

# Quick Start - Windows File System iDataAgent

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# Overview - Windows File System iDataAgent

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- 1-Touch
- OnePass Agent
- Desktop Browse

#### Terminology

## INTRODUCTION

The Windows File System iDataAgent provides unified protection and recovery for the file system data residing on Windows clients. In addition to complete protection of file system data for disaster recovery, the Windows File System iDataAgent also provides more granular backup and recovery options that operate seamlessly with your data protection. Added options for deduplication, job management and reporting help ensure all your file system data is easily traceable and retrievable whenever the need arises.

## KEY FEATURES

The Windows File System iDataAgent offers the following key features:

### SIMPLIFIED DATA MANAGEMENT

The Windows File System iDataAgent enables easy management of all the Windows systems in your environment, by providing a singular approach to manage the data using the same unified console and infrastructure.

### POINT-IN-TIME RECOVERY

In the event of a serious system failure, such as the breakdown of hardware, software, or operating systems, the Windows File System iDataAgent provides point-in-time recovery of files at any given time.

### SYSTEM STATE

The Windows File System system state is made up of many components and services that are critical to recovery of the Windows operating system. The system state is backed up and restored as part of Windows File System iDataAgent backup and restore.

### SNAPPROTECT BACKUP

SnapProtect™ backup enables you to create a point-in-time snapshot of the data to be used for various data protection operations. SnapProtect backup works in conjunction with software and hardware snapshot engines to provide snapshot functionality for data protection operations.

### OFFICE COMMUNICATIONS SERVER

The Office Communications Server is made up of data, settings, and metadata that are critical to data protection operations residing in both the File System and SQL databases. In order to fully protect the Office Communications Server, both the OCS data and settings and the OCS metadata have to be backed up.

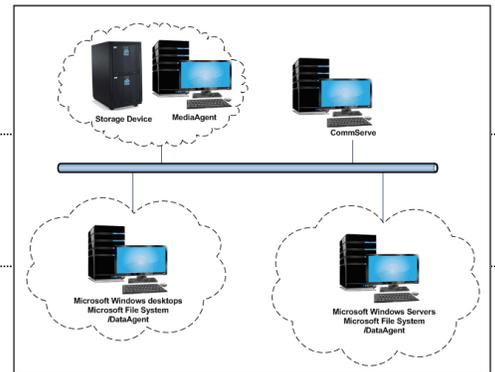
### BACKUP AND RECOVERY FAILOVERS

In the event that a MediaAgent used for the backup or recovery operation fails, it is automatically resumed on alternate MediaAgents. In such cases, the backup or restore job will not restart from the beginning, but will resume from the point of failure. This is especially useful for backups and restores of large

## WHERE TO GO NEXT

### Getting Started - Windows File System

Walks you through the process of installing and configuring the Windows File System iDataAgent.



amount of file system data.

In the event, that a network goes down, the backup and recovery jobs are resumed on alternate data paths. Similarly, in the event of a device failure, the jobs are automatically switched to alternate disk and tape drives.

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## EFFICIENT JOB MANAGEMENT AND REPORTING

You can view and verify the status of the backup and recovery operations from the Job Controller and Event Viewer windows within the CommCell Console. You can also track the status of the jobs using reports, which can be saved and easily distributed. Reports can be generated for different aspects of data management. You also have the flexibility to customize the reports to display only the required data and save them to any specified location in different formats. For example, you can create a backup job summary report to view at-a-glance the completed backup jobs. In addition, you can also schedule these reports to be generated and send them on email without user intervention.

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## BLOCK LEVEL DEDUPLICATION

Deduplication provides a smarter way of storing data by identifying and eliminating the duplicate items in a data protection operation.

Deduplication at the data block level compares blocks of data against each other. If an object (file, database, etc.) contains blocks of data that are identical to each other, then block level deduplication eliminates storing the redundant data and reduces the size of the object in storage. This way dramatically reduces the backup data copies on both the disk and tapes.

## ADD-ON COMPONENTS

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### SRM FOR WINDOWS FILE SYSTEM

SRM is integrated with Windows File System iDataAgent to provide several advanced reporting capabilities for your backups. When enabled, backup jobs collect details on the file systems currently being used or not used, the memory and hardware resources consumed, storage usage, and granular file-level analytics.

**SRM Reports** include detailed information on the state of your file system data, including free space, used space, file count, file sizes, directory structure, and many other useful statistics.

In addition, **SRM Summaries** provide a graphical, real-time representation of usage information such as memory and CPU utilization. Optional file-level analytics provides even more granular details at the file-level for optimizing your storage resources.

SRM integration with Windows File System iDataAgent can be easily enabled with your backups to take advantage of these features.

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### 1-TOUCH

1-Touch recovery helps to recover a crashed system in the least amount of time. By automatically rebuilding the operating system, you can recover systems with defective components such as inaccessible volumes or crashed disks. You don't need to reinstall the individual software packages or operating systems manually.

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### ONEPASS AGENT

The OnePass Agent is an integrated File System agent which backs up and archives the qualified data. It reclaims backup storage space when files and stubs are deleted on the primary storage.

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### DESKTOP BROWSE

Desktop Browse enables users to browse and restore data from a Web Browser, which provides the facility to access and restore data from anywhere.

## TERMINOLOGY

The Windows File System documentation uses the following terminology:

<b>CLIENT</b>	The computer in which the iDataAgent is installed and contains the data to be secured.
<b>BACKUPSET</b>	A group of subclients which includes all of the data backed up by the iDataAgent.
<b>SUBCLIENT</b>	The Windows file system data to be backed up.

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# System Requirements - Microsoft Windows File System iDataAgent

System Requirements | Supported Features

The following requirements are for the Microsoft Windows File System iDataAgent:

## OPERATING SYSTEM

### WINDOWS 8

Microsoft Windows Client 8  
Microsoft Windows Client 8.1

See Considerations for Microsoft Windows Server 2012, 2012 R2, and Windows 8 for more information.

### WINDOWS SERVER 2012

Microsoft Windows Server 2012 Editions  
Microsoft Windows Server 2012 R2 Editions

See Considerations for Microsoft Windows Server 2012, 2012 R2, and Windows 8 for more information.

### WINDOWS 7

Microsoft Windows 7 32-bit and x64 Editions

### WINDOWS SERVER 2008

Microsoft Windows Server 2008 Editions  
Microsoft Windows Server 2008 R2 Editions

### WINDOWS VISTA

Microsoft Windows Vista 32-bit and x64 Editions

### WINDOWS SERVER 2003

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

\* Special configuration considerations apply. See Installing 32-bit Components on a Microsoft Windows x64 Platform for more information.

### WINDOWS XP

Microsoft Windows XP Home Editions with a minimum of Service Pack 3  
Microsoft Windows XP Professional 32-bit and x64 Editions with a minimum of Service Pack 3

## CLUSTER - SUPPORT

The software can be installed on a Cluster if clustering is supported by the above-mentioned operating systems.

For information on supported cluster types, see Clustering - Support.

## HARD DRIVE

1.3 GB minimum of hard disk space for software/ 1.5 GB recommended  
1 GB of additional hard disk space for log file growth  
725 MB of temp space required for install or upgrade (where the temp folder resides)

## MEMORY

32 MB RAM minimum required beyond the requirements of the operating system and running applications

## PROCESSOR

All Windows-compatible processors supported

## PERIPHERALS

DVD-ROM drive  
Network Interface Card

## MISCELLANEOUS

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### NETWORK

TCP/IP Services configured on the computer.

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### 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.

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### NET FRAMEWORK

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

### 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 - Windows File System Deployment

## WHERE TO INSTALL

Install the software on a client computer that you want to protect and satisfies the minimum requirements specified in the System Requirements.

Follow the steps given below to install the Windows File System iDataAgent.

## INSTALLATION

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

### METHOD 1: INTERACTIVE INSTALL

Use this procedure to directly install the software from the installation package or a network drive.

### METHOD 2: INSTALL SOFTWARE FROM COMMCCELL CONSOLE

Use this procedure to install remotely on a client computer.

## METHOD 1: INTERACTIVE INSTALL

1. Run **Setup.exe** from the **Software Installation Package**.
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**.

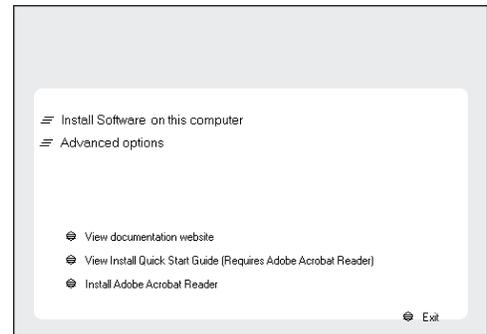
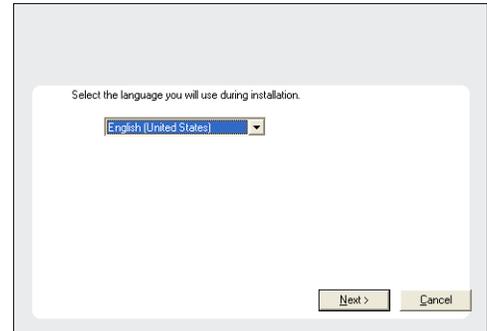
## BEFORE YOU BEGIN

### Download Software Packages

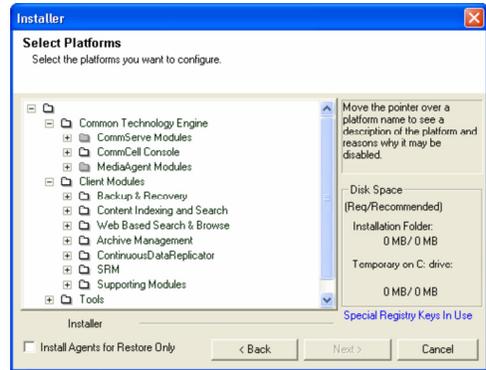
Download the latest software package to perform the install.

### System Requirements

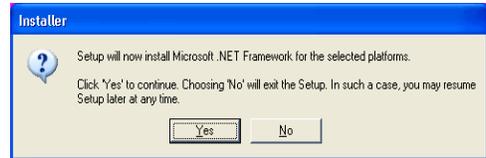
Verify that the computer in which you wish to install the software satisfies the System Requirements.



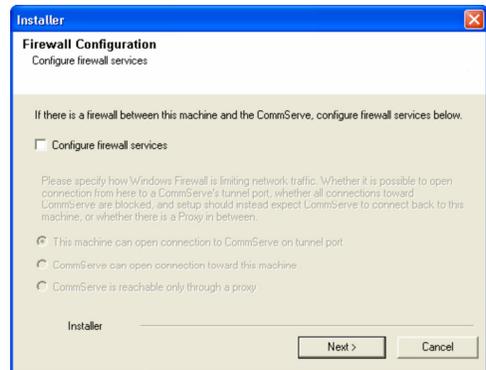
- Expand **Client Modules | Backup & Recovery | File System** and select **Windows File System iDataAgent**  
Click **Next**.



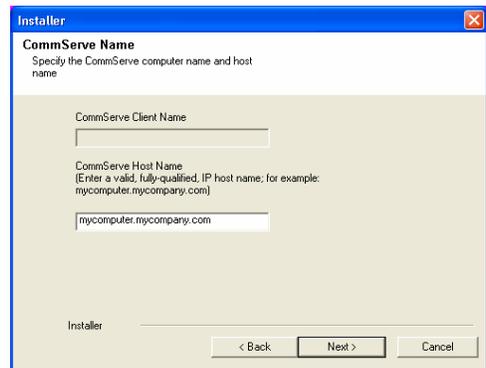
- Click **YES** to install Microsoft .NET Framework package.
  - This prompt is displayed only when Microsoft .NET Framework is not installed.
  - Once the Microsoft .NET Framework is installed, the software automatically installs the Microsoft Visual J# 2.0 and Visual C++ redistributable packages.



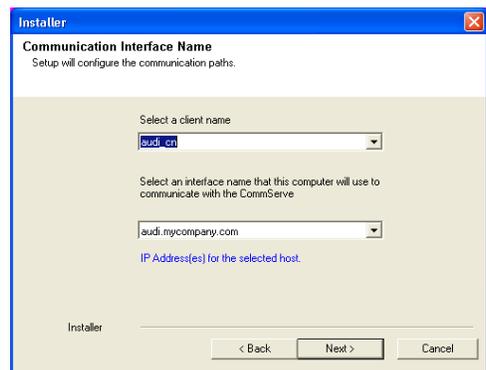
- If this computer and the CommServe is separated by a firewall, select the **Configure firewall services** option and then click **Next**.  
For firewall options and configuration instructions, see Firewall Configuration and continue with the installation.  
If firewall configuration is not required, click **Next**.



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



- Click **Next**.



- 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.

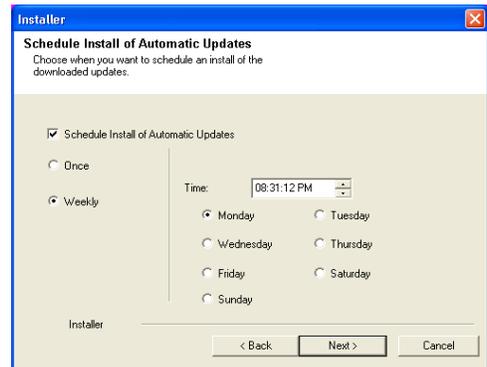
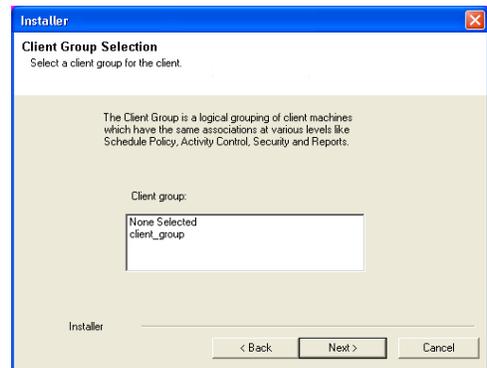
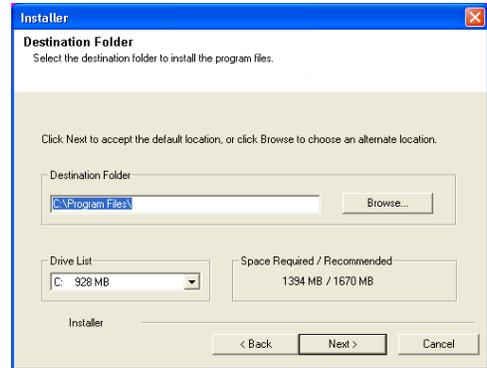
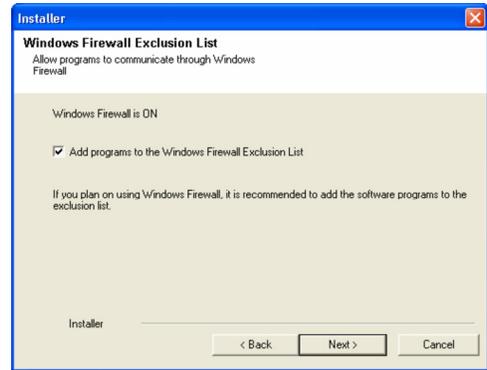
12. Select a Client Group from the list.

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** from the drop-down list. Click **Next**.

Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.

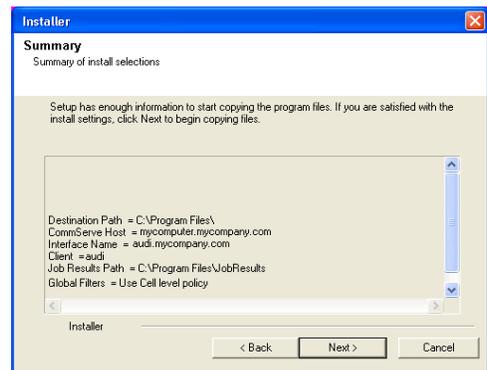
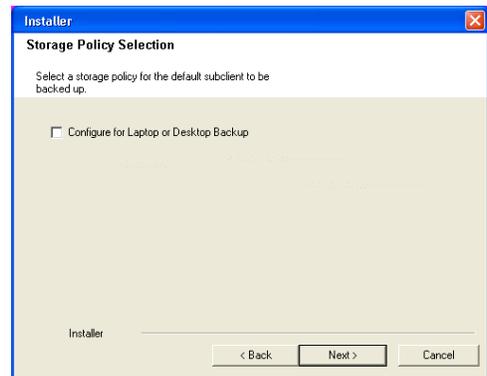
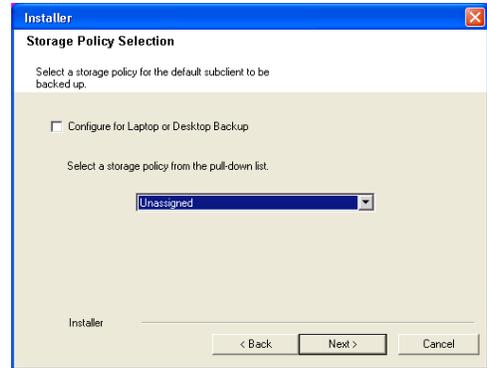
If you do not have Storage Policy created, this message will be displayed.

Click **Next**.

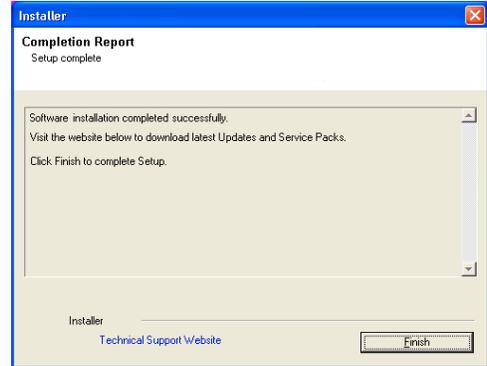
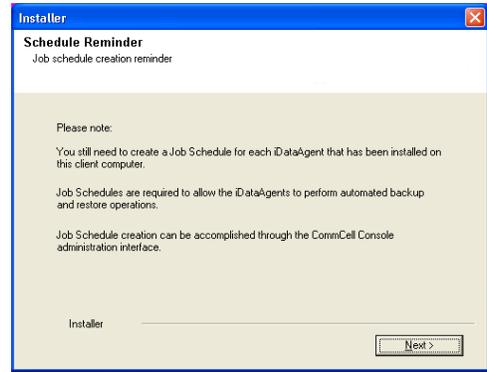
You can create the Storage Policy later in step 19.

- 16. Click **Next**.

- 17. Click **Next**.



18. Click **Finish**.



If you already have a storage policy selected in step 15, Click **Next >** button available at the bottom of the page to continue.

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**.

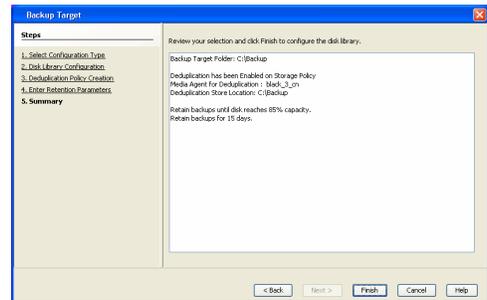
Type the name of the folder in which the disc library must be located in the **Enter backup destination folder** box or click the **Browse** button to select the folder.

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:
  - 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

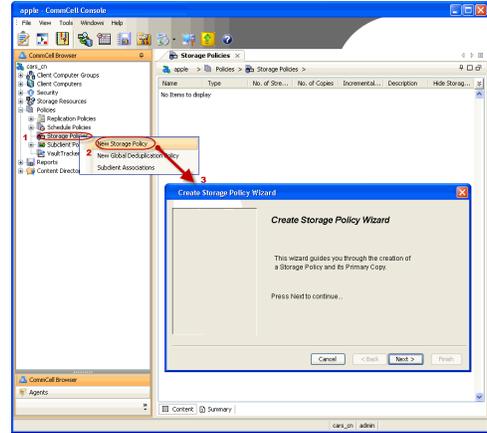
current release.

- 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**.

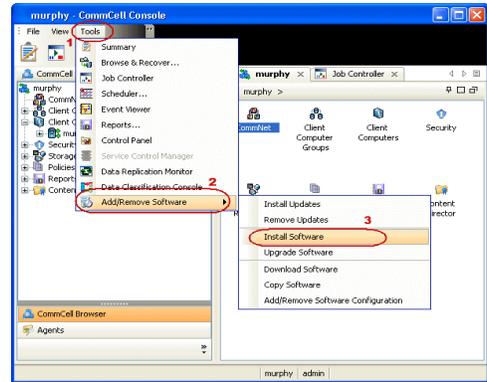
- Review the details and click **Finish** to create the Storage Policy.

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

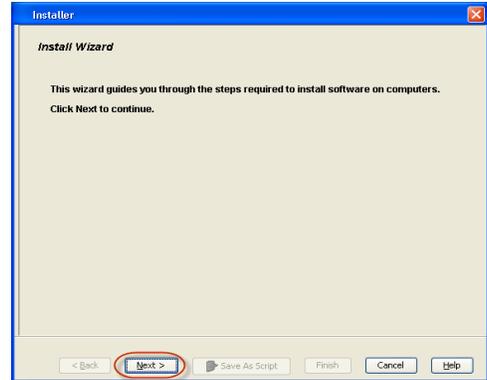


## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

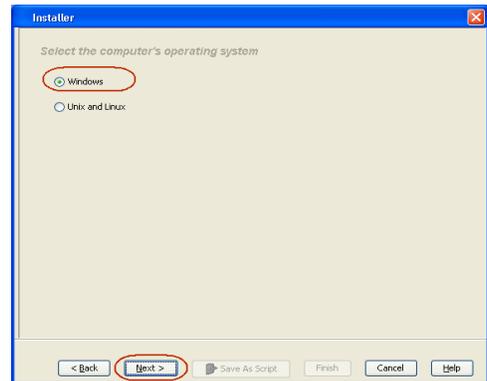
1. From the CommCell Browser, select **Tools | Add/Remove Software | Install Software**.



2. Click **Next**.

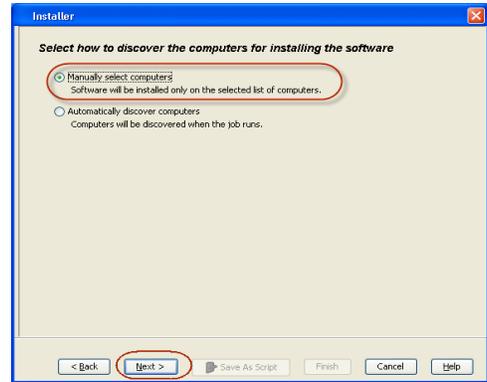


3. Select **Windows**.  
Click **Next**.

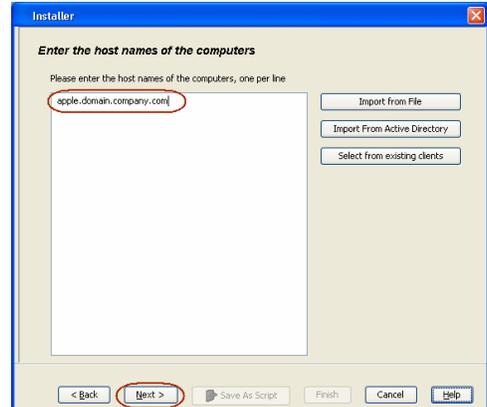


4. Select **Manually Select Computers**.  
Click **Next**.

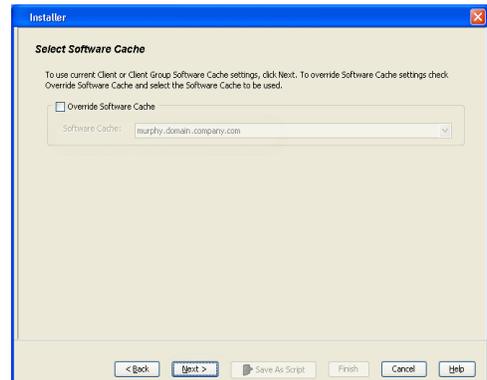
5. Enter the fully qualified domain name of the client computer.  
For example: `apple.domain.company.com`  
Click **Next**.



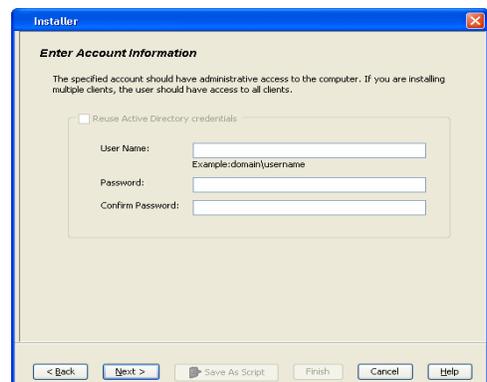
6. Click **Next**.



7. Specify **UserName** and **Password** that must be used to access the client computer.  
Click **Next**.



8. Select **Windows File System iDataAgent**.  
Click **Next**.



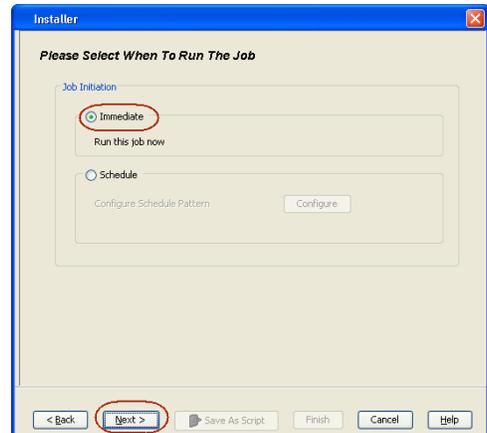
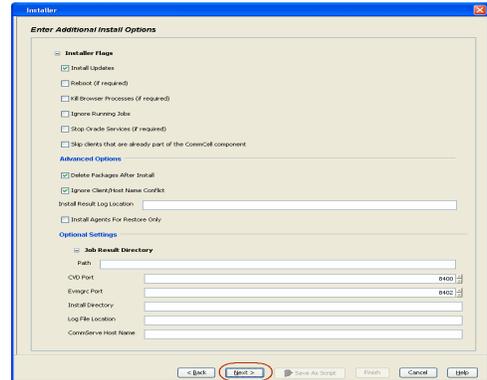
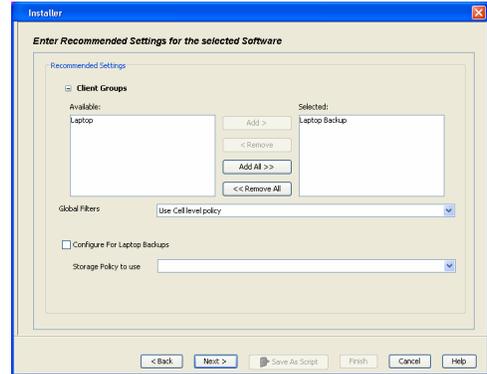
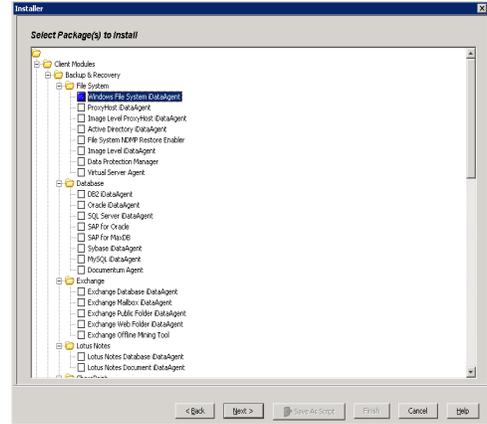
9.
  - Select **Client Group** from **Available** and click **Add**.
  - Select a **Storage Policy** from the drop-down list. Click **Next**.

Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.

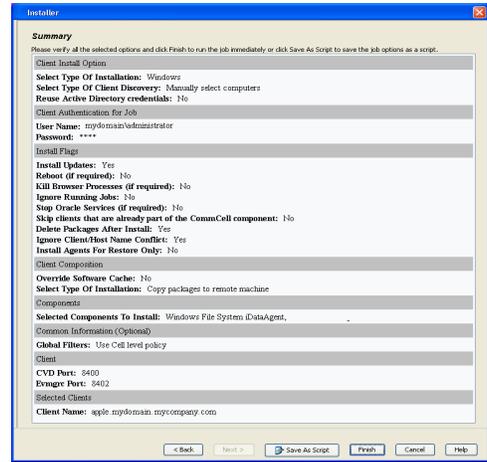
10. Click **Next**.

11. Select **Immediate**.  
Click **Next**.

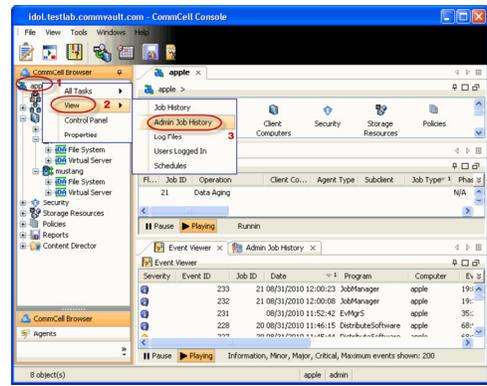
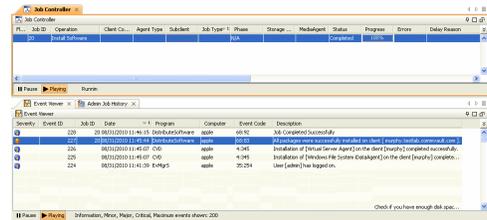
12. Click **Finish**.



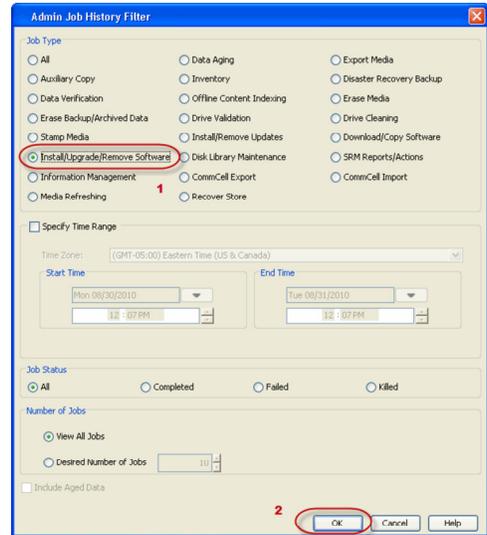
- You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

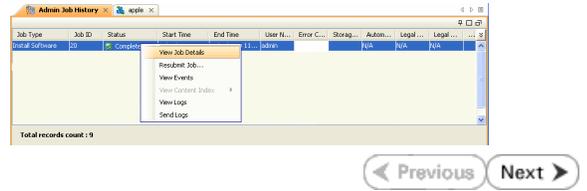


- Select **Install/Upgrade/Remove Software**. Click **OK**.



- 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 - Windows File System iDataAgent Deployment on a Cluster

< Previous Next >

## SKIP THIS PAGE IF YOU ARE NOT INSTALLING THIS AGENT ON A CLUSTER.

Click **Next** > to continue with the deployment.

### WHERE TO INSTALL

Install the software from the active node in the cluster group. Make sure the cluster group satisfies the minimum requirements specified in the System Requirements.

Follow the steps given below to install the Windows File System iDataAgent in a Clustered Environment.

1. Run **Setup.exe** from the **Software Installation Package**.
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. Select **Configure a Virtual Server**.  
Click **Next**.

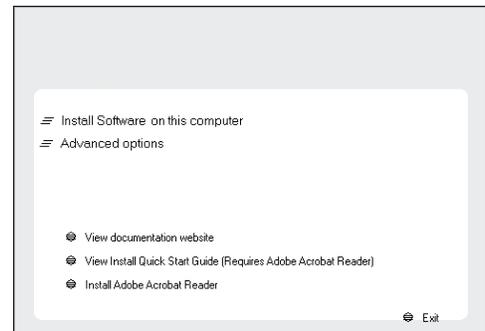
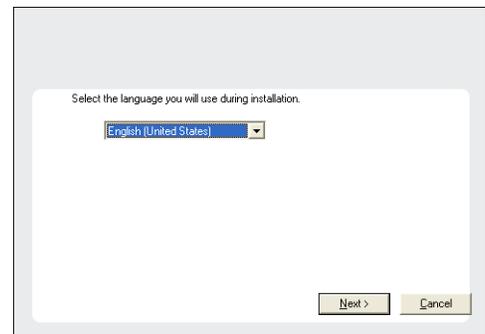
### BEFORE YOU BEGIN

#### Download Software Packages

Download the latest software package to perform the install.

#### System Requirements

Verify the cluster group which you wish to install the software satisfies the System Requirements.





10. Verify the **Virtual Machine** name and click **Next**.

The virtual machine is the name of the resource hosting the cluster group.

11. Select the name of the **Physical Machine** from drop-down list.

Click **Next**.

12. 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.

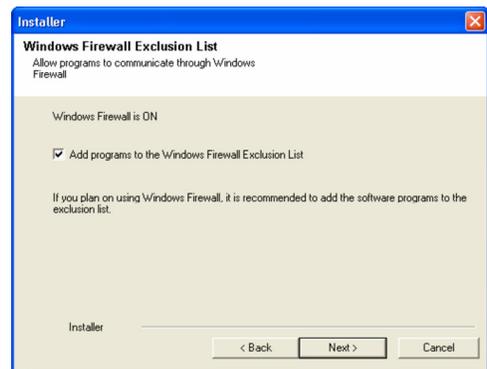
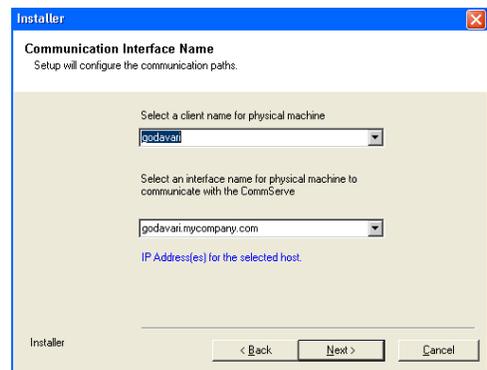
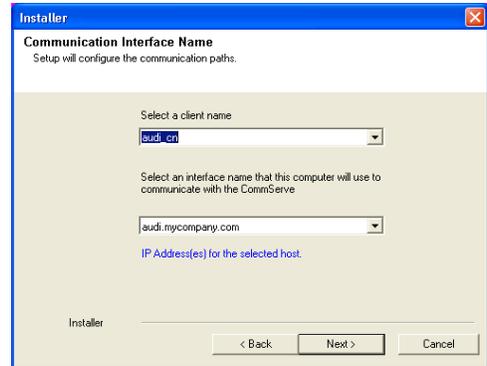
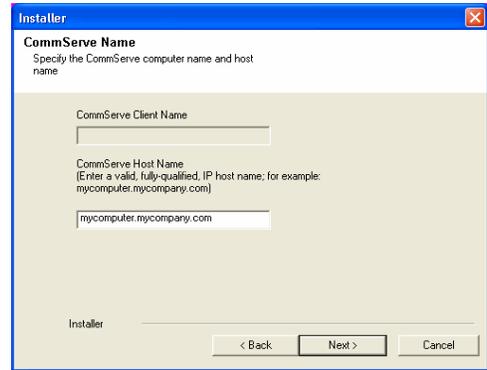
It is recommended to select this option even if Windows firewall is disabled. This will allow the CommCell programs and services to function if the Windows firewall is enabled at a later time.

13. Type or **Browse** to specify the software installation path which must be located on local disk of your physical machine and then click **Next**.

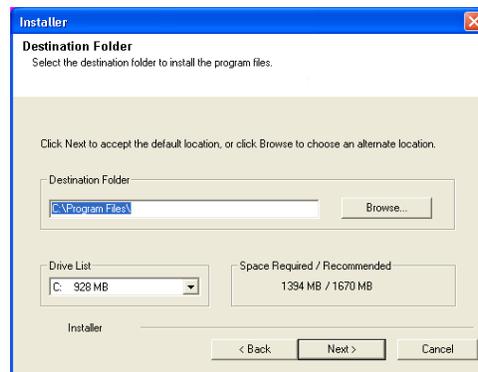
- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:

/ : \* ? " < > | #

It is recommended that you use alphanumeric characters only.

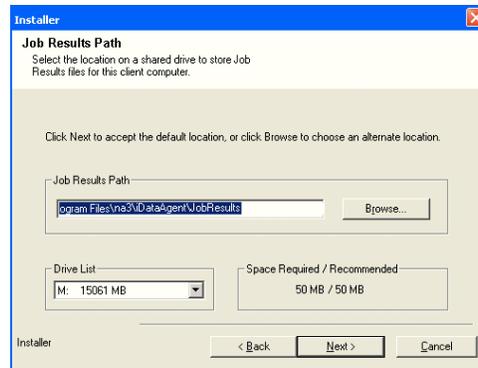


- 14. Verify the default location for Job Results Path.  
Click **Browse** to change the default location.  
Click **Next**.



- 15. Select a Client Group from the list.  
Click **Next**.

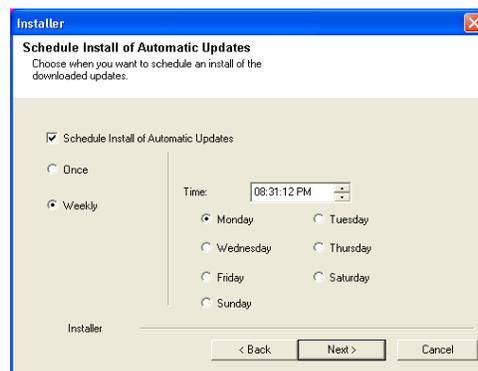
This screen will be displayed if Client Groups are configured in the CommCell Console.



- 16. Click **Next**.



- 17. Click **Next**.



18. Select a **Storage Policy** from the drop-down list and click **Next**.

Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.

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

Click **OK**.

You can create the Storage Policy later in step 27.

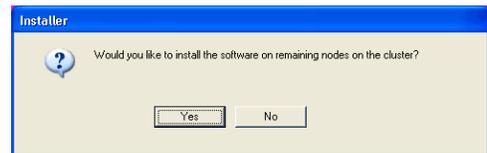
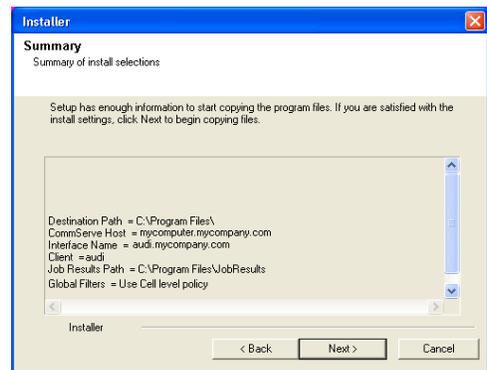
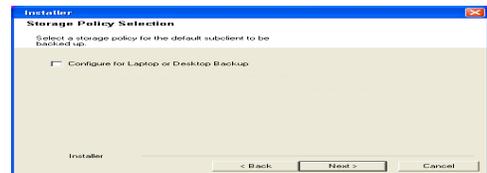
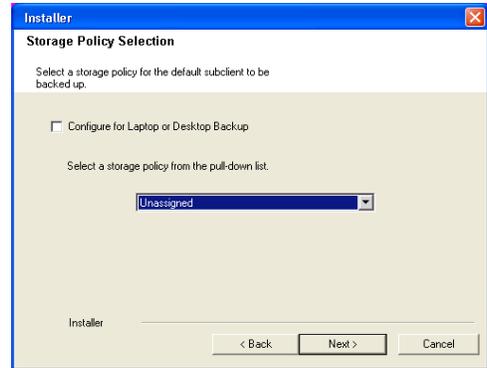
19. Click **Next**.

20. To install the software on the remaining nodes of the cluster, click **Yes**.  
To complete the install for this node only, click **No**.

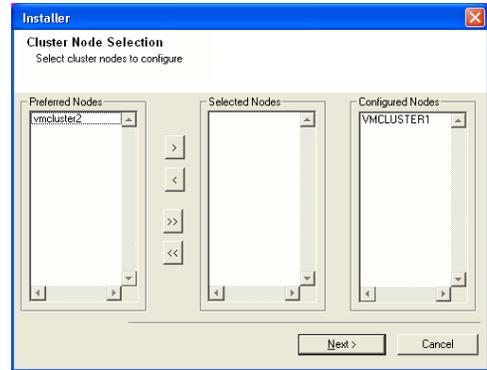
21. Select cluster nodes from the **Preferred Nodes** list and click the arrow button to move them to the **Selected Nodes** list.

Once you complete your selections, click **Next**.

- The list of **Preferred Nodes** displays all the nodes found in the cluster; from this list you should only select cluster nodes configured to host this cluster group server.
- Do not select nodes that already have multiple instances installed.



22. Specify **User Name** and **Password** for the **Domain Administrator account Information** to perform the remote install on the cluster nodes you selected in the previous step.  
Click **Next**.



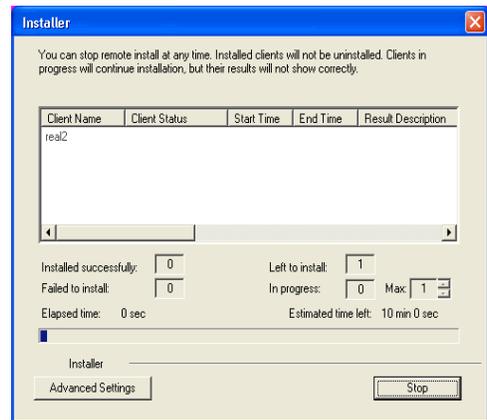
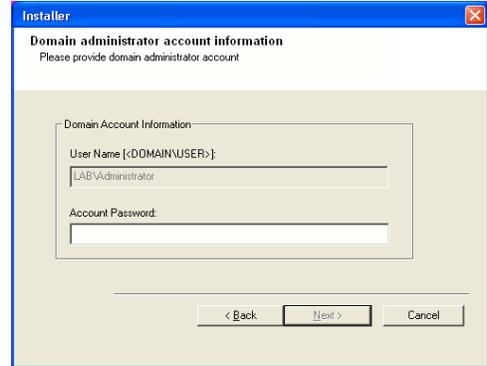
23. The progress of the remote install for the cluster nodes is displayed; the install can be interrupted if necessary.

Click **Stop** to prevent installation to any nodes after the current ones complete.

Click **Advanced Settings** to specify any of the following:

- Maximum number of nodes on which Setup can run simultaneously.
- Time allocated for Setup to begin executing on each node, after which the install attempt will fail.
- Time allocated for Setup to complete on each node, after which the install attempt will fail.

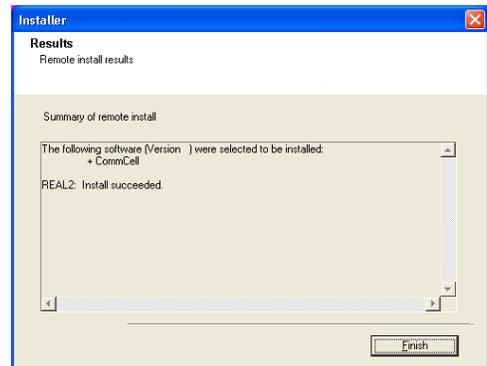
If, during the remote install of a cluster node, setup fails to complete or is interrupted, you must perform a local install on that node. When you do, the install begins from where it left off, or from the beginning if necessary. For procedures, see *Manually Installing the Software on a Passive Node*.



24. Read the summary for remote installation to verify that all selected nodes were installed successfully.

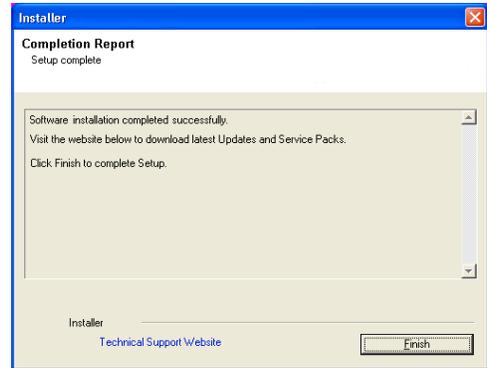
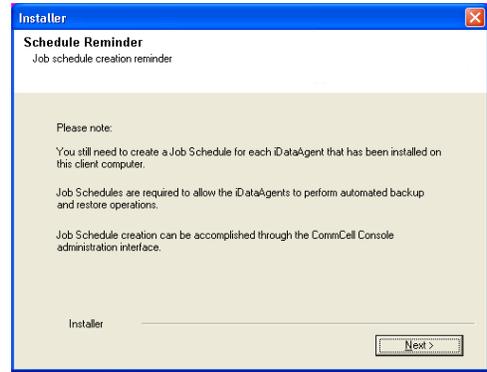
Click **Next**.

- If any node installation fails, you must manually install the software on that node once the current installation is complete. See *Manually Installing the Software on a Passive Node* for step-by-step instructions.
- The message displayed on your screen will reflect the status of the selected nodes, and may look different from the example.



25. Click **Next**.

26. Click **Finish**.



If you already have a storage policy selected in step 18, Click **Next >** button available at the bottom of the page to proceed to the **Configuration** section.

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

27. 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**.

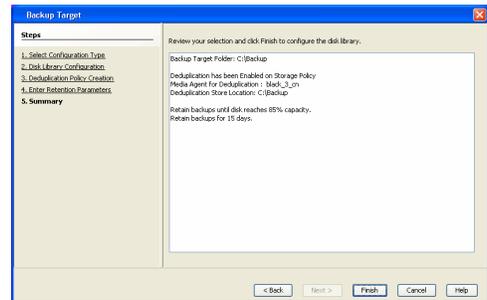
Type the name of the folder in which the disc library must be located in the **Enter backup destination folder** box or click the **Browse** button to select the folder.

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**.

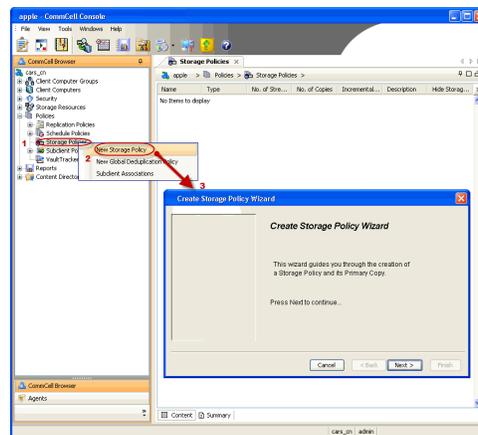
Ensure that you select a library attached to a MediaAgent operating in the

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.



# Getting Started - Windows File System iDataAgent Deployment On A Non-Microsoft Cluster

◀ Previous   Next ▶

## SKIP THIS PAGE IF YOU ARE NOT INSTALLING THIS AGENT ON A NON-MICROSOFT CLUSTER.

Click **Next** ▶ to begin Configuration.

### INSTALLATION

The software can be installed in one of the following Non-Microsoft Clustered environments:

#### INSTALL WINDOWS FILE SYSTEM IDATAAGENT IN VERITAS CLUSTER ENVIRONMENT

Use this procedure to install the software from the installation package or a network drive on a VERITAS Cluster environment.

#### INSTALL WINDOWS FILE SYSTEM IDATAAGENT IN HP SCALABLE NAS/POLYSERVE CLUSTER ENVIRONMENT

Use this procedure to install the software from the installation package or a network drive on a NAS/Polyserve Clustered environment.

### RELATED TOPICS

#### 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.

#### Firewall

Provides comprehensive information on firewall.

## INSTALL WINDOWS FILE SYSTEM IDATAAGENT IN VERITAS CLUSTER ENVIRONMENT

### WHERE TO INSTALL

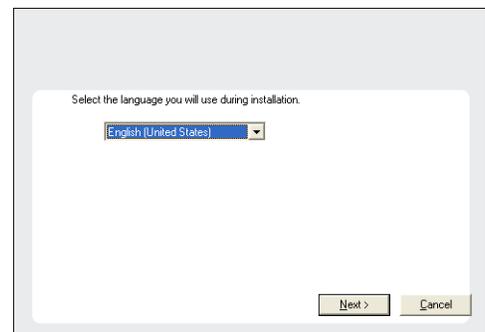
Install the software in a VERITAS Clustered Environment, by locating the active node that is hosting the cluster resources and perform the installation from this node to the virtual node.

Follow the steps given below to install the Windows File System iDataAgent in a VERITAS Clustered environment

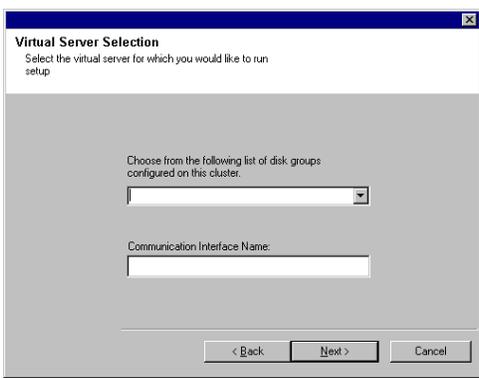
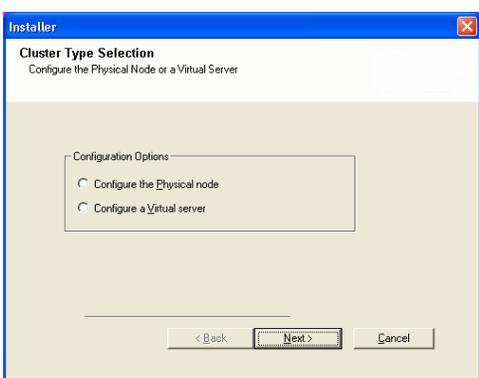
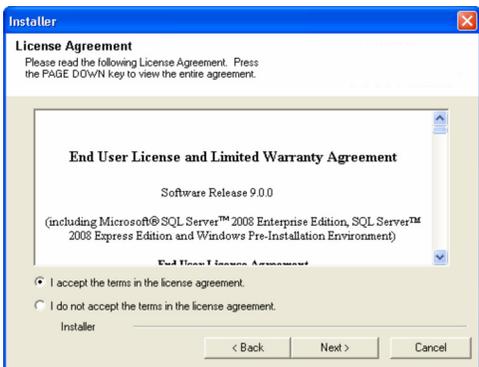
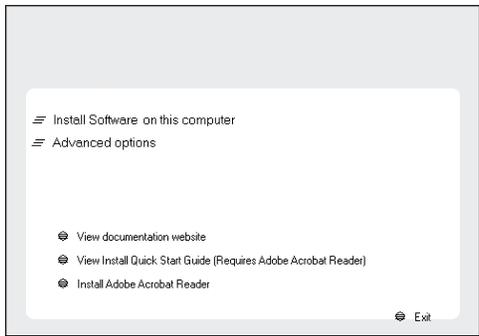
1. Create `bIgnoreClusterVMCheck` registry key to detect that the agent is being installed on a virtual node in a non-Microsoft cluster.
2. Run **Setup.exe** from the **Software Installation Package**.
3. Select the required language.  
Click **Next**.

To create the registry key, see the following steps:

1. Start the Registry Editor (Regedit.exe or Redegt32.exe)
2. Locate the directory under which you want to create a key, e.g., `HKEY_LOCAL_MACHINE\SOFTWARE\`.
3. Right click the **SOFTWARE** and click **New -> Key**.
4. Name the key as **GalaxyInstallerFlags**.
5. Right click the **GalaxyInstallerFlags** and select **New -> DWORD** value, name it as `bIgnoreClusterVMCheck` and by double clicking the `bIgnoreClusterVMCheck` key modify the **Value** data to **1**.



4. 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.



5. Select **I accept the terms in the license agreement**.  
Click **Next**.
  
6. Select **Configure a Virtual Server**.  
Click **Next**.
  
7.
  - In the **disk groups** box, specify the host name of the Virtual Host created for backup, e.g., VirtualVeritasServe.
  - In the **Communication Interface Name** box, specify the fully qualified domain name of the Virtual Host, e.g., VirtualVeritasServe.acme.com.
  - Click **Next**.
  
8. Specify the hosts node in the **Preferred Nodes** and click **Add** to add in the Nodes on which **Virtual Group is configured to run**.  
Specify the name of active node in **Current Owner Node** box.  
Click **Next**.



14. 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.

15. 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:

/ : \* ? " < > | #

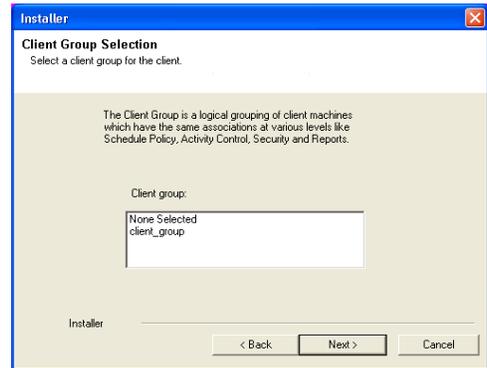
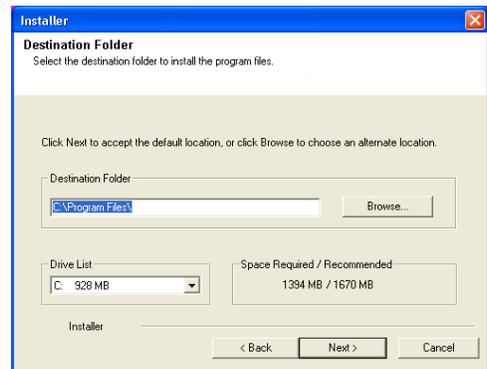
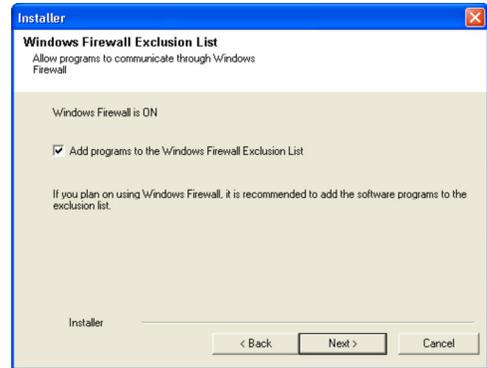
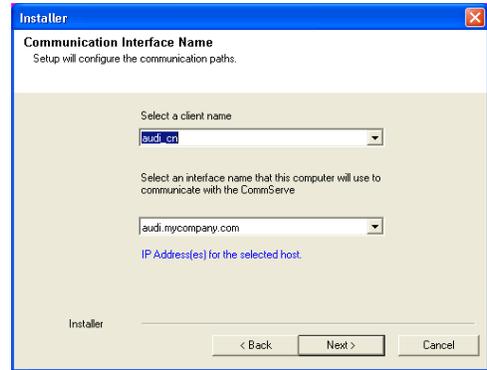
It is recommended that you use alphanumeric characters only.

16. Select a Client Group from the list.

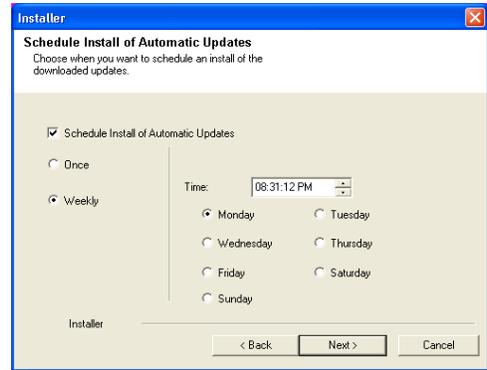
Click **Next**.

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

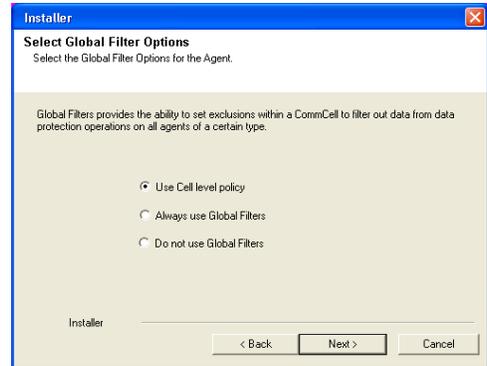
17. Click **Next**.



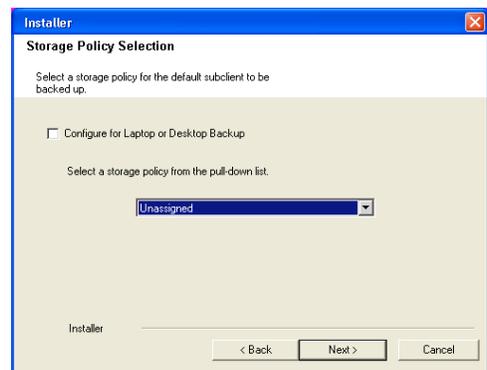
18. Click **Next**.



19. Select a **Storage Policy** from the drop-down list.  
Click **Next**.

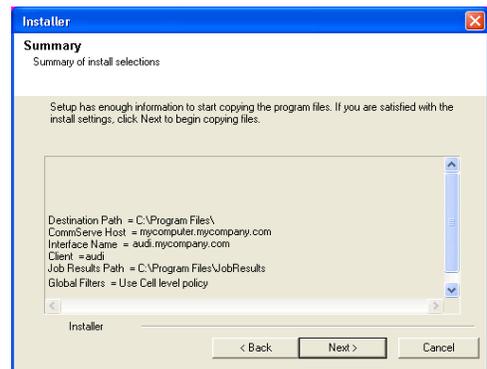


20. Click **Next**.

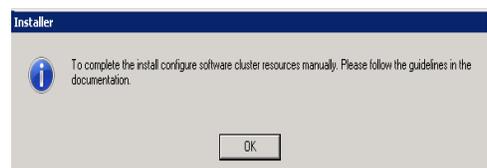


21. Click **OK** and manually configure the cluster resources.

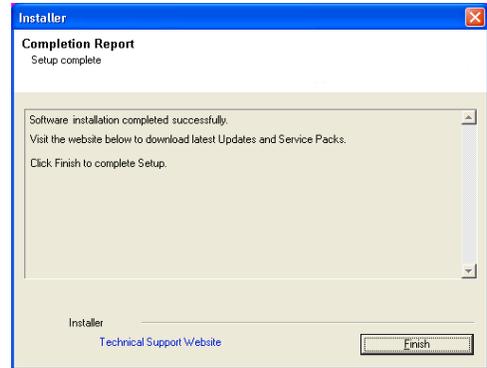
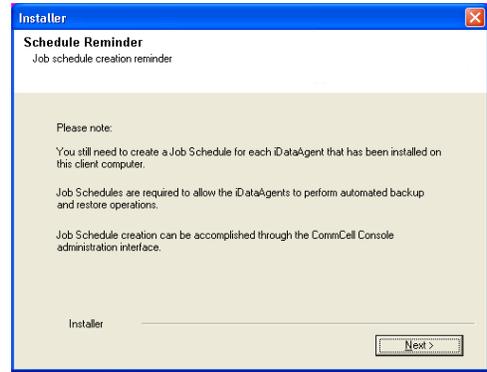
See [Configuring the VERITAS Cluster Resources](#) for more information on configuring the cluster resources.



22. Click **Next**.



23. Click **Finish**.



## CONFIGURING VERITAS CLUSTER RESOURCES

In case of VERITAS Cluster you must manually install the software on all the available Nodes. For installs on the VERITAS Cluster, complete the following procedures for the agent. These procedures can be completed using the VERITAS Cluster Administrator.

### CREATE THE CLUSTER RESOURCES FOR SERVICES

24. Once the physical nodes and the virtual machine are installed, services should be added as generic services.
- Also, you may want to designate the services as "critical" if you want to cause the virtual machine to fail over if the associated service stops.

- In Windows Services, locate the services for each installed cluster (e.g., Bull Calypso Cluster Plugin (penodevn1\_netwo) (instance001)) right-click and select **Properties**, and locate the service name in the **General** tab (e.g., GxClusPlugin (penodevn1\_netwo) (Instance001))

The service name is case- and space-sensitive, so record it exactly as it appears.

25. Create Service Dependencies

- In Cluster Administrator, navigate to the appropriate Cluster group. Create a generic service resource for the cluster plugin service.
- If you want an automatic failover to occur, mark the resource as **Critical** and **Enabled**.
- Repeat this procedure for each client installed on the cluster.

26. Associate Services with the Current Active Node

- In Cluster Administrator, click **Resources**.
- Click **Link** and make the Cluster plugin resource dependent upon the Mount resource and the **Lanman** service.
- In Cluster Administrator, navigate to the appropriate **GenericService** group.
- Right-click the cluster plugin resource.
- From the short-cut menu, click **Online** and the name of the current active node.

## INSTALL WINDOWS FILE SYSTEM IDATAAGENT IN HP SCALABLE NAS/POLYSERVE CLUSTER ENVIRONMENT

## WHERE TO INSTALL

Install the software in HP Scalable NAS/Polyserve Cluster environment from the active host to virtual server.

The software must be installed on each passive node available to the virtual host. During install, you will be asked to provide the name of the active host for each passive host installation. See Manually Installing the Software on a Passive Node for step-by-step instructions.

Follow the steps given below to install the Windows File System iDataAgent in a HP Scalable NAS/Polyserve Clustered environment:

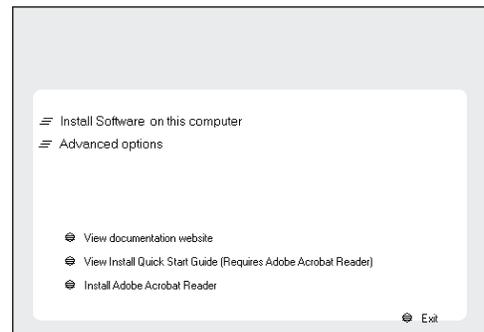
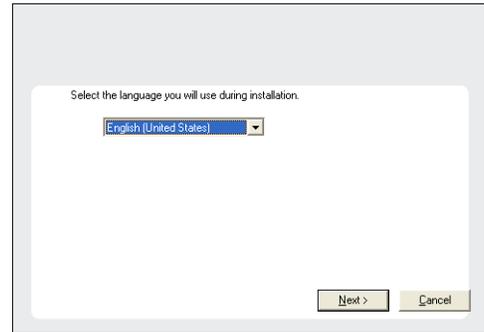
1. Create `bIgnoreClusterVMCheck` registry key to detect that the agent is being installed on a virtual node in a non-Microsoft cluster.
  
2.
  - In the PolyServe Matrix Server, create a virtual host resource name that has an assigned TCP/IP address in the network.
  - Provide a virtual host name (e.g., `VirtualPolyServe.acme.com`) and an Application name (e.g., `VirtualPolyServe`).
  - Select all network Interfaces that will be available as hosts for the backup software services and click **OK**.
3. From the Virtual Hosts tab in the PolyServe Matrix Server dialog box, locate the primary node for the virtual server you are installing, and perform the installation from the active (primary) host to the virtual server.
4. Run **Setup.exe** from the **Software Installation Package**.
5. Select the required language.  
Click **Next**.

To create the registry key, see the following steps:

1. Start the Registry Editor (Regedit.exe or Redegt32.exe)
2. Locate the directory under which you want to create a key, e.g., `HKEY_LOCAL_MACHINE\SOFTWARE\`.
3. Right click the **SOFTWARE** and click **New -> Key**.
4. Name the key as **GalaxyInstallerFlags**.
5. Right click the **GalaxyInstallerFlags** and select **New -> DWORD** value, name it as `bIgnoreClusterVMCheck` and by double clicking the `bIgnoreClusterVMCheck` key modify the **Value** data to **1**.

6. 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.

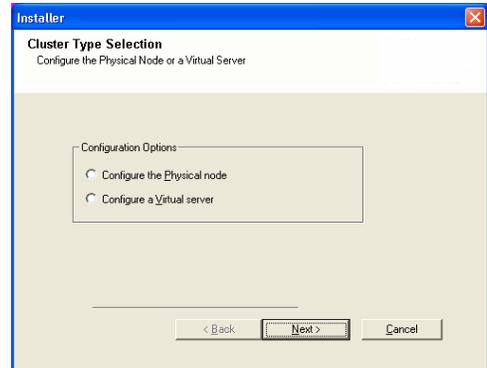
7. Select **I accept the terms in the license agreement**.  
Click **Next**.



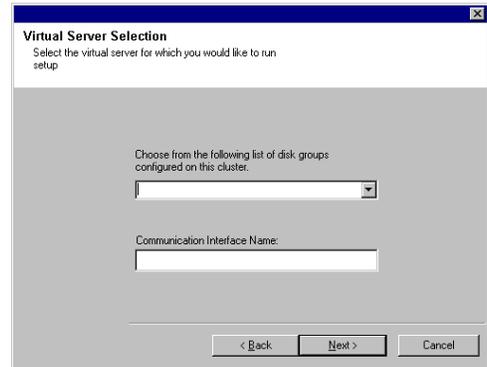
8. Select **Configure a Virtual Server**.  
Click **Next**.



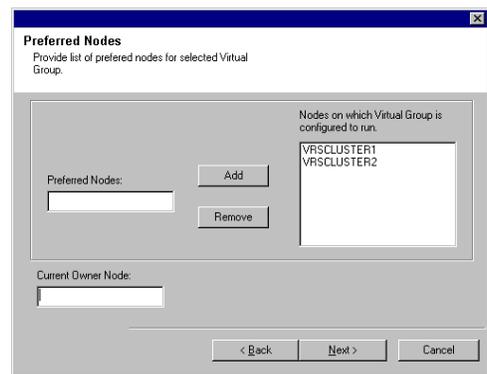
9.
  - In the **disk groups** box, specify the host name of the Virtual Host created for backup, e.g., VirtualVeritasServe.
  - In the **Communication Interface Name** box, specify the fully qualified domain name of the Virtual Host, e.g., VirtualVeritasServe.acme.com.
  - Click **Next**.



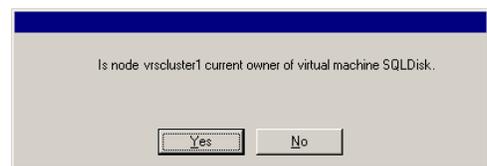
10. Specify the hosts node in the **Preferred Nodes** and click **Add** to add in the Nodes on which **Virtual Group is configured to run**.  
Specify the name of active node in **Current Owner Node** box.  
Click **Next**.



11. Click **Yes** if it is the Active node.
  - If you click **No** the program will perform the passive install. Follow the steps described in Manually Installing the Software on a Passive Node.
  - This screen may look different from the example shown.



12. Expand **Client Modules | Backup & Recovery | File System** and select **Windows File System iDataAgent**



Click **Next**.

- 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**.

- 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:

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

- Click **Next**.

**NOTES**

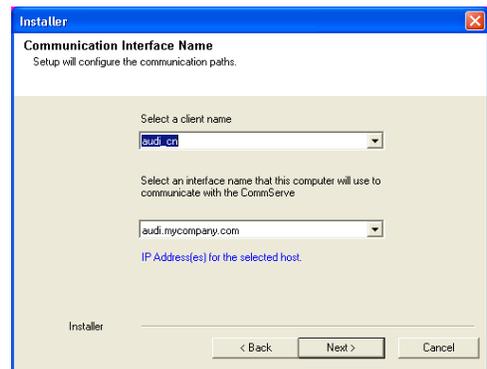
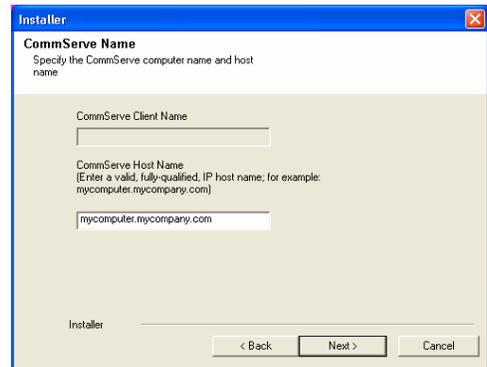
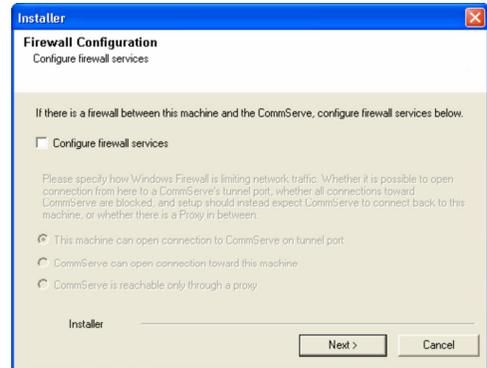
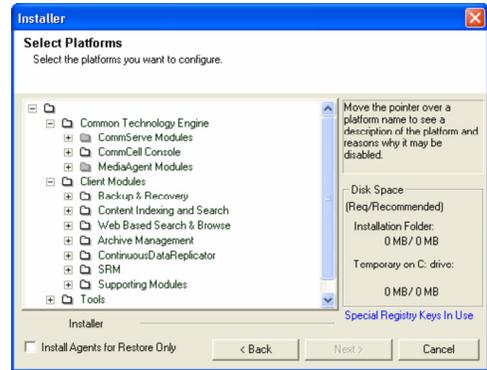
- The client name should be equivalent to the vhost name and the interface name equals the vhosts fully qualified domain name.

- 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.



17. 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.

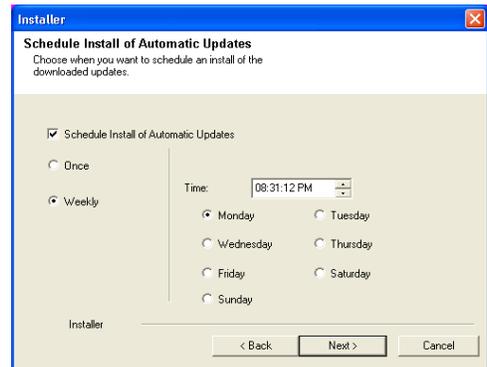
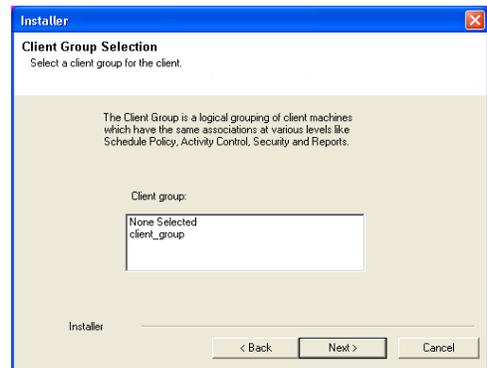
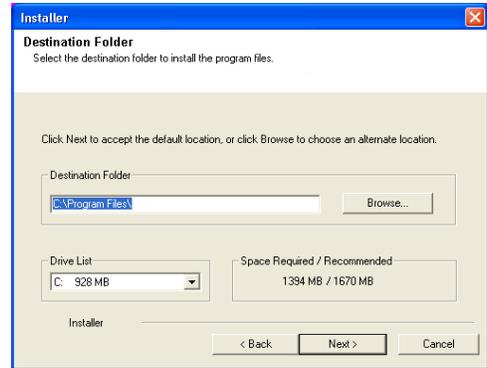
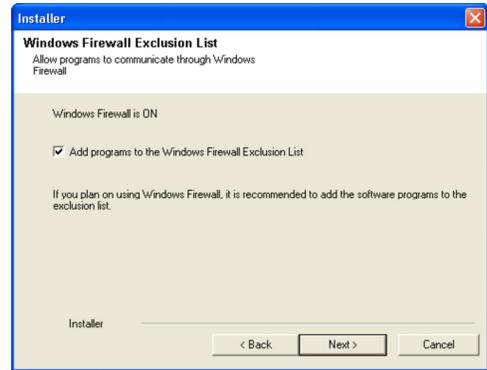
18. Select a Client Group from the list.

Click **Next**.

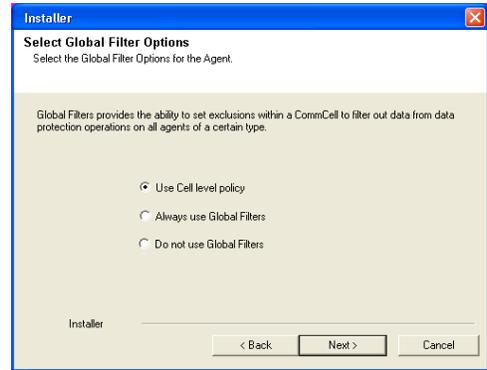
This screen will be displayed if Client Groups are configured in the CommCell Console.

19. Click **Next**.

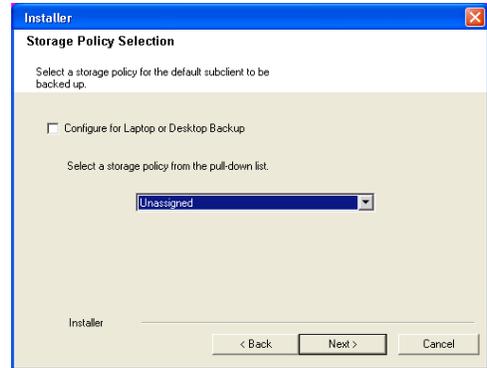
20. Click **Next**.



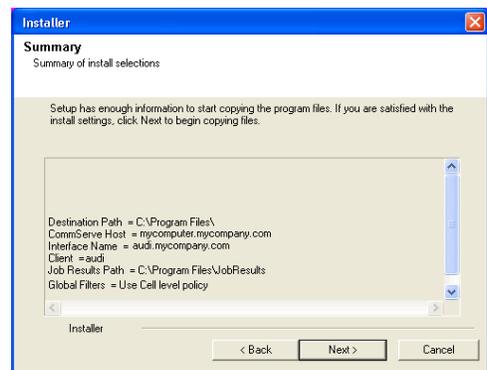
- 21. Select a **Storage Policy** from the drop-down list.  
Click **Next**.



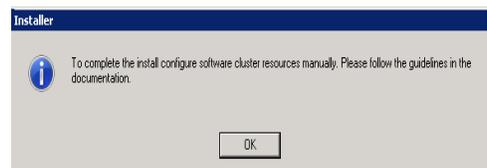
- 22. Click **Next**.



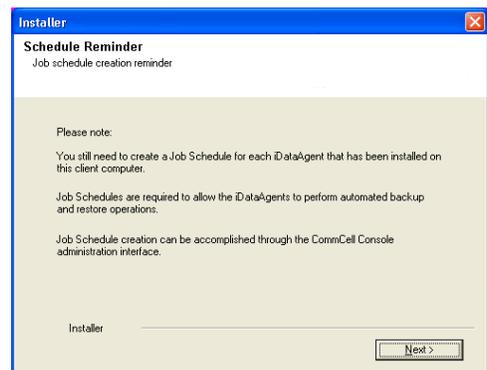
- 23. Click **OK** and manually configure the cluster resources.  
  
See [Configuring the HP Scalable NAS/Polyserve Cluster Resources](#) for more information on configuring the cluster resources.

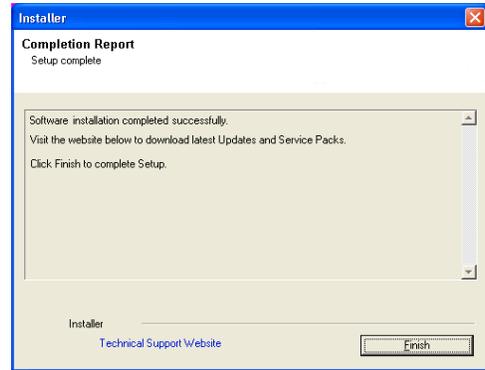


- 24. Click **Next**.



- 25. Click **Finish**.





## CONFIGURING HP SCALABLE NAS/POLYSERVE CLUSTER RESOURCES

For installs on the HP Scalable NAS/PolyServe Cluster, complete the following procedures for the agent.

### 26. Create and Use Scripts to Administer Virtual Machine Services.

You should create and use three scripts to administer virtual machine services:

- Probe script is used to reveal the state of the specified services. This is done using the `GxSCMcmd.exe` utility.
- Start script is used to start services.
- Stop script is used to stop services.

Create a probe script to have the status of both the Bull Calypso Communications Service (GxCVD) and the Bull Calypso Event Manager Service (GxEvMgrC) checked. In the probe script, include the `GxSCMcmd.exe` utility by name in the appropriate command. (This utility is available from the Resource Pack. See Tools and Utilities for more information.) Create a folder (e.g., `m:\GxSCMcmd`) on a shared disk that the virtual host you created has access to. Copy the `GxSCMcmd.exe` utility and the script files you created (`probe.bat`, `start.bat`, `stop.bat`) to this folder. The utility will return the state of the specified services: '0' if the services are running or '1' if services are stopped. For an error condition, '-1' is returned. Note that the service name includes the name of the client and the name of the instance. To avoid error in providing the vhost name and instance name in the path of scripts, copy the key name from here:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\GxClusPlugIn
(vhostname) (Instance00x)
```

These examples provide sample script names, locations and virtual host name as suggested names not requirements.

The command syntax is:

```
GxSCMcmd.exe -IsRunning <list of service name>
```

For example, your probe script (e.g., `m:\GxSCMcmd\gxprobe.bat`) may appear as follows:

```
@echo off
if '%MX_ACTIVE_STATE%'='INACTIVE' exit 0
m:\GxSCMcmd\GxSCMcmd.exe -IsRunning "GxClusPlugIn (virtualpolyserve)
(Instance001)"
if ERRORLEVEL 0 exit 0
exit 1
```

Be sure to copy the `GxSCMcmd.exe` utility to the shared disk resource. Also, be sure to include the probe script on the shared disk.

The stop and start scripts must also contain the registry entry for the virtual machine service names. Your start script (e.g., `m:\GxSCMcmd\gxstart.bat`) may appear as follows:

```
@echo off
C:\WINDOWS\system32\net.exe start "GxClusPlugIn (virtualpolyserve)
(Instance001)"
exit 0
```

Your stop script (e.g., `m:\GxSCMcmd\gxstart.bat`) may appear as follows:

```
@echo off
C:\WINDOWS\system32\net.exe stop GxClusPlugIn (virtualpolyserve)
```

## 27. Add the Customer Service Monitor

(Instance001)

**exit 0**

Add the custom service monitor to the virtual host configuration in the PolyServe Matrix Server console.

1. Ensure that the virtual host name <virtualpolyserve> is online.
2. From the Services MMC snap-in, verify or manually start the cluster plugin service, "Bull Calypso Cluster Plugin (virtualpolyserve) (Instance00x)", on the active primary node for the Vhost virtualpolyserve
3. From the PolyServe Matrix Server, click the **Virtual Hosts** tab.
4. Right click **Virtual Host** <virtualpolyserve> and then **Add Service Monitor**.
5. For the **Monitor Type** field in the Add Service Monitor dialog box, click **CUSTOM**.
6. Assign a name to the service monitor by typing the name in the **Name** field.
7. In the **User probe script** field, type the path to the probe script that calls the GxSCMcmd.exe command (on the share disk)
8. Click **Advanced**.
9. From the Advanced Service Configuration dialog box, click the **Scripts** tab.
10. In the **Script pathname: Start** field, type the path to the start script (shared disk). In the corresponding **Timeout (seconds)** field, type a timeout value greater than 60 seconds.
11. In the **Script pathname: Stop** field, type the path to the stop script (shared disk). In the corresponding **Timeout (seconds)** field, type a timeout value greater than 60 seconds.
12. Click **OK** once, then again.

The monitor should now start, and the primary node should now be active. Failover will occur if services are disabled on the primary node, and services in such a case will move to a secondary node.

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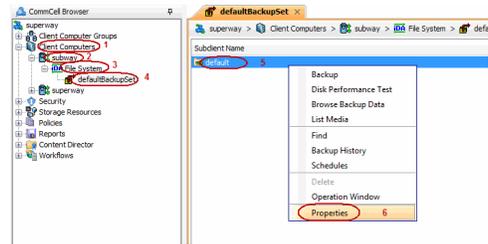
# Getting Started - Windows File System Configuration

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## CONFIGURATION

Once installed, follow the steps given below to assign a storage policy with the default subclient:

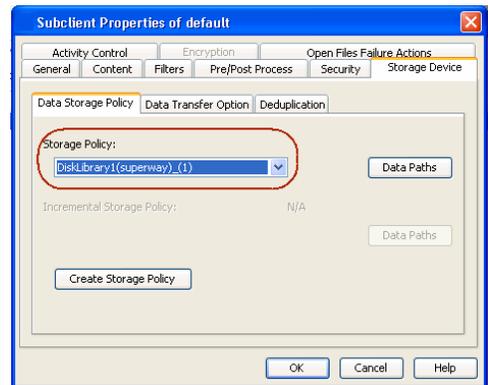
- From the CommCell Browser, navigate to **Client Computers | <Client> | File System | defaultBackupSet**.
  - Right-click the default subclient and then click **Properties**.



- Click the **Storage Device** tab.
  - In the **Storage Policy** box, select a Storage Policy name.
  - Click **OK**.

Click **Next ▶** to continue.

If you do not have Storage Policy created, follow the step given below to create a storage policy.



- Click **Create Storage Policy**.
  - Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:

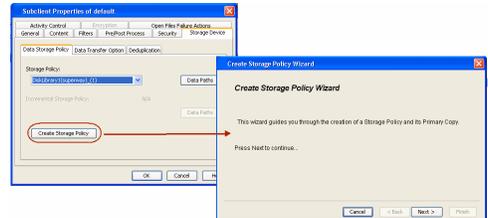
- Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
- Enter the name in the **Storage Policy Name** box and click **Next**.
- From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

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.



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# Getting Started - Windows File System Backup

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## PERFORM A BACKUP

Once the storage policy is configured, you are ready to perform your first backup.

### WHAT GETS BACKED UP

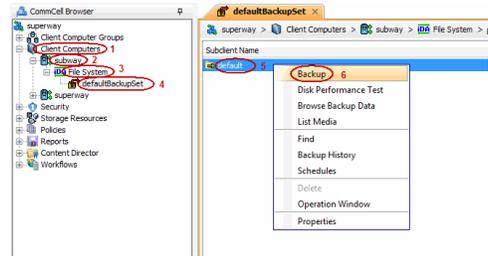
COMPONENT	WHAT GETS BACKED UP
File System	File Allocation Table (FAT) file systems New Technology File Systems (NTFS) Transactional File Systems Distributed File System (DFS) data
File System Elements	Universal Naming Convention (UNC) Paths Mount Points Encrypted files Compressed Data Shared Volumes Share with Macintosh data Single Instance Storage Remote Storage Service
System State	System File Protection catalog and files Performance monitor configuration files Active Directory Registry Quotas SYSVOL (if this is a domain controller) Certificate Services database (if this is a certificate server) Cluster database (if this server is part of a cluster) COM+ database Terminal Server Licensing database RSM database WMI database DHCP WINS IIS UDDI (only with Windows Server 2003 using VSS) Disk quota information Event logs Content Indexing catalogs Network Policy Server (NPS) 1-Touch Component
Office Communication Server (OCS)	OCS Data OCS Settings

### WHAT DOES NOT GET BACKED UP

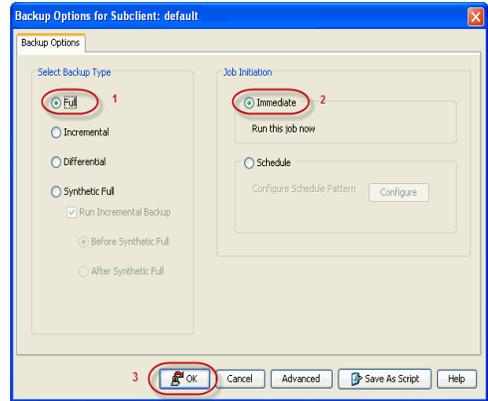
COMPONENT	WHAT DOES NOT GET BACKED UP
File System	Locked Files - Files that are locked by applications or system programs while they are in use.
Office Communication Server (OCS)	OCS Metadata - Use SQL Server iDataAgent to backup the OCS Metadata.
Resilient File System (ReFS) on Windows Server 2012	Change Journal and Data Classification scan methods are not supported on Resilient File System (ReFS) volumes - Use the classic scan to backup the data.
System State	Offline files will not get backed up if the client computer has UEFI.

The following section provides step-by-step instructions for performing your first backup:

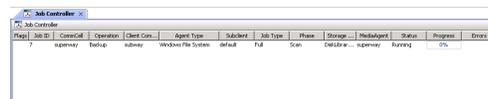
1.
  - From the CommCell Browser, navigate to **Client Computers | <Client> | File System | defaultBackupSet**.
  - Right-click the default subclient and click **Backup**.



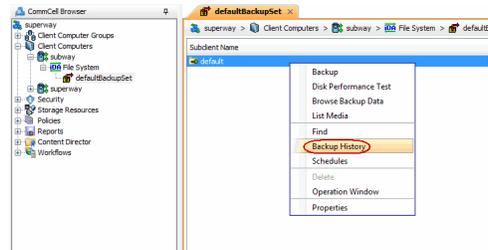
2.
  - Click **Full** as backup type and then click **Immediate**.
  - Click **OK**.



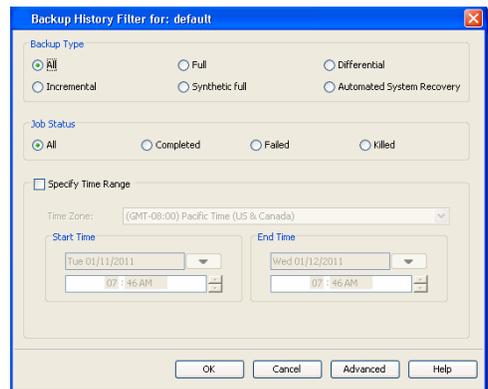
3. You can track the progress of the job from the **Job Controller** window of the CommCell console.



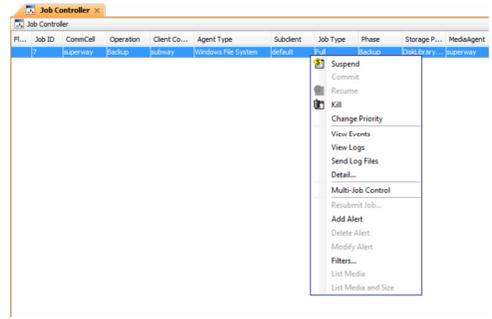
4. Once the job is complete, view the job details from the **Backup History**. Right-click the **Subclient** and select **Backup History**.



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



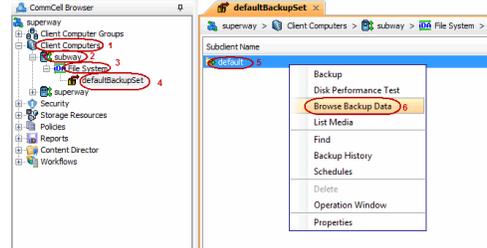
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# Getting Started - Windows File System Restore

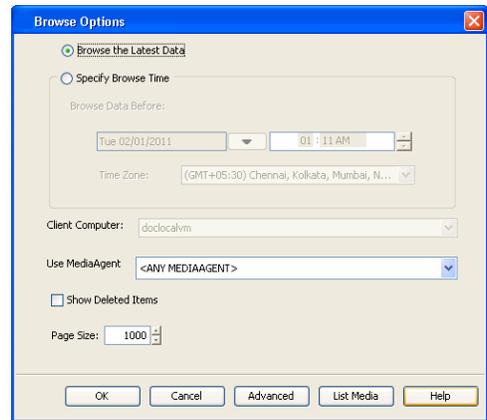
## PERFORM A RESTORE

It is recommended that you perform a restore operation immediately after your first full backup to understand the process. The following section explains how restore the **Temp** folder to a new location.

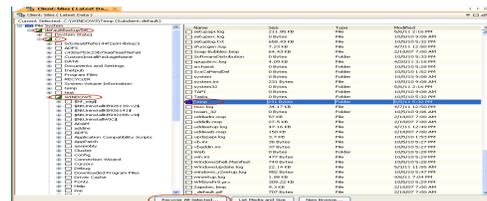
- From the CommCell Browser, navigate to **Client Computers** | **<Client>** | **File System** | **defaultBackupSet**
  - Right-click the default subclient and then click **Browse Backup Data**.



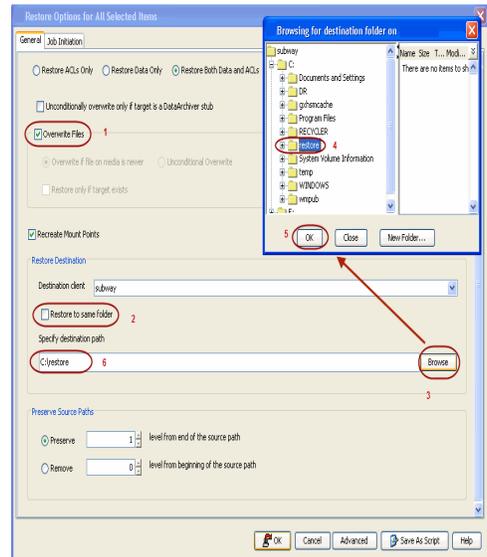
- Click **OK**.



- Expand the **defaultBackupSet** and navigate to **Windows** folder.
  - Select the **Temp** folder.  
For the first restore job, select any folder with smaller data size.
  - Click **Recover All Selected**.

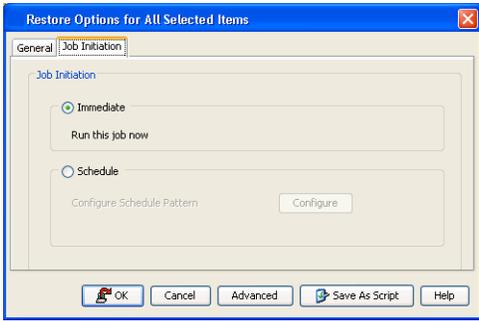


- Clear the **Overwrite Files** and **Restore to same folder** options.
  - Specify the destination path by clicking **Browse** button.  
This will ensure that the existing files are not overwritten.
  - Click **OK**.

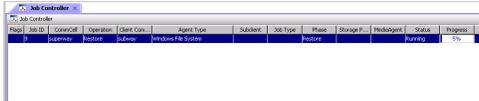


-

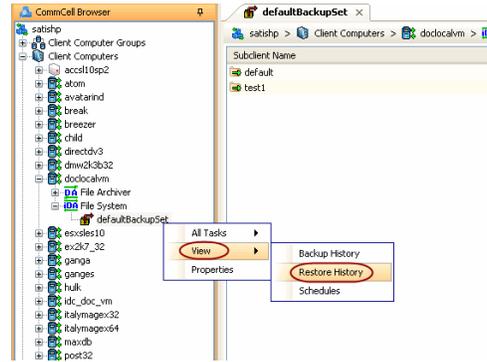
- Click the **Job Initiation** tab.
- Select **Immediate** to run the job immediately.
- Click **OK**.



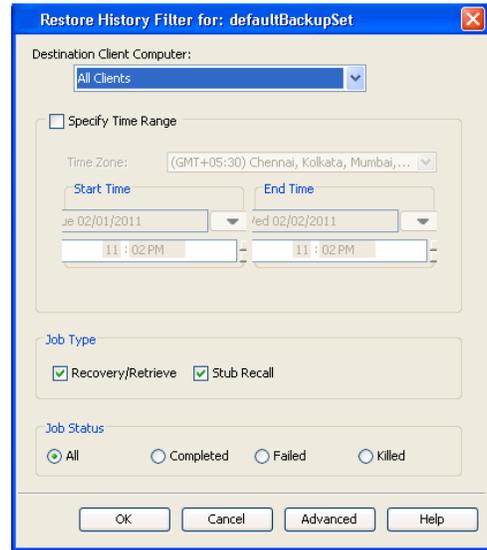
6. You can monitor the progress of the restore job in the **Job Controller** window of the CommCell Console.



7. Once the restore job has completed, right-click the **defaultBackupSet**, point to **View** and then click **Restore History**.

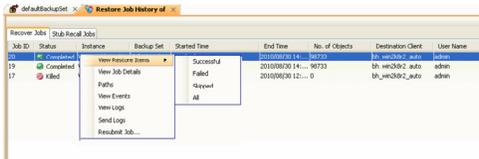


8. Click **OK**.

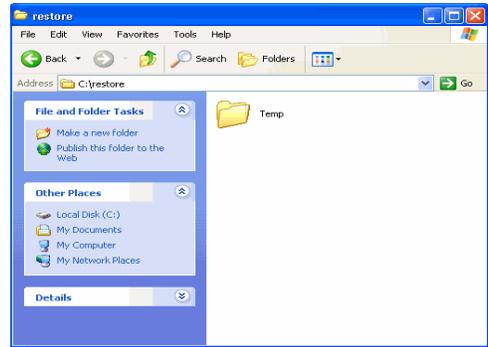


9. You can view the following details about the job by right-clicking the job:

- 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 File System is restored, verify that the restored files/folders are available in the restore destination provided during step 4.



**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.

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