' tab is also visible, showing a table of past jobs.

State	Name	Device Name	Job Type	Current Op...	Job Status	Priority	Percent Complete	Start Time	Elapsed Time	Byte Count
Active	Backup 00049	DeDUP-web-apps-servers:1	Backup	Backup	Running	Medium	N/A	5/20/2011 12:27...	0:02:01	438,709,797

Name	Device Name	Job Type	Job St...	Percent Complete	Start Time	End Time	Elapsed Time	Byte Count	Job Rate	Error Code
Backup 00046	VMware Backups	Backup	Comple...	100%	5/16/2011 4:41:42...	5/18/2011 2:29:41...	45:47:59	504,739,120,780	205.00 MB/min	
Backup 00042	Exchange_Backups	Backup	Successful	100%	5/16/2011 4:41:27...	5/16/2011 4:46:18...	0:04:51	277,234,985	178.00 MB/min	
Backup 00036	Main_Server	Backup	Successful	100%	5/16/2011 4:41:17...	5/16/2011 5:48:40...	1:07:23	38,348,117,930	1,651.00 MB/min	
Backup 00041	Remote_Servers	Backup	Successful	100%	5/16/2011 4:40:32...	5/17/2011 9:25:33...	16:45:01	367,595,562,190	451.00 MB/min	

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