Quick Start - Virtual Server *i*DataAgent (Microsoft/Hyper-V)

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System Requirements - Virtual Server *i*DataAgent (Hyper-V)

System Requirements	Supported Features

The following requirements are for the Virtual Server *i*DataAgent:

HYPER-V REQUIREMENTS

VIRTUAL SERVER APPLICATION SOFTWARE

Hyper-V version 6.x

PHYSICAL MACHINE OPERATING SYSTEMS - HYPER-V VIRTUAL SERVERS

Microsoft Windows Server 2008 R2 Editions

Microsoft Hyper-V Server 2008 R2 Editions*

Microsoft Windows Server 2012 Editions*

Microsoft Hyper-V Server 2012 Editions*

*Microsoft .NET Framework 3.5 must be installed on these machines before installing the Virtual Server *i*DataAgent.

HARD DRIVE

100GB 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

2 GB RAM minimum required beyond the requirements of the operating system and running applications

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.

NOTES ON VIRTUAL SERVER *i*DATAAGENT INSTALLATIONS FOR HYPER-V

The Virtual Server *i*DataAgent is installed directly onto the Hyper-V Server.

Ensure that the latest Microsoft HotFixes for Hyper-V are installed:

- Hyper-V: Update List for Windows Server 2008 R2
- Hyper-V: Update List for Windows Server 2012

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 - Microsoft Hyper-V Deployment

The Virtual Server *i*DataAgent is used to protect Hyper-V virtual machine data. Follow the steps given below to install the Virtual Server *i*DataAgent.

> To backup virtual machines in Hyper-V Cluster environment, install the Virtual Server *i*DataAgent only on the physical nodes of the cluster.

INSTALLATION

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

METHOD 1: INTERACTIVE INSTALL

Use this procedure to install directly on Hyper-V Server.

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

Use this procedure to install remotely on a Hyper-V Server.

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.

METHOD 1: INTERACTIVE INSTALL

1. Run **Setup.exe** from the **Software Installation Disc** on Hyper-V Server.

2. Select the required language.

   Click **Next**.

3. 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.

4. Select **I accept the terms in the license agreement**.

   Click **Next**.

5. Expand **Client Modules** | **Backup & Recovery** | **File System** and select **Virtual Server Agent**.
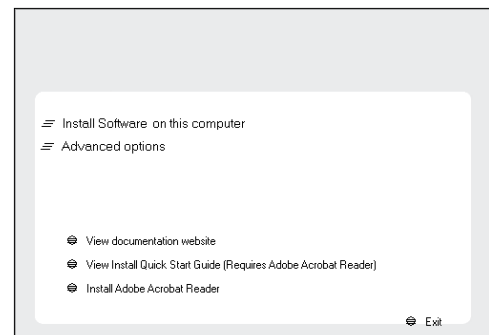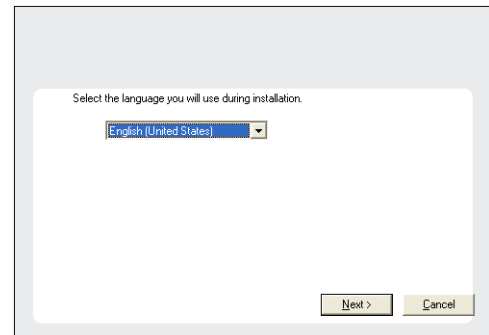
Click **Next**.

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.
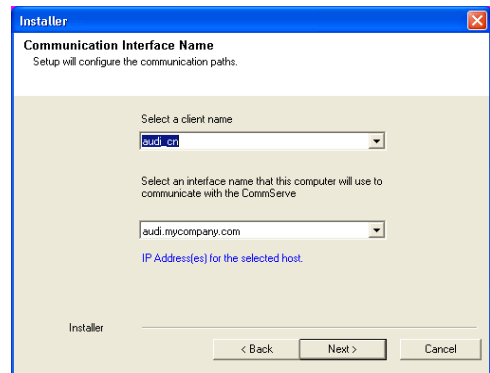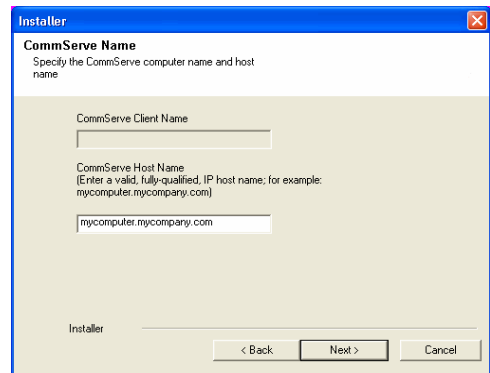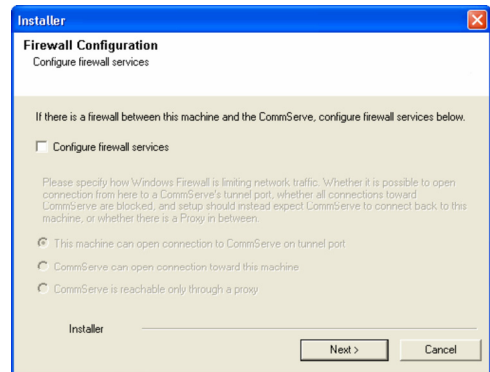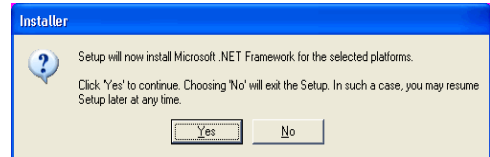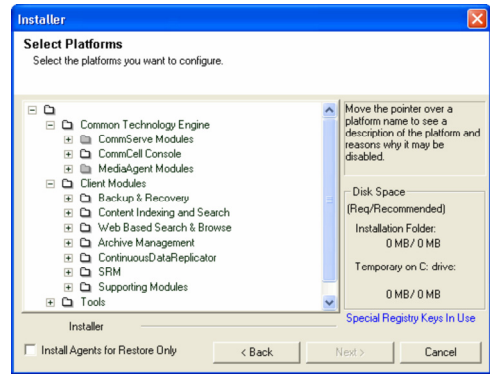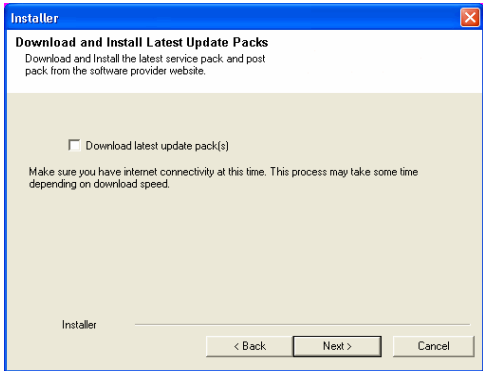
Click **Next**.

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.
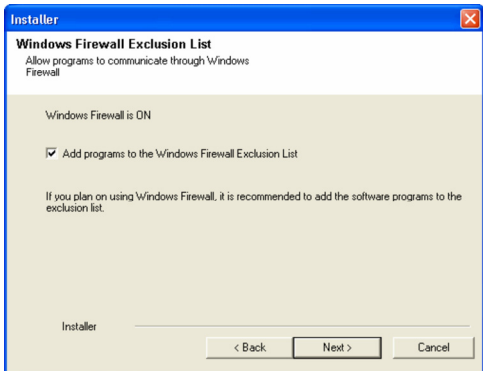
11. Click **Next**.

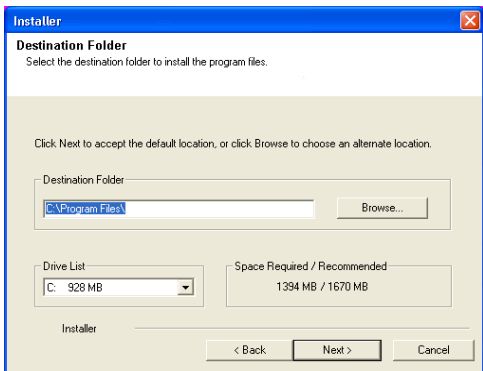
12. Verify the default location for software installation.

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.

13. Select a Client Group from the list.

Click **Next**.

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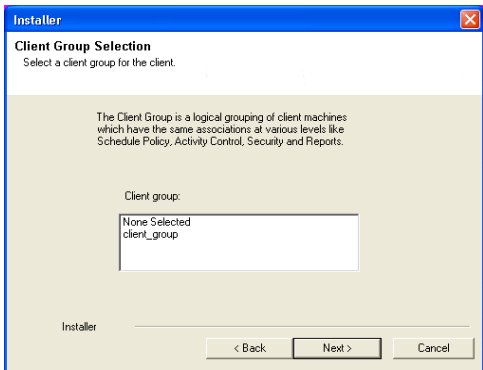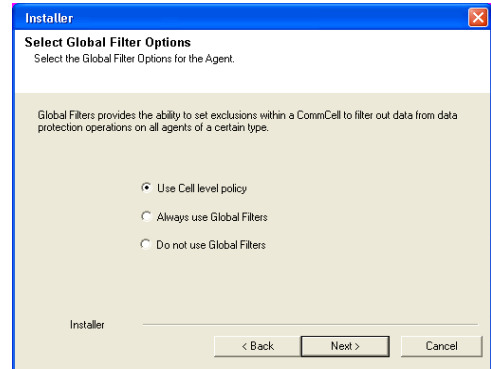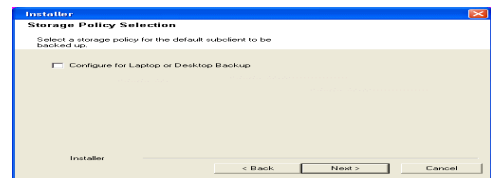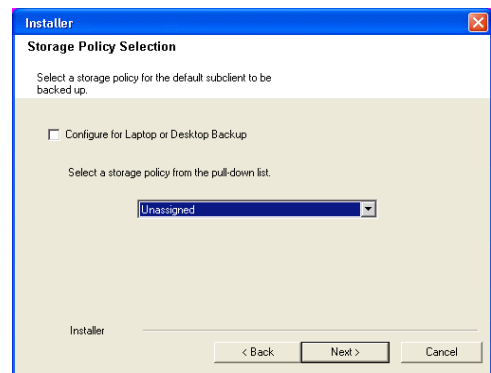

14. Click **Next**.

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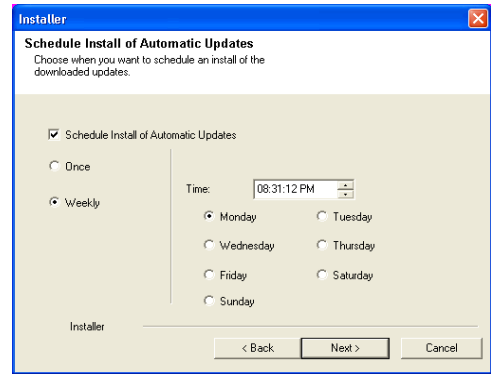
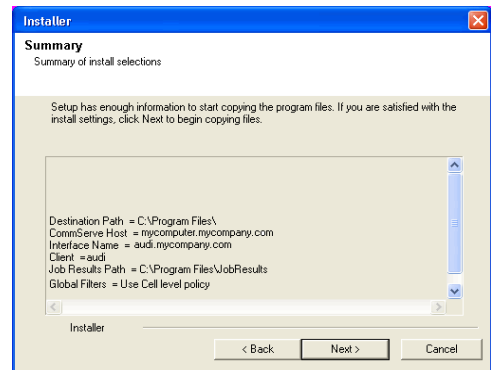**16.** Select a **Storage Policy**.
Click **Next**.

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

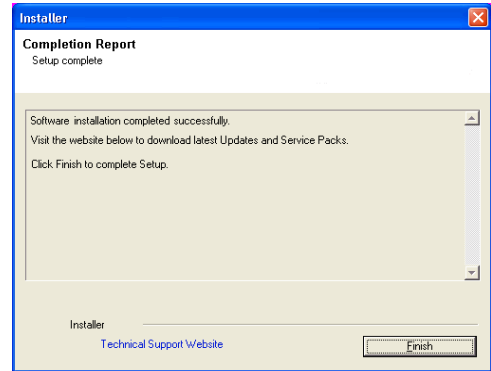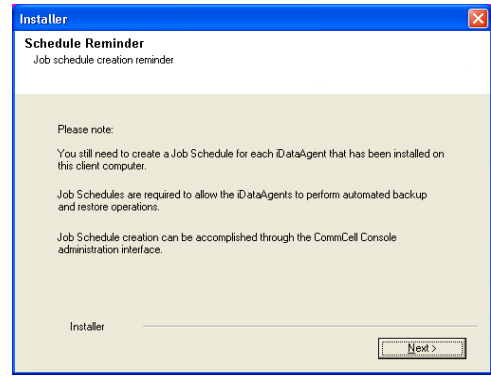You can create the Storage Policy later in step 20.

17. Click **Next**.

18. Click **Next**.
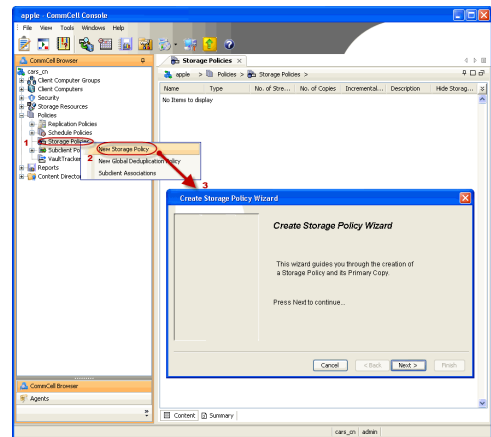
19. Click **Finish**.

If you already have a storage policy selected in step 16, 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.

20. Create a Storage Policy:

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**.

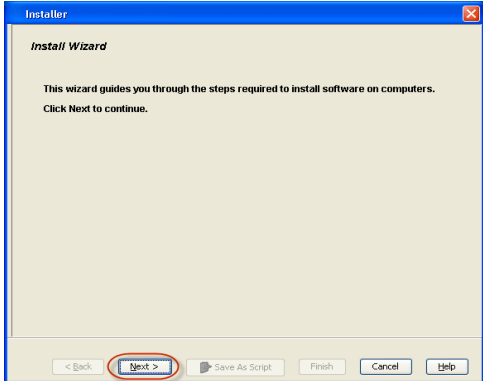   ○ Review the details and click **Finish** to create the Storage Policy.

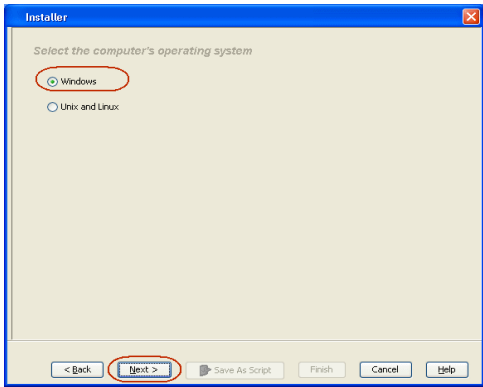## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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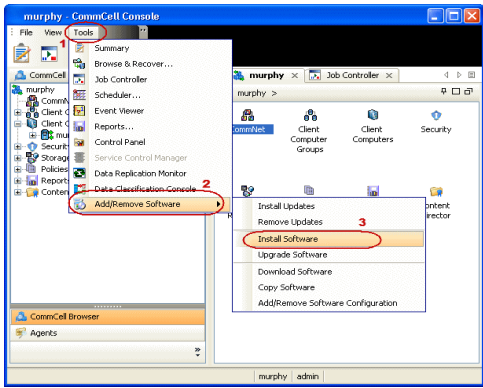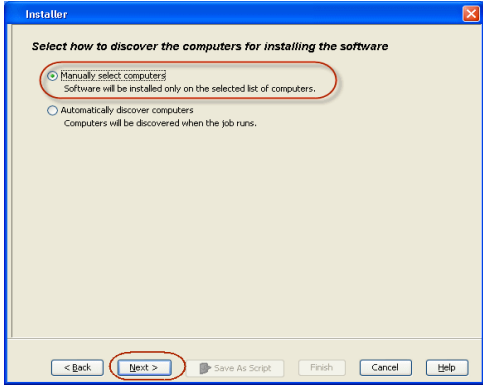
2.   Click **Next**.

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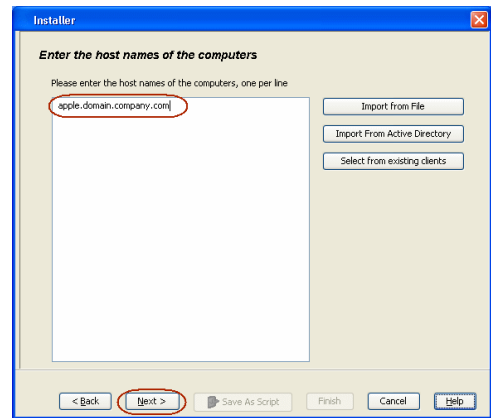
Click **Next**.

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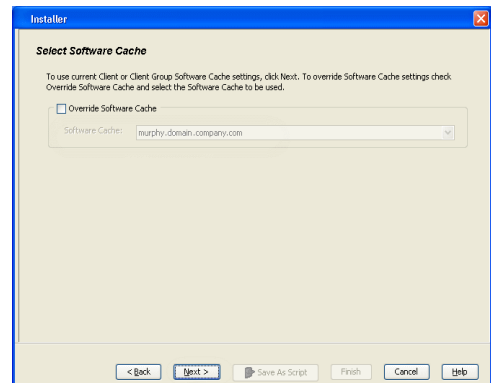
Click **Next**.

5.   Enter the fully qualified domain name of the Hyper-V Server in which you wish to install.

For example: `apple.domain.company.com`

The Virtual Server *i*DataAgent software will be installed on this computer.
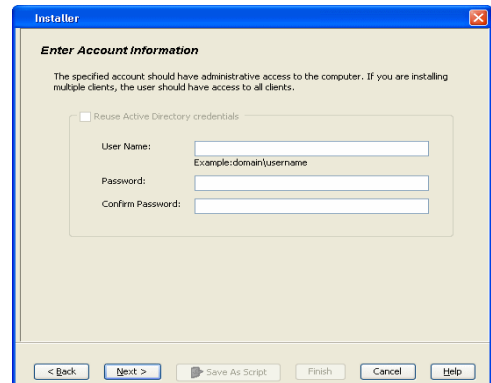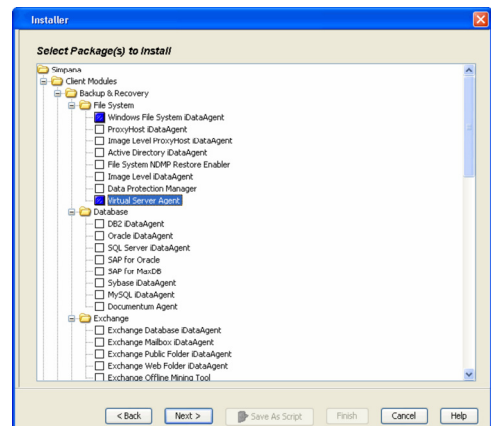
Click **Next**.

6. Click **Next**.

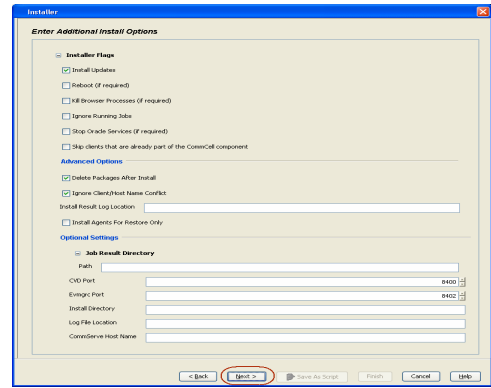**7.** Specify **UserName** and **Password**.

Click **Next**.

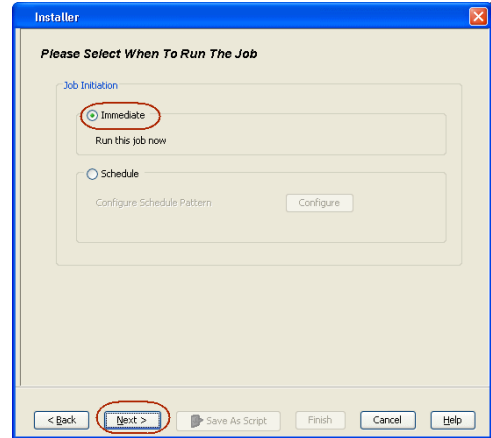**8.** Select **Virtual Server Agent**.

Click **Next**.

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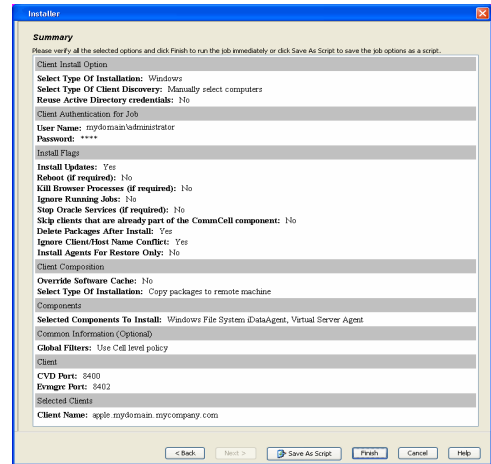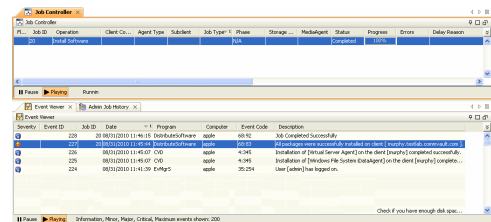
10. Select **Immediate**.
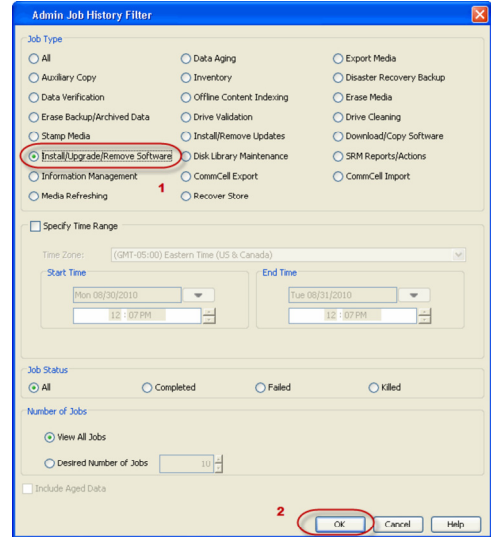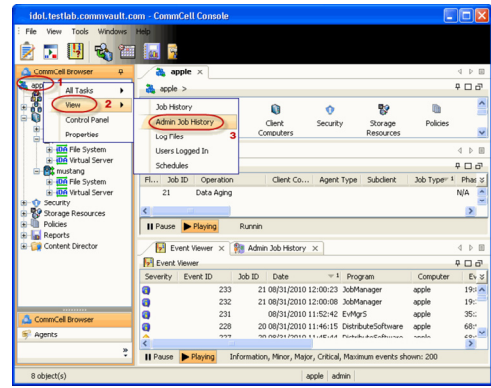
Click **Next**.

11. Click **Finish**.

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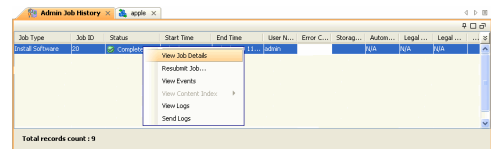

13. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.

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

◀ Previous   Next ▶

Getting Started - Microsoft Hyper-V Configuration

Once the Virtual Server *i*DataAgent 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 single virtual machine.
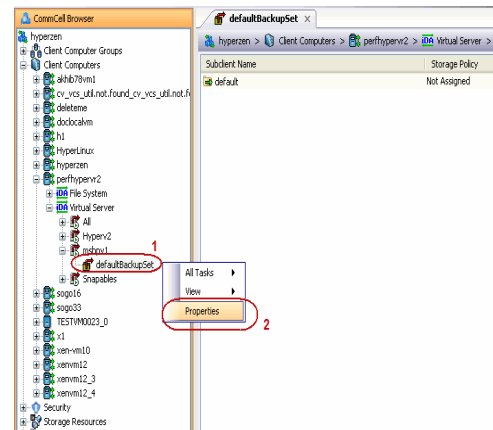
1.
- From the CommCell Browser, navigate to **<Client> | Virtual Server**.
- Right-click the **Virtual Server Agent | All Tasks** and click **Create New Instance**.
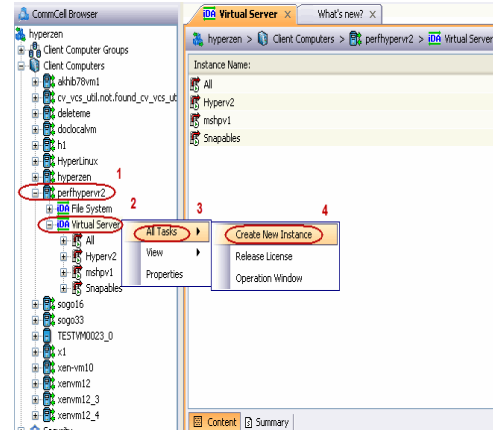
2.
- Enter the **Instance Name**.
- Select **Microsoft Virtual Server/Hyper-V** from **Vendor Type** menu.
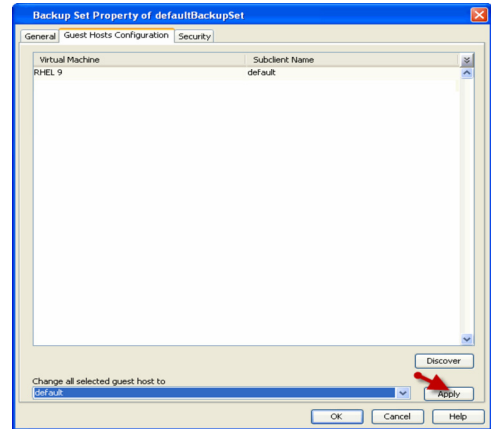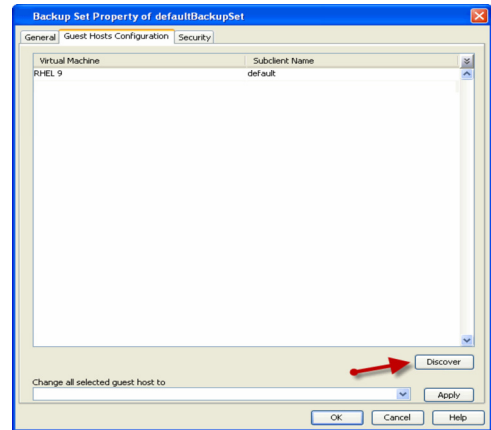- Click **Ok**.
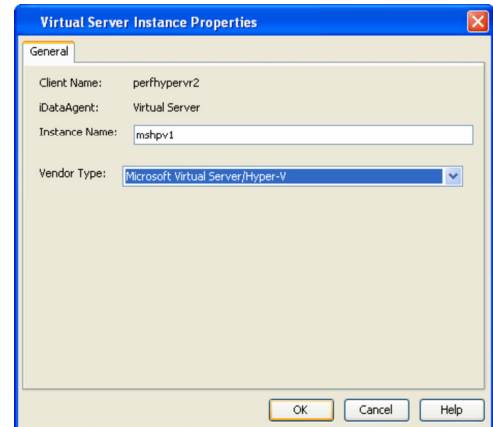
3.
- From the CommCell Browser, right-click the **Default Backup Set.**
- Click **Properties**.

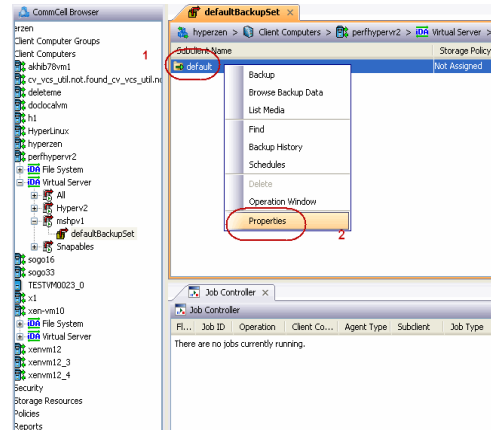**4.** Click **Discover,** on the **Guest Hosts Configuration** tab**.**

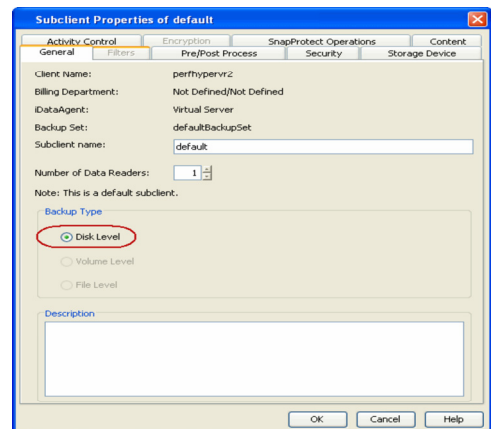Discovery process might take several minutes to complete.

5.
- Select the default subclient from **Change all selected guest hosts to** list.
- Click **Apply.**
- Click **OK**.

6.
- From the CommCell Browser, navigate to the **Subclient.**
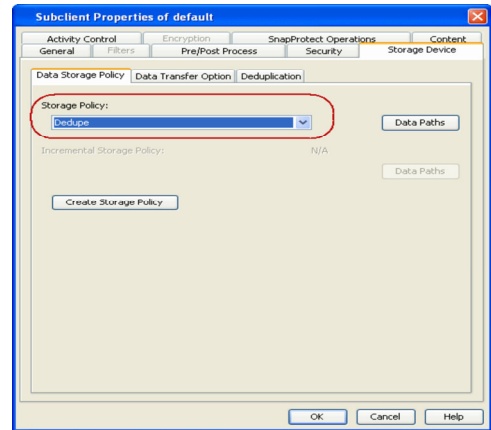- Click **Properties**.

7. Select **Disk-Level** from the Backup Types.

8. Click **Storage Device** tab. Ensure that a Storage Policy is selected.

Click **Ok**.

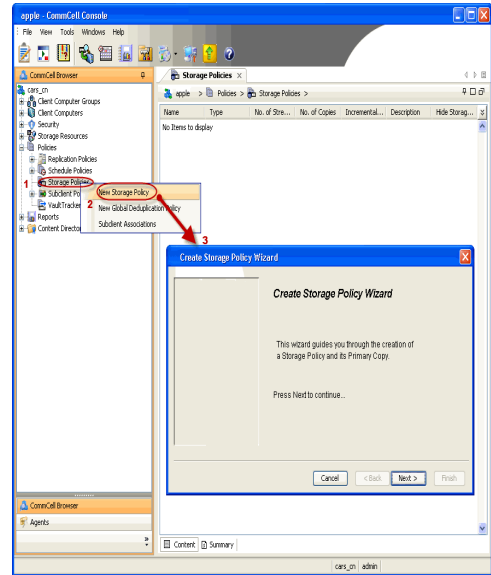> If you do not have Storage Policy created, continue with **Step 9**.

9. Create a Storage Policy:

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.

Getting Started - Microsoft Hyper-V Backup

PERFORM A BACKUP

After configuring the Instance, BackupSet, and Subclient you are ready to perform your first backup.
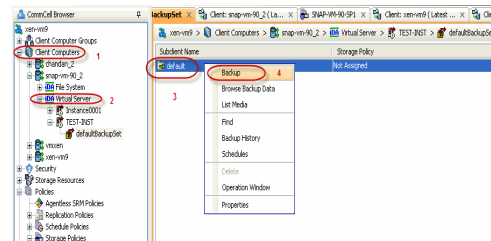
WHAT GETS BACKED UP

- Virtual Machines
- VHD files
- Snapshot files
- Configuration files for the virtual machines
- Metadata required for Granular recovery of files (NTFS and ext3 volumes only)
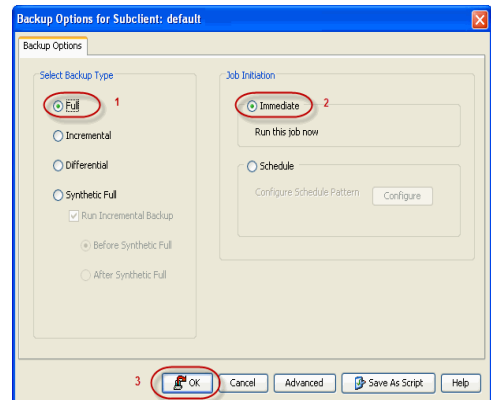
WHAT DOES NOT GET BACKED UP

- Pass-through disks
- Multiple virtual hard disks with the same file name
- Virtual machines with:
  - VHD file located on a UNC path
  - UNICODE characters in the virtual machine name or mount path
- Hard links (Only for Disk level backup)
- Virtual machines or VHD files with long file paths (more than 20 characters)
- VHDX files for Virtual Machines with Microsoft Windows Server 2012 Editions
- Virtual Hard Disks residing on SMB Shares or UNC locations

The following section provides step-by-step instructions for running your first full backup of a single virtual machine immediately.
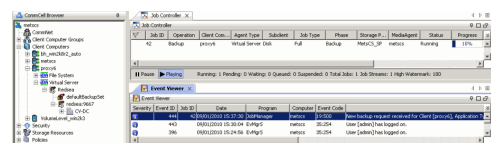
|	
1.	• From the CommCell Console, navigate to **Client Computers** | **Virtual Server** • Right-click the **Subclient** and click **Backup**.	
2.	• Select **Full** as backup type and **Immediate** to run the job immediately. • Click **OK**.	
3.	You can track the progress of the job from the **Job Controller** window of the CommCell console.	
4.	Once job is complete, view the details of job from the **Backup History**. Right-click the **Subclient** and select **Backup History**.	

5. Click **OK**.
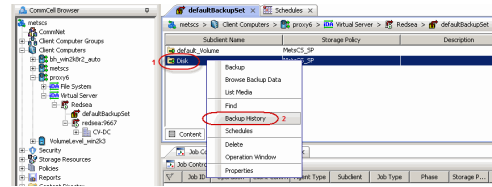
6. You can view the following details about the job by right-clicking the job:
- Items that failed during the job
- Items that succeeded during the job
- Details of the job
- Events of the job
- Log files of the job
- Media associated with the job
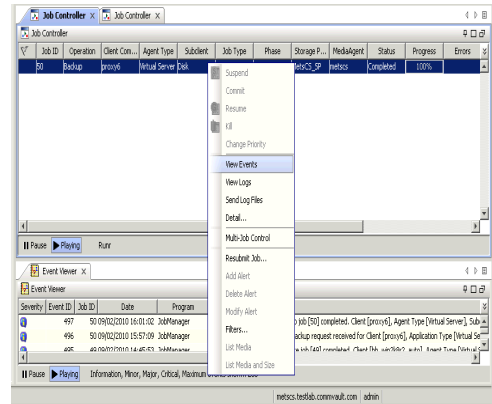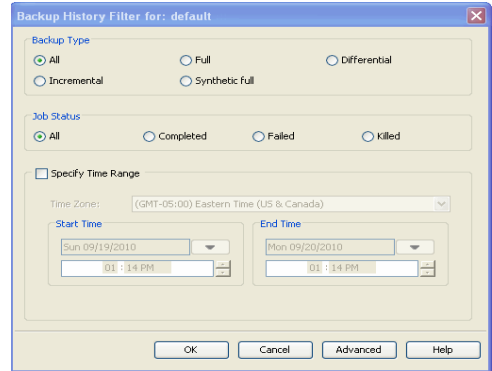
# Getting Started - Microsoft Hyper-V Restore

PERFORM A RESTORE

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

The following section comprehends the steps involved in restoring a Virtual Machine.

1.
- From the CommCell Console, navigate to **<Client>** | **Virtual Server**.
- Right-click the backup set that contains the data you want to restore and click **All Tasks** | **Browse Backup Data**.
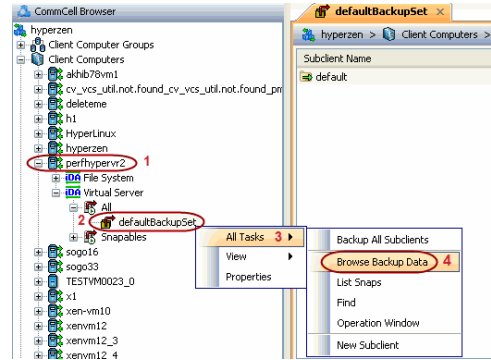
2.   Click **OK**.
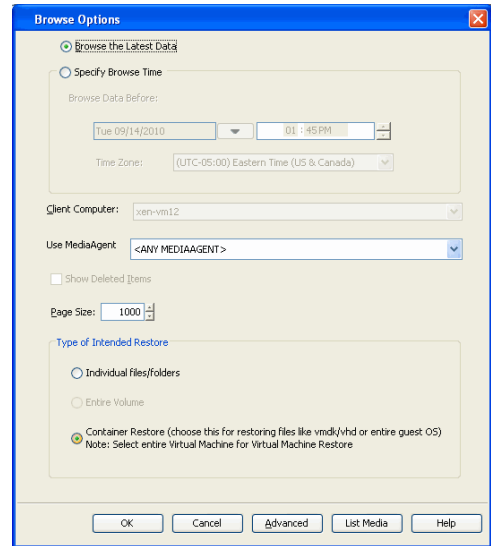
3.
- Select the virtual machine under the backup set. Its entire contents will be automatically selected in the right pane.
- Click **Recover All Selected**.
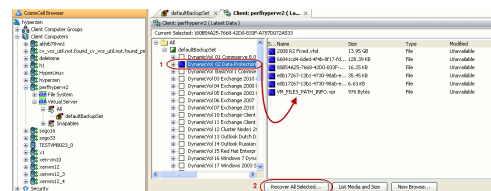
4.
- Click **Browse** to locate the desired **Destination Path** in the currently selected **Destination Client**.
- Enter the **VM Name** for the virtual machine.

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

5.
- Click the **Job Initiation** tab.
- Select **Immediate** to run the job immediately.
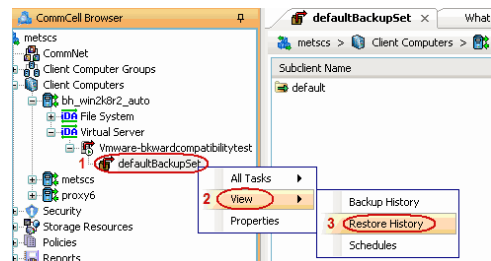- Click **OK**.
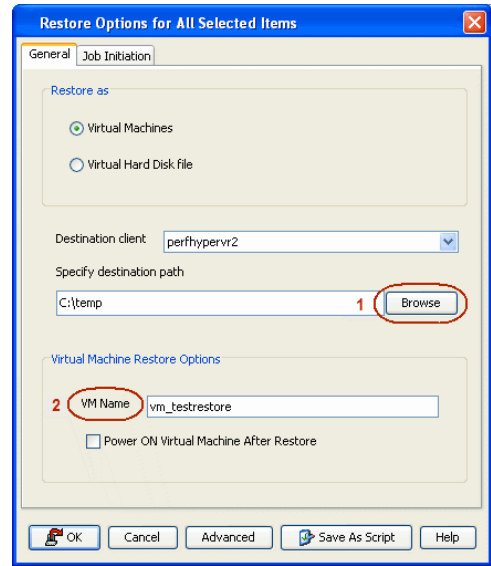
6. You can monitor the progress of the restore job in the **Job Controller** or **Event Viewer** window of the CommCell Console.
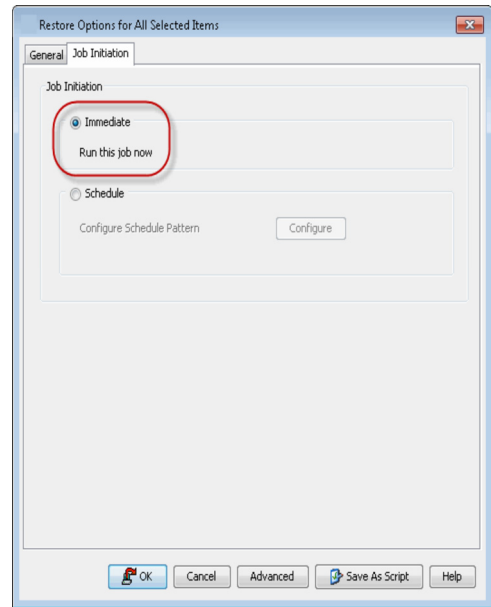
7. Once the restore job has completed, right-click the entity (e.g. agent, instance) and click **View** | **Restore History**.

If the entity chosen is the client computer, click **View** | **Job History**.
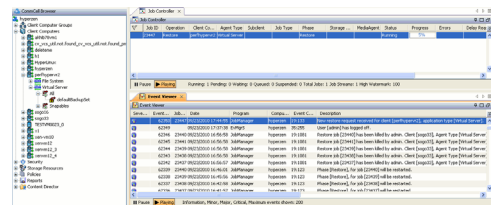
8. Click **OK**.

9.   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.

10. Once the virtual machine is restored, it is automatically mounted to the Hyper-V Server of the specified client computer.
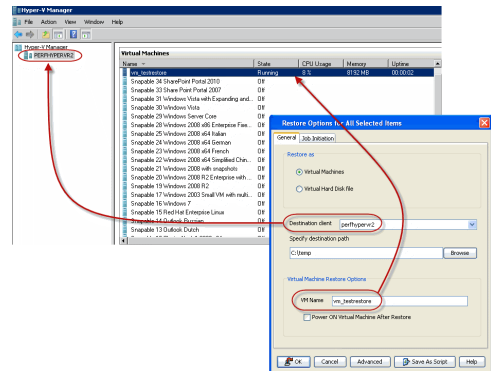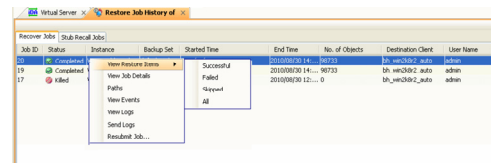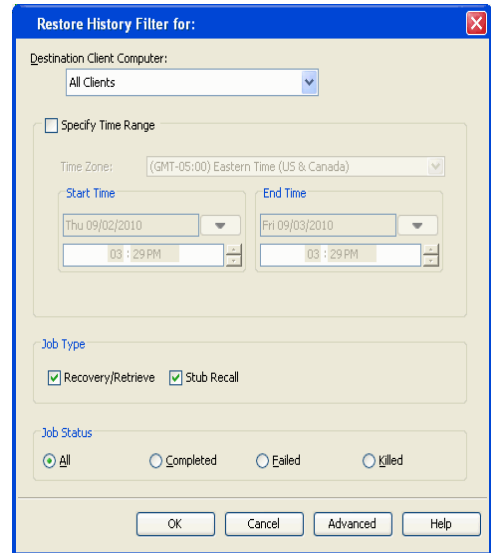
CONGRATULATIONS - YOU HAVE SUCCESSFULLY COMPLETED YOUR FIRST BACKUP AND RESTORE.

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