

# Quick Start Guide - SQL Server *iDataAgent*

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# Overview - SQL Server iDataAgent

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- Full Range of Backup Options
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- Efficient Job Management and Reporting
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## INTRODUCTION

The Microsoft SQL Server iDataAgent provides a simplified end-to-end backup and recovery solution for SQL data in your enterprise. The product can be used to perform both full system rebuilds and granular recovery of the data.

## KEY FEATURES

### FULL RANGE OF BACKUP OPTIONS

The SQL iDataAgent provides the flexibility to backup the SQL database from different environments. You can perform a full or incremental backup of the entire instance, individual databases or files and file groups, and the transaction logs at any point of time as described below:

#### DATABASE BACKUPS

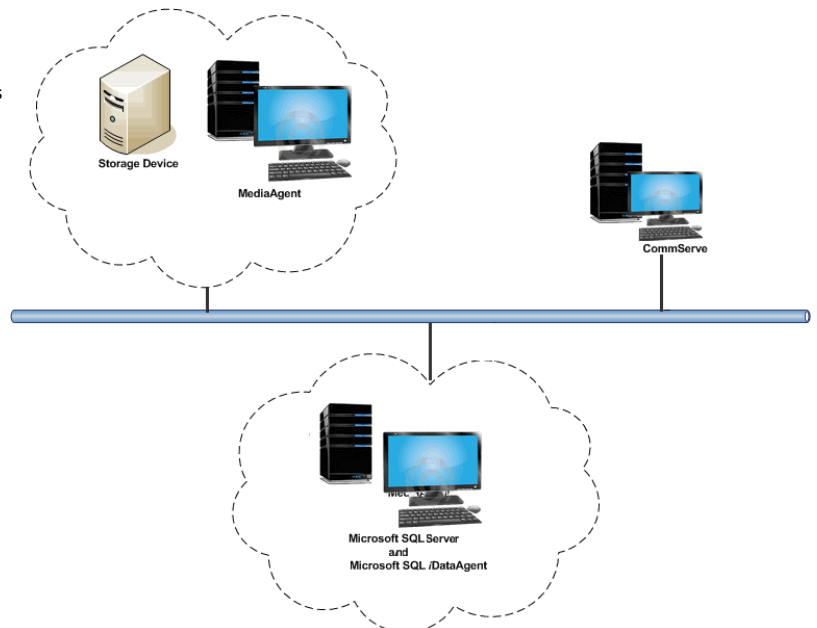
You can backup both the system and user-defined databases. You can comprehensively backup all the databases in an instance or schedule backups for the individual databases. You can also auto-discover new databases to comprehensively manage the backup of all databases in your environment.

#### TRANSACTION LOG BACKUPS

Transaction log backups captures the transaction log whether the transaction was committed or not. The use of transaction log backups make point in time recovery possible. You can restore to any point in time within the transaction log.

#### FILE AND FILE GROUPS BACKUPS

Files or file group backups allows you to backup individual files or file groups. This functionality can be critically important, especially for large databases. Whereas a full database backup captures all files of a given database, file and file group backups allow you to back up selected portions of a database individually. As with database backups, the system provides the option of performing full, differential, and transaction log backups of file and file groups. Note that when running a transaction log backup for a File/File Group subclient, the database log is automatically backed up.



### ADVANCED SQL SERVER RESTORE CAPABILITIES

The SQL iDataAgent provides the ability to recover databases or entire SQL instance. There is no mounting, no recovery wizards, no extra steps needed – the software takes care of it all. This includes the following abilities:

- Full or Partial Restore databases
- Restore and replay transaction logs
- Set Database state during restore (Recovery, Standby, No Recovery)
- Point-in-time recovery

### EFFICIENT JOB MANAGEMENT AND REPORTING

You can view and verify the status of SQL backup and recovery operations from the Job Controller and Event Viewer windows within the CommCell Console.

## WHERE TO GO NEXT

### Install the SQL iDataAgent

Walks you through the process of installing the SQL iDataAgent.

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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## **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 on large SQL databases.

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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## **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.

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## **SNAPPROTECT BACKUP**

SnapProtect Backup enables you to create a point-in-time snapshot by temporarily quiescing the data, taking a snapshot, and then resuming live operations. SnapProtect backups work in conjunction with hardware snapshot engines.

## **TERMINOLOGY**

The SQL documentation uses the following terminology:

<b>CLIENT</b>	The computer in which the iDataAgent is installed and contains the data to be secured.
<b>INSTANCE</b>	The SQL instance used for backup and restore operations.
<b>SUBCLIENT</b>	The SQL databases within the instance used for backup and restore operations.



# New Features - SQL Server iDataAgent

## NEW FEATURES FOR MICROSOFT SQL SERVER IDATAAGENT

### DATA PROTECTION OPERATIONS

- For SQL backups, several new SQL settings are now available. Adjusting these parameters may improve performance and you can enable or disable log consistency checking. You can accept either the defaults or change the values for parameters such as Block Size, Buffer Count, Maximum Transfer Size, and Log Consistency Checking. For more information, see [Enhancing Performance During Backups](#).
- Backups for SQL Server 2008 Enterprise or later can now be compressed by SQL Server before being backed up using Calypso. Backups will be smaller, which should significantly increase the backup speed. However, VSS-enabled and Snap backup types are not supported with this feature. For more information, see [Compressing Backups with Native SQL Compression](#)
- The SQL Server iDataAgent now can restore backups of replicated databases. With this feature, a published database can be restored to a server other than the server where the database was created. This is relevant only to Calypso full backups and if the database was part of a replication implementation. For more information, see [Preserving Replication Settings](#)
- A new backup conversion rule for SQL Server iDataAgent is now available that when configured, will not convert the log backup to a Full backup if the log backup was performed using software other than Calypso. For more information, see [Setting Up Backup Conversion Rules](#)
- You can configure the size of the application data fetched for data transfer during backup operations. Tuning the application read size in alignment with the source application's buffer allocation increases the rate of data transfer during backup. See [Advanced - Microsoft SQL Server Configuration](#) on configuring the application read size for more information.
- When SQL databases were automatically discovered but later deleted from an application (e.g., SQL Server), they will be automatically deleted from the content of the default subclient when the next backup is run. This alleviates having to delete the databases manually. Databases that are manually added and later deleted from an application are not automatically removed from the subclient when the next backup runs and the backup job will complete with errors. See [Managing Databases Deleted from SQL Server](#) for more information.
- By default, SQL databases are automatically discovered and assigned to the default subclient. You can disable this auto-discovery with a new subclient properties option if you need more control of the SQL databases data protection strategy and wish to manually assign them to subclients instead. For more information, see [Enabling/Disabling Automatic Database Discovery](#).

### DATA RECOVERY OPERATIONS

SQL databases can now be restored if they were backed up with the Change Data Capture property enabled. This is a useful SQL Server 2008 feature in that all change activity (insert, update, and delete) is captured and applied to SQL tables. The details of the changes are available in an easily consumed relational format. See [Restoring the Captured Changes](#) for more information.

## NEW COMMCELL FEATURES SUPPORTED FOR MICROSOFT SQL SERVER IDATAAGENT

### DEPLOYMENT

#### CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. [Learn more...](#)

#### INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see [Install Software from the CommCell Console](#).

#### UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see [Uninstall Components using the CommCell Console](#).

### ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

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## **SNAP TEST TOOL**

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

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## **MULTI-STREAMING FOR SNAPPROTECT**

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

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## **VOLUME MANAGER SUPPORT**

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

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# System Requirements - Microsoft SQL Server iDataAgent

**System Requirements** | **Supported Features**

The following requirements are for the Microsoft SQL Server iDataAgent:

## APPLICATION

Microsoft SQL Server 2005 Editions up to the latest Service Pack  
Microsoft SQL Server 2008 Editions up to the latest Service Pack  
Microsoft SQL Server 2008 R2 Editions up to the latest Service Pack  
Microsoft SQL Server 2012 Editions\*

\*See Considerations for SQL Server 2012.

## OPERATING SYSTEM

### WINDOWS SERVER 2012

Microsoft Windows Server 2012 Editions

### WINDOWS 7

Microsoft Windows 7 Editions

### WINDOWS SERVER 2008

Microsoft Windows Server 2008 Editions with a minimum of Service Pack 1\*  
\* Core Editions not supported.

### WINDOWS VISTA

Microsoft Windows Vista Editions

### WINDOWS SERVER 2003

Microsoft Windows Server 2003 Editions with a minimum of Service Pack 1

### WINDOWS XP

Microsoft Windows XP 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

265 MB of minimum disk space is required for installing the software.  
50 MB of additional hard disk space for log file growth.  
724 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.

## **NOTES ON MICROSOFT SQL SERVER /DATAAGENT INSTALLATION**

- The File System iDataAgent will be automatically installed during installation of this software, if it is not already installed. For System Requirements specific to the File System iDataAgent, refer to System Requirements - Microsoft Windows File System iDataAgent.
- If the option to install SQL Server is disabled make sure there is at least one network protocol enabled. For SQL 2005 go to SQL Server Configuration Manager and enable protocols for each instance.
- Microsoft SQL Server Management Objects (SMO) is required on the client machine. By default, SMO is automatically installed with SQL Server 2005 or later versions.

## **NOTES ON ALWAYSON PROVIDED BY SQL 2012**

SQL Server 2012 comes with a new implementation on clusters named AlwaysOn. If you want to protect the AlwaysOn configuration, consider the following:

- Install the SQL iDataAgent on all physical nodes of the cluster to protect the SQL instances separately. Note that if the active node, which is part of the Availability Group, performs a successful backup then target databases synchronizing with the active node may have errors during backup.
- If you want to restore any databases that are part of the Availability Group, you must remove the database from the Availability Group. Once the restore completes, you can add the database back.

### **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

# Supported Features - Microsoft SQL Server iDataAgent

System Requirements | Supported Features

The following table lists the features that are supported by this Agent.

FEATURE	SUB-FEATURE	SUPPORT	COMMENTS
<b>ADVANCED BACKUP/ARCHIVE OPTIONS</b>	Data tab - Catalog	✓	
	Data tab - Create New Index		
	Data tab - Verify Synthetic Full		
	Job Retry tab	✓	
	Media tab - Allow other Schedule to use Media Set	✓	
	Media tab - Mark Media Full on Success	✓	
	Media tab - Reserve Resources Before Scan		
	Media tab - Start New Media	✓	
	Startup tab	✓	
	VaultTracking tab	✓	
	Comments	✓	Additional options in the <b>Data tab</b> : <ul style="list-style-type: none"> <li>Start a Transaction Log Backup After Successful Backup</li> <li>Perform a Partial Backup to Exclude Read-only File Groups</li> <li>Back up the Tail of a transaction Log</li> <li><b>Data tab - Catalog</b> options are supported for SnapProtect Backup for this agent.</li> </ul>
<b>ADVANCED FILE SYSTEM IDATAAGENT OPTIONS</b>	Automatic File System Multi-Streaming		
	On Demand Data Protection Operation		
	Restore by Jobs		
	Restore Data Using a Map File		
	Comments		
<b>ALERTS AND MONITORING</b>	Global Alerts	✓	
	Job-Based Alerts*	✓	
	Comments		
<b>AUTOMATIC UPDATES</b>	Automatic Updates	✓	
	Comments		
<b>BACKUP/ARCHIVE OPTIONS</b>	Differential Backup	✓	
	Full Backup	✓	
	Incremental Backup		
	Other Backup Types		
	Synthetic Full Backup		
	Comments	✓	Transaction Log Backups Do Not Truncate Log SnapProtect Backup
<b>BACKWARD COMPATIBILITY</b>	Version 7	✓	
	Version 8	✓	
	Version 9		
	Comments		
<b>BROWSE</b>	Browse from Copy Precedence	✓	
	Browse the Latest Data	✓	
	Exclude Data Before	✓	
	Find		
	Full Backup Transparent		



	Browse		
	Image Browse		
	No Image Browse		
	Page Size		
	Specify Browse Path		
	Specify Browse Time	✓	
	Subclient Browse		
	Use MediaAgent		
	View All Versions		
	Comments		
<b>CLUSTERING</b>	Netware cluster		
	Unix Cluster		
	Windows - Microsoft Cluster (MSCS)	✓	
	Windows - Non-Microsoft Cluster	✓	
	Comments	✓	Microsoft Cluster supports Geo-Dispersed Cluster Non-Microsoft Cluster supports VERITAS Cluster and HP Scalable NAS/PolyServe Cluster
<b>COMMAND LINE INTERFACE</b>	Command Line Interface	✓	
	Comments	✓	<b>Qcreate backupset</b> and <b>Qdelete backupset</b> are not supported. An out-of-place restore is supported using Save as Script. For more information, refer to Command Line Interface
<b>COMMAND LINE INTERFACE - SPECIFIC COMMANDS</b>	Qcreate - Backup set/SubClient	✓	
	Qcreate - Instance	✓	
	Qdelete - Backup set/Subclient	✓	
	Qdelete - Client/Agent	✓	
	Qlist globalfilter		
	Qmodify - instance		
	Qoperation - Backup	✓	
	Qoperation - move		
	Qoperation - Restore	✓	
	Comments	✓	<b>Qcreate backupset</b> and <b>Qdelete backupset</b> are not supported. For <b>Qoperation-Restore</b> , an out-of-place restore is supported using Save as Script or Argument File. For more information, refer to Command Line Interface.
<b>COMMCELL MIGRATION</b>	CommCell Migration	✓	
	Comments	✓	CommCell Migration is not supported with SnapProtect backup when using Data Replicator snapshot engine.
<b>CONTENT INDEXING</b>	Offline Content Indexing		
	Comments		
<b>DATA AGING</b>	Basic Retention Rules	✓	
	Extended Retention Rules	✓	
	Unique Data Aging Rules	✓	
	Comments	✓	For the Microsoft SQL Server iDataAgents, data backed up through file/file group subclients cannot be pruned through extended retention rules.
<b>DATA CLASSIFICATION ENABLER</b>	Data Classification Enabler		
	Comments		
<b>DATA COMPRESSION</b>	Client Compression	✓	
	Hardware Compression	✓	
	MediaAgent Compression	✓	
	Comments		
<b>DATA ENCRYPTION</b>	Data Encryption Support	✓	
	Third-party Command Line Encryption Support		
	Comments		
<b>DATA MULTIPLEXING</b>	Multiplexing	✓	
	Comments	✓	For <b>Data Multiplexing</b> , the SQL Server does not support the

			multiplexing of streams "with each other" on to the same media when a data protection operation is performed using the CommCell Console. However, the streams will be multiplexed when the operation is performed using the Command Line Interface.
<b>DEDUPLICATION</b>	MediaAgent Deduplication	✓	
	Source Deduplication	✓	
	Comments		
<b>ERASE BACKUP/ARCHIVED DATA</b>	Erase Data by Browsing		
	Erase Stubs		
	Comments		
<b>GLOBAL FILTERS</b>	Global Filters		
	Comments		
<b>INSTALLATION</b>	Custom Package	✓	
	Decoupled Install	✓	
	Remote Install	✓	
	Restore Only Agents	✓	
	Silent Install	✓	
	Comments	✓	To install this agent as restore only, see Installing Microsoft SQL Server as Restore Only
<b>INSTALLING 32-BIT COMPONENTS ON A MICROSOFT WINDOWS X64 PLATFORM</b>	Install 32-bit On x64	✓	
	Comments		
<b>JOB RESTART - DATA PROTECTION</b>	Not Restartable		
	Restarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure	✓	
	Comments		
<b>JOB RESTART - DATA RECOVERY</b>	Not Restartable	✓	
	Restarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure		
	Comments		
<b>LIST MEDIA</b>	List Media Associated with a Specific Backup Set or Instance	✓	
	List Media Associated with Index		
	List Media Associated with Specific Files and/or Folders		
	List Media Associated with Specific Jobs		
	Comments		
<b>MULTI INSTANCING</b>	Multi Instance		
	Comments		
<b>PRE/POST PROCESSES</b>	Pre/Post Process with Data Protection and Recovery	✓	
	Comments		
<b>RESTORE/RECOVER/RETRIEVE DESTINATIONS</b>	Cross-Application Restores (Different Application version)	✓	
	Cross-Platform Restores - Different Operating System		
	Cross-Platform Restores - Same Operating System - Different Version	✓	
	In-place Restore - Same path/ destination - Same Client	✓	
	Out-of-place Restore - Different path/ destination	✓	
	Out-of-place Restore - Same	✓	

	path/ destination - Different Client		
	Restore Data Using a Map File		
	Restore to Network Drive /NFS-Mounted File System		
	Comments	✓	See Advanced - Microsoft SQL Server Restore.
<b>RESTORE/RECOVER/RETRIEVE OPTIONS</b>	Automatic Detection of Regular Expressions		
	Filter Data From Recover Operations		
	Rename/ Redirect Files on Restore	✓	
	Restore Data Using Wildcard Expressions		
	Restore Data with Pre/Post Processes	✓	
	Restore from Copies	✓	
	Skip Errors and Continue		
	Use Exact Index		
	Use MediaAgent	✓	
	Comments		
<b>RESTORE/RECOVER/RETRIEVE OVERWRITE OPTIONS</b>	Overwrite Files		
	Overwrite if file on media is newer		
	Restore only if target exists		
	Unconditional Overwrite	✓	
	Unconditionally overwrite only if target is a DataArchiver stub		
	Comments	✓	<b>Unconditional Overwrite</b> for existing messages.
<b>SCHEDULE POLICY</b>	Agent Specific Data Protection Schedule Policy	✓	
	All Agent Types Schedule Policy	✓	
	Comments		
<b>STORAGE POLICIES</b>	Incremental Storage Policy*	✓	
	Standard Storage Policies	✓	
	Comments	✓	<b>Incremental Storage Policy</b> does not support Transaction Log backups for this agent.  One storage policy can be created for full backups, while another is created for differential backups (using incremental storage policy), and another for transaction log backups.
<b>STORAGE POLICY COPIES</b>	Data Verification	✓	
	Job Based Pruning	✓	
	Manual Retention	✓	
	Mark Job Disabled	✓	
	Selective Copy	✓	
	Comments		
<b>SUBCLIENT POLICIES</b>	SubClient Policy		
	Comments		
<b>UPGRADE</b>	Netware - Local		
	Unix - Remote (Push)		
	Unix/Linux/Macintosh - Local		
	Unix/Linux/Macintosh - Silent		
	Upgrade from CommCell Console	✓	
	Windows - Local	✓	
	Windows - Remote (Push)	✓	
	Windows - Silent	✓	
	Comments	✓	Upgrade the Agent - Non-Microsoft Clustered Environment on Windows
<b>USER ADMINISTRATION AND SECURITY</b>	Backup Set/Archive Set		

	Subclient		
	Comments		

Additional features are listed below:

Activity Control	Auxiliary Copy
CommCell Console	Deconfiguring Agents
GridStor	Languages
Log Files	MediaAgent
Operation window	QR Volume Creation Options
Robust Network Layer	Scheduling
SnapProtect Backup	Snapshot Engines
VaultTracker Enterprise	VaultTracker
Report Output Options	Restore/Recover/Retrieve - Other Options
Cloud Storage	Job Restart - Data Collection

# Getting Started Deployment - SQL Server iDataAgent

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## WHERE TO INSTALL

Install the software on a computer on which SQL Server resides, and satisfies the minimum requirements specified in the System Requirements.

## 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 COMMCELL CONSOLE

Use this procedure to install remotely on a client computer.

## METHOD 1: INTERACTIVE INSTALL

1. Log on to the client computer as Administrator or as a member of the Administrator group on that computer.
2. Run **Setup.exe** from the **Software Installation Package**.  
  
If you are installing on Windows Server Core editions, navigate to Software Installation Package through command line, and then run **Setup.exe**.
3. Select the required language.  
Click **Next**.

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**.

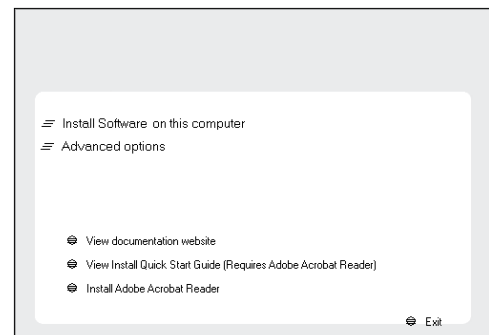
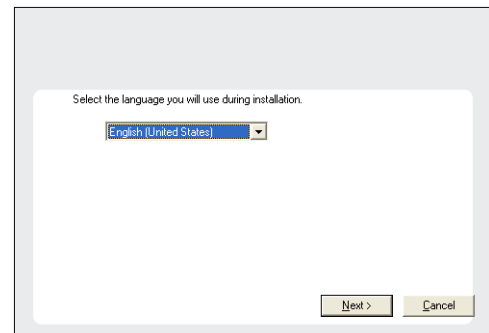
## BEFORE YOU BEGIN

### Download Software Packages

Download the latest software package to perform the install.

### Verify System Requirements

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



- Expand **Client Modules | Backup & Recovery | Database** and then click **SQL Server iDataAgent** box.

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**.

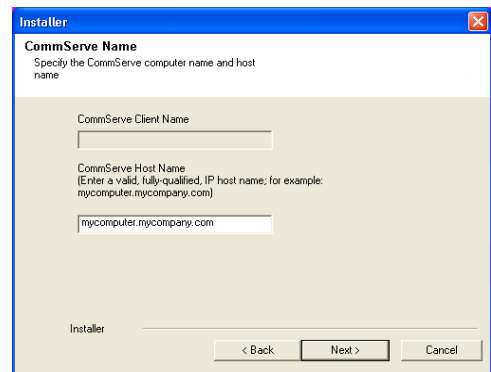
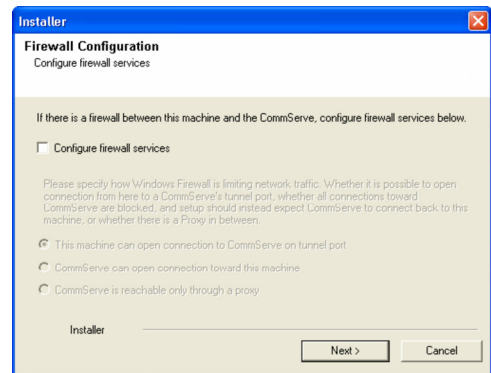
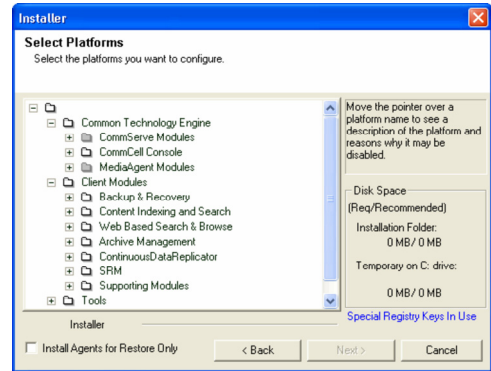
- Enter the fully qualified domain name of the **CommServe Host Name**.

Click **Next**.

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

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

- Click **Next**.



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

Click **Next**.

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

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

11. Verify the default location for software installation.

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

Click **Next**.

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

/ : \* ? " < > | #

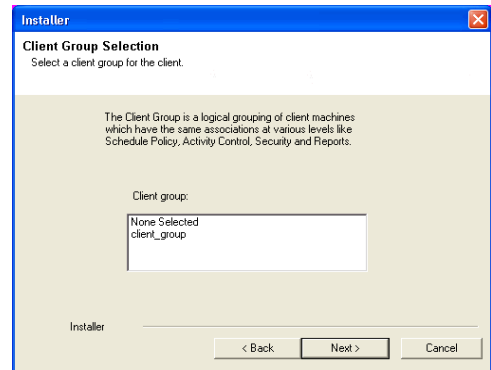
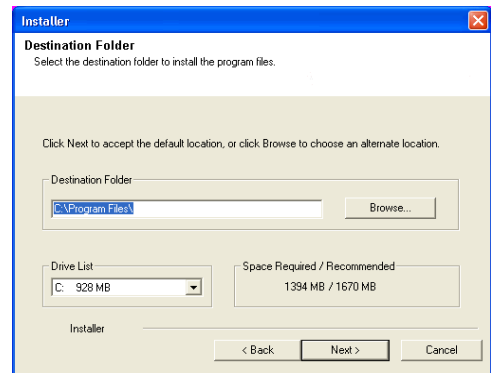
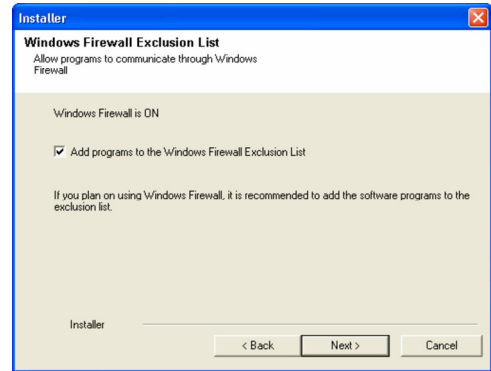
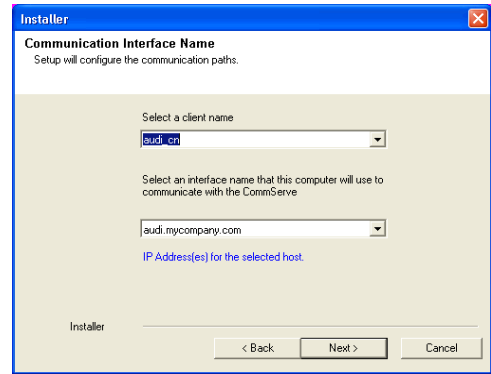
It is recommended that you use alphanumeric characters only.

12. Select a Client Group from the list.

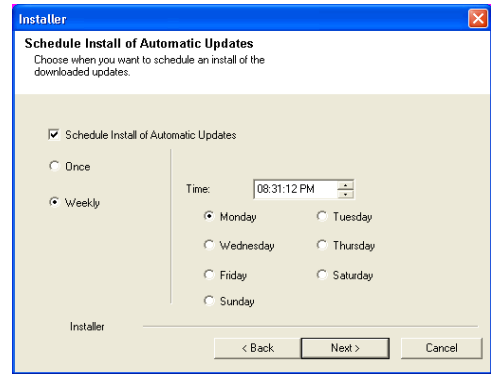
Click **Next**.

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

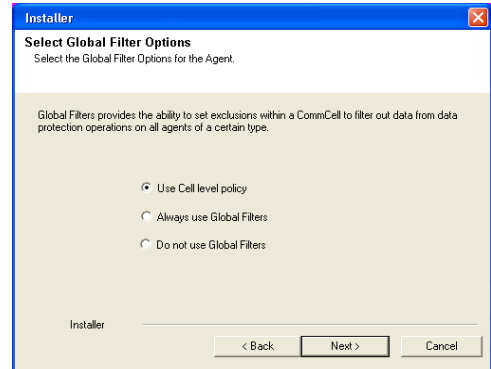
13. Click **Next**.



14. Click **Next**.

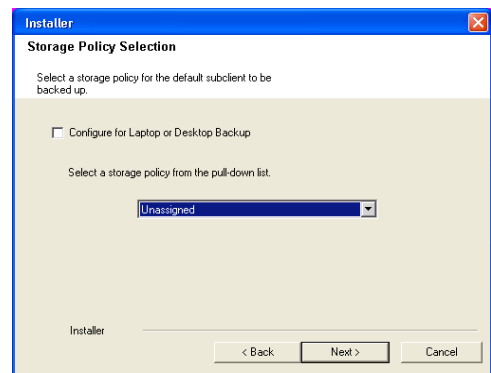


15. Select a storage policy from the **Storage Policy** list.  
Click **Next**.



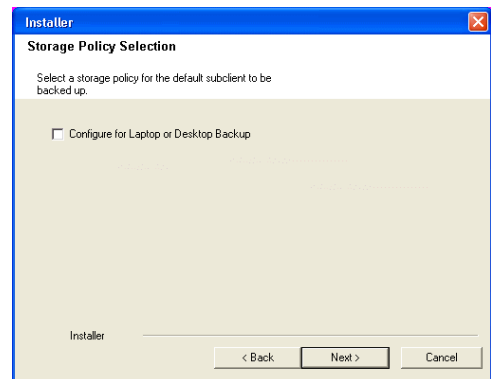
If you do not have Storage Policy created, this message will be displayed.  
Click **OK**.

You can create the Storage Policy later in step 20.



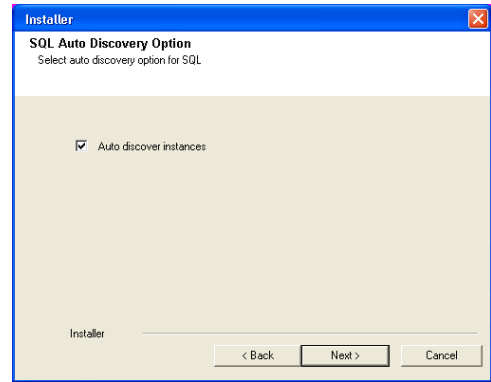
16. Click **Next**.

When **Auto Discover Instances** is enabled, new instances are automatically discovered every 24 hours.

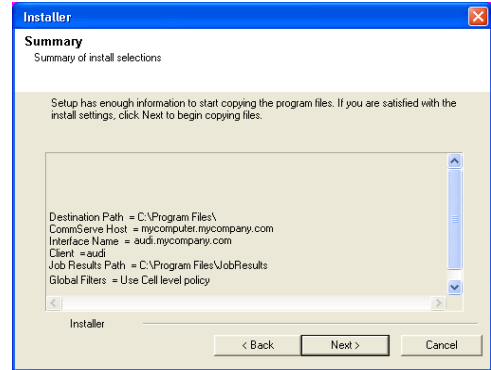




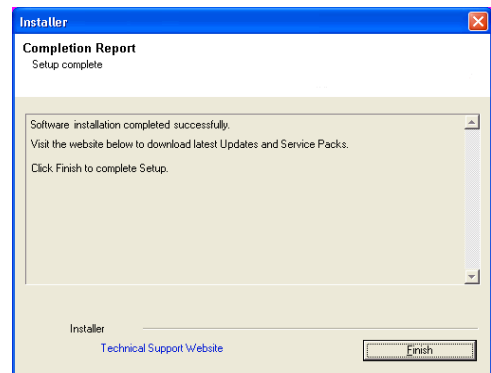
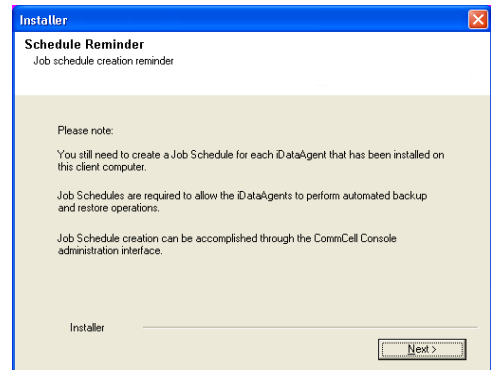
17. Click **Next**.



18. Click **Next**.



19. 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.

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

**DISK LIBRARY CREATION:**

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

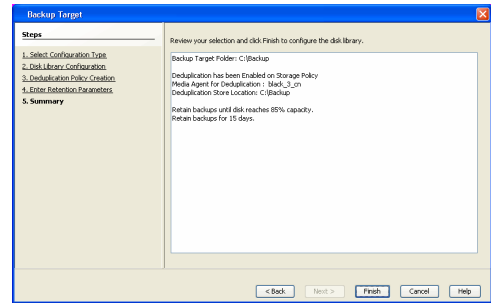
Type the name of the folder in which the disc library must be located in the **Enter backup destination folder** box or click the **Browse** button to select the folder.

Click **Next**.

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

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

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



### STORAGE POLICY CREATION

1. From the CommCell Browser, navigate to **Policies**.
2. Right-click the **Storage Policies** and then click **New Storage Policy**.
3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:

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

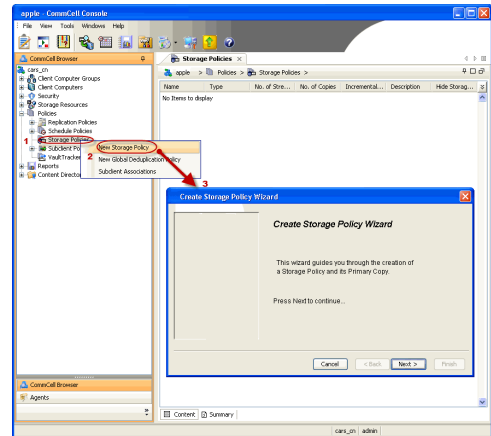
Ensure that you select a library attached to a MediaAgent operating in the current release.

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

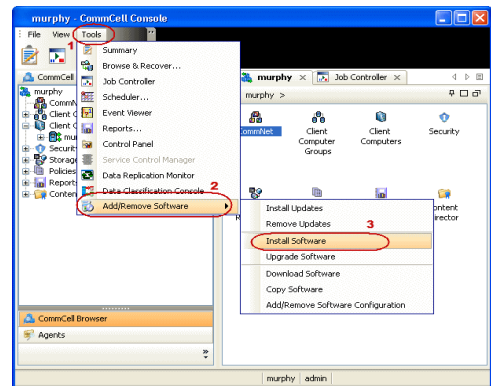
- o Review the details and click **Finish** to create the Storage Policy.

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



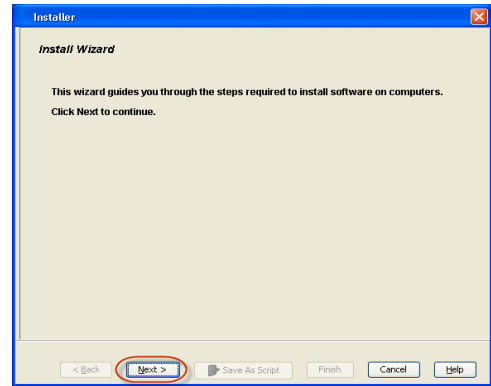
## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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

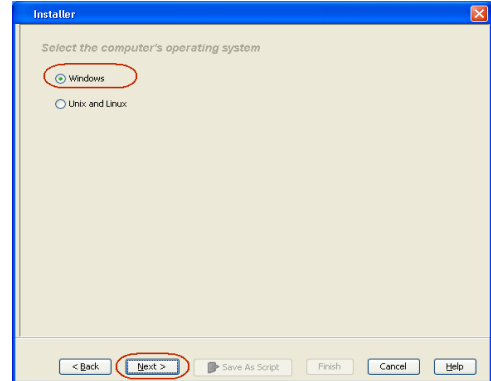


2. Click **Next**.

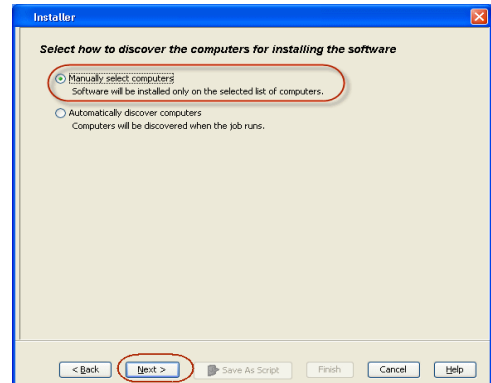
3. Select **Windows**.  
Click **Next**.



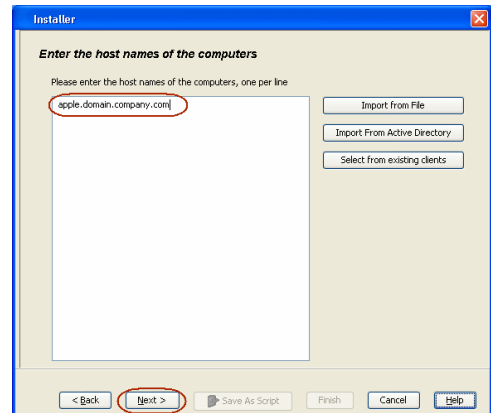
4. Select **Manually Select Computers**.  
Click **Next**.



5. Enter the fully qualified domain name of the computer on which SQL Server resides.  
For example: apple.domain.company.com  
Click **Next**.



6. Click **Next**.



- Specify **User Name** and **Password** that must be used to access the client computer. Click **Next**.

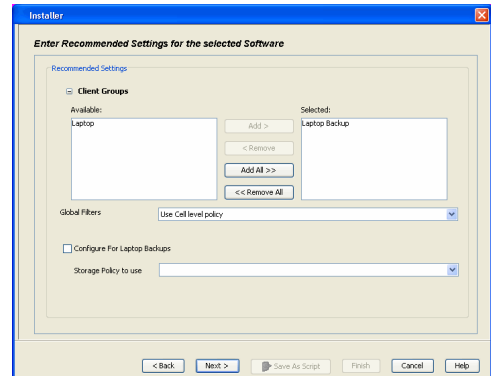
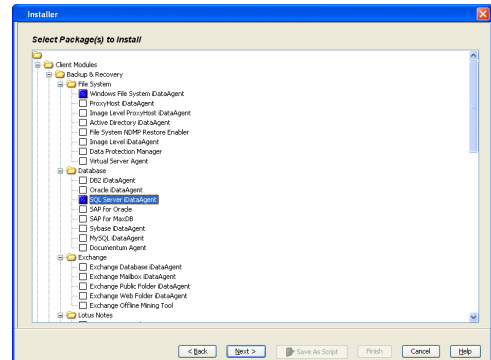
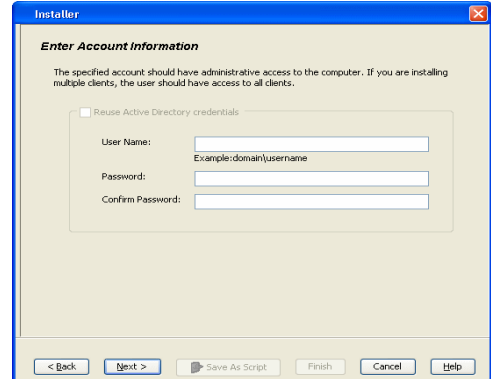
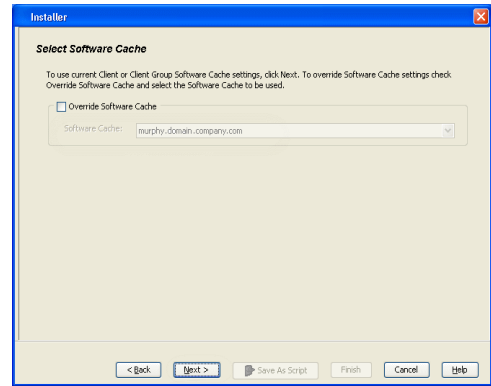
The user must be an Administrator or a member of the Administrator group on that computer.

- Select **SQL Server iDataAgent**. Click **Next**.

- Select **Client Group** from **Available** and click **Add**.
  - From **Storage Policy to use** list, click storage policy.
  - Click **Next**.

- Click **Next**.

When **Auto Discover Instances** is enabled, new instances are automatically discovered every 24 hours.



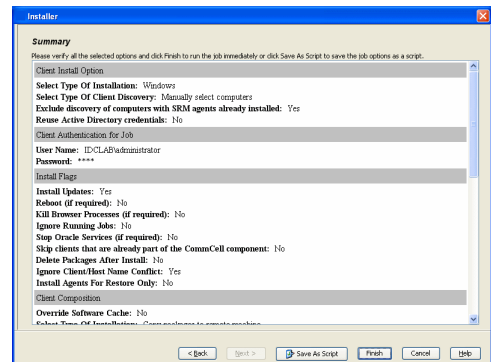
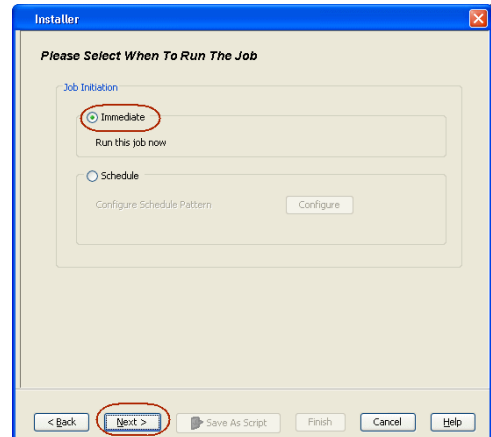
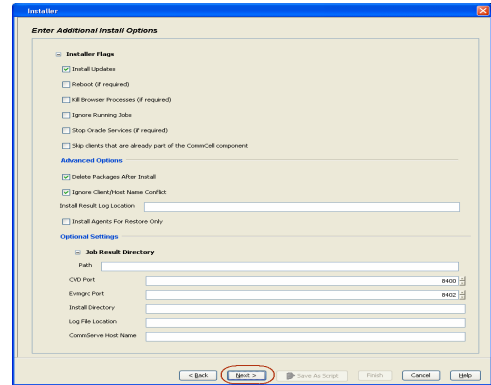
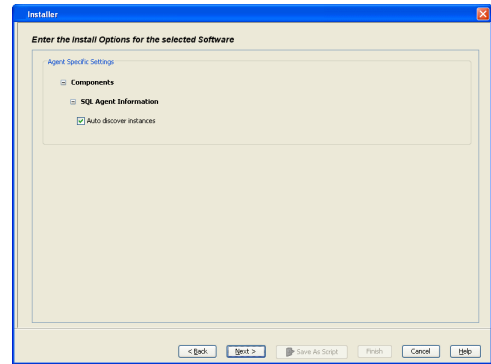
11. Click **Reboot (if required)** and then click **Next**.

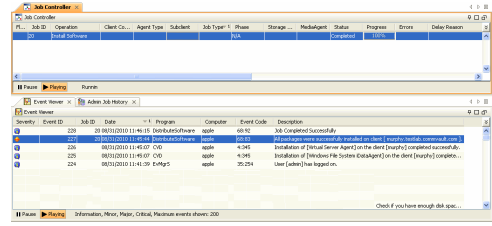
When **Reboot (if required)** is selected, the install program will automatically reboot the client computer if a reboot is required during installation.

12. Click **Immediate**.  
Click **Next**.

13. Click **Finish**.

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





## ADDITIONAL INSTALLATION METHODS

### Custom Package

Create a compact software package for quick deployment to multiple clients.

### Decoupled Install

Install the software first and later register the client in the CommCell.

### Remote Install

Deploy the software from CommCell Console on multiple clients.

### Installing Restore only Agents

Setup a client in the CommCell for restore purposes.

### Silent Install

Deploy the software silently on multiple clients.

# Getting Started Deployment on a Cluster - SQL Server iDataAgent

◀ 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.

1. Log on to the active node as the Domain User with administrative privileges to all nodes on the cluster.
2. Run **Setup.exe** from the **Software Installation Package**.
3. Select the required language.  
Click **Next**.

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**.

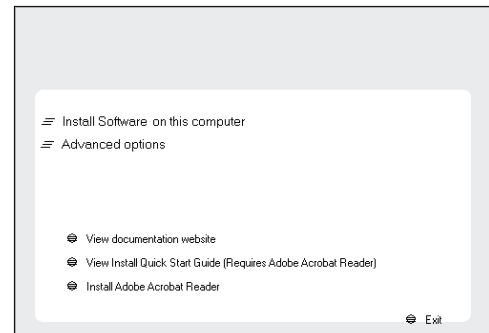
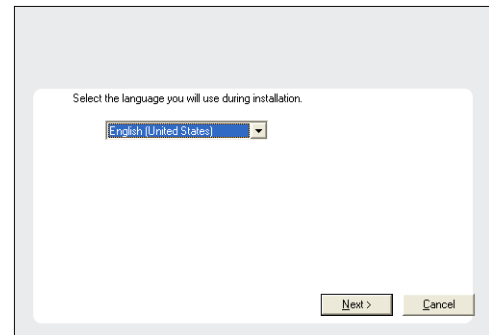
### BEFORE YOU BEGIN

#### Download Software Packages

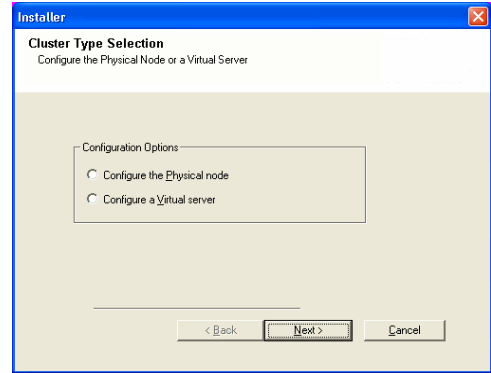
Download the latest software package to perform the install.

#### Verify System Requirements

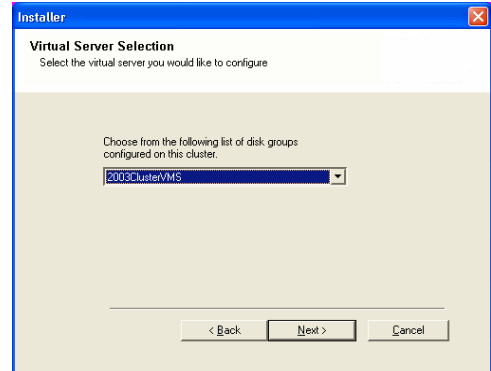
Make sure that the computer in which you wish to install the software satisfies the System Requirements.



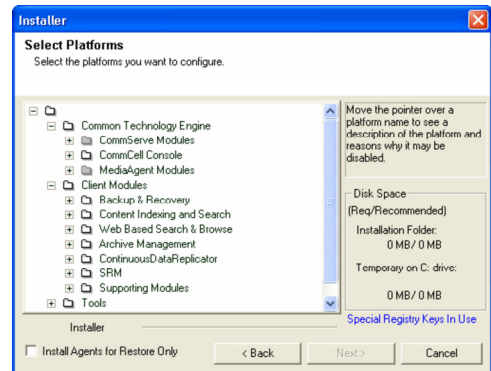
7. Select the disk group in which the cluster group resides.  
Click **Next**.



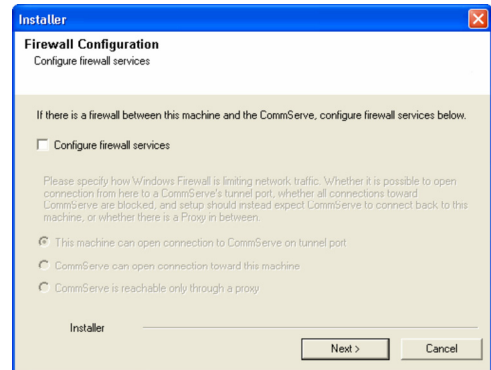
8. Expand **Client Modules | Backup & Recovery | Database** and select **SQL Server iDataAgent**  
Click **Next**.



9. 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**.



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

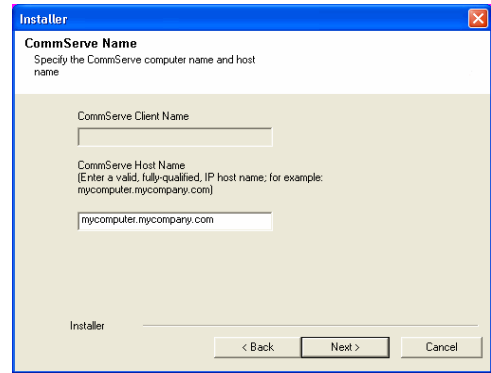


Do not use space and the following characters when specifying a new name for the CommServe Host Name:

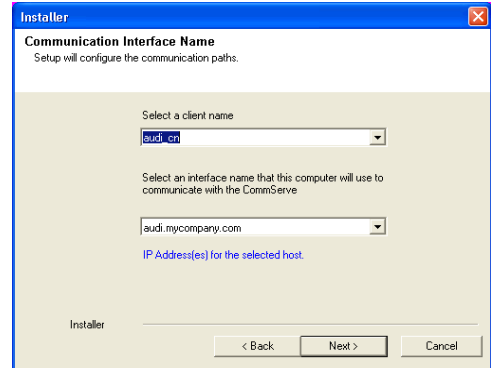
`|\`~!@#%&*()+=<>/?,[\{\};:;'"`



11. Specify the name of the **Virtual Machine**.  
Click **Next**.



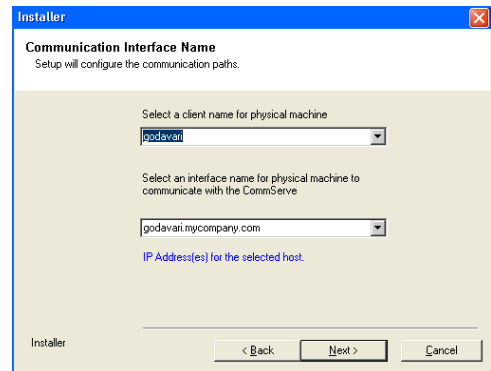
12. Select the name of the **Physical Machine** from drop-down list.  
Click **Next**.



13. 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.

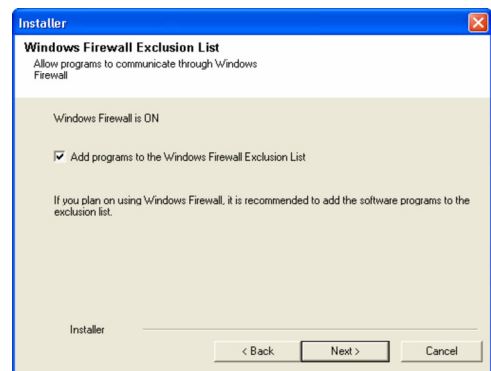


14. Type or **Browse** to specify the software installation path which must be located on local disk of your physical machine and then click **Next**.

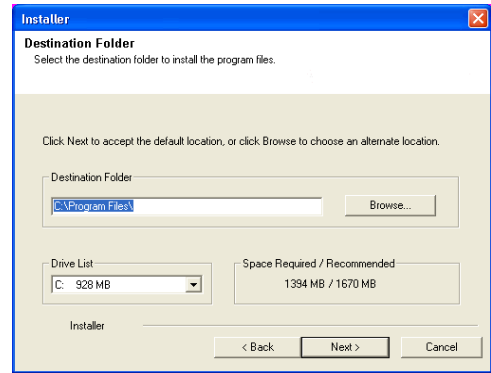
- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:

/ : \* ? " < > | #

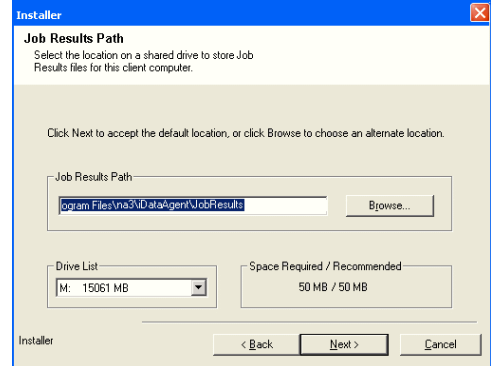
It is recommended that you use alphanumeric characters only.



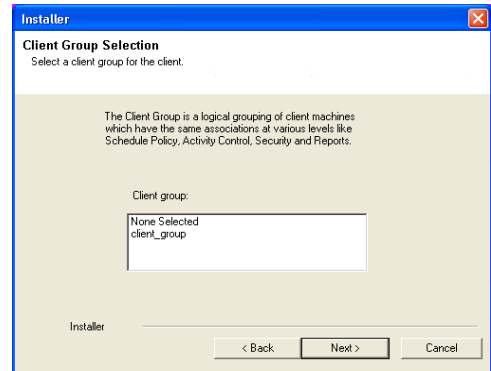
15. Verify the default location for Job Results Path.  
Click **Browse** to change the default location.  
Click **Next**.



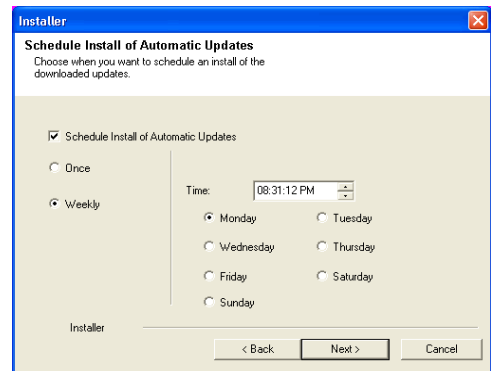
16. Select a Client Group from the list.  
Click **Next**.  
  
This screen will be displayed if Client Groups are configured in the CommCell Console.



17. Click **Next**.



18. Click **Next**.



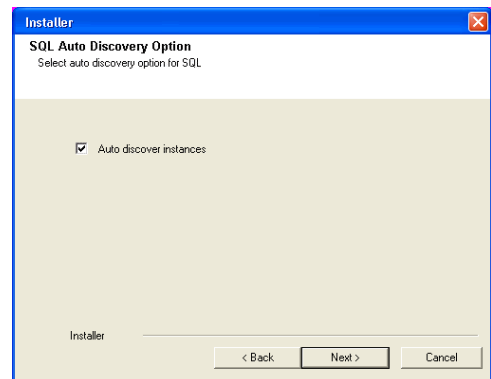
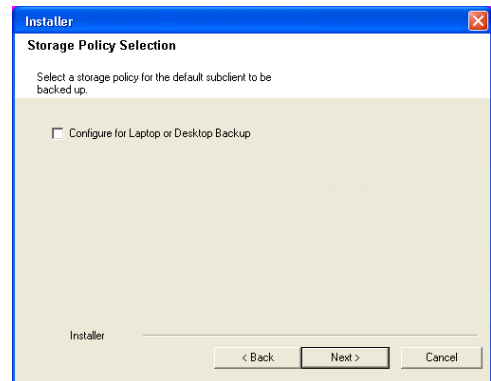
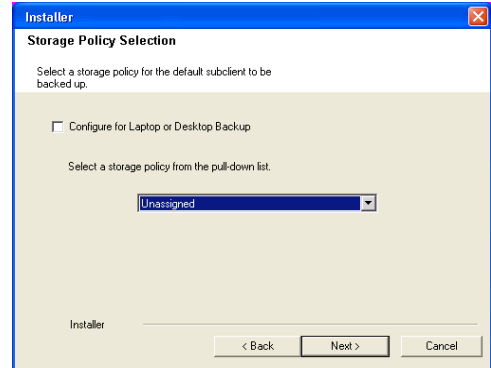
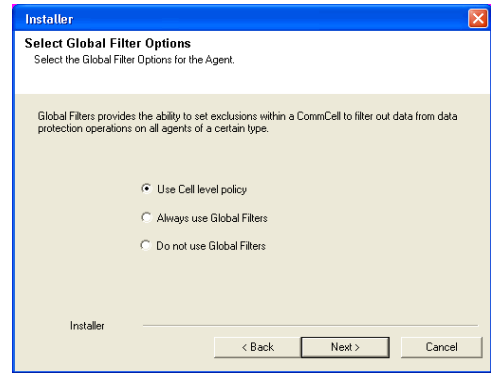
- 19. Select a **Storage Policy** from the drop-down list.  
Click **Next**.

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

You can create the Storage Policy later in step 29.

- 20. Click **Next**.  
For cluster, you need to discover instances manually. See [Manually Discovering New Instances](#) to discover the new instances.

- 21. Click **Next**.



22. Click **Yes**.

23. 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.

24. 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**.

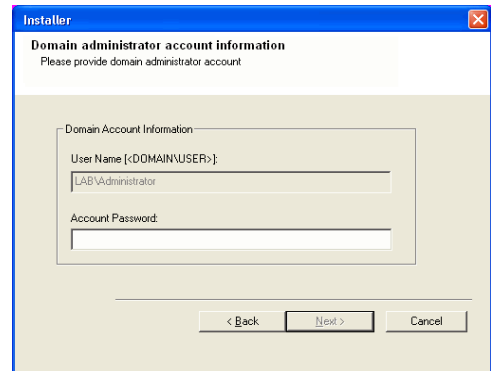
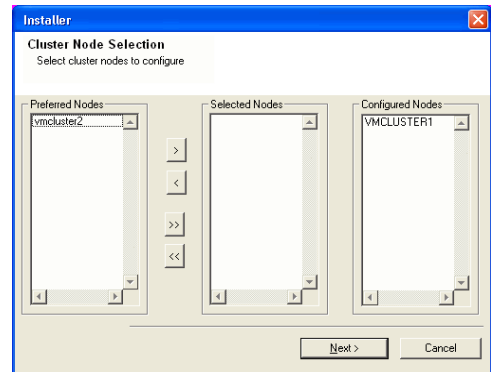
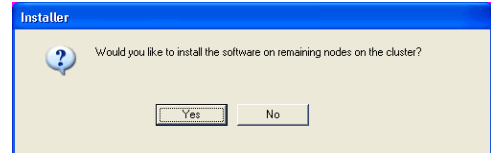
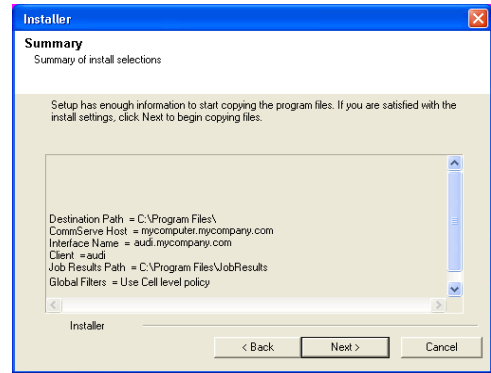
25. The progress of the remote install for the cluster nodes is displayed; the install can be interrupted if necessary.

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*.



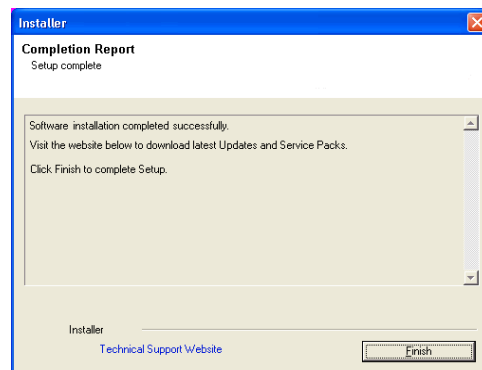
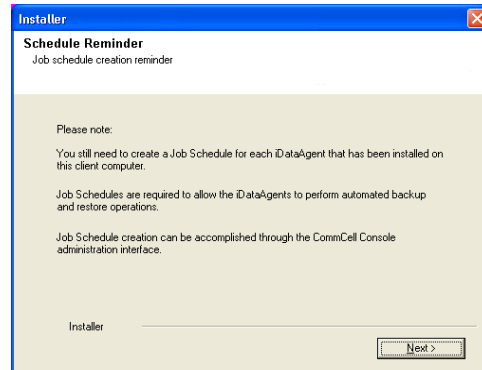
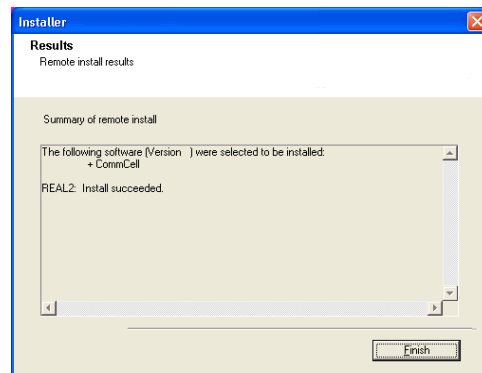
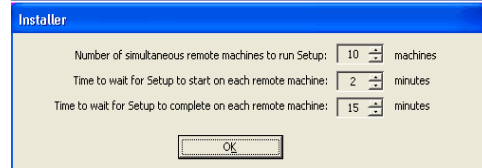
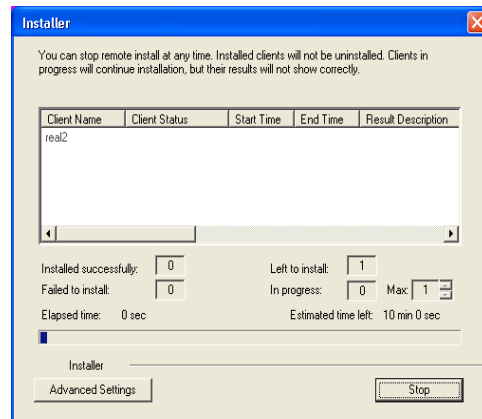
26. Read the summary for remote installation to verify that all selected nodes were installed successfully.

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.

27. Click **Next**.

28. Click **Finish**.





If you already have a storage policy selected in step 19, 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.

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

**DISK LIBRARY CREATION:**

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

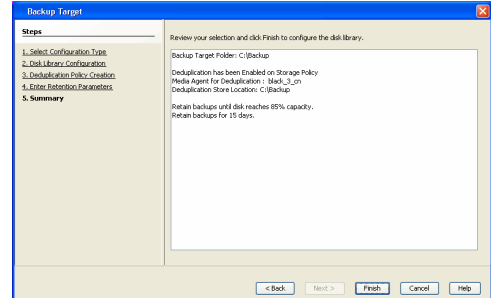
Type the name of the folder in which the disc library must be located in the **Enter backup destination folder** box or click the **Browse** button to select the folder.

Click **Next**.

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

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

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



**STORAGE POLICY CREATION**

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

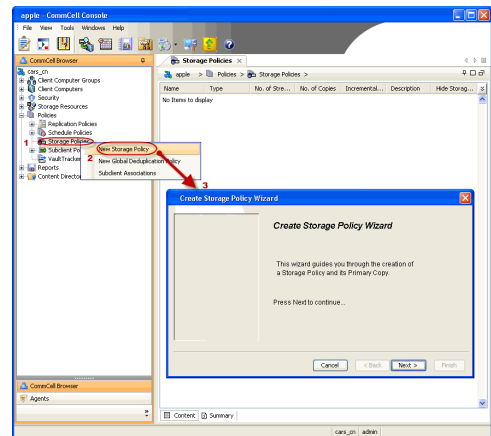
Ensure that you select a library attached to a MediaAgent operating in the current release.

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

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

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

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



# Getting Started Deployment On A Non-Microsoft Cluster - SQL Server iDataAgent

◀ 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 for the following Non-Microsoft Clustered environment:

#### INSTALL SQL SERVER 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 SQL SERVER 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.

### BEFORE YOU BEGIN

#### Download Software Packages

Download the latest software package to perform the install.

#### Verify System Requirements

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

## INSTALL SQL SERVER IDATAAGENT IN VERITAS CLUSTER ENVIRONMENT

### WHERE TO INSTALL

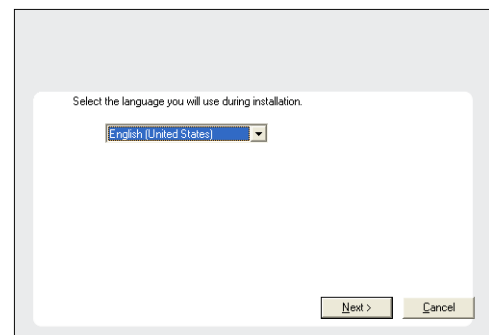
Install the software in a VERITAS Clustered Environment, by locating the active node that is hosting the cluster resources and perform the installation from this node to the virtual node.

Follow the steps given below to install the SQL 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.

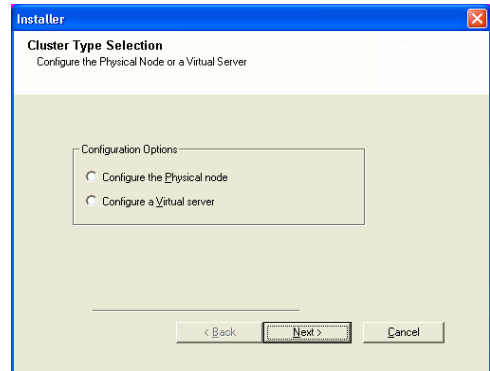
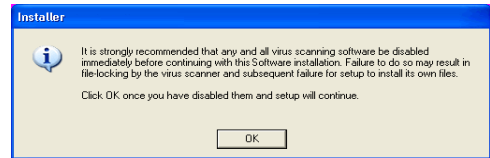
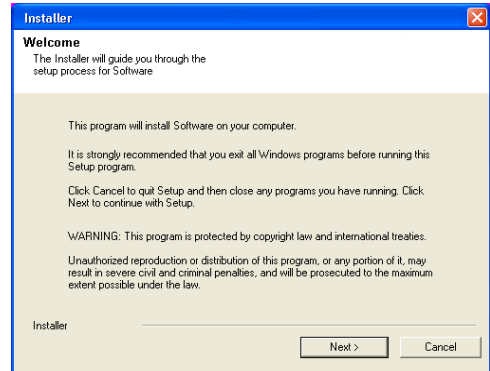
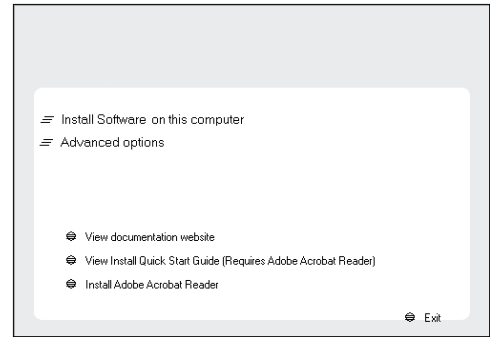
5. Click **Next**.

6. Click **OK**.

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 | Database** and then click **SQL Server iDataAgent** box.

Click **Next**.

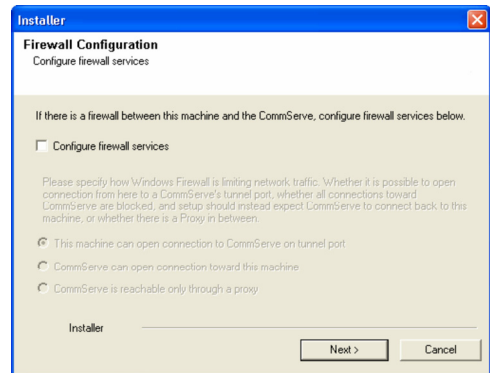
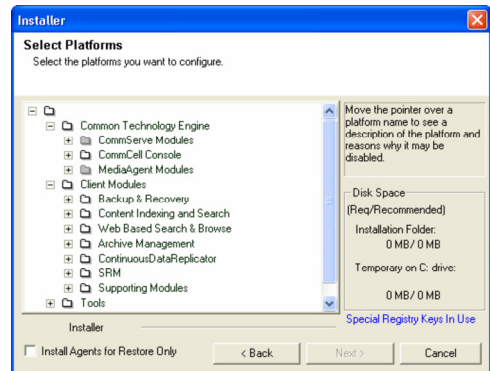
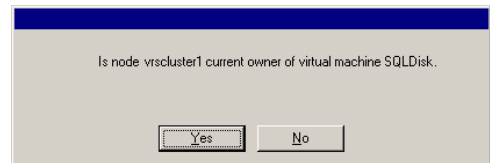
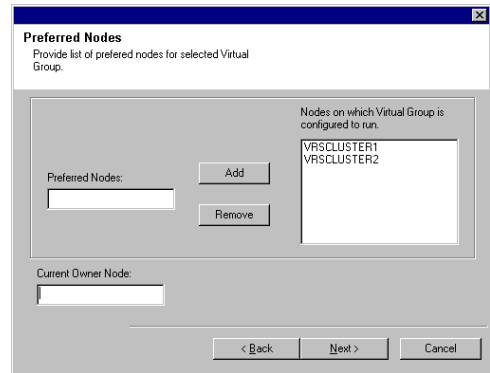
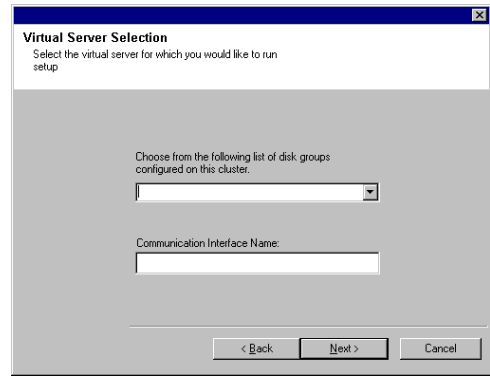
13. If this computer and the CommServe is separated by a firewall, select the **Configure firewall services** option and then click **Next**.

For firewall options and configuration instructions, see Firewall Configuration and continue with the installation.

If firewall configuration is not required, click **Next**.

14. Enter the fully qualified domain name of the **CommServe Host Name**.

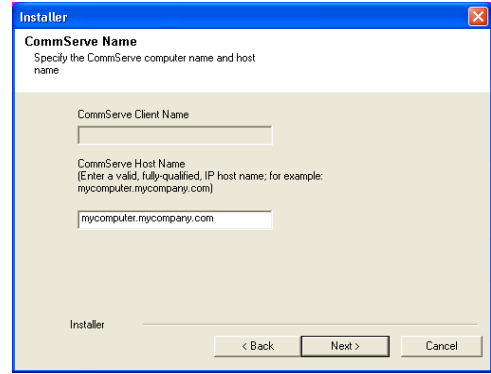
Click **Next**.



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

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

15. Click **Next**.

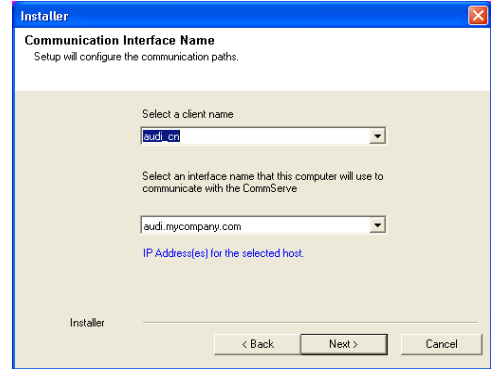


16. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.

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.

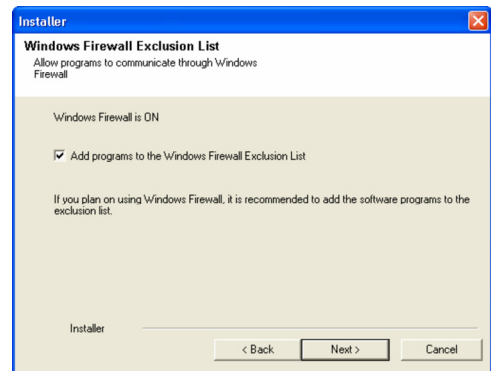
Click **Browse** to change the default location.

Click **Next**.

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

/ : \* ? " < > | #

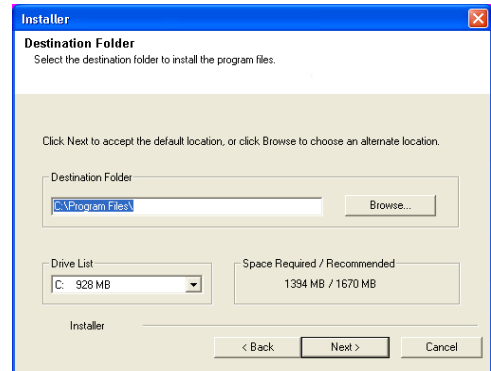
It is recommended that you use alphanumeric characters only.



18. Specify the **Job Results Path**. Make sure that the Job Results folder you specify resides on a shared disk.

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

Click **Next**.



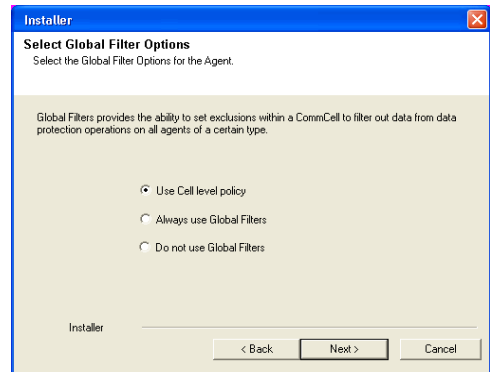
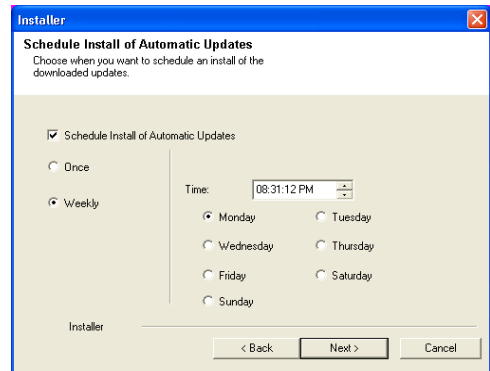
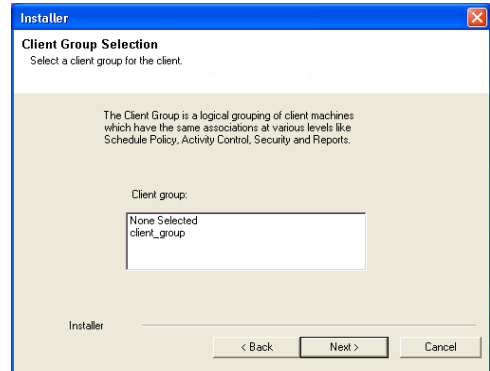
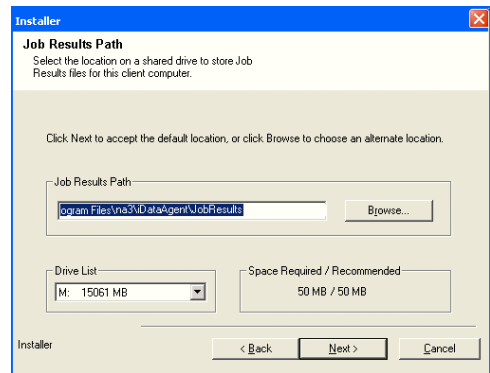
19. Select a Client Group from the list.  
Click **Next**.

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

20. Click **Next**.

21. Click **Next**.

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



- 23. Click **Next**.

This process will not automatically discover the Virtual nodes. It is recommended to configure the Virtual node post installation from CommCell Console. For details, see Virtual Nodes Are Not Being Automatically Discovered in a Veritas Cluster Environment

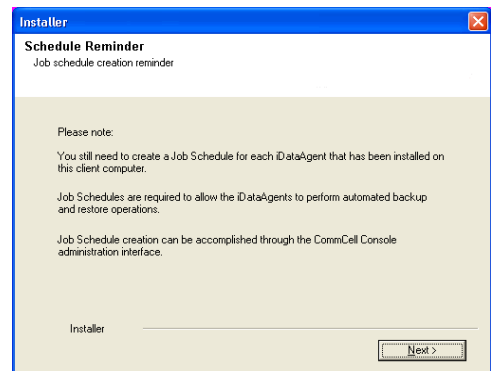
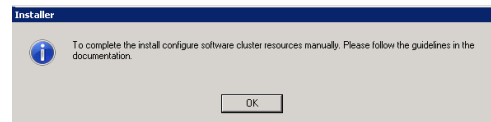
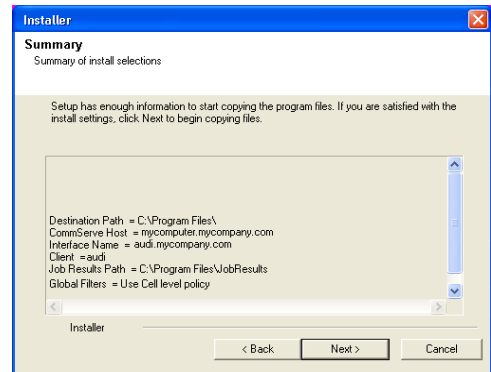
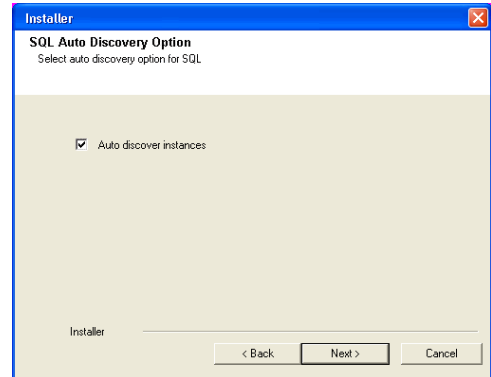
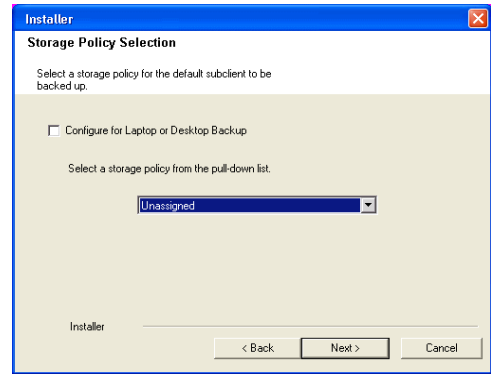
- 24. Click **Next**.

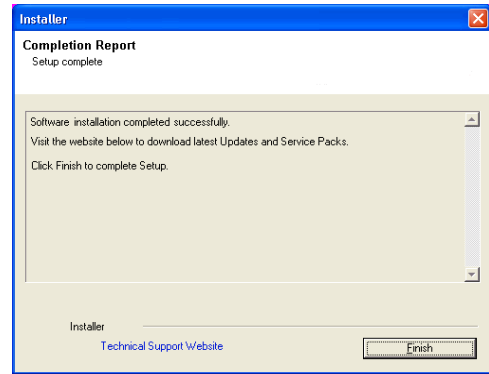
- 25. Click **OK** and manually configure the cluster resources.

See Configuring the VERITAS Cluster Resources for more information on configuring the cluster resources.

- 26. Click **Next**.

- 27. 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

28. 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.
29. Create Service Dependencies
  - 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.
  - 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.
30. Associate Services with the Current Active Node
  - In Cluster Administrator, click **Resources**.
  - Click **Link** and make the Cluster plugin resource dependent upon the **MountV** 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 SQL SERVER 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:

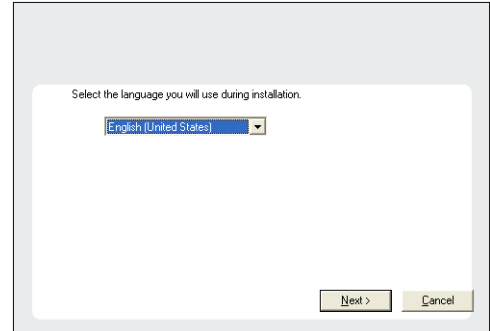
1. Create `bIgnoreClusterVMCheck` registry key to detect that the agent is being installed on a virtual node in a non-Microsoft cluster.

To create the registry key, see the following steps:

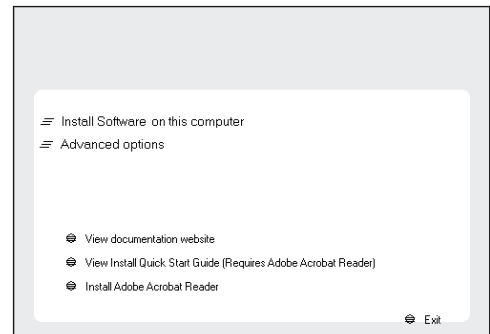
1. Start the Registry Editor (Regedit.exe or Regedit32.exe)
2. Locate the directory under which you want to create a key, e.g., `HKEY_LOCAL_MACHINE\SOFTWARE\`.
3. Right click the **SOFTWARE** and click **New -> Key**.
4. Name the key as **GalaxyInstallerFlags**.
5. Right click the **GalaxyInstallerFlags** and select **New -**

> **DWORD** value, name it as `bIgnoreClusterVMCheck` and by double clicking the `bIgnoreClusterVMCheck` key modify the **Value** data to **1**.

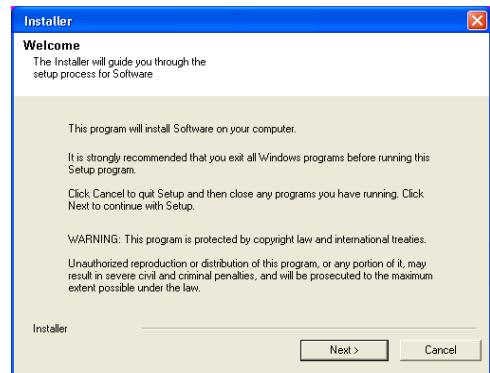
2.
  - In the PolyServe Matrix Server, create a virtual host resource name that has an assigned TCP/IP address in the network.
  - Provide a virtual host name (e.g., VirtualPolyServe.acme.com) and an Application name (e.g., VirtualPolyServe).
  - Select all network Interfaces that will be available as 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**.



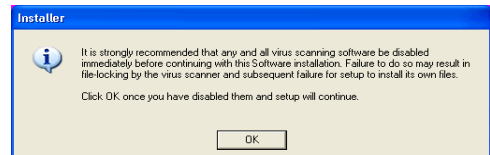
6. Select the option to install software on this computer.  
The options that appear on this screen depend on the computer in which the software is being installed.



7. Click **Next**.



8. Click **OK**.

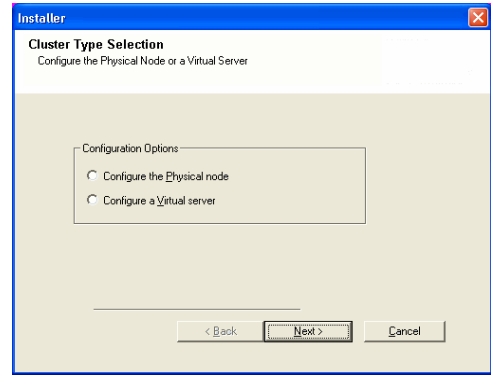


9. Select **I accept the terms in the license agreement**.  
Click **Next**.

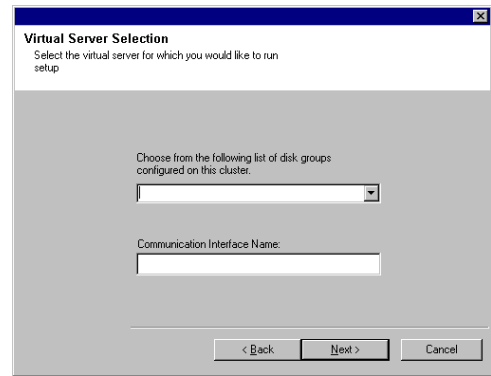
10. Select **Configure a Virtual Server**.  
Click **Next**.



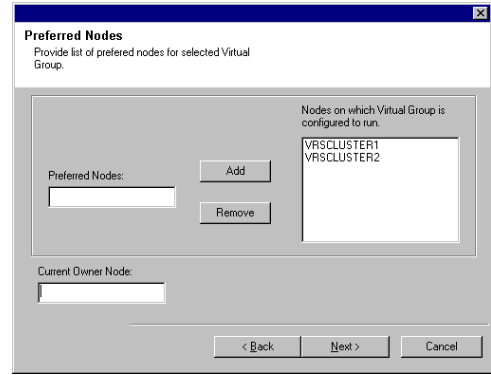
11.
  - In the **disk groups** box, specify the host name of the Virtual Host created for backup, e.g., VirtualVeritasServe.
  - In the **Communication Interface Name** box, specify the fully qualified domain name of the Virtual Host, e.g., VirtualVeritasServe.acme.com.
  - Click **Next**.



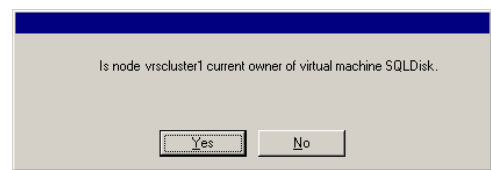
12. Specify the hosts node in the **Preferred Nodes** and click **Add** to add in the Nodes on which **Virtual Group is configured to run**.  
Specify the name of active node in **Current Owner Node** box.  
Click **Next**.



13. 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.



14. Expand **Client Modules | Database** and then click **SQL Server iDataAgent** box.  
Click **Next**.



15. 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**.

16. 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:

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

17. Click **Next**.

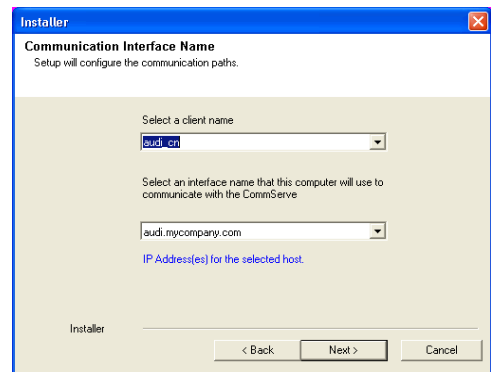
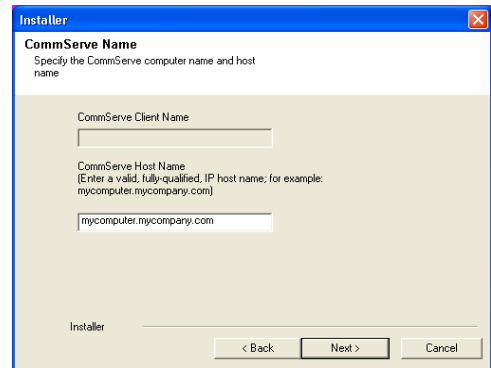
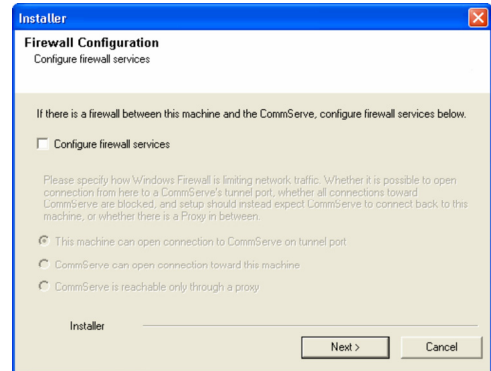
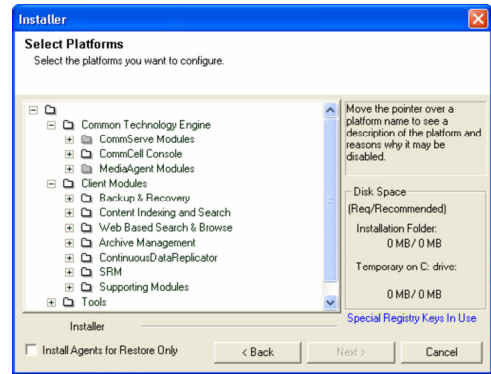
The client name should be equivalent to the vhost name and the interface name equals the vhosts fully qualified domain name.

18. 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.





19. 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.

20. Specify the **Job Results Path**. Make sure that the Job Results folder you specify resides on a shared disk.

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

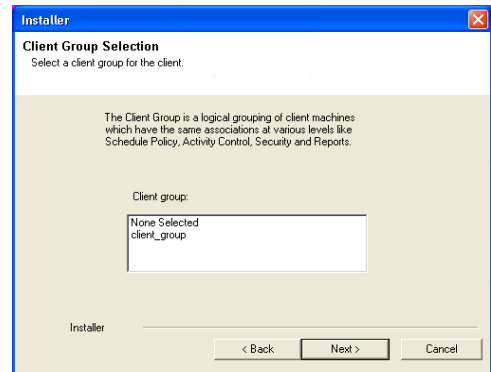
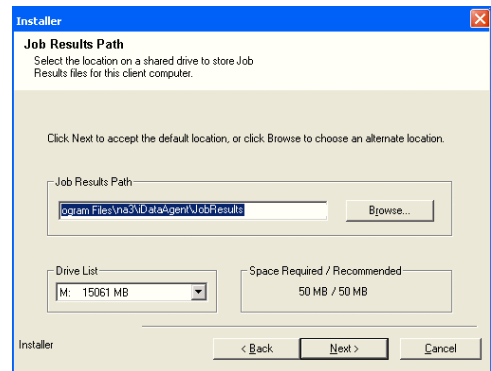
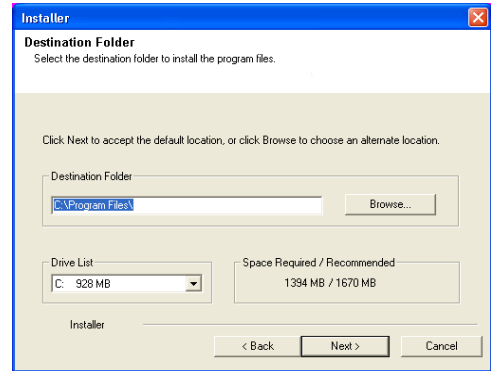
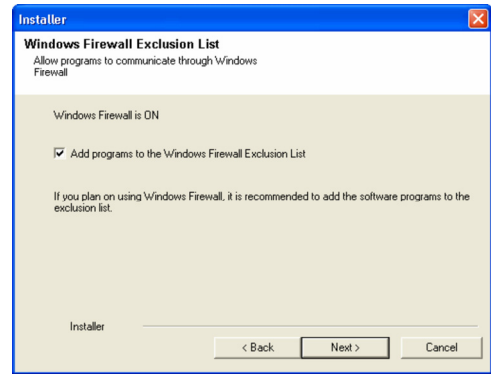
Click **Next**.

21. Select a Client Group from the list.

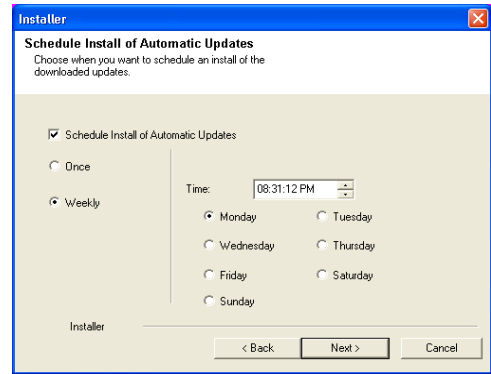
Click **Next**.

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

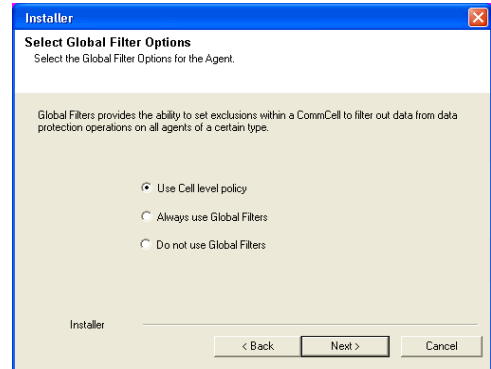
22. Click **Next**.



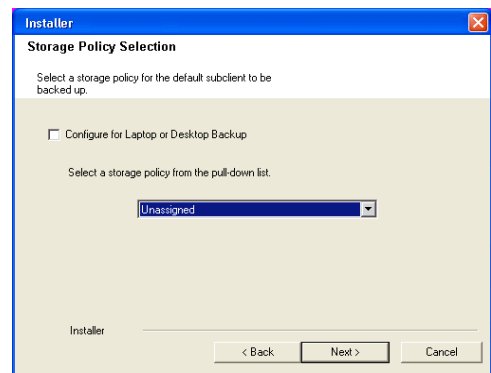
23. Click **Next**.



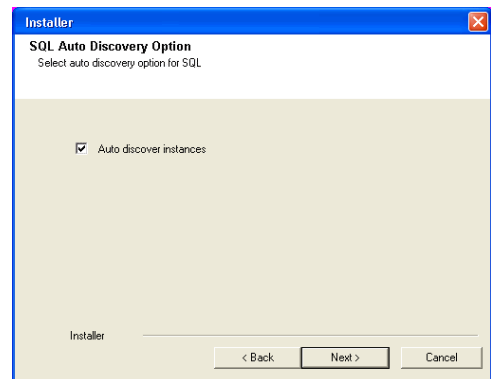
24. Select a **Storage Policy** from the drop-down list.  
Click **Next**.



25. Click **Next**.  
**Auto Discover Instances** are automatically discovered for every 24 hours.



26. Click **Next**.

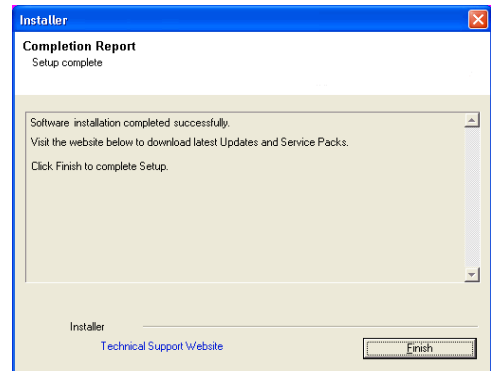
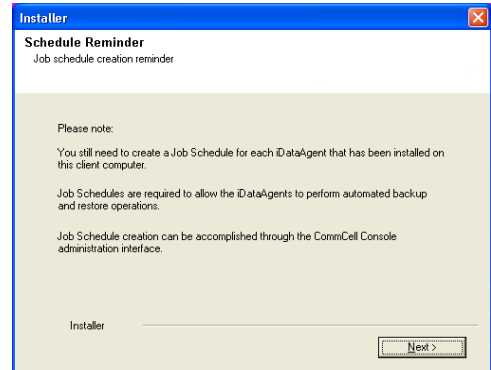
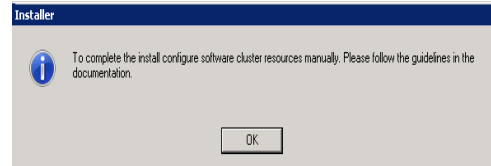
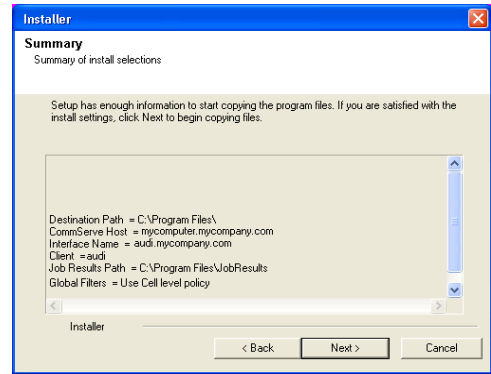


27. Click **OK** and manually configure the cluster resources.

See Configuring the HP Scalable NAS/Polyserve Cluster Resources for more information on configuring the cluster resources.

28. Click **Next**.

29. 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.

30. 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)
(Instance001)
exit 0
```

### 31. Add the Customer Service Monitor

To 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.

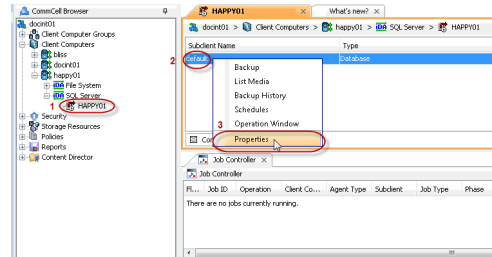
The monitor should now start, and the primary node should now be active. Failover will occur if services are disabled on the primary node, and services in such a case will move to a secondary node.



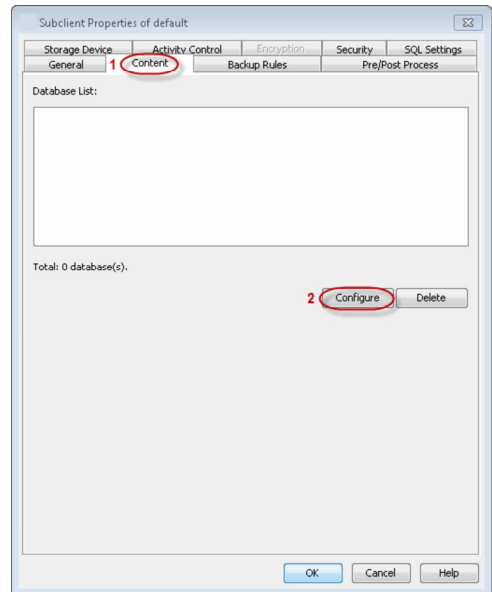
# Getting Started Configuration - SQL Server iDataAgent

Once installed, configure a subclient and associate a storage policy as follows:

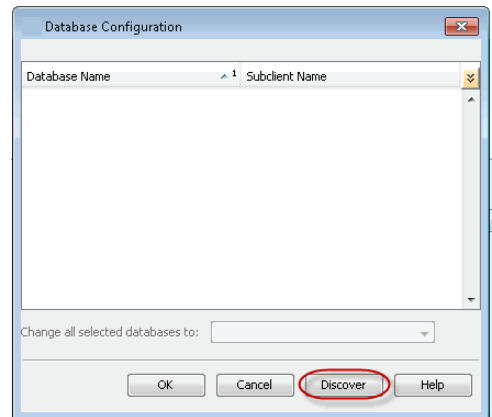
1.
  - From the CommCell Browser, navigate to **Client Computers | <Client> | SQL Server | <Instance>**.
  - Right-click the default subclient and then click **Properties**.



2.
  - Click the **Content** tab.
  - Click **Configure**.



3. Click **Discover**.

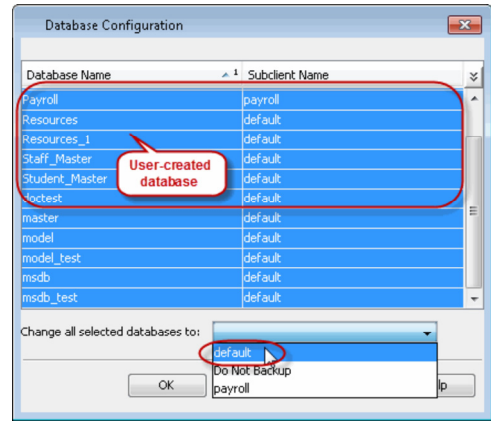


4.
  - Hold down CTRL and click each database listed in the **Database Name** list.

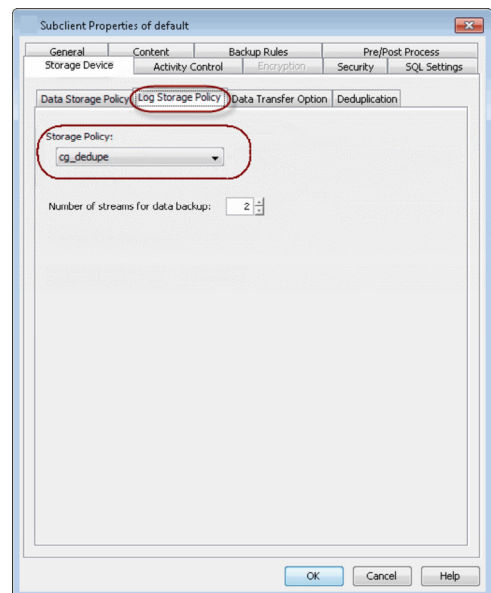
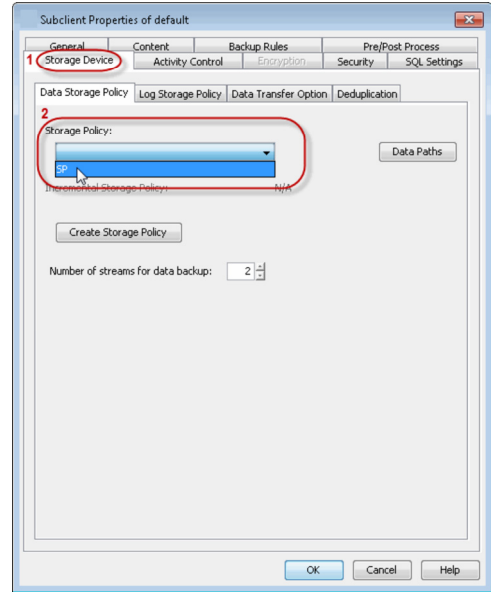
Ensure you have at least one user-created database selected as depicted in the image on the right.

- In the **Change all selected databases to** list, click **default**.
- Click **OK**.

- 5.
- Click the **Storage Device** tab.
  - In the **Storage Policy** box, select a Storage Policy name.
- If you do not have Storage Policy created, follow the step given in step 7 below to create a storage policy.



- 6
- Click the **Log Storage Policy** tab.
  - In the **Storage Policy** box, select a Storage Policy name.
  - Click **OK**.
- Click **Next** ► to continue.



7. 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:

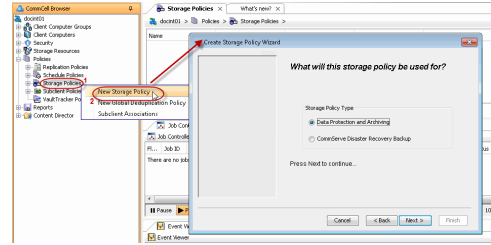
- Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
- Enter the name in the **Storage Policy Name** box and click **Next**.
- From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

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.

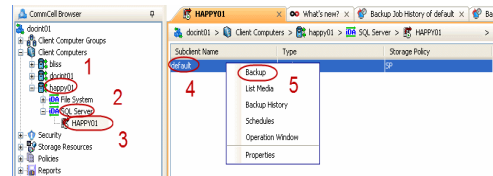




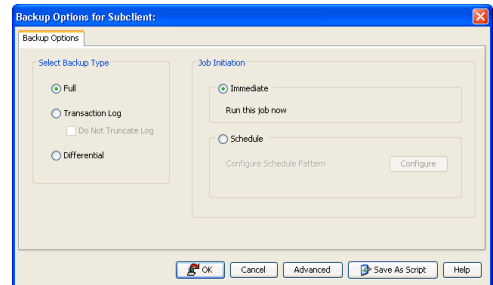
# Getting Started Backup - SQL Server iDataAgent

WHAT GETS BACKED UP	WHAT DOES NOT GET BACKED UP
<p>SQL Server system databases, which includes master, msdb, and model</p> <p>SQL Server user databases</p> <p>SQL Server Filestream Databases using regular and IntelliSnap Backups</p>	<p>tempdb - as SQL Server re-creates tempdb every time the server is started, it is not included in the backup</p> <p>SQL analysis server database</p> <p>Databases on removable media</p> <p>Databases in single-user mode, suspect, loading, standby, and offline.</p> <p>SQL Server Filestream Databases using VSS</p> <p>The following cannot be backed up using the SQL Server iDataAgent:</p> <ul style="list-style-type: none"> <li>• Full text indexes</li> <li>• SQL Server application files residing on a local hard drive</li> <li>• File system data that resides on a SQL Server computer</li> </ul> <p style="text-align: center;">Use the Windows File System iDataAgent to back up the above mentioned components.</p>

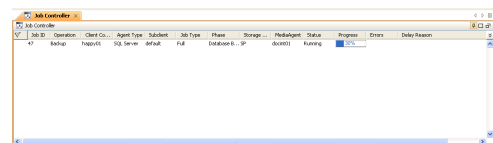
- From the CommCell Browser, navigate to **Client Computers | <Client> | SQL Server | <Instance>**.
  - Right-click the default subclient and click **Backup**.



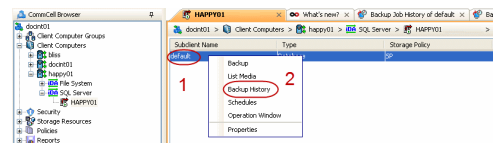
- Click **Full** as backup type and then click **Immediate**.
  - Click **OK**.



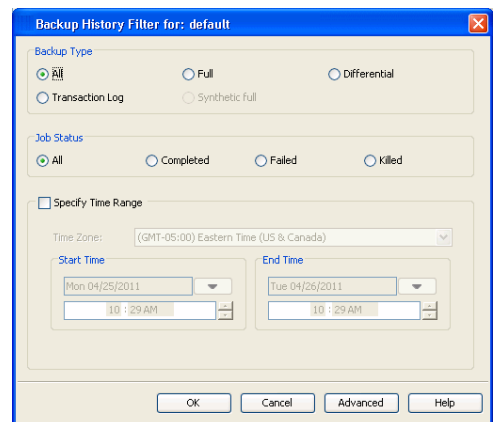
- You can track the progress of the job from the **Job Controller** window of the CommCell console.



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

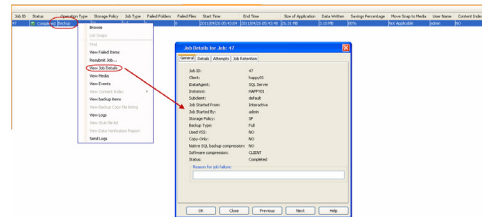


- Click **OK**.

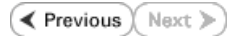


6. Right-click the job to:

- Browse the databases that were backed up.
- View items that failed, if any, during the job.
- Resubmit the job.
- View job details.
- View media associated with the job.
- View events associated with the job.
- View backup items (you can view the database files that were backed up e.g., .mdf, .ldf).
- View or send the log file that is associated with the job.

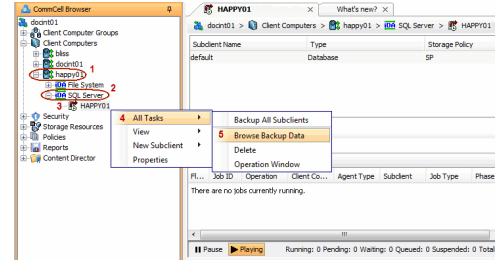


# Getting Started Restore - SQL Server iDataAgent

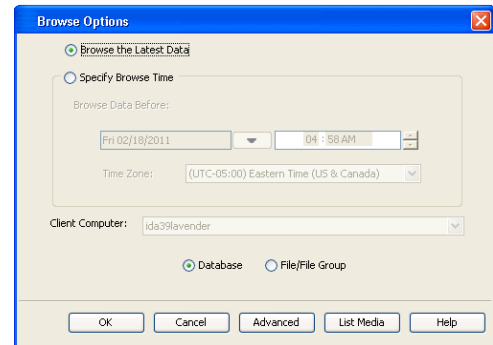


As restoring your backup data is very crucial, it is recommended that you perform a restore operation immediately after your first full backup to understand the process. The following sections explain the steps for restoring a user-created database to a different location on the same destination server.

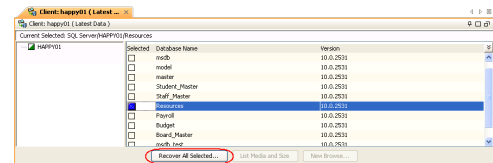
- From the CommCell Browser, navigate to **Client Computers | <Client> | SQL Server**.
  - Right-click the instance and then click **All Tasks | Browse Backup Data**.



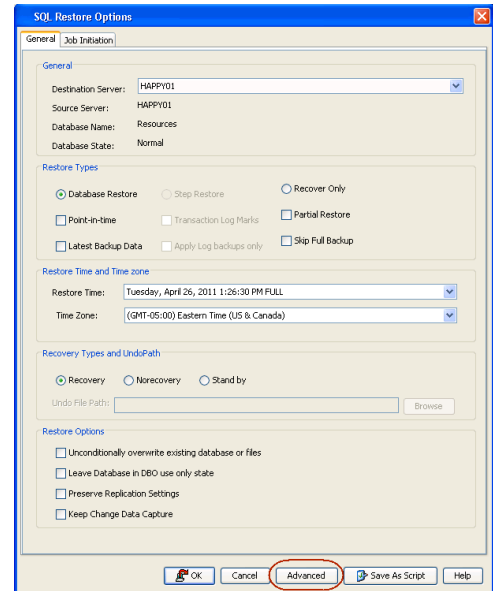
- Click **OK**.



- In the right pane of the Browse window, select the database you want to restore.
  - Click **Recover All Selected**.

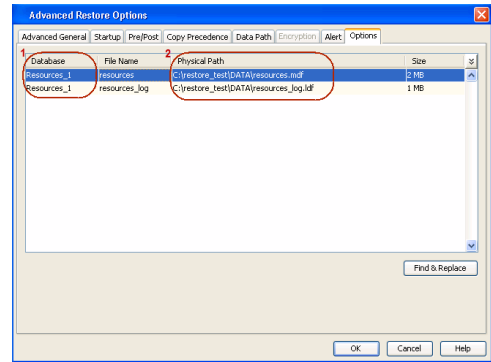


- Click **Advanced**.

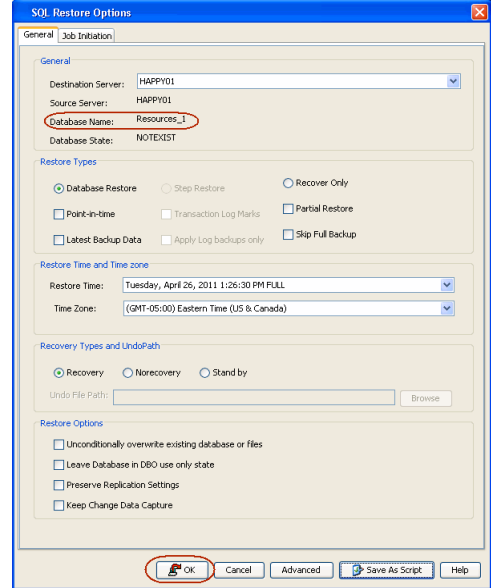


- Click the **Options** tab.
  - Rename the database name under the **Database** column.
  - Change the path of the database and log files under the **Physical Path** column.
  - Click **OK**.

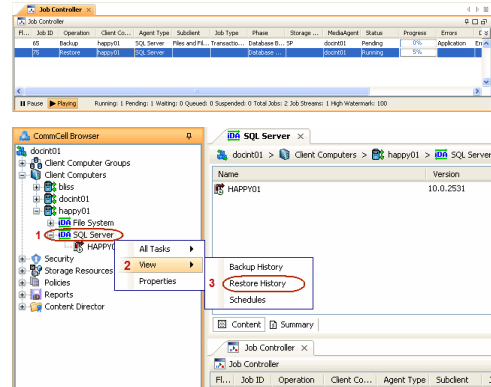
6. Click **OK**.



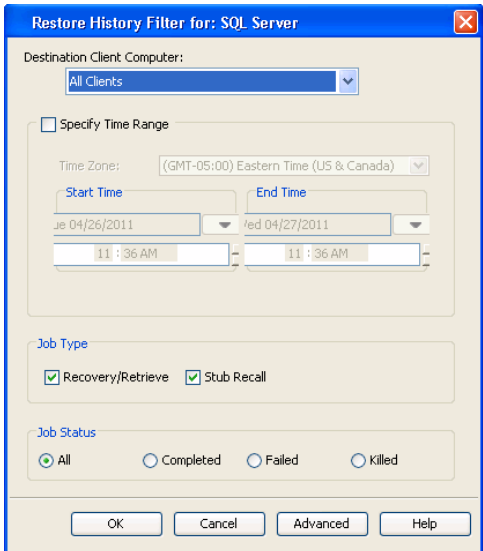
7. You can monitor the progress of the restore job in the **Job Controller**.



8. Once the restore job has completed, right-click the agent and click **View | Restore History**.

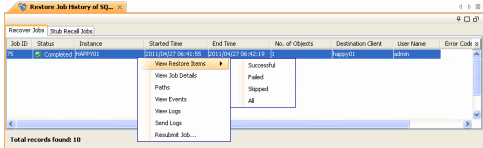


9. Click **OK**.

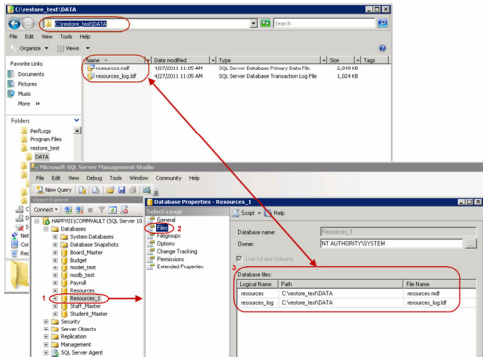


10. You can view the following details about the job by right-clicking the job:

- 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
- View Job Path
- Send Logs
- Resubmit Job



11. Once the database is restored, verify that the restored database and log files are available in the restore destination provided during step 5.



**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.

