

Quick Start - Virtual Server *iDataAgent* (VMware)

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System Requirements - Virtual Server iDataAgent (VMware)

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The following requirements are for the Virtual Server iDataAgent:

VIRTUAL SERVER APPLICATION SOFTWARE

VMWARE ESX SERVER

VMware ESX/ ESXi 4.x, 5.0, 5.1

vSphere 4.x, 5.0, or 5.1

Before configuring Virtual Server iDataAgent for ESXi servers, consider the following:

- VADP is not available in the free version of ESXi and requires the Essentials licensing level or higher.
- Proxy computers must be running Windows Server 2008 or higher for ESX Server version 5.0 or 5.1.
- VDDK 5.0 is required for this version of ESX server. VDDK 5.0 update 1 is installed automatically with Service pack 6A or higher.

vSphere 5.5 and VDDK 5.5 are supported only in Calypso Version 10. If you need this support, CommVault recommends upgrading to Version 10. You can begin by upgrading the CommServe system, Virtual Server Agent, and MediaAgent, and upgrade the rest of the CommCell environment later.

VMWARE VCENTER SERVER APPLIANCE

VMware vCenter Server Appliance 5.0.0

VIRTUAL MACHINE HARDWARE

Version 4.0, 7.0, 8.0, 9.0

VIRTUAL MACHINE OPERATING SYSTEMS

All Guest Operating Systems supported by VADP and VCB

PROXY COMPUTER OPERATING SYSTEMS

Microsoft Windows Server 2012 R2 is not supported for Calypso Version 9.

Microsoft Windows Server 2012 x64 Editions

Microsoft Windows Server 2008 32-bit and x64 Editions

Microsoft Windows Server 2003 32-bit and x64 Editions with a minimum of Service Pack 1

Microsoft Windows 7 32-bit and x64 Editions

Microsoft Windows Vista 32-bit and x64 Editions

Microsoft Windows XP Professional 32-bit and x64 Editions

VM LIFECYCLE MANAGEMENT

The following conditions must be considered when utilizing VM Lifecycle Management:

- VMware vCenter 4.1 is required
- VMware Tools (version 8288) must be installed on templates
- Windows Server 2008, Windows 7, and Linux (RedHat5) are supported

HARD DRIVE

100 GB recommended.

If performing backups with the granular recovery option enabled, the location of the Job Results folder should contain additional space to accommodate at least 2 percent of the total amount of data being backed up.

MEMORY

1 GB RAM minimum required; 4 GB RAM recommended.

PROCESSOR

All Windows-compatible processors supported

PERIPHERALS

DVD-ROM drive

Network Interface Card

MISCELLANEOUS

ALLOCATION UNIT SIZE OF THE NTFS VOLUMES

The cluster size or the allocation unit size of an NTFS volume in a virtual machine must be multiple of 1024 bytes. You can set the cluster size before formatting a volume. The default cluster size is 4096 bytes.

NET FRAMEWORK

.NET Framework 2.0 is automatically installed. Note that .NET Framework 2.0 can co-exist with other versions of this software.

MICROSOFT VISUAL C++

Microsoft Visual C++ 2008 Redistributable Package is automatically installed. Note that Visual C++ 2008 Redistributable Package can co-exist with other versions of this software.

NETWORK

TCP/IP Services configured on the computer.

NOTES ON VIRTUAL SERVER iDATAAGENT INSTALLATIONS FOR VMWARE

For VMware, the Virtual Server iDataAgent is installed on a proxy computer that can communicate with the host computer.

Ensure that the VDDK 5.1 is not installed on any host.

SUPPORT FOR VCB ENVIRONMENT

The following utilities must be installed prior to performing any backup operations in the VCB Environment using the Virtual Server iDataAgent (these packages can be obtained from the VMware web site):

- VMware Consolidated Backup (refer to the VMware customer support web site for support information for the VMware Consolidated Backup utility.)
 - The Virtual Server iDataAgent supports all modes supported by the VMware Consolidated Backup utility.
 - Refer to the VMware customer support web site for support information for the VMware Consolidated Backup utility.
- VMware Converter 4.0.1 (refer to the VMware customer support web site for support information for the VMware Converter utility.)
 - Ensure that the guest operating systems are using the supported version of the VMware Converter.
 - The vCenter Converter Standalone 4.0.1 package must be installed for Windows Vista and Windows Server 2008 environments.

Ensure that the latest version of VMware Consolidated Backup and that VMware Converter 4.0.1 are installed.

- Restores of entire virtual machines from ESX Server 4.0 to a prior version of ESX Server are not supported.
- Virtual machines from ESX Server 3.5 can be backed up through vcbmounter, but they are restored through vStorage.

DISCLAIMER

Minor revisions and/or service packs that are released by application and operating system vendors are supported by our software but may not be individually listed in our System Requirements. We will provide information on any known caveat for the revisions and/or service packs. In some cases, these revisions and/or service packs affect the working of our software. Changes to the behavior of our software resulting from an application or operating system revision/service pack may be beyond our control. The older releases of our software may not support the platforms supported in the current release. However, we will make every effort to correct the behavior in the current or future releases when necessary. Please contact your Software Provider for any problem with a specific application or operating system.

Additional considerations regarding minimum requirements and End of Life policies from application and operating system vendors are also applicable

Getting Started - VMware Deployment



The Virtual Server iDataAgent is used to protect VMware virtual machine data. Follow the steps given below to install the Virtual Server iDataAgent.

INSTALLATION

The software can be installed using one of the following methods:

METHOD 1: INTERACTIVE INSTALL

Use this procedure to install directly on proxy computer that can communicate with ESX Server.

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

Use this procedure to install remotely on a proxy computer that can communicate with the ESX Server.

METHOD 1: INTERACTIVE INSTALL

- Run **Setup.exe** from the **Software Installation Disc** on a proxy computer that can communicate with the ESX Server.
- Select the required language.
Click **Next**.
- Select the option to install software on this computer.

The options that appear on this screen depend on the computer in which the software is being installed.
- Select **I accept the terms in the license agreement**.
Click **Next**.
- Expand **Client Modules | Backup & Recovery | File System** and select **Virtual Server Agent**.

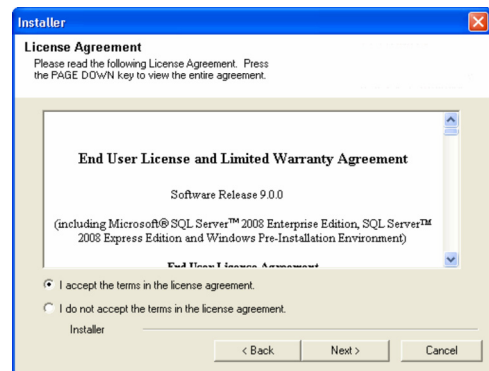
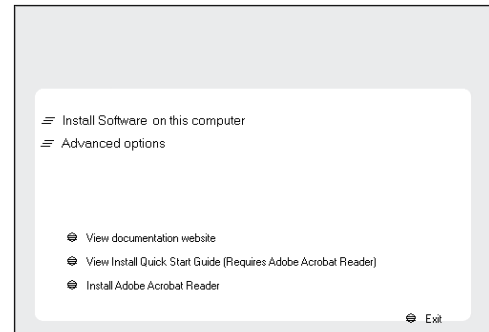
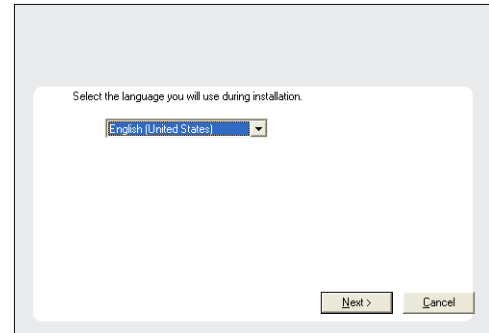
BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

System Requirements

Verify that the computer in which you wish to install the software satisfies the System Requirements.



Click **Next**.

6. Click **YES** to install Microsoft .NET Framework package.
 - This prompt is displayed only when Microsoft .NET Framework is not installed.
 - Once the Microsoft .NET Framework is installed, the software automatically installs the Microsoft Visual J# 2.0 and Visual C++ redistributable packages.
7. If this computer and the CommServe is separated by a firewall, select the **Configure firewall services** option and then click **Next**.
 For firewall options and configuration instructions, see Firewall Configuration and continue with the installation.
 If firewall configuration is not required, click **Next**.

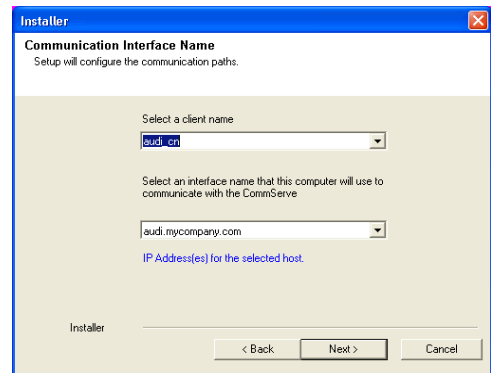
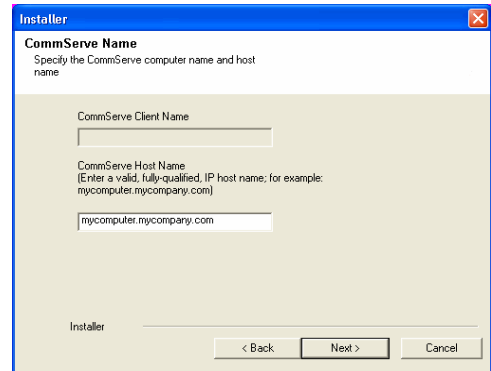
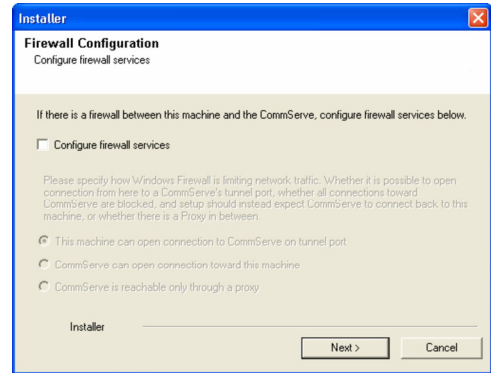
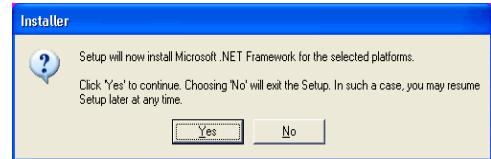
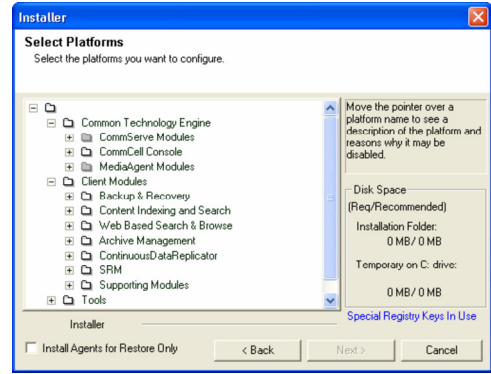
8. Enter the fully qualified domain name of the **CommServe Host Name**.
 Click **Next**.

Do not use space and the following characters when specifying a new name for the CommServe Host Name:

`\ | ' ~ ! @ # $ % ^ & * () + = < > / ? , [] { } ; : ; "`

9. Click **Next**.

10. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.



Click **Next**.

This option enables CommCell operations across Windows firewall by adding CommCell programs and services to Windows firewall exclusion list.

It is recommended to select this option even if Windows firewall is disabled. This will allow the CommCell programs and services to function if the Windows firewall is enabled at a later time.

11. Verify the default location for software installation.

Click **Browse** to change the default location.

Click **Next**.

- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:

/ : * ? " < > | #

It is recommended that you use alphanumeric characters only.

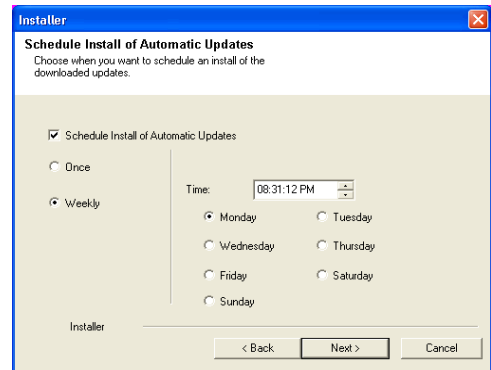
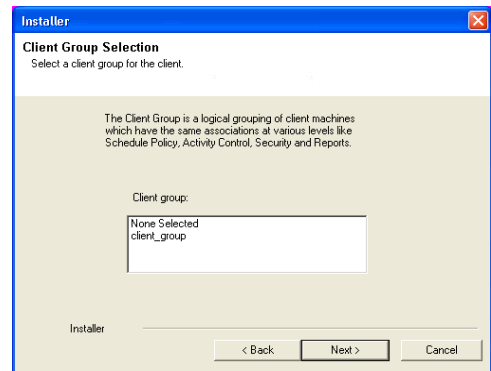
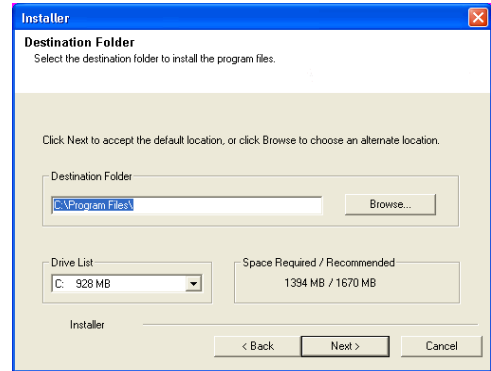
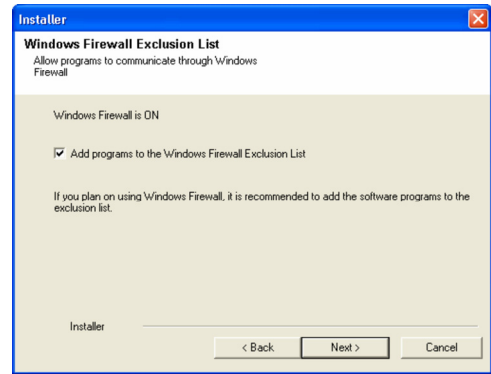
12. Select a Client Group from the list.

Click **Next**.

This screen will be displayed if Client Groups are configured in the CommCell Console.

13. Click **Next**.

14. Click **Next**.



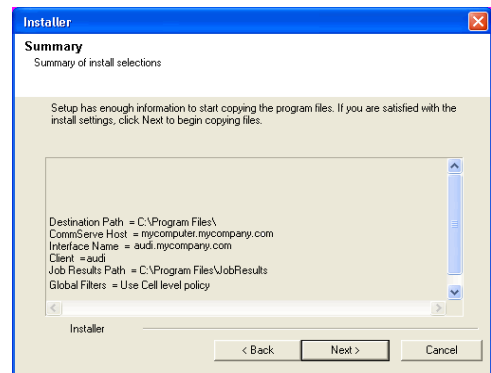
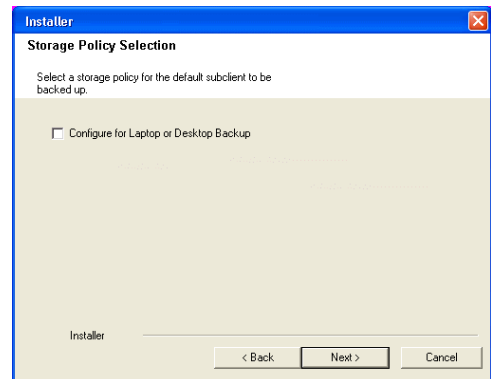
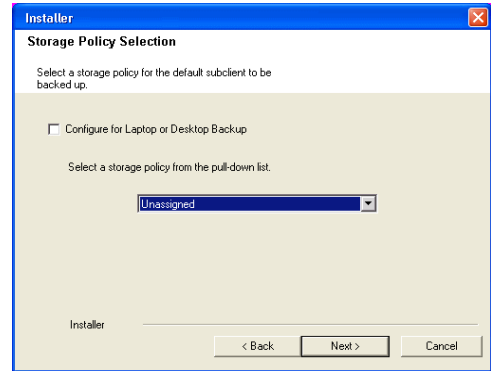
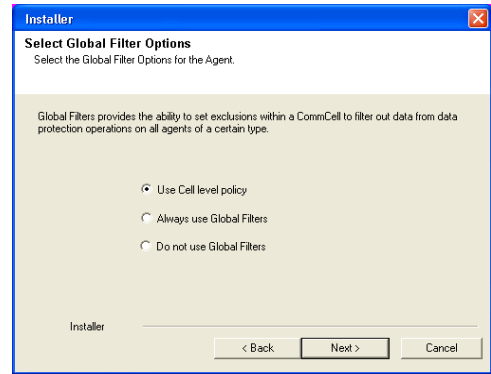
- 15. Select a **Storage Policy**.
Click **Next**.

If you do not have Storage Policy created, this message will be displayed.
Click **Next**.

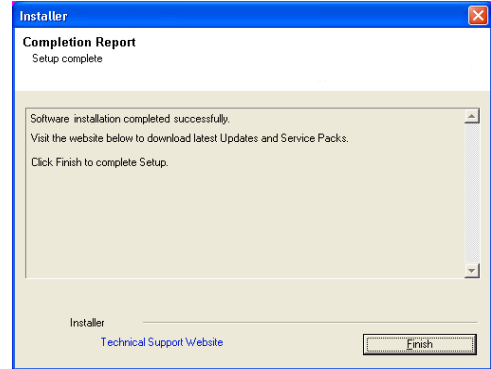
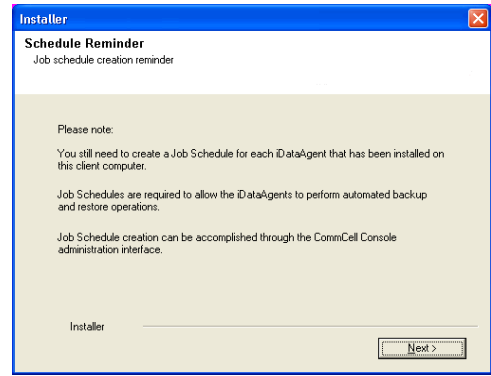
You can create the Storage Policy later in step 19.

- 16. Click **Next**.

- 17. Click **Next**.



18. Click **Finish**.



If you already have a storage policy selected in step 15, click the **Next** button available on the bottom of the page to proceed to the **Configuration** section.

If you do not have Storage Policy created, continue with the following step.

19. To create a storage policy, you must have configured a library in the CommCell.
 - If you do not already have a library configured, go to Disk Library Creation.
 - If you have a library configured, go to Storage Policy Creation.

DISK LIBRARY CREATION:

1. From the CommCell Console, click the **Backup Target** button on **EZ Operations Wizard**.
2. Click **Disc Library (For backup to disc)** and click **Next**.
3. Click **Use Local Disk**.

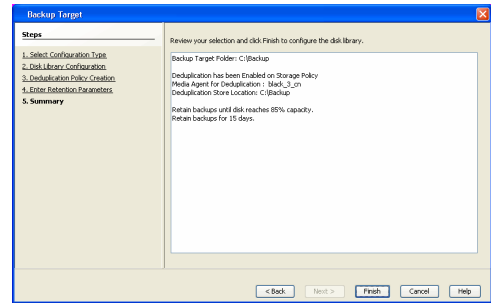
Type the name of the folder in which the disc library must be located in the **Enter backup destination folder** box or click the **Browse** button to select the folder.

Click **Next**.

If you click the **Use Network Share** option you will be prompted for the credentials (user name and password) to access the share.

4. Click **Next**.
5. Click **Finish**.

This will create a library and Storage Policy. Click the **Next >** button available at the bottom of the page to continue.



STORAGE POLICY CREATION:

1. From the CommCell Browser, navigate to **Policies**.
2. Right-click the **Storage Policies** and then click **New Storage Policy**.
3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - o Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
 - o Enter the name in the **Storage Policy Name** box and click **Next**.
 - o From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

Ensure that you select a library attached to a MediaAgent operating in the

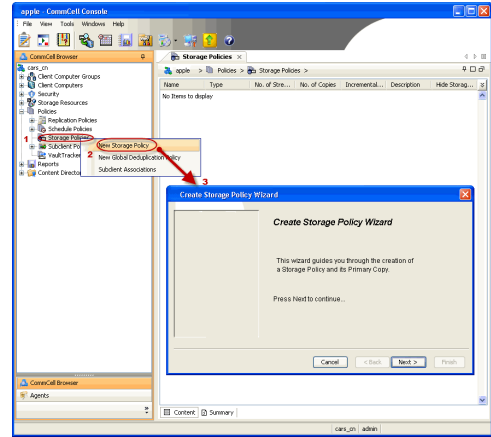
current release.

- From the **MediaAgent** list, click the name of a MediaAgent that will be used to create the primary copy and then click **Next**.
- For the device streams and the retention criteria information, click **Next** to accept default values.
- Select **Yes** to enable deduplication for the primary copy.
- From the **MediaAgent** list, click the name of the MediaAgent that will be used to store the Deduplication store.

Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to select the folder and then click **Next**.

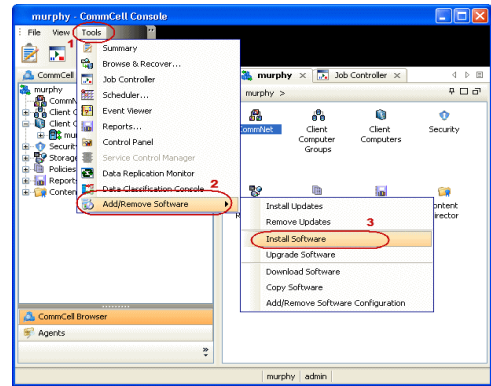
- Review the details and click **Finish** to create the Storage Policy.

This will create a storage policy. Click the **Next** button available at the bottom of the page to continue.

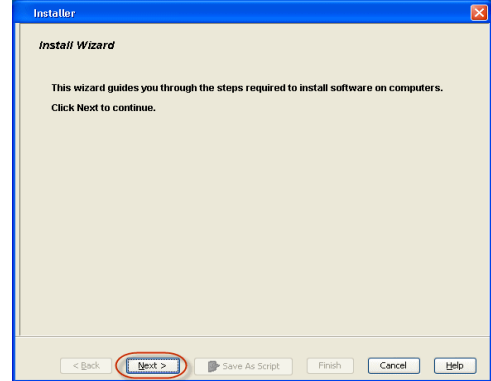


METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

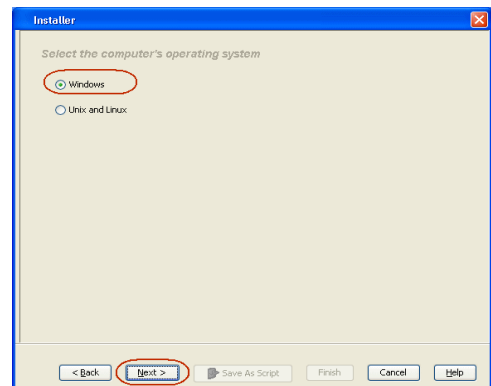
1. From the CommCell Browser, select **Tools | Add/Remove Software | Install Software**.



2. Click **Next**.



3. Select **Windows**.
Click **Next**.



4. Select **Manually Select Computers**.
Click **Next**.

5. Enter the fully qualified domain name of the proxy computer that can communicate with the ESX Server.

For example: apple.domain.company.com

The Virtual Server iDataAgent will be installed on this proxy computer.

Click **Next**.

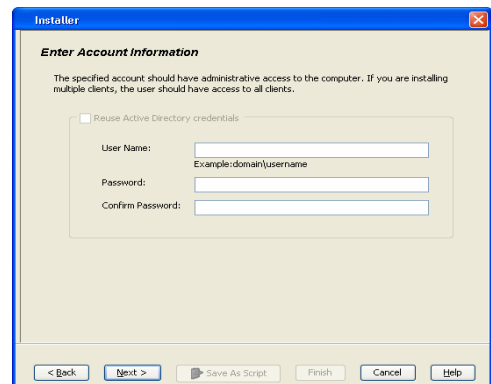
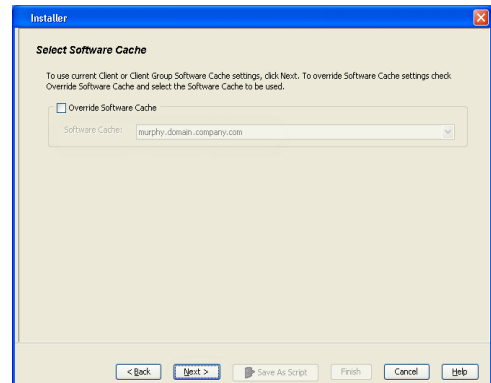
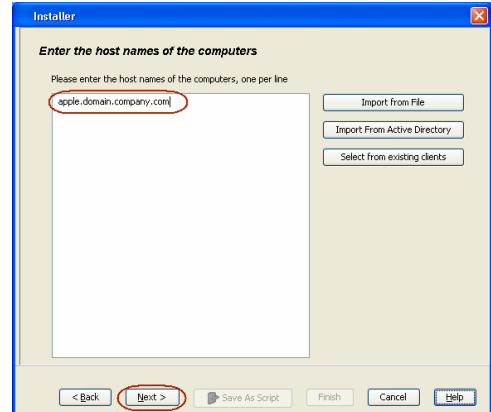
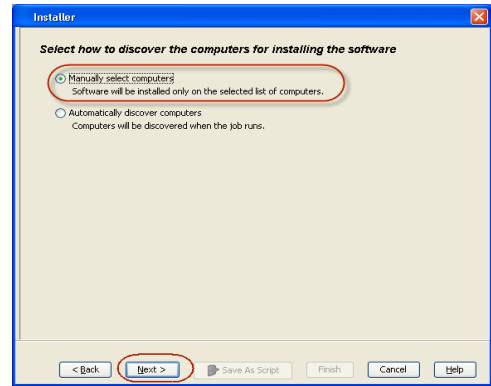
6. Click **Next**.

7. Specify **UserName** and **Password** of the proxy computer.

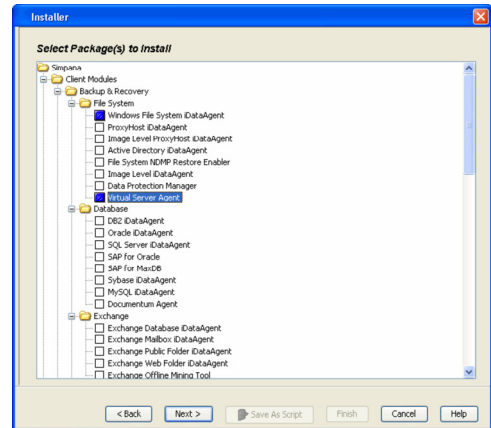
Click **Next**.

8. Select **Virtual Server Agent**.

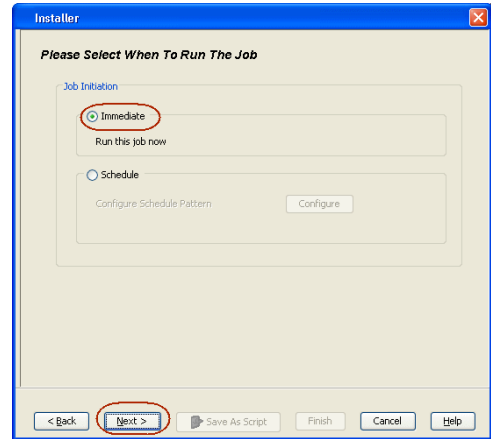
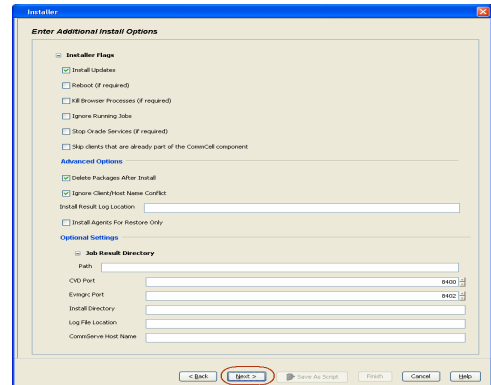
Click **Next**.



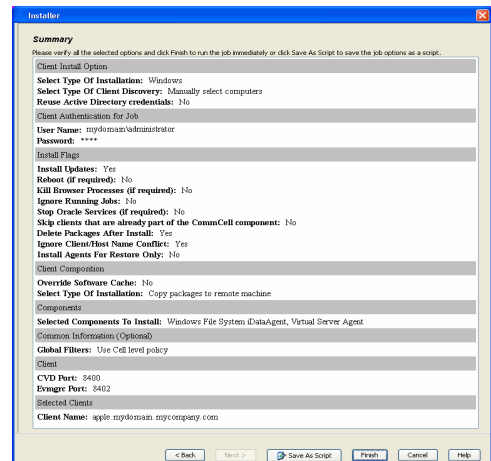
9. Click **Next**.



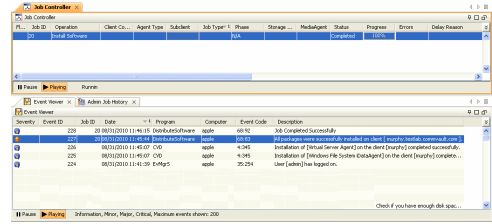
10. Select **Immediate**.
Click **Next**.



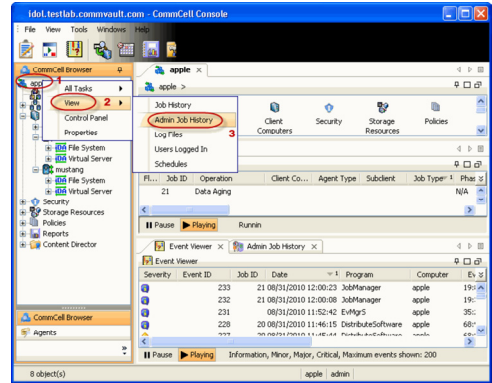
11. Click **Finish**.



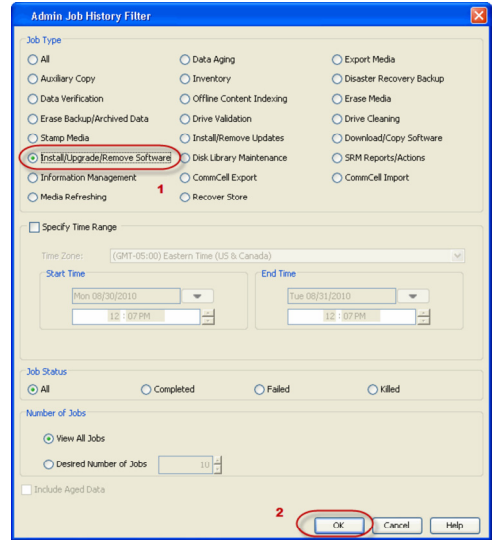
12. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



13. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.

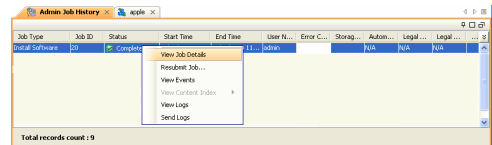


14. Select **Install/Upgrade/Remove Software**.
Click **OK**.



15. You can view the following details about the job by right-clicking the job:

- Items that succeeded during the job
- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job



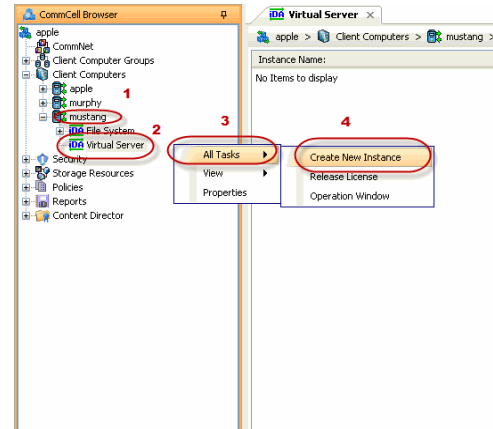
Getting Started - VMware Configuration

◀ Previous Next ▶

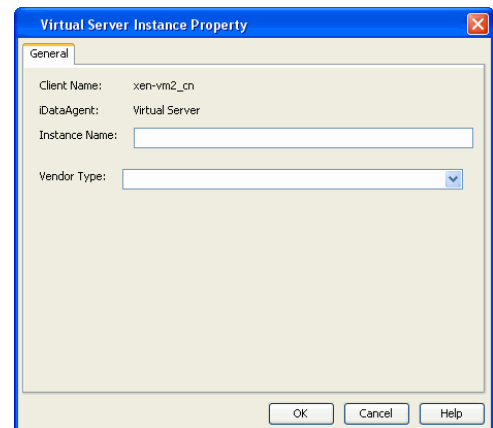
CONFIGURATION

Once the Virtual Server iDataAgent has been installed, configure an Instance, a Backup Set and a Subclient to facilitate backups. The following sections provide the necessary steps required to create and configure these components for a first backup of a Virtual Center.

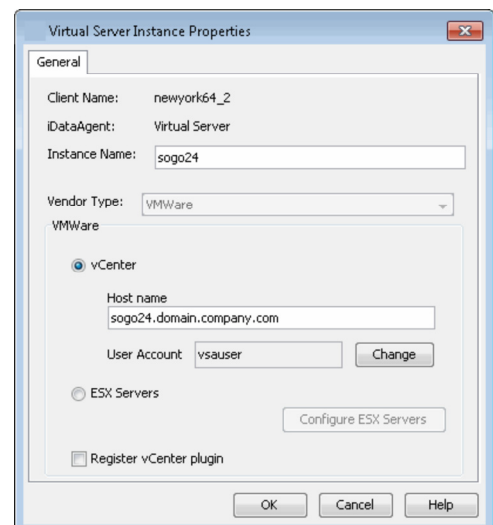
- From the CommCell Browser, navigate to **<Client> | Virtual Server**.
 - Right-click the **Virtual Server | All Tasks** and click **Create New Instance**.



- Enter the **Instance Name**.
 - Select **VMware** from **Vendor Type** menu.

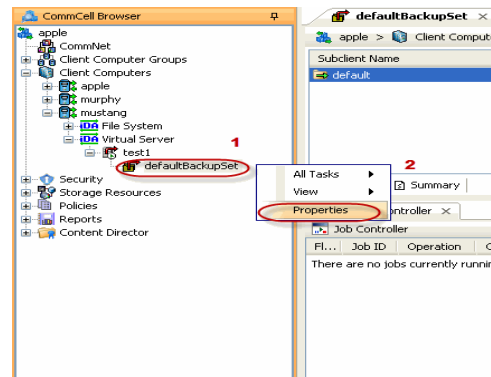
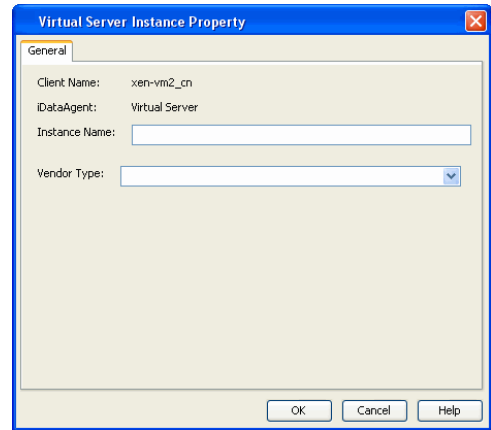


- Click **Virtual Center**.
 - Click **Configure Password**.
 - Enter the username and password associated with the Virtual Center.
 - Ensure that the **Host name** is a fully qualified domain name.

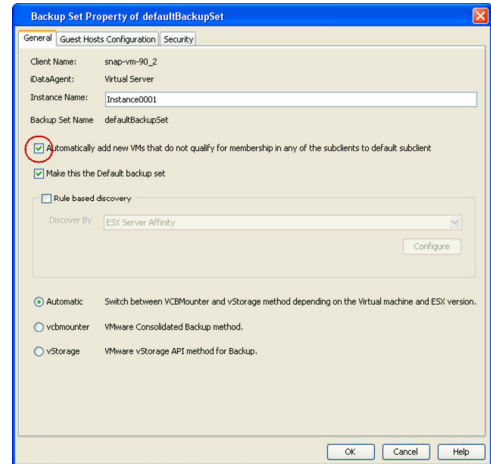


- Click **OK** to save the instance.

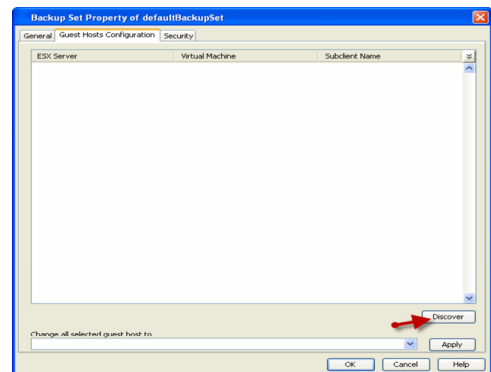
5.
 - From the CommCell Browser, right-click the **Default Backup Set**.
 - Click **Properties**.



6.
 - Ensure the **Automatically add new VMs that do not qualify for membership in any of the subclients** is selected.
 - Click **OK**.



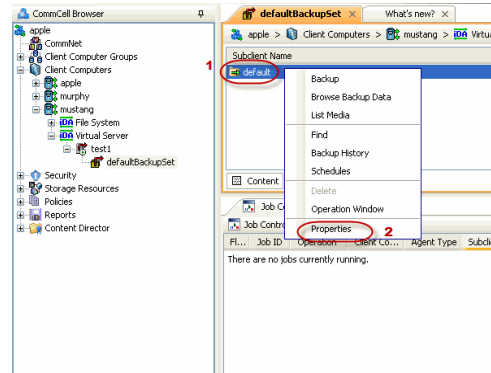
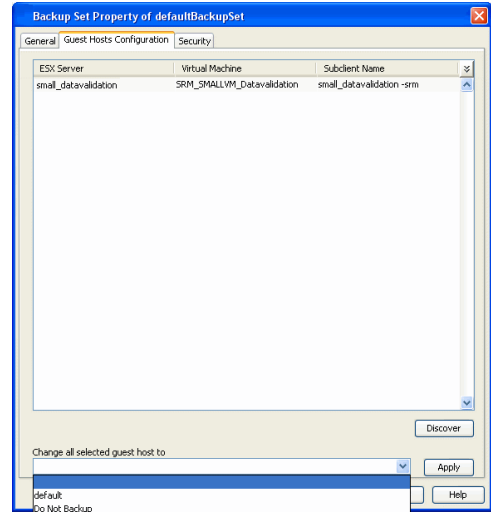
7. Click **Discover** on the **Guest Hosts Configuration** tab.
The discovery process might take several minutes to complete.



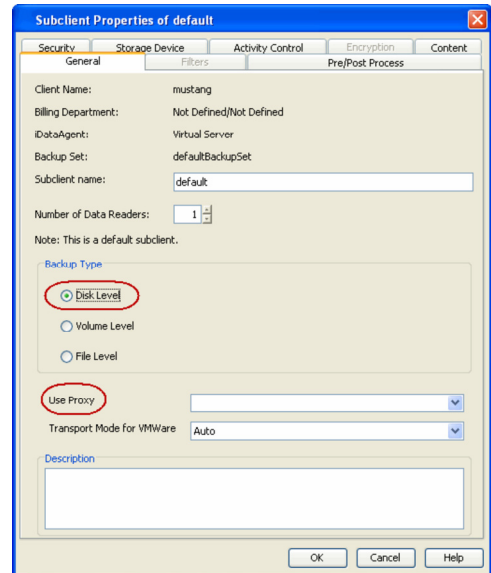
8.
 - Select a virtual machine to back up from the **Virtual Machine** column.
 - Select the **Default Subclient** from the **Subclient** column for the virtual machine you want to back up.

- Click **Apply**.
- Click **OK**.

- 9.
- From the CommCell Browser, navigate to the **Default Subclient**.
 - Click **Properties**.



- 10.
- Select **Disk-Level** from the **Backup Type** space.
 - Select a proxy computer from the **Use Proxy** menu.



- 11.
- Click the **Storage Device** tab. Ensure that a Storage Policy is selected.
 - Click **OK**.

If you do not have Storage Policy created, continue with **Step 12**.

12. To create a storage policy, you must have configured a library in the CommCell.
 - If you do not already have a library configured, go to Disk Library Creation.
 - If you have a library configured, go to Storage Policy Creation.

DISK LIBRARY CREATION:

1. From the CommCell Console, click the **Backup Target** button on **EZ Operations Wizard**.
2. Click **Disc Library (For backup to disc)** and click **Next**.
3. Click **Use Local Disk**.

Type the name of the folder in which the disc library must be located in the **Enter backup destination folder** box or click the **Browse** button to select the folder.

Click **Next**.

If you click the **Use Network Share** option you will be prompted for the credentials (user name and password) to access the share.

4. Click **Next**.
5. Click **Finish**.

This will create a library and Storage Policy. Click the **Next** button available at the bottom of the page to continue.

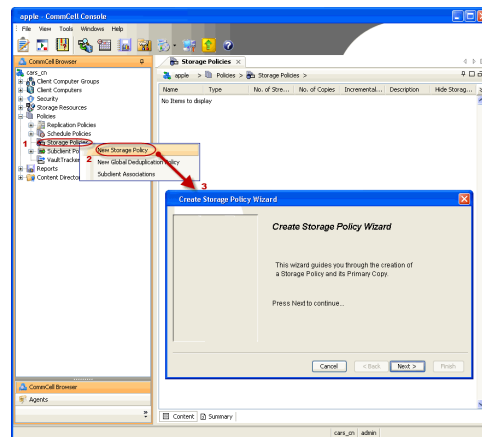
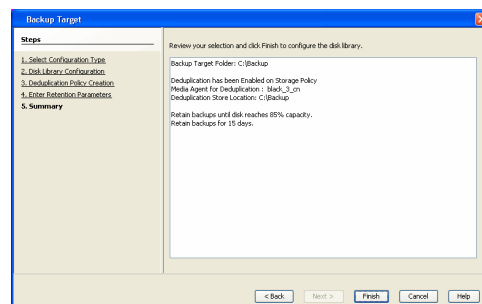
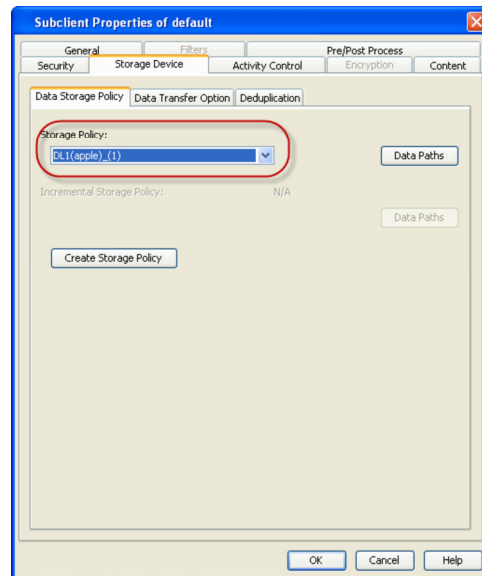
STORAGE POLICY CREATION:

1. From the CommCell Browser, navigate to **Policies**.
2. Right-click the **Storage Policies** and then click **New Storage Policy**.
3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
 - Enter the name in the **Storage Policy Name** box and click **Next**.
 - From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

Ensure that you select a library attached to a MediaAgent operating in the current release.

- From the **MediaAgent** list, click the name of a MediaAgent that will be used to create the primary copy and then click **Next**.
- For the device streams and the retention criteria information, click **Next** to accept default values.
- Select **Yes** to enable deduplication for the primary copy.
- From the **MediaAgent** list, click the name of the MediaAgent that will be used to store the Deduplication store.

Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to



select the folder and then click **Next**.

- Review the details and click **Finish** to create the Storage Policy.

This will create a storage policy. Click the **Next** ► button available at the bottom of the page to continue.



Getting Started - VMware Backup

PERFORM A BACKUP

After configuring your Instance, Backup Set and Subclient, you are ready to perform your first backup.

WHAT GETS BACKED UP

The Virtual Server iDataAgent backs up the following:

- Windows Virtual Machines
- Linux Virtual Machines
- Stand-alone ESXI with standard license level
- Volumes
- Files/folders
- Virtual RDMs

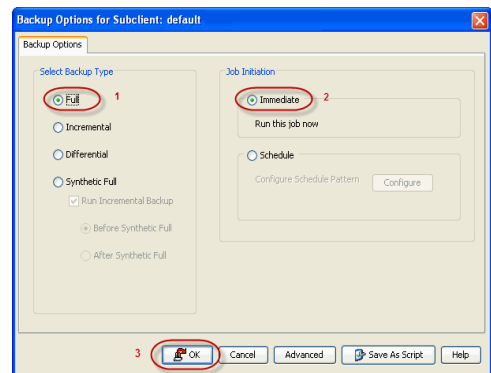
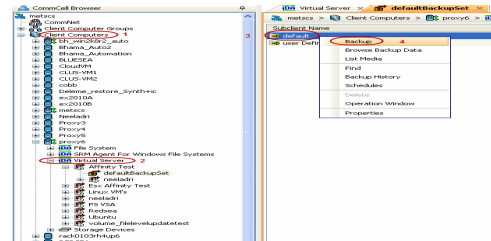
WHAT DOES NOT GET BACKED UP

The Virtual Server iDataAgent does not back up the following:

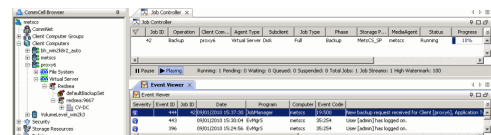
- Virtual machines containing:
 - SCSI bus sharing set to `virtual`
 - Fault Tolerance
- GPT or dynamic disk volumes (only disk and file level backups are supported, volume level backups are not supported).
- Hard links
- VMDKs in the same location with same names, where only case is different.
- Physical RDMs
- Independent Disks

The following section provides step-by-step instructions for running your first full backup of a single virtual machine immediately.

1.
 - From the CommCell Console, navigate to **Client Computers | Virtual Server**.
 - Right-click the **Subclient** and click **Backup**.
2.
 - Select **Full** as backup type and **Immediate** to run the job immediately.
 - Click **OK**.



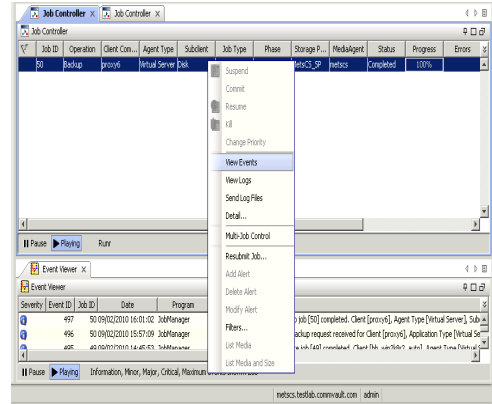
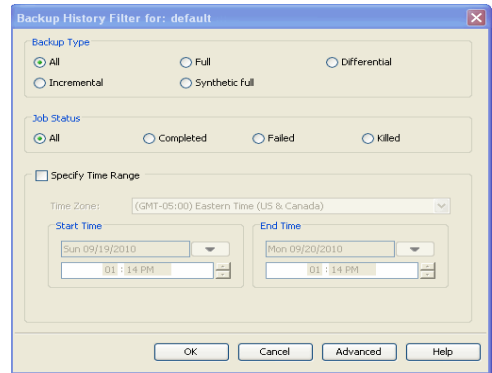
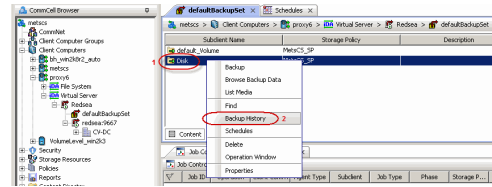
3. You can track the progress of the job from the **Job Controller** window of the CommCell console.



- Once job is complete, view the details of job from the **Backup History**. Right-click the **Subclient** and select **Backup History**.

- Click **OK**.

- You can view the following details about the job by right-clicking the job:
 - Items that failed during the job
 - Items that succeeded during the job
 - Details of the job
 - Events of the job
 - Log files of the job
 - Media associated with the job



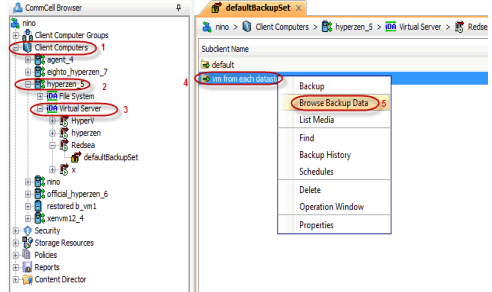
Getting Started - VMware Restore

PERFORM A RESTORE

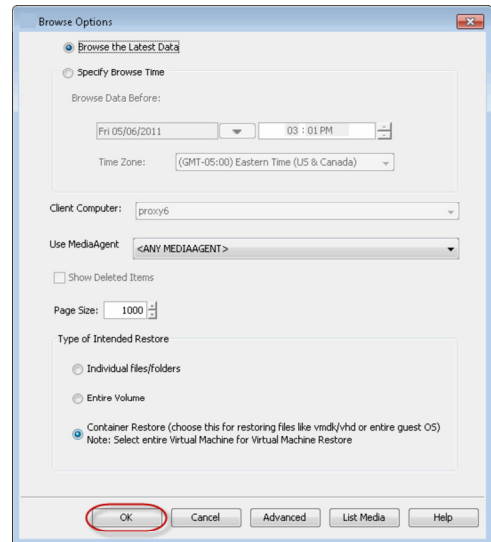
It is recommended that you perform a restore operation immediately after your first full backup to understand the process.

The following sections describe the steps involved in restoring a virtual machine to a different Virtual Center/ESX Server.

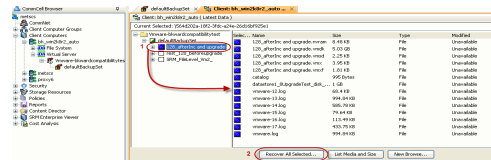
- From the CommCell Console, navigate to the <Client> | **Virtual Server**.
 - Right-click the subclient that contains the data you want to restore, point to **Browse Backup Data**.



- Click **OK**.



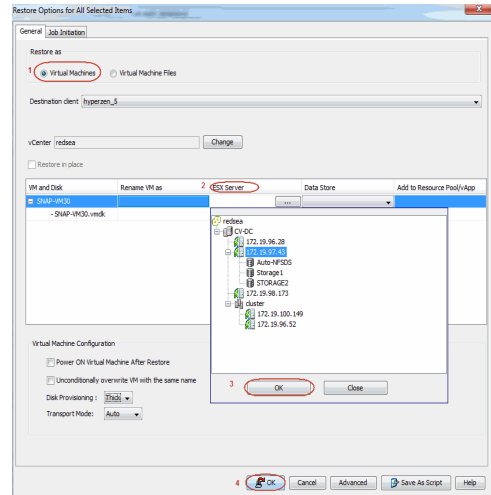
- Select the virtual machine under the backup set. Its entire contents will be automatically selected in the right pane.
 - Click **Recover All Selected**.



- Select the **Destination ESX Server** to which the virtual machine will be restored.

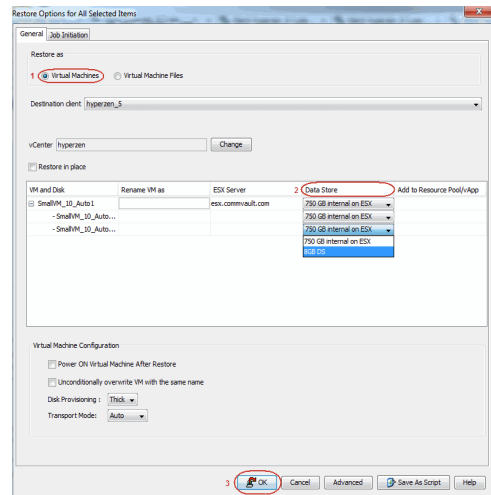
5. Select the **Datastore** to which the disk will be restored.

If the selected datastore does not meet the minimum requirements needed to restore the virtual machine, you can repeat this step until an acceptable datastore is found.

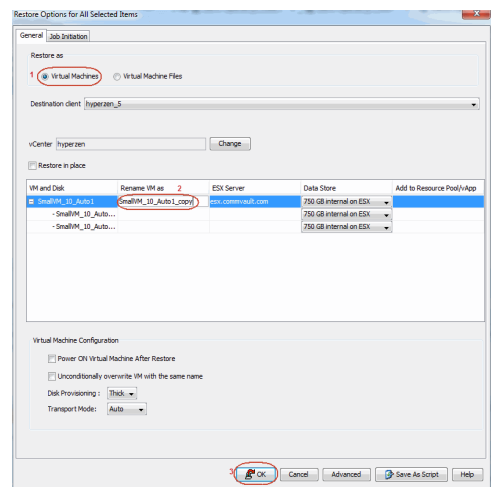


6. Enter the **VM Name** for the virtual machine.

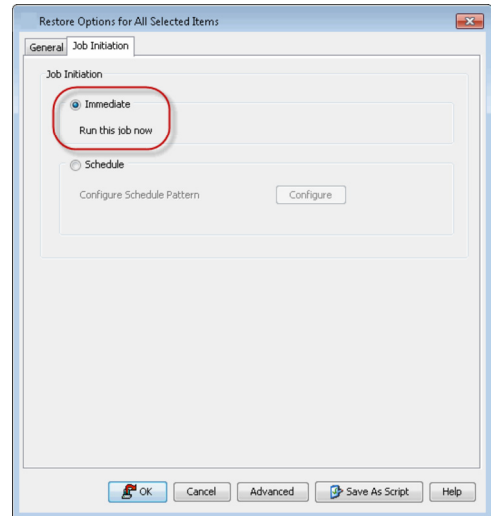
Ensure that you provide a fully qualified name for the virtual machine. Entering an IP address will cause the restore operation to fail.



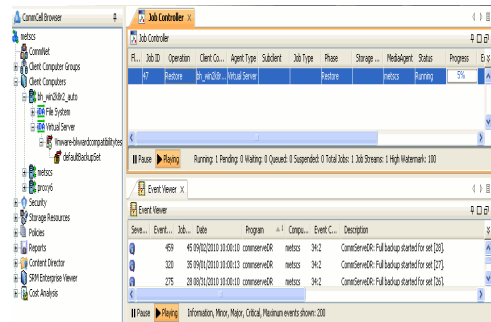
7.
 - Click the **Job Initiation** tab.
 - Select **Immediate** to run the job immediately.
 - Click **OK**.



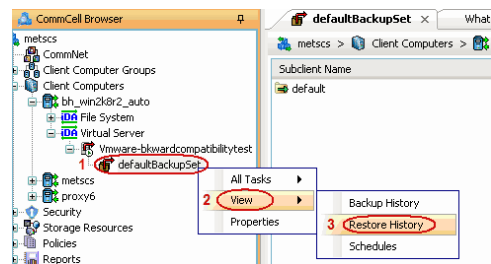
8. You can monitor the progress of the restore job in the **Job Controller** or **Event Viewer** window of the CommCell Console.



9. Once the restore job has completed, right-click the entity (e.g. agent, instance) and click **View | Restore History**.
If the entity chosen is the client computer, click **View | Job History**.

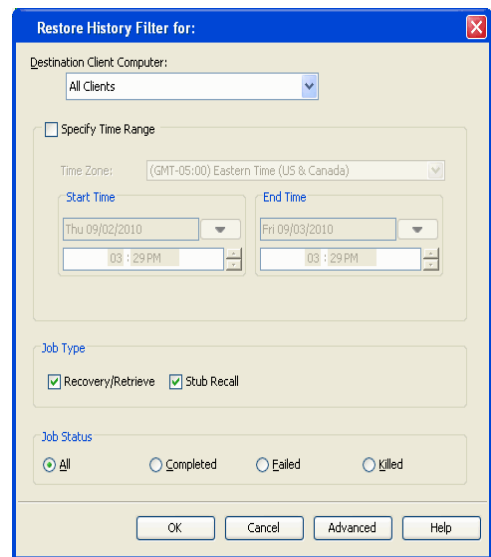


10. Click **OK**.



11. You can view the following details about the job by right-clicking the job:

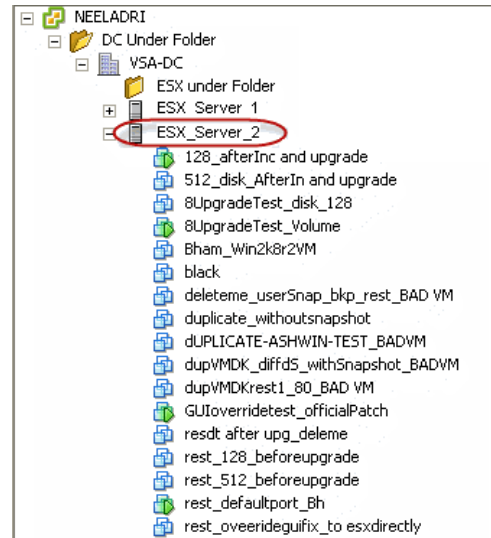
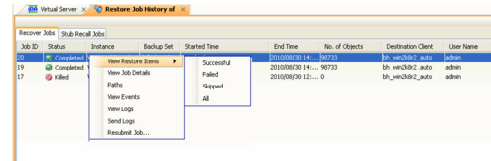
- View Restore Items



You can view them as **Successful, Failed, Skipped** or **All**.

- View Job Details
- View Events of the restore job.
- View Log files of the restore job.

12. Once the virtual machine is restored, it is automatically mounted to the virtual center/ESX Server you selected.



CONGRATULATIONS - YOU HAVE SUCCESSFULLY COMPLETED YOUR FIRST BACKUP AND RESTORE.

If you want to further explore this Agent's features read the **Advanced** sections of this documentation.

