

# User Guide - Exchange Public Folder *iDataAgent*

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# Overview - Microsoft Exchange Server iDataAgents

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## WHERE TO GO NEXT

### Install the Exchange iDataAgents

Walks you through the process of installing the Exchange Agents.

## INTRODUCTION

The Exchange Server iDataAgents provide a unified protection and recovery vehicle for all Exchange data in your enterprise. In addition to complete protection of entire Exchange databases for disaster recovery, more granular backup and recovery options are available for mailboxes and public folders. Added options for Outlook integration, deduplication, content indexing, and advanced reporting help ensure all your Exchange data is easily traceable and retrievable whenever the need arises.

## KEY FEATURES

The Exchange Server iDataAgents offer the following key features:

### DATABASE PROTECTION FOR DISASTER RECOVERY

The Exchange Database iDataAgent backs up each Exchange database, which includes the following key components:

- Information Stores containing individual user mailboxes
- Public Folder Stores containing data shared among multiple users
- Transaction Logs

In the event of a serious system failure, such as the breakdown of hardware, software, or operating systems, the Exchange Database iDataAgent provides point-in-time recovery of a given database, ensuring that the state of the Exchange Database as it existed at any given time is ready for use whenever necessary.

### GRANULAR PROTECTION OF MESSAGES AND MAILBOX ITEMS

The Exchange Mailbox iDataAgent backs up individual mailboxes for quick retrieval of individual mailbox data, such as messages and attachments, that may have been lost from a user's Outlook mailbox. Regular backups of mailboxes also provide the facility to quickly restore entire mailboxes without requiring restores of the Exchange database.

### GRANULAR PUBLIC FOLDER PROTECTION FOR SHARED INFORMATION

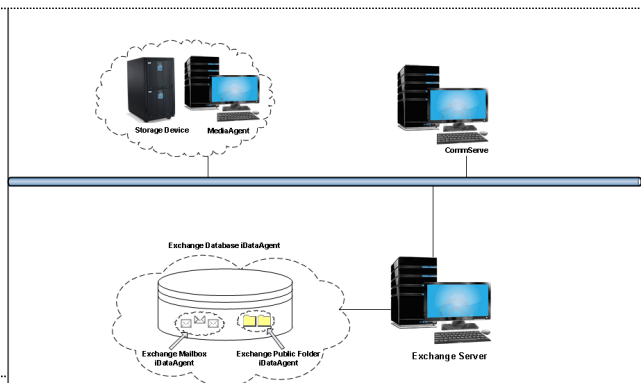
The Exchange Public Folder iDataAgent backs up public folders for quick retrieval of shared data between Exchange users, such as group documents, messages, attachments, and calendars. As with the Exchange Mailbox iDataAgent, regular backups of mailboxes also provide the facility to quickly restore any number of public folders without requiring restores of the Exchange database.

## ADD-ON COMPONENTS

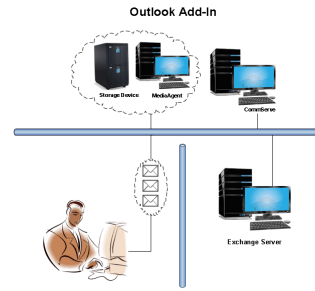
### SNAPPROTECT BACKUP

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.

### OUTLOOK ADD-IN

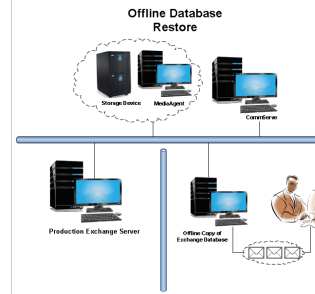


Outlook Add-In fully integrates with Microsoft Outlook to provide users with a convenient way to browse, search and restore mailbox items directly from Outlook. All mailbox entities, including messages, attachments, calendar items, and notes, are retrievable from either the locally installed Outlook application or the Outlook Web Access web browser application.



## OFFLINE DATABASE RESTORE

Offline Database Restore using the Exchange Offline Mining Tool provides Exchange users with the ability to restore mail messages, attachments, and other mailbox entities from an offline copy of the Exchange database. This capability is especially useful in environments where the Exchange Server experiences significant day-to-day overhead. By providing users with an offline copy of the Exchange database to retrieve their data, the Exchange Server does not experience the reduction in performance it otherwise would if users retrieved their data from it directly.



## 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.

## CONTENT INDEXING AND SEARCH

Content Indexing and Search enables users to content index their data and later search the data from a user-friendly web interface. The users can also perform restore operations or other advanced actions on the searched data.

## TERMINOLOGY

The Microsoft Exchange Server iDataAgent documentation uses the following terminology:

<b>DATABASE</b>	Includes all operational elements of the Exchange Server, such as Stores, Transaction Logs, Patch Files, and Exchange Organizational Data.
<b>NON-EXCHANGE SERVER</b>	A computer other than the Exchange Server on which the Mailbox and Public Folder iDataAgents may be installed. Using a non-Exchange Server often results in less overhead on the Exchange Server during backup and restore operations.
<b>AFFINITY</b>	An association between two entities used in Automatic Discovery scenarios. For example, automatic discovery of mailboxes by database affinity implies the mailbox is included in the selected database.

## CUSTOMIZED FEATURES FOR YOUR EXCHANGE VERSION

The **Advanced** pages of this documentation outline the features applicable for your version of Exchange in a tabular format for quick access to the documentation you need as shown below:

<b>EXCHANGE 2010</b>	<b>EXCHANGE 2007</b>	<b>EXCHANGE 2003</b>
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Sections not listed for a particular version of Exchange are not applicable or supported for that Exchange version.

# System Requirements - Exchange Public Folder iDataAgent

[System Requirements](#) | [Supported Features](#)

The following requirements are for the Microsoft Exchange Public Folder iDataAgent:

## APPLICATION

Microsoft Exchange 2003 Server up to the latest service pack  
Microsoft Exchange 2007 Server up to the latest service pack  
Microsoft Exchange 2010 Server up to the latest service pack

## OPERATING SYSTEM

### WINDOWS SERVER 2008

Microsoft Windows Server 2008 x64 Editions\*

\*Core Editions not supported

### WINDOWS SERVER 2003

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

## 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 GB of minimum disk space is required for installing the software.

256 MB of free disk space is required for job result directory.

256 MB of free disk space is required for log directory.

## MEMORY

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

## PROCESSOR

All Windows-compatible processors supported

## SUPPORTED COMPONENTS

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### OWA PROXY ENABLER

The OWA Proxy Enabler is supported on any platform supported by the Microsoft Exchange Server.

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### OUTLOOK ADD-IN CLIENT

The Outlook Add-In Client is supported with Microsoft Outlook 2003 or higher.

## PERIPHERALS

DVD-ROM drive

Network Interface Card

## MISCELLANEOUS

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.

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## NETWORK

TCP/IP Services configured on the computer.

## **NOTES ON OUTLOOK ADD-IN CLIENT INSTALLATION**

For Windows clients, JRE 1.7.0\_17 is installed automatically with the Outlook Add-In software if it is not already installed.

.NET Framework is needed to support RPC over HTTP connection mode, as well as support for the Exchange Offline Mining Tool. It is not automatically installed by the MSI package and must be manually installed.

Update 331320 must be installed on the client in order to use RPC over HTTP. Contact Microsoft Product Support Services and refer to KB 331320 to obtain this patch.

The Microsoft Visual C++ 2008 Redistributable Package is not automatically installed for MSI installs. However, the required subset of files from Microsoft Visual C++ 2008 Redistributable Package are provided as part of the software and therefore, manual installation is not required.

## **NOTES ON OUTLOOK OWA PROXY ENABLER INSTALLATION**

Prior to configuring Web Access for Exchange 2007 Mailbox/Public Folder Archiver, Exchange WebProxy Archiver Agent, or OWA Proxy Enabler, ensure that the Client Access Role has been configured on the Exchange Server.

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

Microsoft Exchange 2007 64-bit Server Agents are 32-bit MAPI-based Agents installed on a Microsoft Windows x64 platform. See Installing 32-bit Components on a Microsoft Windows x64 Platform for information on installation and configuration requirements for these Agents.

- The Microsoft Exchange 2003 and 2007 Mailbox and Public Folder-based Agents can be installed in two ways:
  - directly on the Microsoft Exchange Server computer
  - as Proxy Agents on a separate computer running a supported 32-bit operating system

### **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

# Deployment - Exchange Server Agents

## PLANNING YOUR INSTALLATION

The Microsoft Exchange Server Agents can be installed individually or in any combination. However, your installation options will differ depending on your environment and the combination of Agents you intend to install.

To ensure you select the appropriate installation option for your environment, first compile the following information:

### EXCHANGE AGENTS TO BE INSTALLED

For complete protection, it is recommended all Agents be installed in your environment.

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### EXCHANGE SERVER VERSION

The Exchange Server Version can be 2010, 2007, or 2003.

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### WILL THE AGENTS BE INSTALLED ON THE EXCHANGE SERVER?

You can install Agents on the Exchange Server or another computer (Non-Exchange Server). The Database iDataAgent, however, must be installed on the Exchange Server.

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### IS THE COMPUTER 32-BIT OR 64-BIT?

Whether installing on the Exchange Server or a Non-Exchange Server, the bit-rate can be 32-bit or 64-bit.

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### WHAT VERSION OF OUTLOOK IS INSTALLED ON THE COMPUTER?

Outlook must be installed on the computer for all Agents except the Database iDataAgent and can be version 2010 or 2007.

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### IS THE OUTLOOK VERSION 32-BIT OR 64-BIT?

The Outlook bit-rate can be 32-bit or 64-bit.

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### WILL YOU BE INSTALLING THE AGENTS IN A CLUSTERED ENVIRONMENT?

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## INSTALLATION OPTIONS

Once you have compiled the above information, choose the appropriate installation procedure as described in the tables below.

### EXCHANGE SERVER 2013

SERVER SETUP	OUTLOOK VERSION	INSTALLATION PROCEDURE	SUPPORTED AGENTS
<b>INSTALLING ON THE EXCHANGE SERVER</b>			
64-bit Exchange Server	N/A	Install the 64-bit Exchange Agents for Exchange Server 2013	Database Agent for Database Availability Group (DAG) Configuration

### EXCHANGE SERVER 2010

SERVER SETUP	OUTLOOK VERSION	INSTALLATION PROCEDURE	SUPPORTED AGENTS
<b>INSTALLING ON THE EXCHANGE SERVER</b>			
64-bit Exchange Server	Outlook 2010 64-bit	Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Exchange Server	Outlook 2010/2007 32-bit	Install the 32-bit Exchange Agents for Exchange Server 2010 or 2007	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers

64-bit Exchange Server	N/A	Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007	Database Agent for Database Availability Group (DAG) Configuration
<b>INSTALLING ON A NON-EXCHANGE SERVER</b>			
32-bit Non-Exchange Server	Outlook 2010/2007 32-bit	Install the 32-bit Exchange Agents on a Non-Exchange Server	Mailbox and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Non-Exchange Server	Outlook 2010/2007 32-bit	Install the 32-bit Exchange Agents for Exchange Server 2010 or 2007	Mailbox and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Non-Exchange Server	Outlook 2010 64-bit	Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007	Mailbox and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers

## EXCHANGE SERVER 2007

SERVER SETUP	OUTLOOK VERSION	INSTALLATION PROCEDURE	SUPPORTED AGENTS
<b>INSTALLING ON THE EXCHANGE SERVER</b>			
64-bit Exchange Server	Outlook 2010 64-bit	Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Exchange Server - Cluster	Outlook 2010 64-bit	Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007 - Clustered Environment	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Exchange Server	Outlook 2010/2007 32-bit	Install the 32-bit Exchange Agents for Exchange Server 2010 or 2007	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Exchange Server - Cluster	Outlook 2010/2007 32-bit	Install the 32-bit Exchange Agents for Exchange Server 2010 or 2007 - Clustered Environment	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
<b>INSTALLING ON A NON-EXCHANGE SERVER</b>			
32-bit Non-Exchange Server	Outlook 2010/2007 32-bit	Install the 32-bit Exchange Agents on a Non-Exchange Server	Mailbox and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
64-bit Non-Exchange Server	Outlook 2010/2007 64-bit	Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007	Mailbox and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers

## EXCHANGE SERVER 2003

SERVER SETUP	OUTLOOK VERSION	INSTALLATION PROCEDURE	SUPPORTED AGENTS
<b>INSTALLING ON THE EXCHANGE SERVER</b>			
Exchange Server	Not Required	Install the Exchange Agents on Exchange Server 2003	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
Exchange Server - Cluster	Not Required	Install the Exchange Agents on Exchange Server 2003 - Clustered Environment	Database, Mailbox, and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers
<b>INSTALLING ON A NON-EXCHANGE SERVER</b>			
Non-Exchange Server	Outlook 2010/2007 32-bit	Install the Exchange Agents for Exchange Server 2003 on a Non-Exchange Server	Mailbox and Public Folder iDataAgents Compliance, Mailbox, and Public Folder Archivers



# Install the 64-bit Exchange Agents for Exchange Server 2010 or 2007

[< Previous](#) [Next >](#)

Follow the steps given below to install Exchange Agents on one of the following:

- 64-bit Exchange Server 2010
- 64-bit Exchange Server 2007
- 64-bit Non-Exchange Server

## WHERE TO INSTALL

The Exchange Agents can be installed in one of two ways:

- Directly onto the Exchange Server. This method is referred to as an on-host installation and is useful if you want to preserve hardware resources.
- On a separate computer with connectivity to the Exchange Server. This method is referred to as a Non-Exchange Server installation and is useful if you want to offload the memory and processing resources required for backups and restores from the Exchange Server.

Install the Exchange Agents on all the nodes on which backups have to be run in a DAG configuration.

## 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 remotely install the software on a client computer.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

## PREREQUISITES

If you are installing the Exchange Agents on a 64-bit off-host proxy computer, perform the following pre-requisite task before installing these agents:

- Ensure that the proxy computer has been added to the same Domain in which the Exchange Server 2007 resides.
- Install Microsoft Outlook 2007 or higher on the off-host proxy computer in order to supply the software drivers necessary for Exchange-based agents to function in an off-host proxy configuration.

### FOR EXCHANGE SERVER 2010

- Ensure that the service account is a member of Organization Management group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

To assign full access follow the steps given below:

- Using ADSIEDIT navigate to Configuration | Services | Microsoft Exchange.
- Right-click your organization name, click Properties | Securities and click the Advanced tab.
- Click Edit to modify the permissions set for Organization Management group.
- Click to select Full Control, Receive As and Send As permissions and wait for replication.
- Click the Effective Permission tab and Select the name of the backup account.
- The backup account should display the following as selected:

Full Control

All Extended Rights

Send As

Receive As

- Start the PowerShell and type the following to add the backup account so it has full control over all the databases:

```
Get-MailboxDatabase -server (server name) | Add-ADPermission -user "backup account" -ExtendedRights Receive-As
```

Run the above PowerShell every time a new database is added.

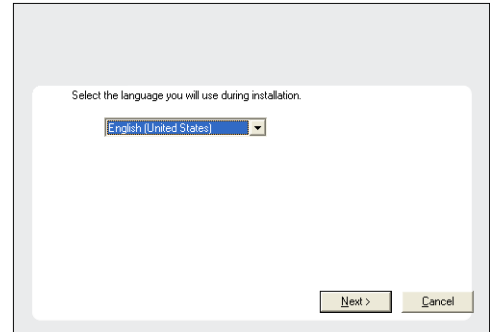
- Navigate to the Exchange Management Console, right-click the <mailbox> and click Manage Full Access Permissions to view the mailbox listed under Full Access Permissions.

**FOR EXCHANGE SERVER 2007**

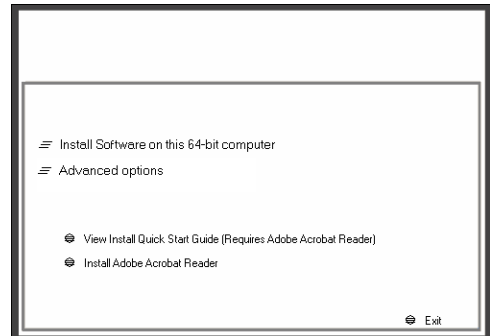
- Service account should be a member of Exchange Organization Administrators group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

**METHOD 1: INTERACTIVE INSTALL**

1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
2. Run **Setup.exe** from the Software Installation Package.
3. Select the required language.  
Click **Next**.



4. Select the option to **Install Calypso on this 64-bit computer**.  
Your screen may look different from the example shown.



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



6. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:
  - **Exchange Database iDataAgent**
  - **Exchange Mailbox iDataAgent**
  - **Exchange Public Folder iDataAgent**

To install the **Exchange Archiver Agents**, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

Click **Next**.

For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.

- 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:

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

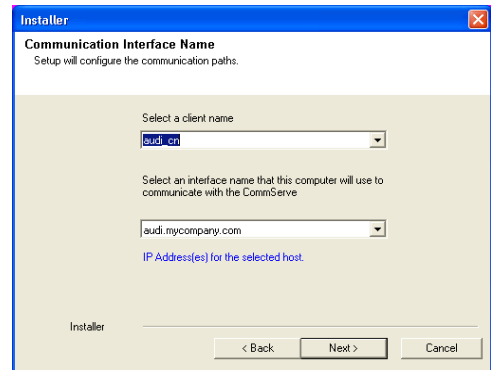
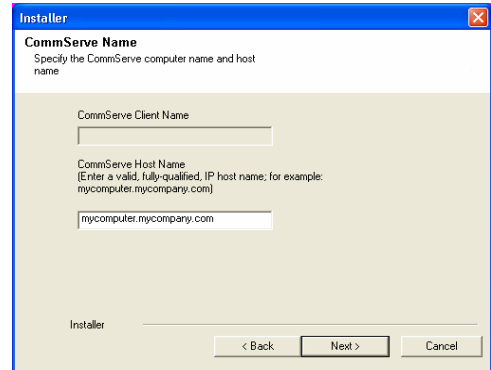
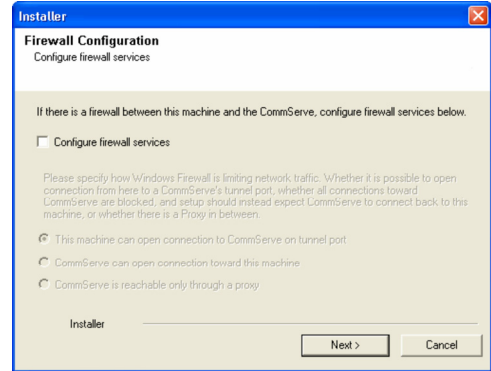
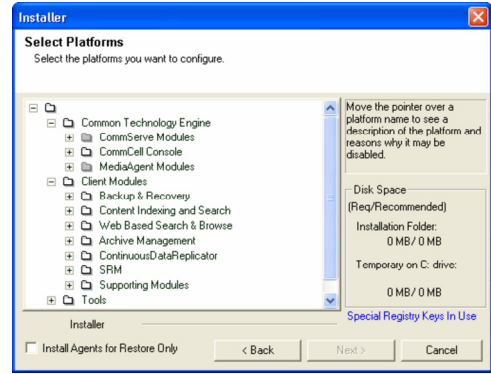
- Click **Next**.

- 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.

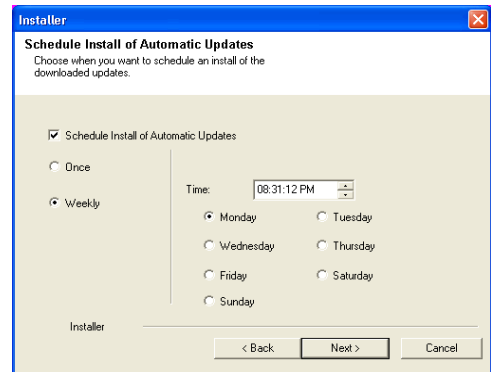
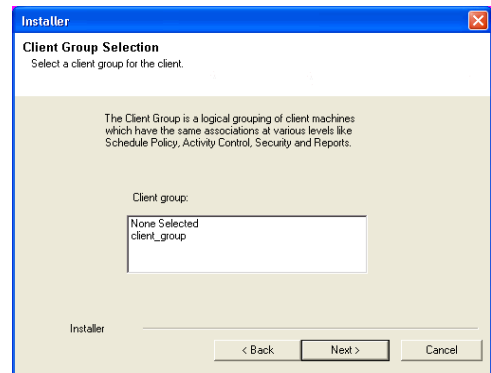
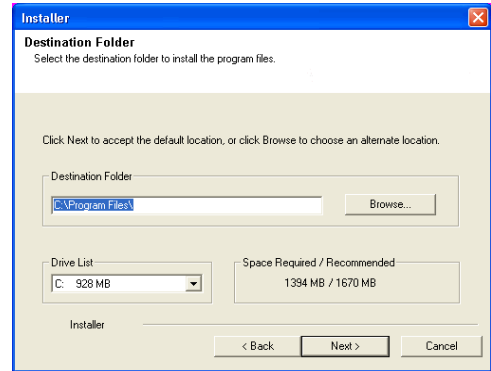
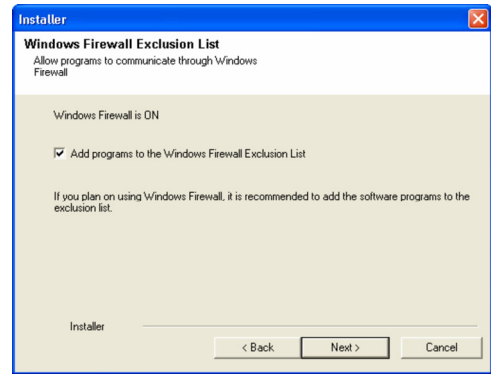
Click **Next**.

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

13. Click **Next**.

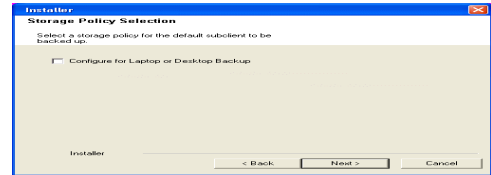
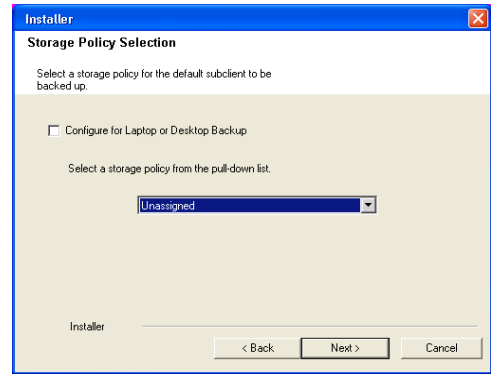
14. Select a **Storage Policy**.

Click **Next**.



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

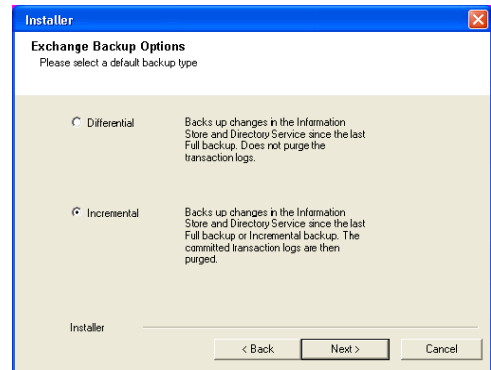
You can create the Storage Policy later in step 24.



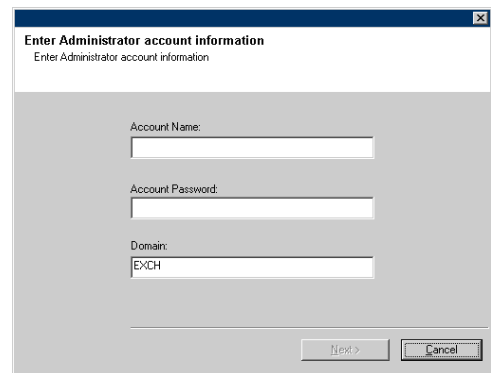
- If you are installing the Exchange Database iDataAgent on the Exchange Server, click Configure Exchange Database Specific Information.
- If you are installing the Exchange Agents on the Non-Exchange Server, skip to Configure Exchange Agents Specific Information.

## CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

15. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
  - **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
  - **Incremental** - Specifies that each non-full Exchange Database backup secures only that data that has changed since the last backup of any type. Committed transaction logs are purged.



16. Enter the user credentials to access the Exchange Server to perform the backup operation.
  - The User Account must have Exchange Administrator privileges.
  - The installation detects the domain name. If necessary, you can modify the domain name by specifying Windows domain that the Exchange Server resides in.



17. Click **Next**.

18. The install program displays a reminder to verify that Circular Logging is disabled before performing any database backup operations. To verify that Circular Logging is disabled:

- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
- Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.

- If you are installing the Exchange Agents, then click Configure Exchange Agents Specific Information.
- If you are installing the Exchange Database iDataAgent, skip to Verify Summary of Install Options.

## CONFIGURE EXCHANGE AGENTS SPECIFIC INFORMATION

19. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

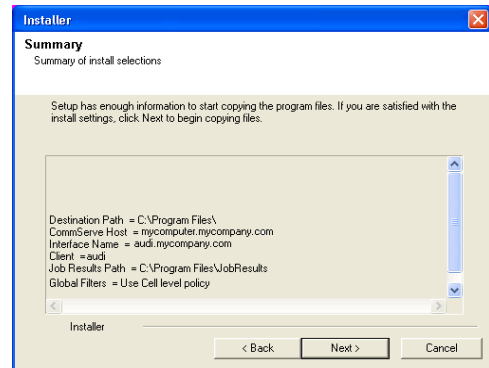
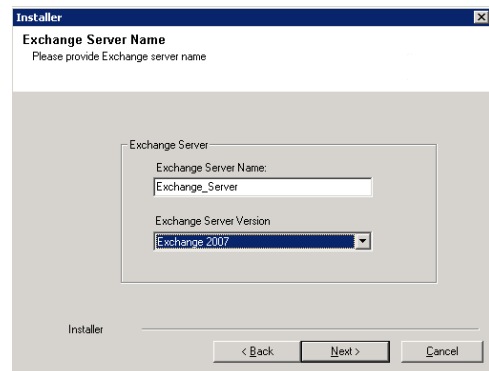
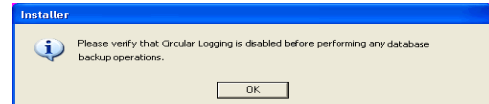
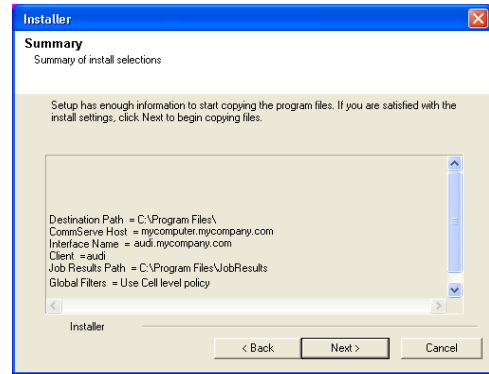
Click **Next**.

This screen will appear when you are installing Exchange Agents on Non-Exchange Server.

20. Click **Next**.

21. Enter the following Exchange Administrator information then click **Next**.

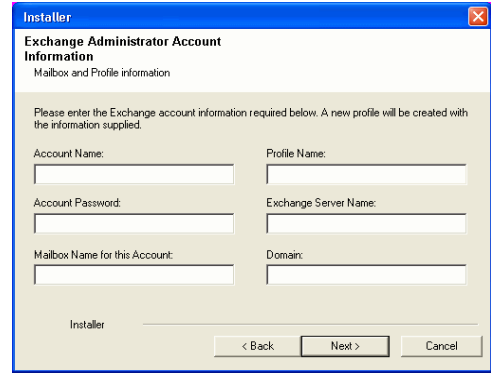
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
- **Account Password** - The password assigned to the domain user.
- **Mailbox Name for this Account** - Mailbox associated with the user above.
- **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.



- **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.

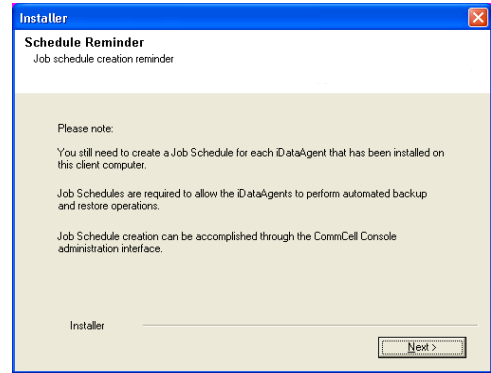
Enter the Mailbox Role Server name (NetBIOS). After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.

- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.

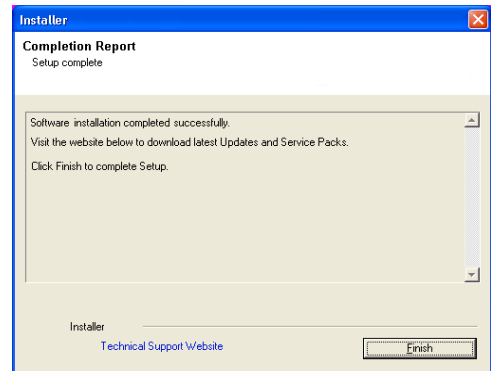


## VERIFY SUMMARY OF INSTALL OPTIONS

22. Click **Next**.



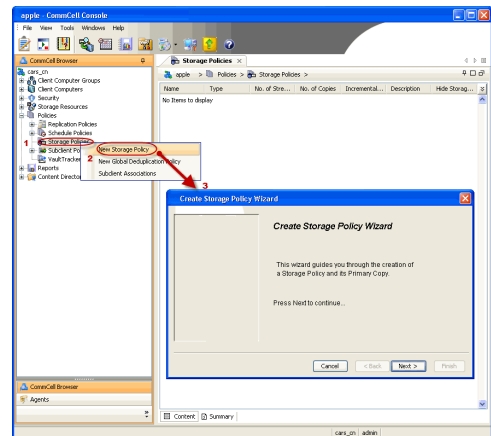
23. Click **Finish**.



If you already have a storage policy selected in step 14, 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.

24. 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.

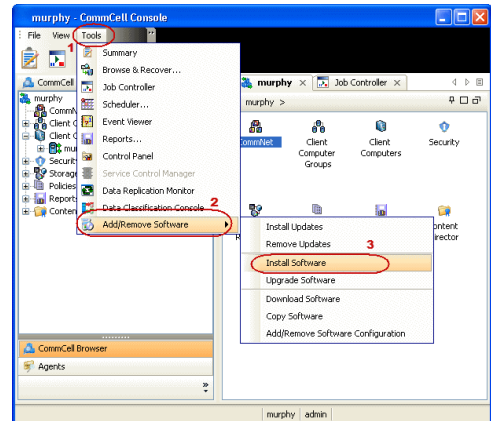
**25.**

Enable the following registry key to create job specific profiles:

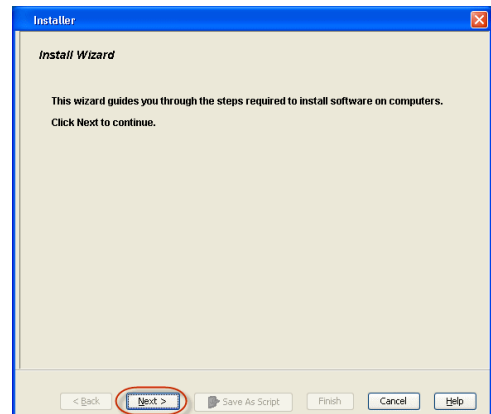
- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MSEXchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter MSEXchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

**METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE**

1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.



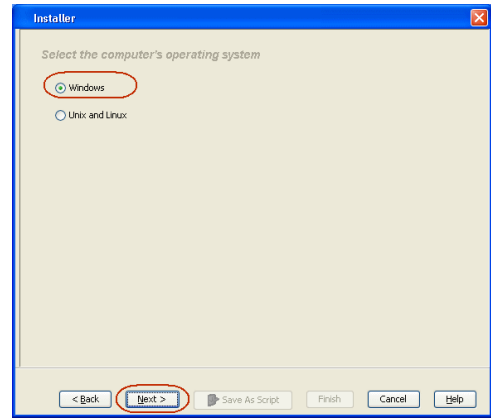
2. Click **Next**.



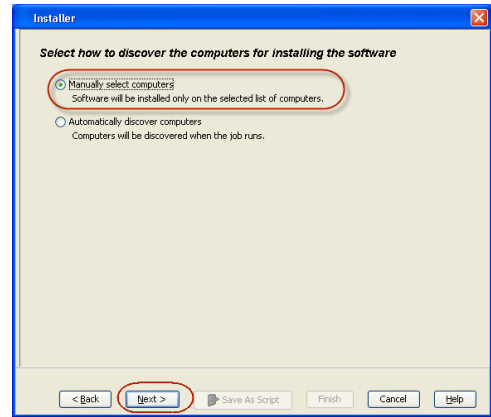
3. Select **Windows**.  
Click **Next**.



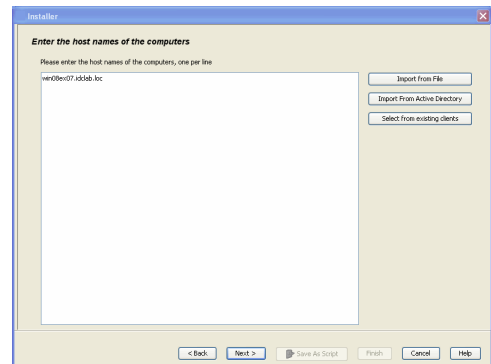
4. Select **Manually Select Computers**.  
Click **Next**.



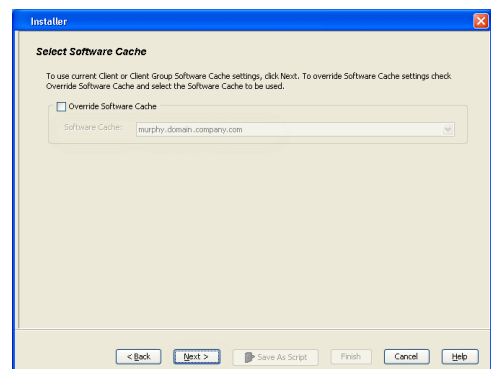
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.  
For example: win08ex07.idclab.loc  
Click **Next**.



6. Click **Next**.



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



8. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:

- **Exchange Database iDataAgent**
- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**

Click **Next**.

For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.

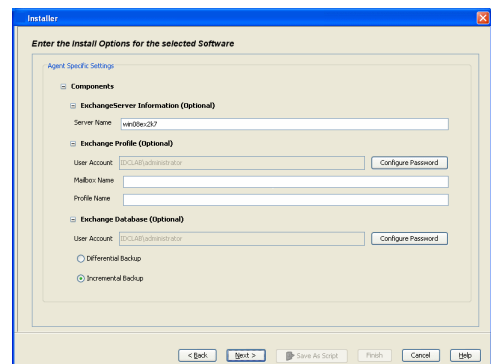
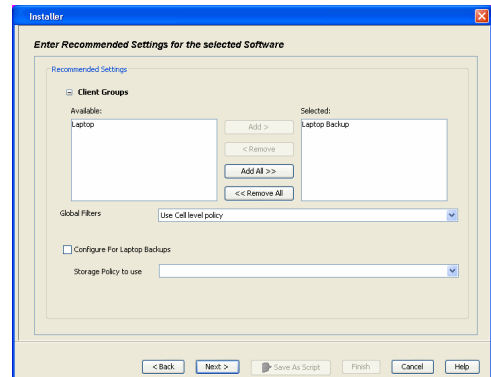
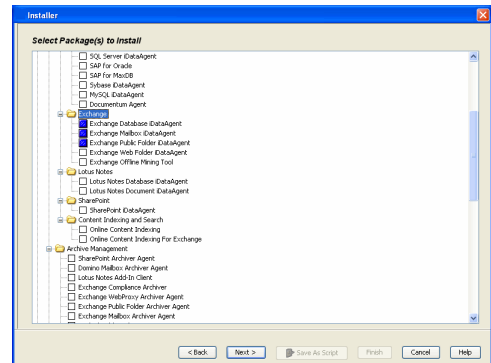
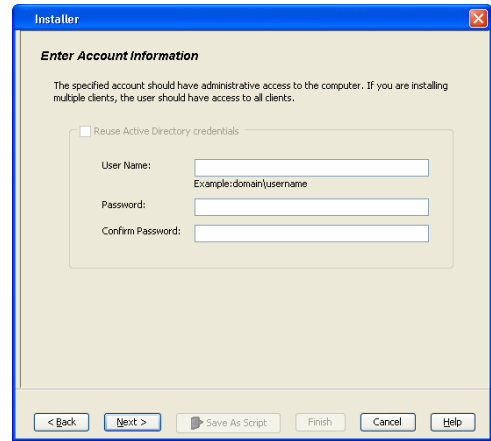
- 9.
- Select **Client Group** from **Available** and click **Add**.
  - Select a **Storage Policy** from the drop-down list. Click **Next**.

**NOTES:**

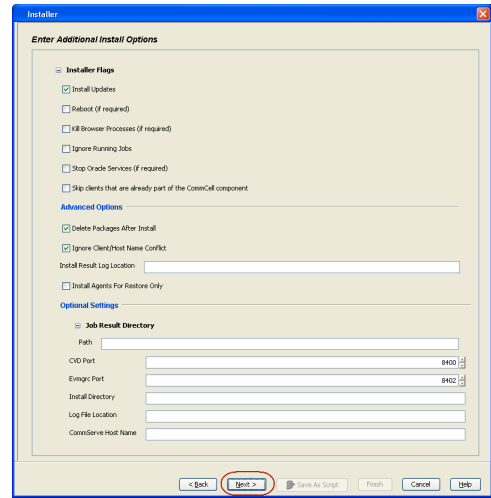
- Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.

10. Type the Agent Specific Settings information.  
Click **Next**.

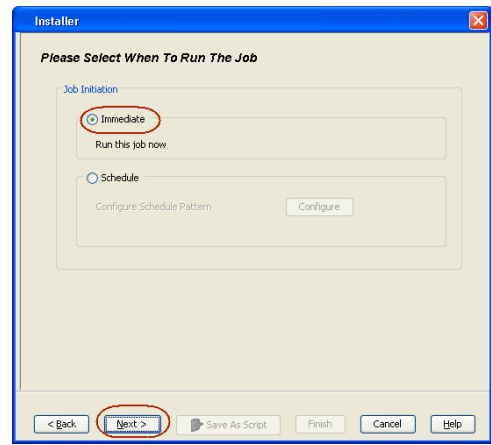
11. Click **Next**.



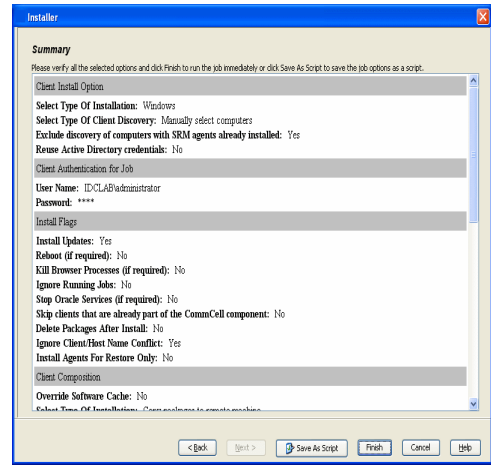
12. Select **Immediate**.  
Click **Next**.



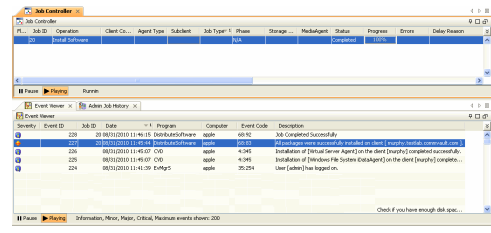
13. Click **Finish**.



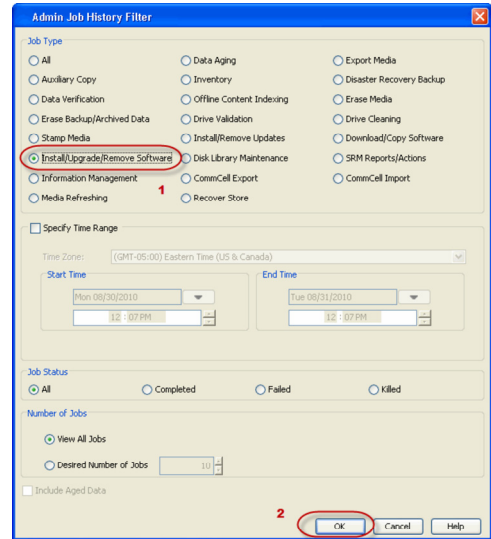
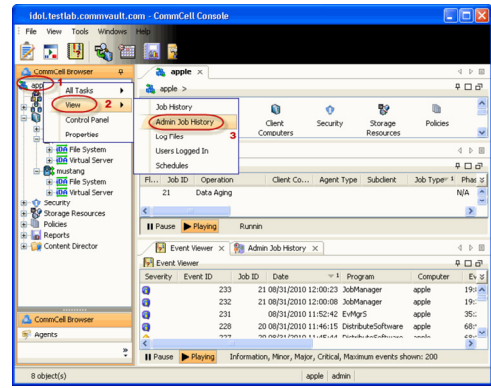
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



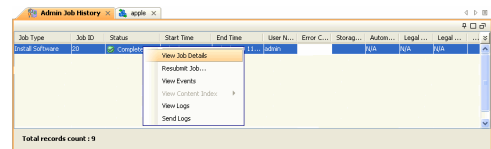
15. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.



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



17. 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



18. Enable the following registry key to create job specific profiles:
  - From the CommCell Browser, navigate to Client Computers.
  - Right-click the <Client> in which you want to add the registry key, and then click Properties.
  - Click the Registry Key Settings tab.
  - Click Add.
  - Enter CreateProcessSpecificProfile in the Name field.
  - Enter MSEExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
  - Enter MSEExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
  - Enter REG\_DWORD in the Type field.
  - Enter 1 to enable and 0 to disable the key in the Value field.
  - Click OK.

# Install the 64-bit Exchange Agents for Exchange Server 2007 - Clustered Environment

◀ Previous   Next ▶

Follow the steps given below to install the 64-bit Exchange Agents on Exchange Server 2007 or on Non-Exchange Server in a clustered environment.

## WHERE TO INSTALL

The Exchange Agents can be installed in one of two ways:

- Directly onto the Exchange Server. This method is referred to as an on-host installation and is useful if you want to preserve hardware resources.
- On a separate computer with connectivity to the Exchange Server. This method is referred to as a Non-Exchange Server installation and is useful if you want to offload the memory and processing resources required for backups and restores from the Exchange Server.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

## PREREQUISITES

If you are installing the Exchange Agents on a 64-bit off-host proxy computer, perform the following pre-requisite task before installing these agents:

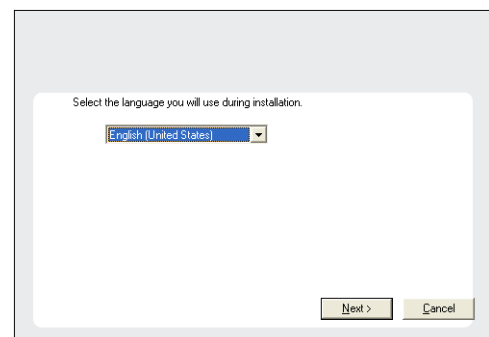
- Ensure that the proxy computer has been added to the same Domain in which the Exchange Server 2007 resides.
- Install Microsoft Outlook 2007 or higher on the off-host proxy computer in order to supply the software drivers necessary for Exchange-based agents to function in an off-host proxy configuration.

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

- Service account is a member of Exchange Organization Administrators group.
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Ensure that you assign full access to all mailboxes on the server. For details, see [How do I Assign Full Access to All Mailboxes on a Server](#).

## INSTALL PROCEDURE

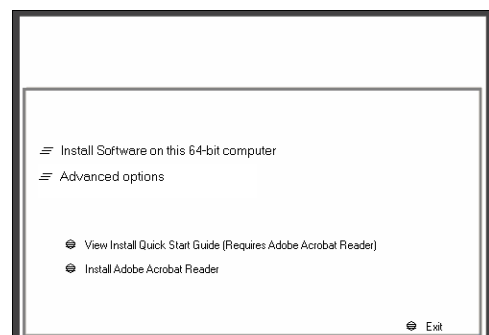
1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
2. Run **Setup.exe** from the Software Installation Package.
3. Select the required language.  
Click **Next**.



4. Select the option to **Install Calypso on this 64-bit computer**.

### NOTES:

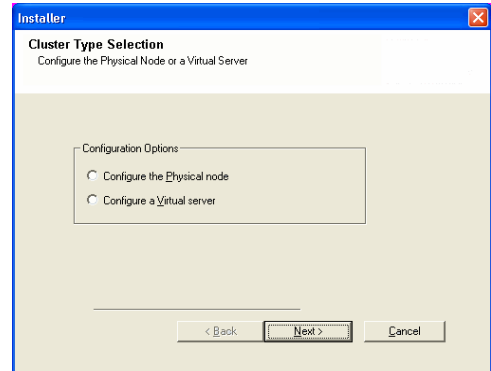
- Your screen may look different from the example shown.



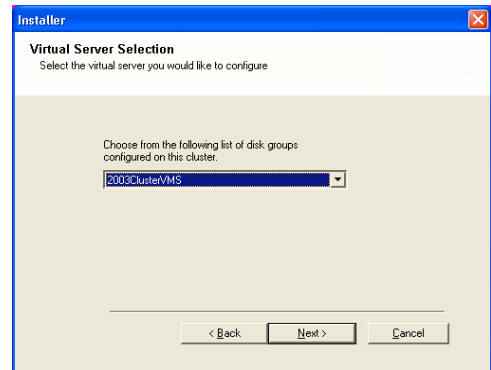
5. Select **I accept the terms in the license agreement**.  
Click **Next**.



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



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



8. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:
  - **Exchange Database iDataAgent**
  - **Exchange Mailbox iDataAgent**
  - **Exchange Public Folder iDataAgent**

To install the **Exchange Archiver Agents**, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

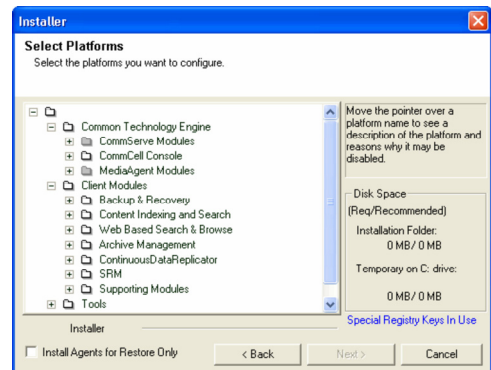
Click **Next**.

For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.

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. 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**.

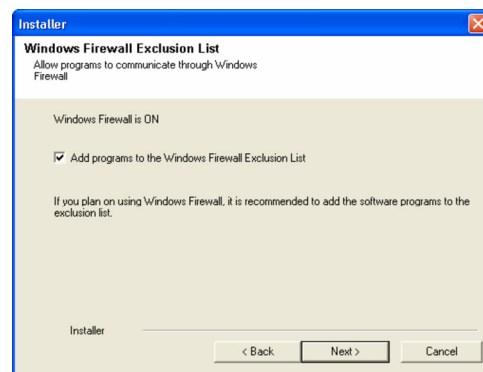
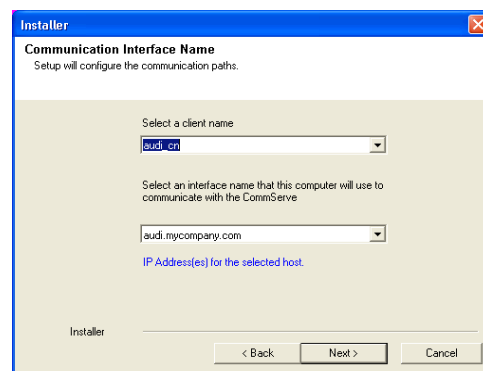
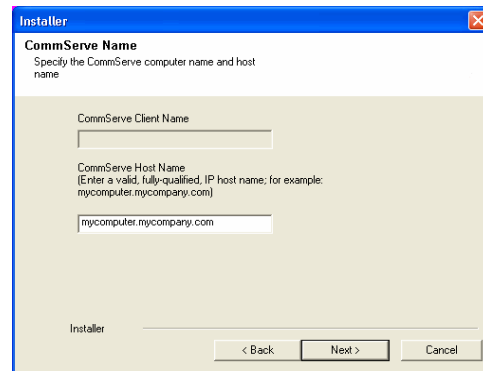
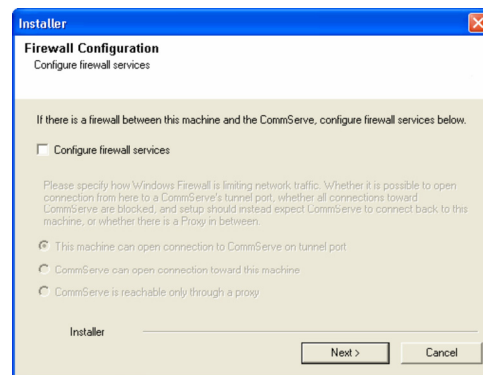
This option enables CommCell operations across Windows firewall by adding CommCell programs and services to Windows firewall exclusion list.

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. 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.

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

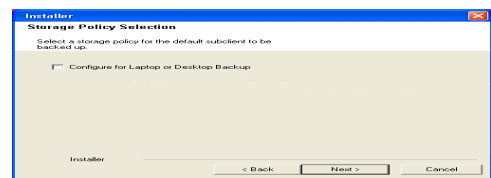
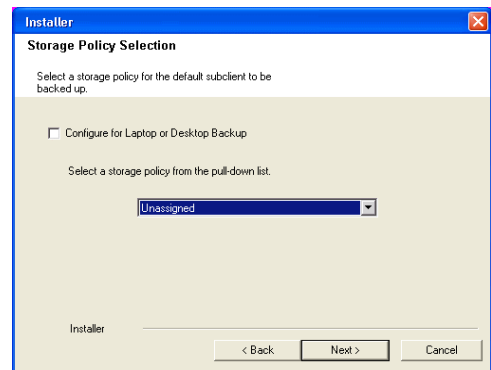
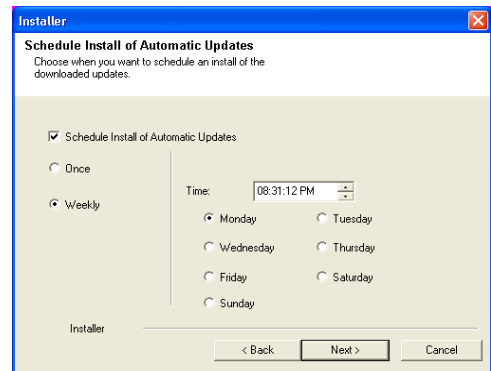
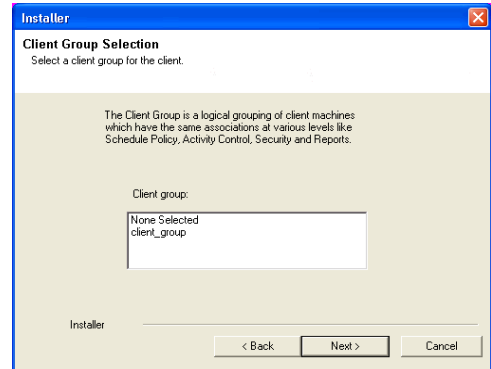
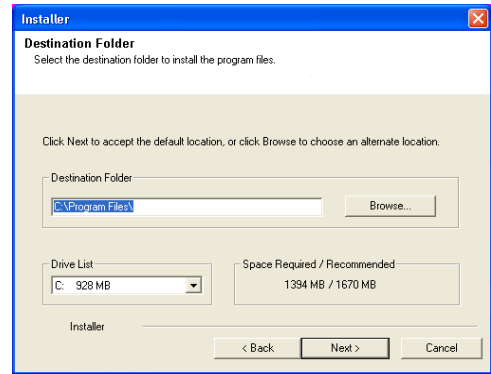
This screen will be displayed if Client Groups are configured in the CommCell Console.

15. Click **Next**.

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

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

You can create the Storage Policy later in step 31.



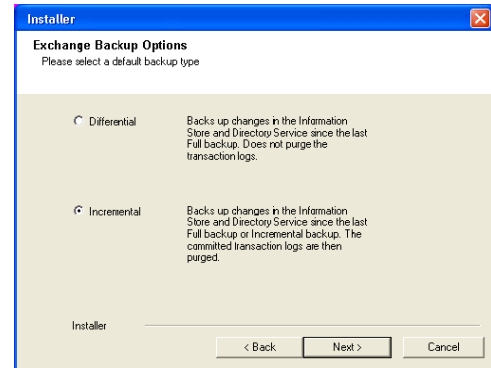
- If you are installing the Exchange Database iDataAgent on the Exchange Server, click Configure Exchange Database Specific Information.



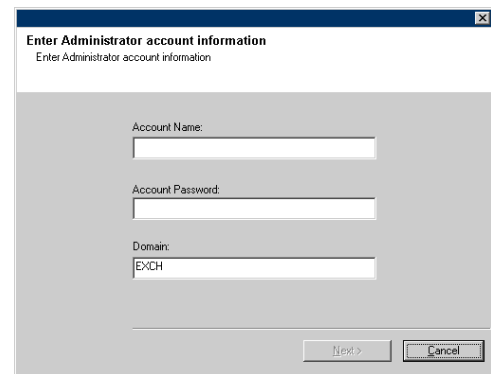
- If you are installing the Exchange Agents on the Non-Exchange Server, skip to Configure Exchange Agents Specific Information.

## CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

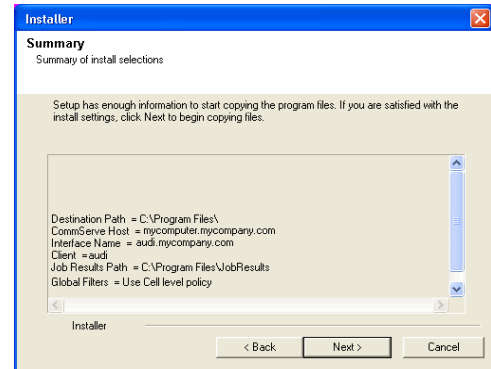
17. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
- **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
  - **Incremental** - Specifies that each non-full Exchange Database backup secures only that data that has changed since the last backup of any type. Committed transaction logs are purged.



18. Enter the user credentials to access the Exchange Server to perform the backup operation.
- The User Account must have Exchange Administrator privileges.
  - The installation detects the domain name. If necessary, you can modify the domain name by specifying Windows domain that the Exchange Server resides in.

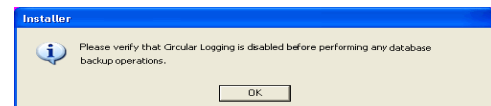


19. Click **Next**.



20. The install program displays a reminder to verify that Circular Logging is disabled before performing any database backup operations. To verify that Circular Logging is disabled:
- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
  - Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.



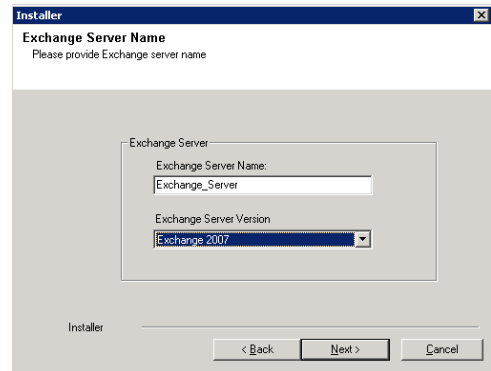
- If you are installing the Exchange Agents, then click Configure Exchange Agents Specific Information.
- If you are installing the Exchange Database iDataAgent, skip to Install Remaining Cluster Nodes.

## CONFIGURE EXCHANGE AGENTS SPECIFIC INFORMATION

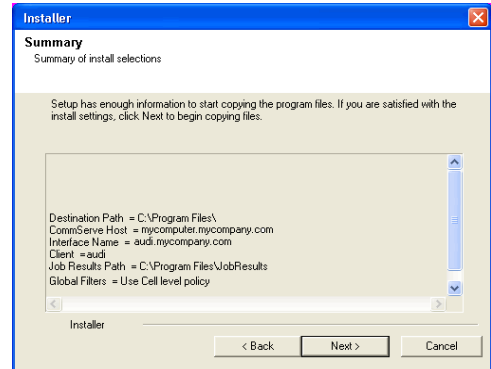
21. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

Click **Next**.

This screen will appear when you are installing Exchange Agents on Non-Exchange Server.

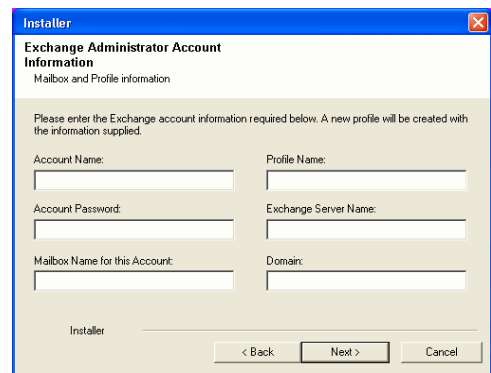


22. Click **Next**.



23. Enter the following Exchange Administrator information then click **Next**.

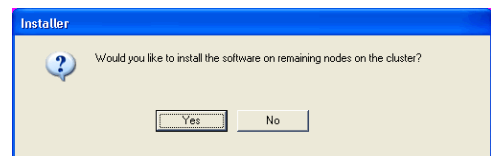
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
- **Account Password** - The password assigned to the domain user.
- **Mailbox Name for this Account** - Mailbox associated with the user above.
- **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
- **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.
- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.



### INSTALL REMAINING CLUSTER NODES

24. To install the software on the remaining nodes of the cluster, click **Yes**.

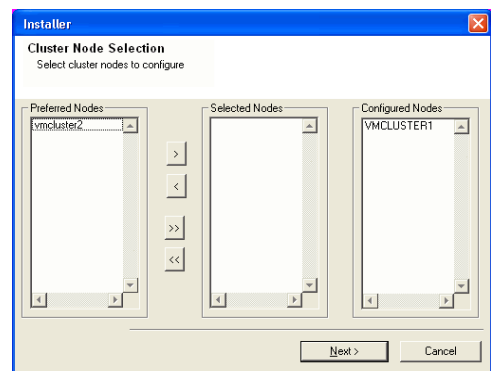
To complete the install for this node only, click **No**.



25. 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.



26. 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**.

The screenshot shows a dialog box titled 'Domain administrator account information'. It contains two input fields: 'User Name [:\DOMAIN\USER\:]' with 'LAB\Administrator' entered, and 'Account Password:' which is empty. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

27. 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*.

The screenshot shows a dialog box titled 'Client Status'. It features a table with the following data:

Client Name	Client Status	Start Time	End Time	Result Description
real2				

Below the table, there are several statistics:

- Installed successfully: 0
- Failed to install: 0
- Elapsed time: 0 sec
- Left to install: 1
- In progress: 0
- Estimated time left: 10 min 0 sec
- Max: 1

At the bottom, there are buttons for 'Advanced Settings' and 'Stop'.

The screenshot shows a dialog box titled 'Advanced Settings'. It contains three settings with spinners:

- Number of simultaneous remote machines to run Setup: 10 machines
- Time to wait for Setup to start on each remote machine: 2 minutes
- Time to wait for Setup to complete on each remote machine: 15 minutes

At the bottom, there is an 'OK' button.

28. 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.

The screenshot shows a dialog box titled 'Remote install results'. It contains a section titled 'Summary of remote install' with the following text:

The following software (Version ) were selected to be installed:  
+ CommCell

REAL2: Install succeeded.

At the bottom, there is a 'Finish' button.

29. Click **Next**.

The screenshot shows a dialog box titled 'Schedule Reminder'. It contains the following text:

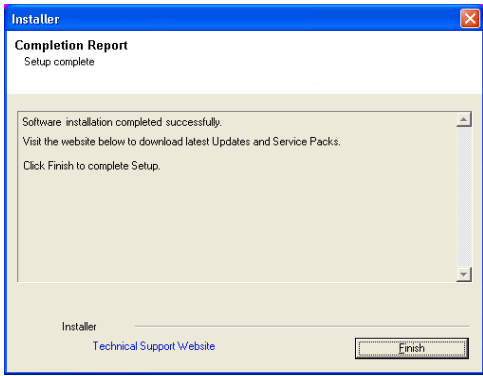
Please note:  
You still need to create a Job Schedule for each iDataAgent that has been installed on this client computer.

Job Schedules are required to allow the iDataAgents to perform automated backup and restore operations.

Job Schedule creation can be accomplished through the CommCell Console administration interface.

At the bottom, there is a 'Next >' button.

30. Click **Finish**.

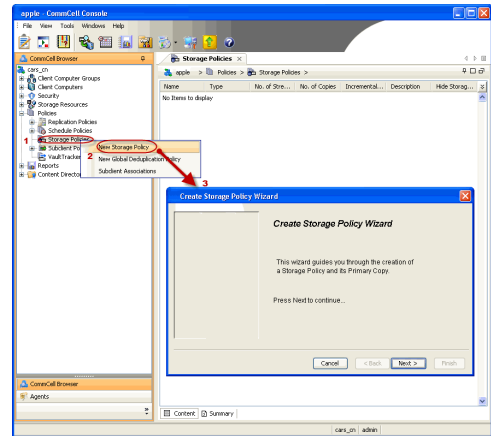


If you already have a storage policy selected in step 16, Click **Next** ► button available at the bottom of the page to proceed to the **Configuration** section.

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

**31. 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.



**32. Enable the following registry key to create job specific profiles:**

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).  
Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

# Install the 32-bit Exchange Agents for Exchange Server 2010 or 2007

[← Previous](#) [Next →](#)

Follow the steps given below to install Exchange Agents on one of the following:

- 64-bit Exchange Server 2010
- 64-bit Exchange Server 2007
- 64-bit Non-Exchange Server

## WHERE TO INSTALL

The Exchange Agents can be installed in one of two ways:

- Directly onto the Exchange Server. This method is referred to as an on-host installation and is useful if you want to preserve hardware resources.
- On a separate computer with connectivity to the Exchange Server. This method is referred to as a Non-Exchange Server installation and is useful if you want to offload the memory and processing resources required for backups and restores from the Exchange Server.

Install the Exchange Agents on all the nodes on which backups have to be run in a DAG configuration.

## 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 remotely install the software on a client computer.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

## PREREQUISITES

If you are installing the Exchange Agents on a 64-bit off-host proxy computer, perform the following pre-requisite task before installing these agents:

- Ensure that the proxy computer has been added to the same Domain in which the Exchange Server 2007 resides.
- Install Microsoft Outlook 2007 or higher on the off-host proxy computer in order to supply the software drivers necessary for Exchange-based agents to function in an off-host proxy configuration.

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

### FOR EXCHANGE SERVER 2010

- Ensure that the service account is a member of Organization Management group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

To assign full access follow the steps given below:

- Using ADSIEDIT navigate to Configuration | Services | Microsoft Exchange.
- Right-click your organization name, click Properties | Securities and click the Advanced tab.
- Click Edit to modify the permissions set for Organization Management group.
- Click to select Full Control, Receive As and Send As permissions and wait for replication.
- Click the Effective Permission tab and Select the name of the backup account.
- The backup account should display the following as selected:

Full Control

All Extended Rights

Send As

Receive As

- Start the PowerShell and type the following to add the backup account so it has full control over all the databases:

```
Get-MailboxDatabase -server (server name) | Add-ADPermission -user "backup account" -ExtendedRights Receive-As
```

Run the above PowerShell every time a new database is added.

- Navigate to the Exchange Management Console, right-click the <mailbox> and click Manage Full Access Permissions to view the mailbox listed under Full Access Permissions.

**FOR EXCHANGE SERVER 2007**

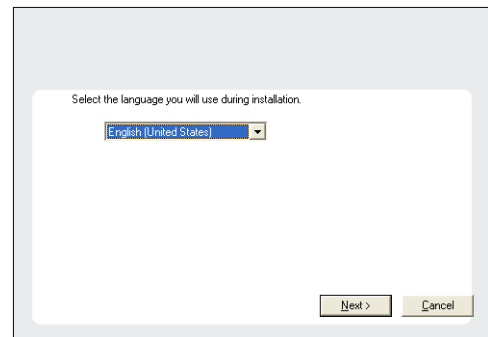
- Service account should be a member of Exchange Organization Administrators group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

**METHOD 1: INTERACTIVE INSTALL**

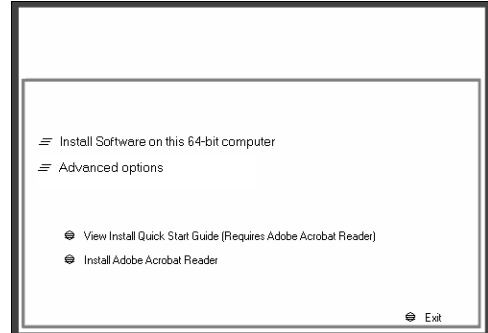
**INSTALL THE EXCHANGE DATABASE /DATAAGENT**

The Exchange Database iDataAgent must be installed first. Follow the steps described below to install Exchange Database iDataAgent.

1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
2. Run **Setup.exe** from **Software Installation Package**.
3. Select the required language.  
Click **Next**.



4. Select the option to **Install Calypso on this 64-bit computer**.  
Your screen may look different from the example shown.



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



6. Expand **Client Modules | Backup & Recovery | Exchange | File System** and select **Exchange Database iDataAgent**.

- 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:

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

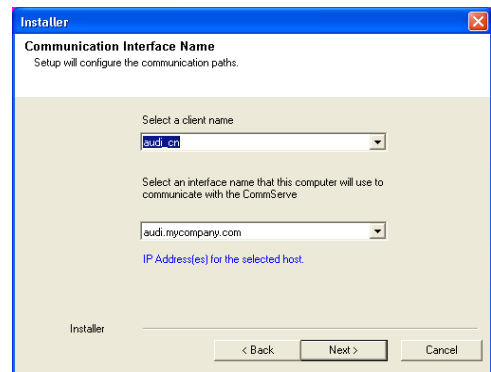
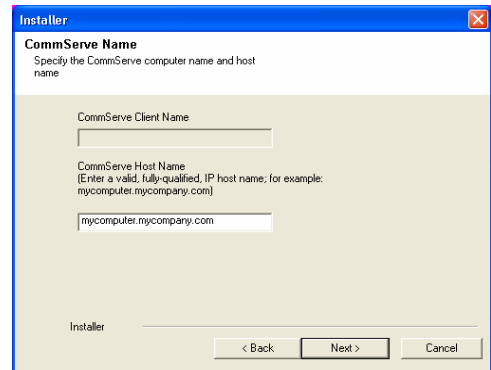
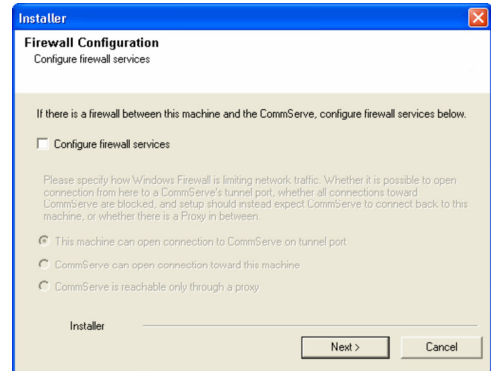
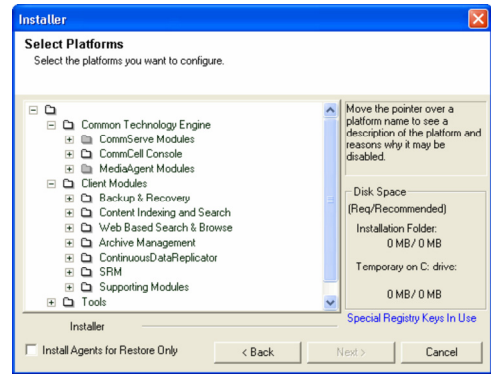
- Click **Next**.

- 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.

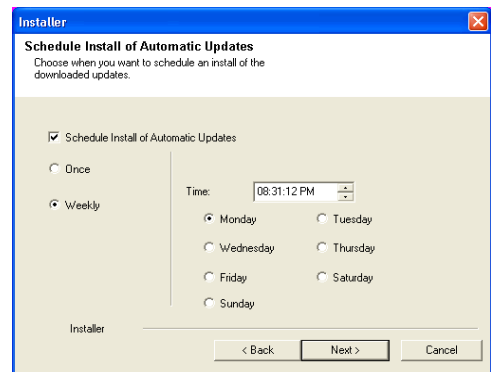
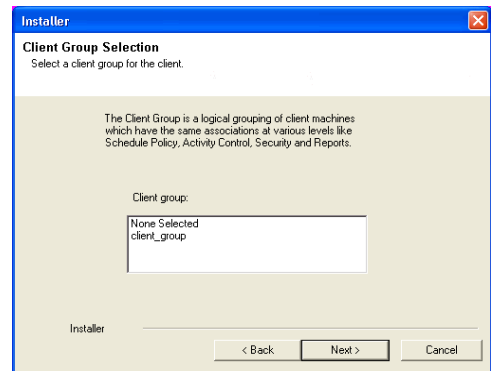
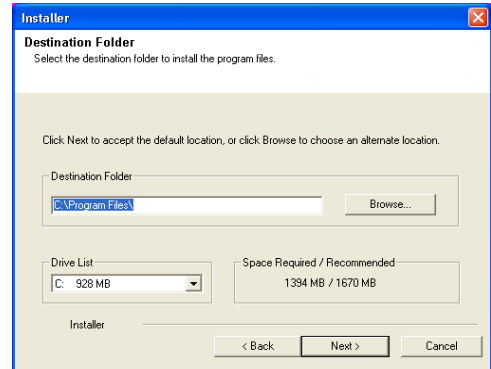
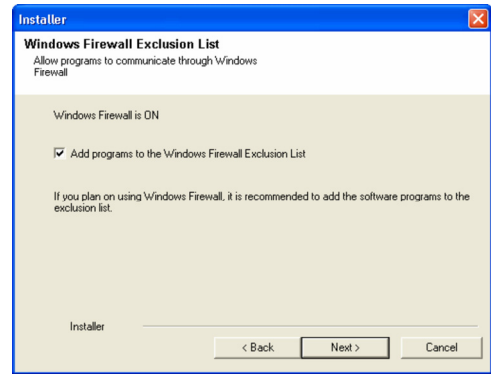
Click **Next**.

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

13. Click **Next**.

14. Select a **Storage Policy**.

Click **Next**.





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

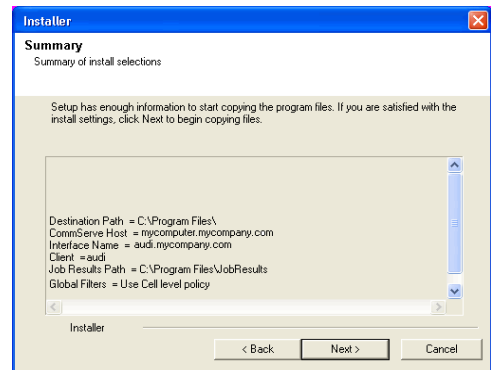
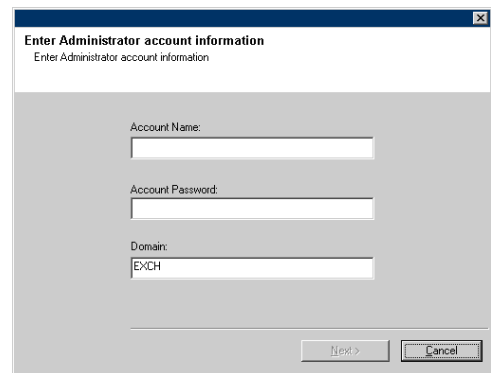
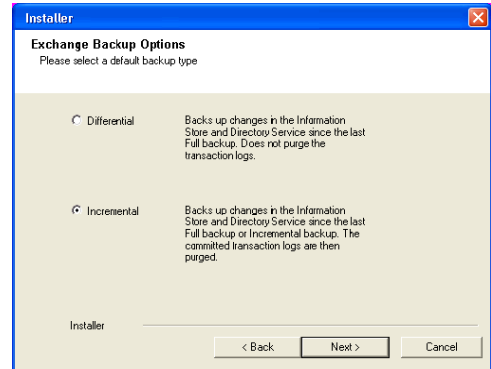
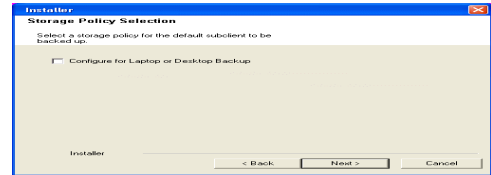
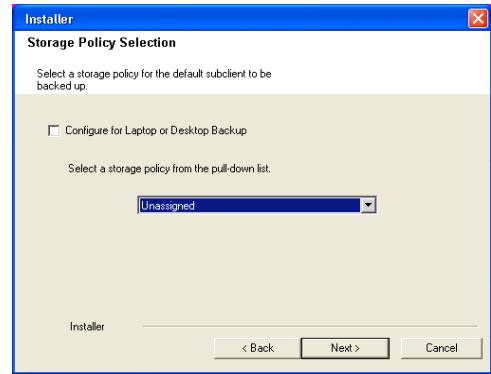
You can create the Storage Policy later in step 21.

15. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
  - **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
  - **Incremental** - Specifies that each non-full Exchange Database backup secures only that data that has changed since the last backup of any type. Committed transaction logs are purged.

16. Enter the user credentials to access the Exchange Server to perform the backup operation.
  - The User Account must have Exchange Administrator privileges.
  - The installation detects the domain name. If necessary, you can modify the domain name by specifying Windows domain that the Exchange Server resides in.

17. Click **Next**.

18. The install program displays a reminder to verify that Circular Logging is disabled before performing any database backup operations. To verify that Circular Logging is

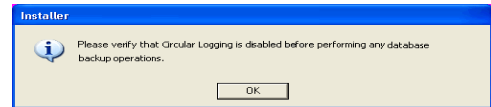


disabled:

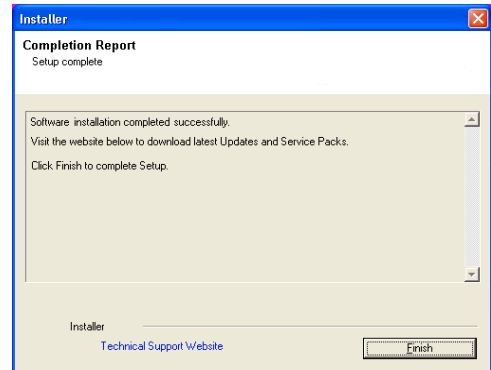
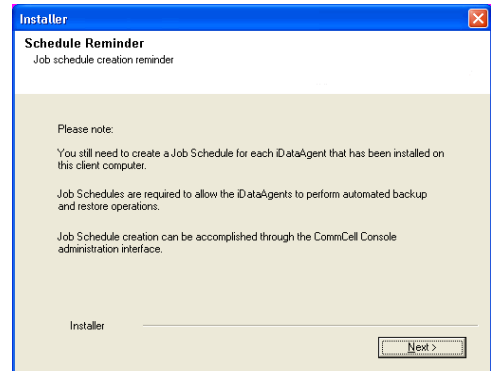
- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
- Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.

19. Click **Next**.



20. Click **Finish**.

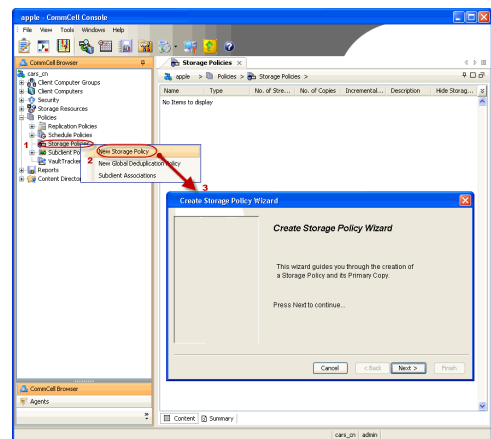


If you already have a storage policy selected in step 14, Click **Next >** button available at the bottom of the page to proceed to the **Configuration** section.

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

21. 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.



- If you want to install Exchange Agents (such as Exchange Mailbox iDataAgent, Exchange Public Folder iDataAgent, Exchange Mailbox Archiver

and/or Exchange Public Folder Archiver), click Create the Registry Keys.

- If you are installing the Exchange Database iDataAgent, click **Next** ► button available at the bottom of the page to proceed to the **Configuration** section.

## CREATE THE REGISTRY KEYS

Create the `bAllowMultiInstances` and `bAllow32BitInstallOn64Bit` registry keys.

22. Create the `bAllowMultiInstances` registry key.

23. Create the `bAllow32BitInstallOn64Bit` registry key.

24. Run **Setup.exe** from Software Installation Package.

25. Select the required language.

Click **Next**.

26. Select the **Calypso 32-bit Software install options** to install software.

### NOTES

- This screen will only appear when the `bAllow32BitInstallOn64Bit` registry key has been created and enabled on this computer.

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

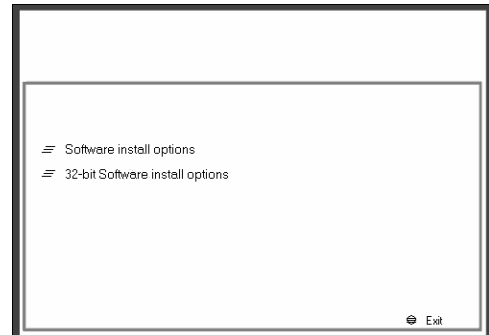
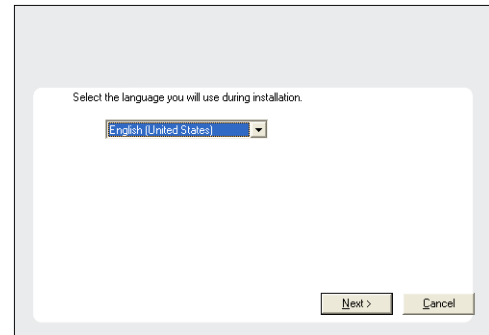
Click **Next**.

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 `bAllowMultiInstances` and by double clicking the `bAllowMultiInstances` key modify the **Value data** to 1.

To create the registry key, see the following steps:

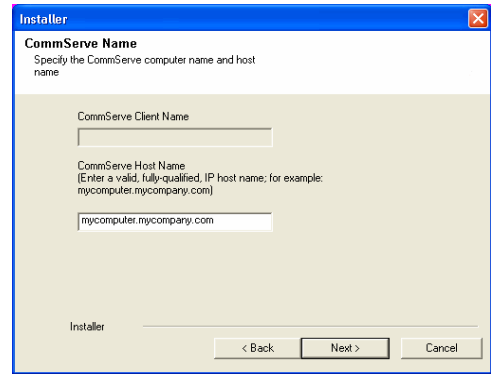
1. Start the Registry Editor (Regedit.exe or Regedit32.exe)
2. Locate the directory under which you want to create a key, e.g., `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\`.
3. Right click the `SOFTWARE` and click **New -> Key**.
4. Name the key as `GalaxyInstallerFlags`.
5. Right click the `GalaxyInstallerFlags` and select **New -> DWORD** value, name it as `bAllow32BitInstallOn64Bit` and by double clicking the `bAllow32BitInstallOn64Bit` key modify the **Value data** to 1.





32. Click **Next**.

If there is any other instance installed on the computer, make sure that the host name does not match the client name entered in the **Select a client name** field in the previous instance.

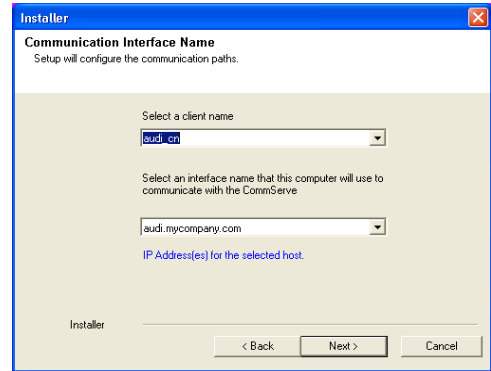


33. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.

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.



34. Verify the default location for software installation.

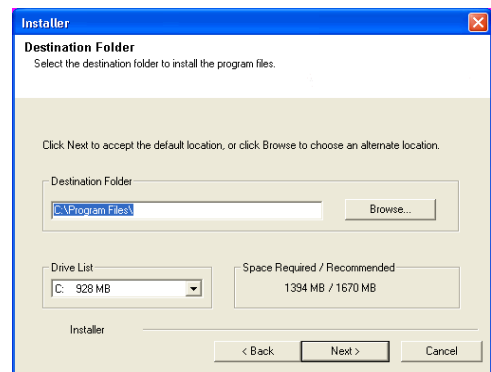
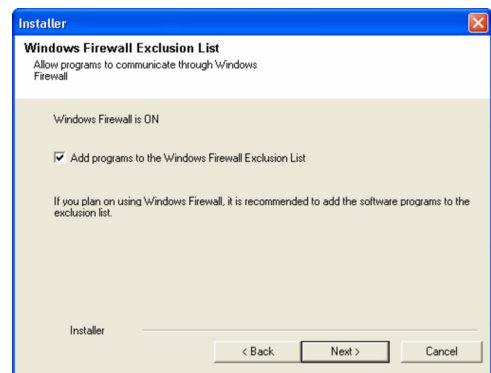
Click **Browse** to change the default location.

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.

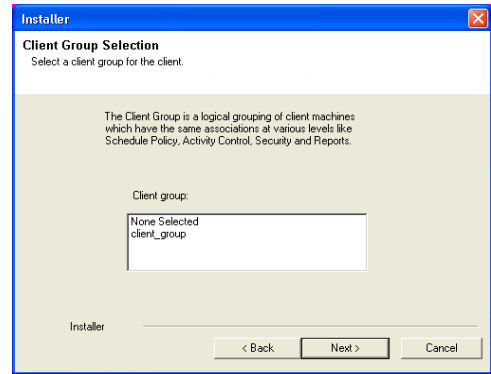


35. Select a Client Group from the list.

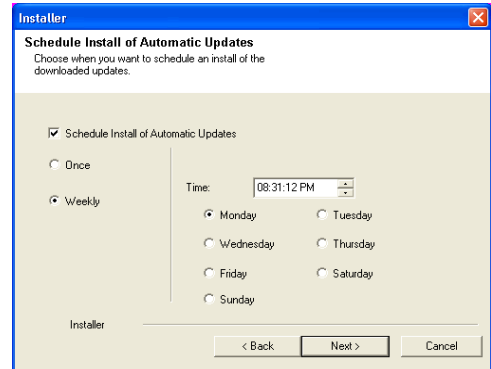
Click **Next**.

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

36. Click **Next**.



37. Select a **Storage Policy**.  
Click **Next**.

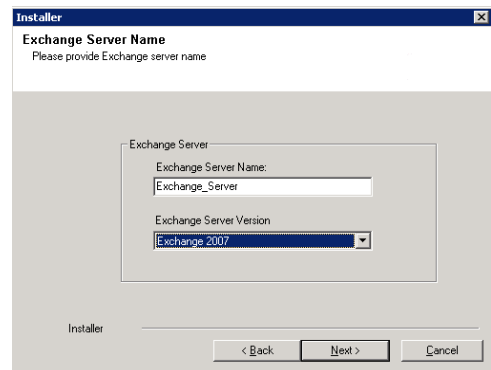
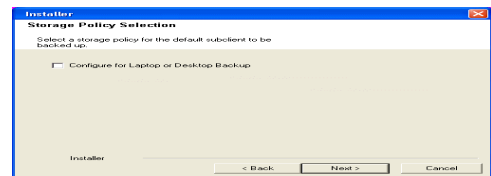
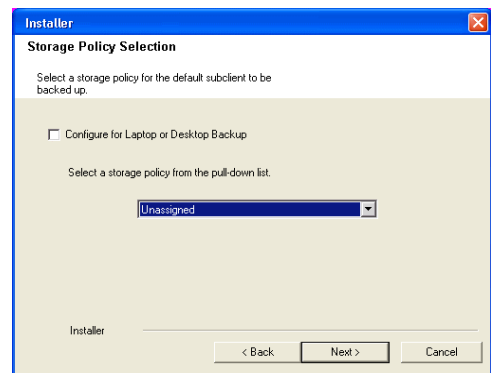


If you do not have Storage Policy created, this message will be displayed.  
Click **OK**.

You can create the Storage Policy later in step 43.

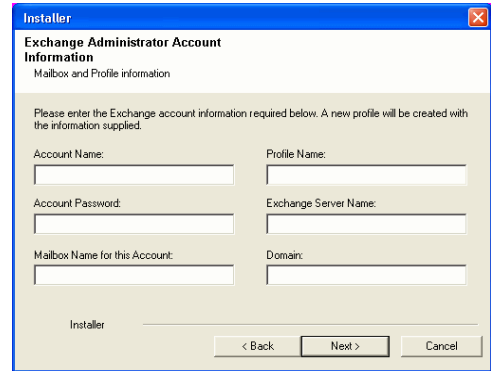
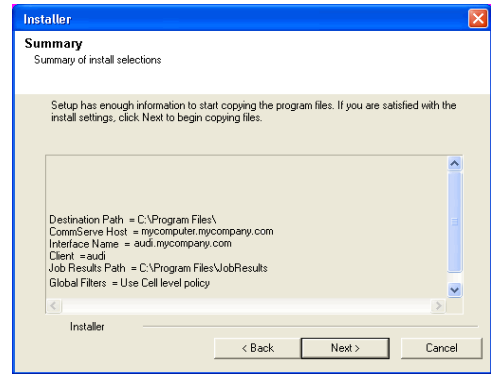
38. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.  
Click **Next**.

This screen will appear when you are installing Exchange Agents on Non-Exchange Server.

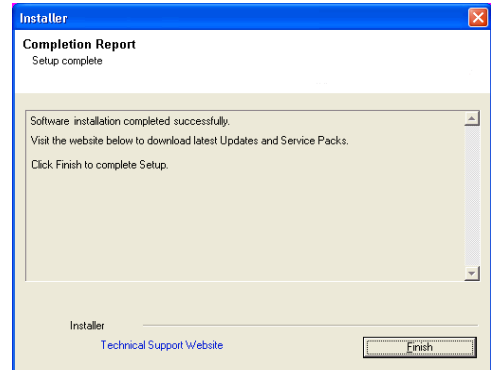
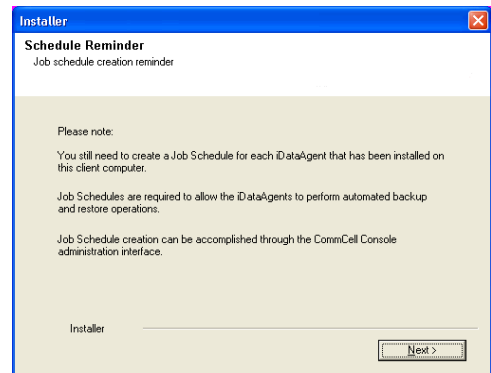



39. Click **Next**.

40. Enter the following Exchange Administrator information then click **Next**.
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
  - **Account Password** - The password assigned to the domain user.
  - **Mailbox Name for this Account** - Mailbox associated with the user above.
  - **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
  - **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.
- Enter the Mailbox Role Server name (NetBIOS). After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.
- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.
41. Click **Next**.



42. Click **Finish**.



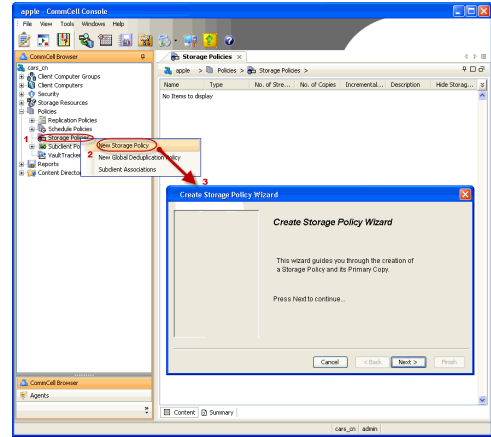
 If you already have a storage policy selected in step 37, Click **Next** > button available at the bottom of the page to proceed to the **Configuration** section.

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

43. 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.

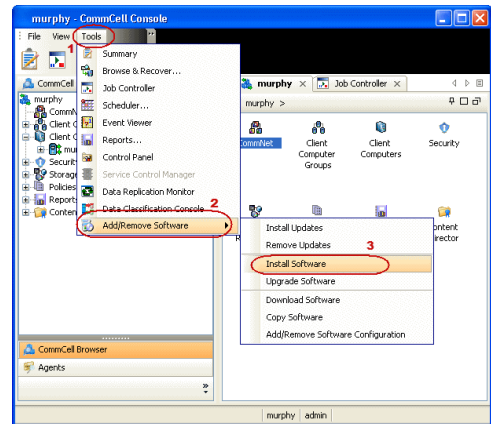


**44.** Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MSeXchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).  
Enter MSeXchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

**METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE**

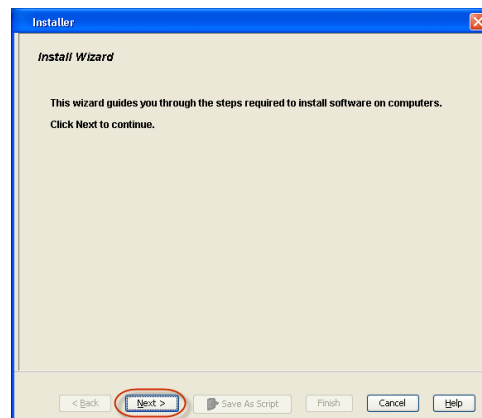
1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.



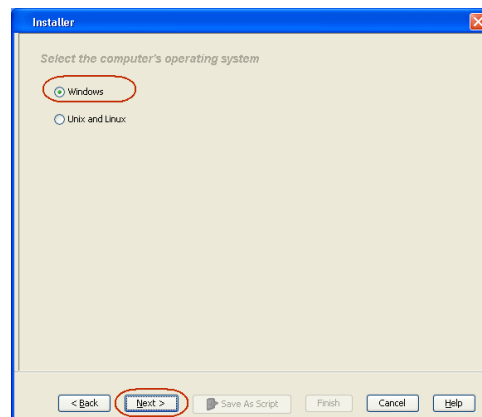
2. Click **Next**.



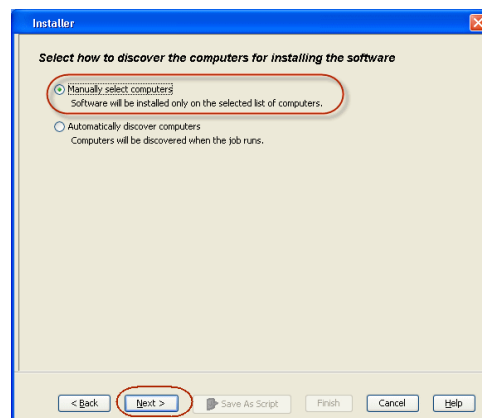
3. Select **Windows**.  
Click **Next**.



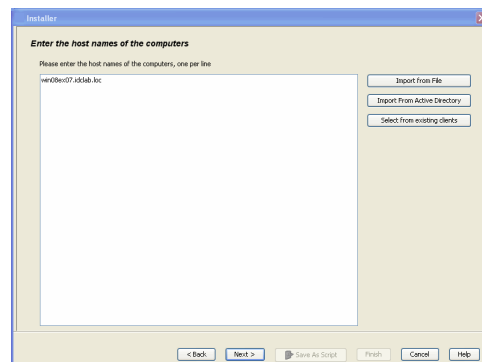
4. Select **Manually Select Computers**.  
Click **Next**.



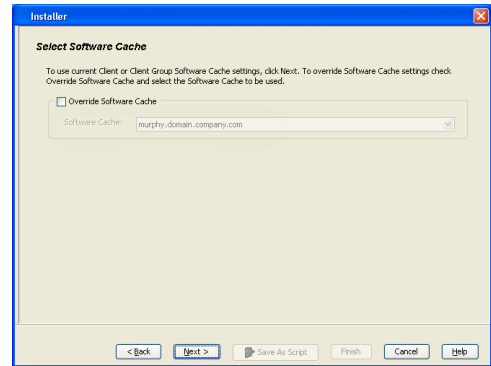
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.  
For example: win08ex07.idclab.loc  
Click **Next**.



6. Click **Next**.



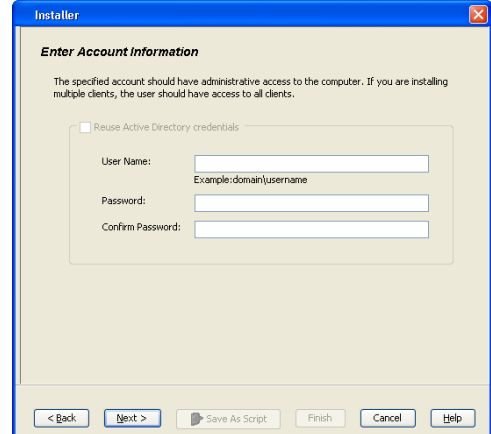
- Specify **User Name** and **Password** that must be used to access the computer.  
Click **Next**.



- To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:
  - **Exchange Database iDataAgent**
  - **Exchange Mailbox iDataAgent**
  - **Exchange Public Folder iDataAgent**

Click **Next**.

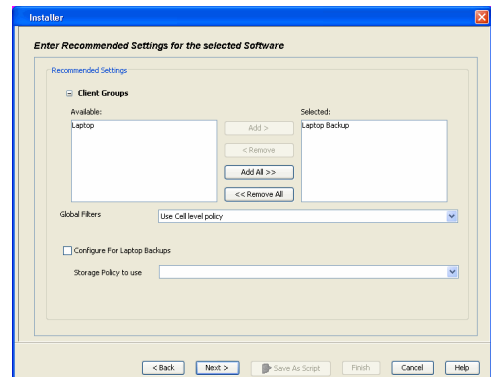
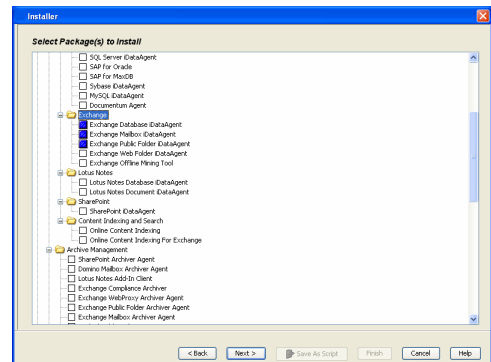
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



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

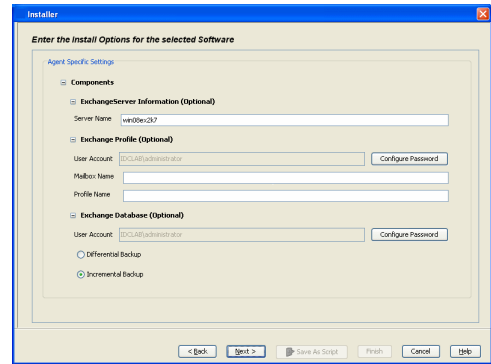
**NOTES:**

- 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.

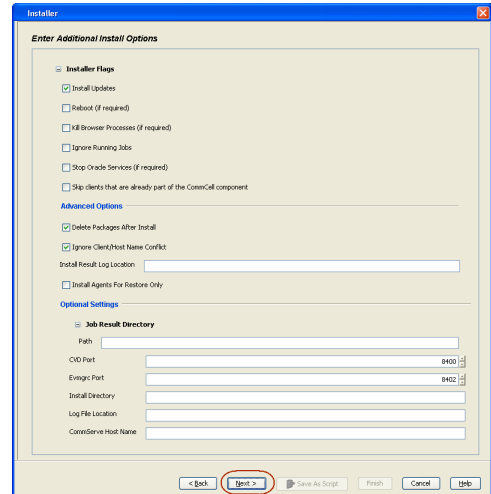


- Type the Agent Specific Settings information.  
Click **Next**.

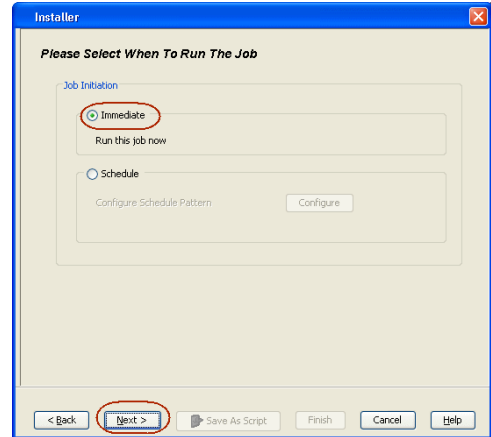
11. Click **Next**.



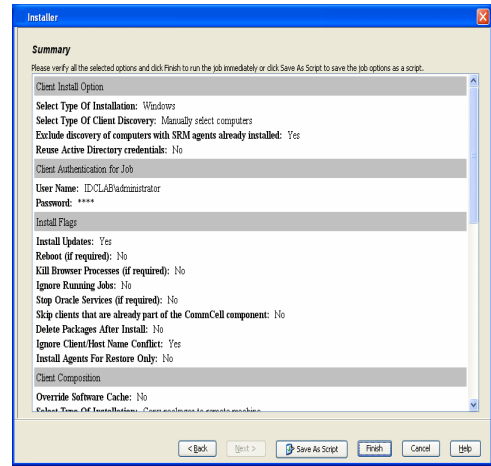
12. Select **Immediate**.  
Click **Next**.



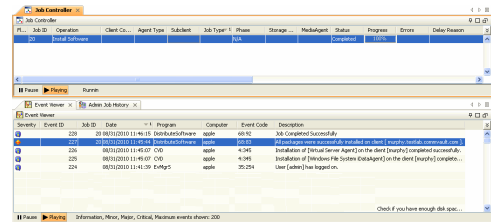
13. Click **Finish**.



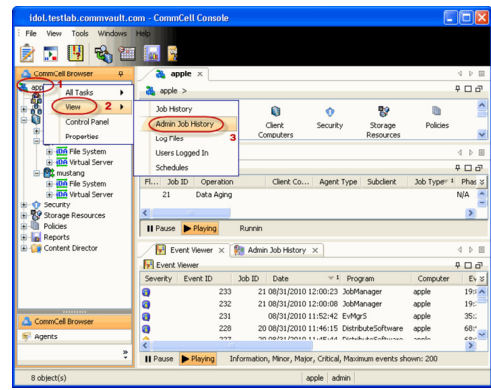
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



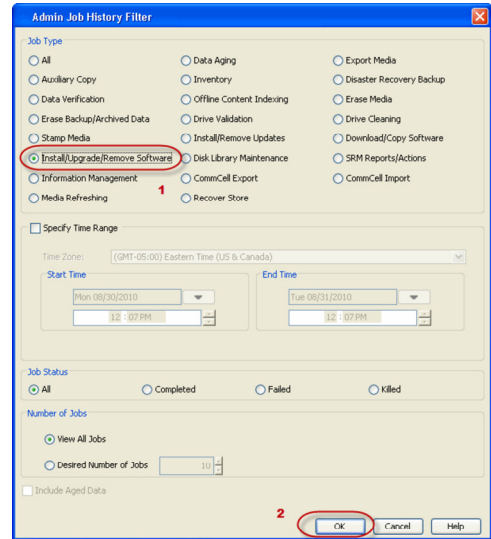
15. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.



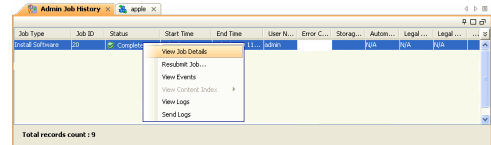
16. Select **Install/Upgrade/Remove Software**.  
Click **OK**.



17. 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



**18.** Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

# Install the 32-bit Exchange Agents on Exchange Server 2007/2010 or 64-bit Non-Exchange Server - Clustered Environment

[< Previous](#) [Next >](#)

The Exchange Agents are designed to protect an entire Exchange Server database. Follow the steps given below to install the 64-bit Exchange Agents on Exchange Server 2007/2010 or on Non-Exchange Server.

## WHERE TO INSTALL

The Exchange Agents can be installed in one of two ways:

- Directly onto the Exchange Server. This method is referred to as an on-host installation and is useful if you want to preserve hardware resources.
- On a separate computer with connectivity to the Exchange Server. This method is referred to as a Non-Exchange Server installation and is useful if you want to offload the memory and processing resources required for backups and restores from the Exchange Server.

Make sure the computer satisfies the minimum requirements specified in the System Requirements.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

---

## PREREQUISITES

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

### FOR EXCHANGE SERVER 2010

- Ensure that the service account is a member of Organization Management group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

To assign full access follow the steps given below:

- Using ADSIEDIT navigate to Configuration | Services | Microsoft Exchange.
- Right-click your organization name, click Properties | Securities and click the Advanced tab.
- Click Edit to modify the permissions set for Organization Management group.
- Click to select Full Control, Receive As and Send As permissions and wait for replication.
- Click the Effective Permission tab and Select the name of the backup account.
- The backup account should display the following as selected:

Full Control

All Extended Rights

Send As

Receive As

- Start the PowerShell and type the following to add the backup account so it has full control over all the databases:

```
Get-MailboxDatabase -server (server name) | Add-ADPermission -user "backup account" -ExtendedRights Receive-As
```

Run the above PowerShell every time a new database is added.

- Navigate to the Exchange Management Console, right-click the <mailbox> and click Manage Full Access Permissions to view the mailbox listed under Full Access Permissions.

### FOR EXCHANGE SERVER 2007

- Service account should be a member of Exchange Organization Administrators group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

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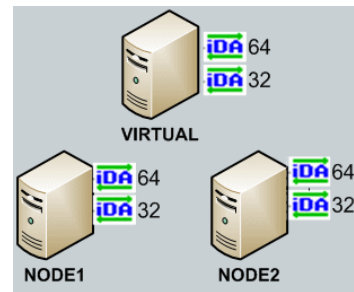
## EXCHANGE AGENTS IN X64 CLUSTERS

When installing 32-bit agents on a x64 virtual server, the 32-bit File System iDataAgent must be installed on each physical node in the cluster prior to installing the 32-bit agents on the virtual server.

For example, to support a two-node cluster with one Exchange virtual server instance supporting both x64 and 32-bit Agents, a minimum of two installation instances (one 32-bit

and one x64) are required on the virtual server and each physical node. This configuration will result in six client objects in the CommCell console; three x64 instances and three 32-bit instances.

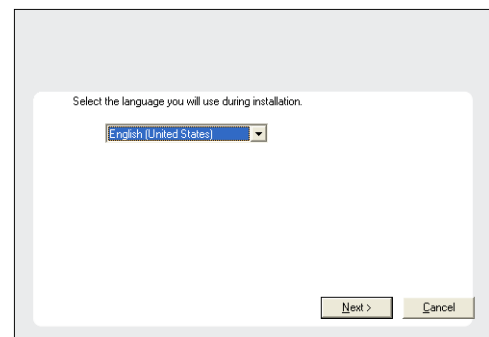
The sample image shown on the right illustrates the required configuration for installing 32-bit Exchange Agents in an x64 cluster.



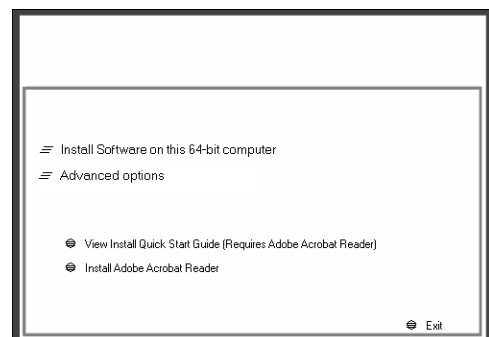
## INSTALL THE EXCHANGE DATABASE iDATAAGENT

The Exchange Database iDataAgent must be installed first. Follow the steps described below to install Exchange Database iDataAgent.

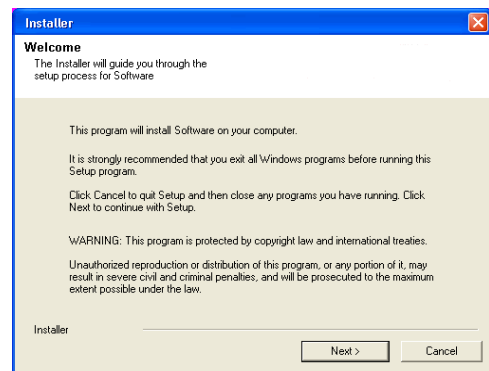
1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
2. Run **Setup.exe** from **Software Installation Package**.
3. Select the required language.  
Click **Next**.



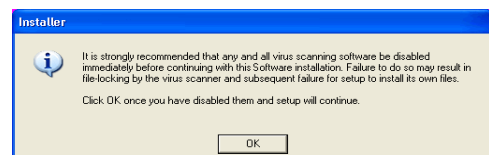
4. Select the option to **Install Calypso on this 64-bit computer**.  
**NOTES:**
  - Your screen may look different from the example shown.



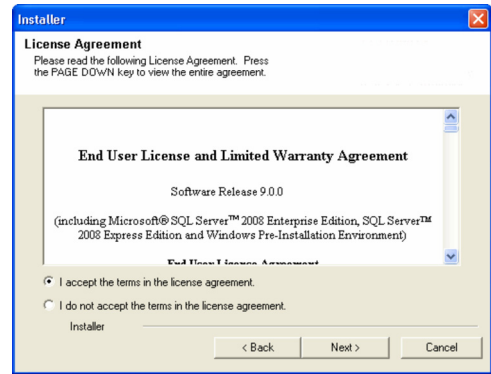
5. Click **Next**.



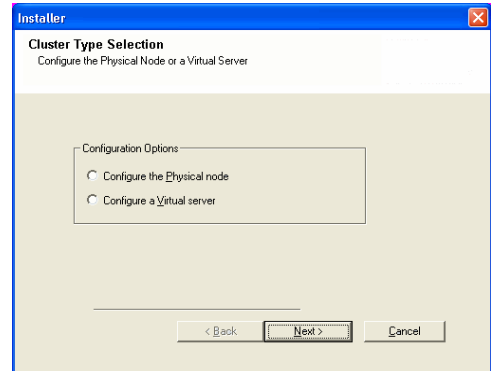
6. Click **OK**.



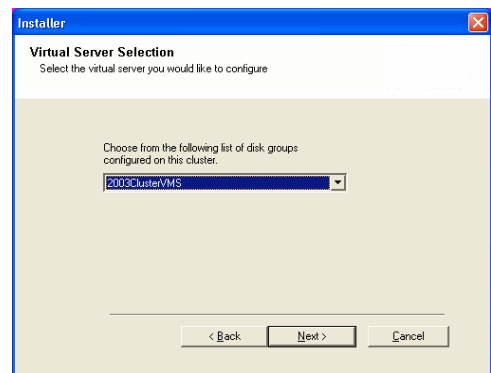
7. Select **I accept the terms in the license agreement**.  
Click **Next**.



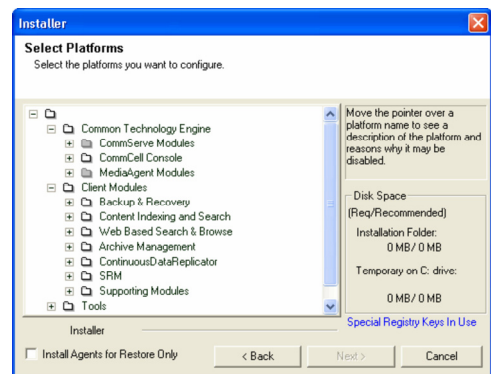
8. Select **Configure a Virtual Server**.  
Click **Next** to continue.



9. Select the disk group in which the cluster group resides.  
Click **Next** to continue.



10. Expand **Client Modules | Exchange | File System** and select **Exchange Database iDataAgent**.



11. 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**.



12. 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:

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

13. 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**.

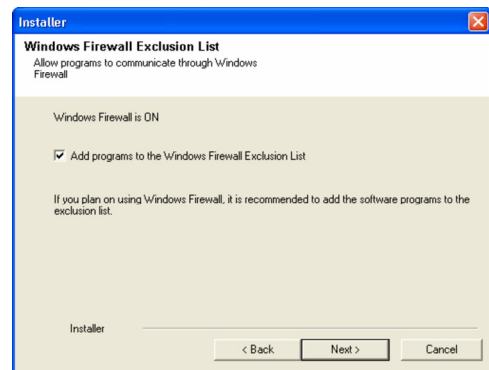
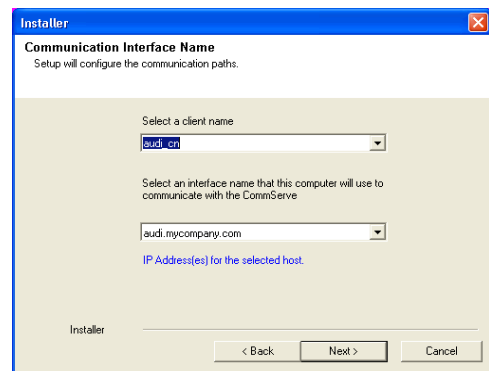
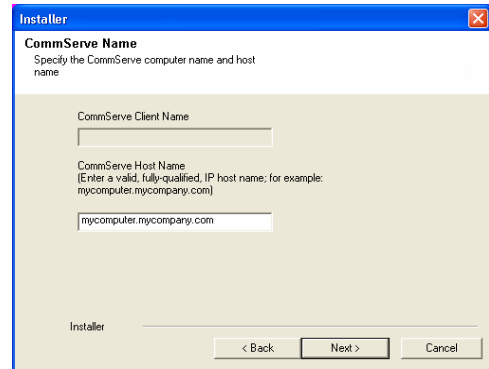
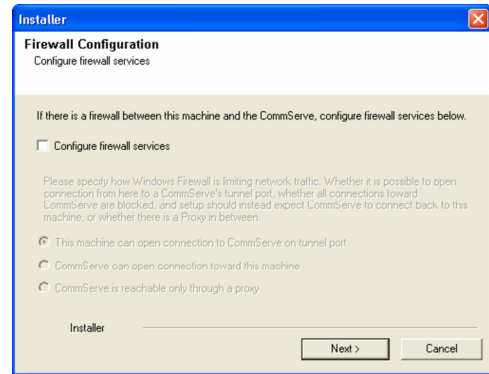
This option enables CommCell operations across Windows firewall by adding CommCell programs and services to Windows firewall exclusion list.

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. Click **Next**.

#### NOTES

- It is recommended to select the Download latest update pack(s) option to automatically install the available updates during installation.



16. 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.

17. Select a Client Group from the list.

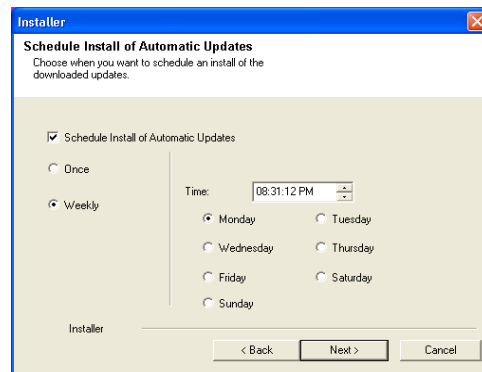
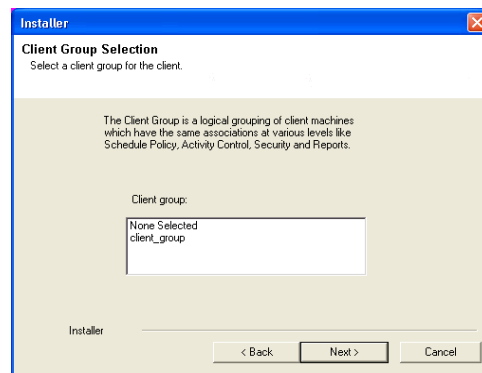
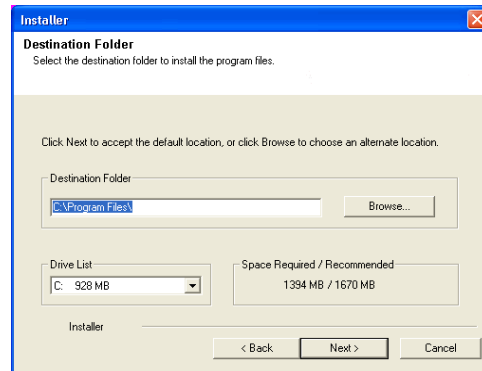
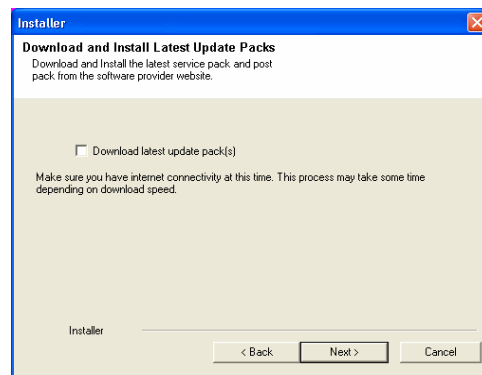
Click **Next**.

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

18. Click **Next**.

19. Select a **Storage Policy**.

Click **Next**.



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

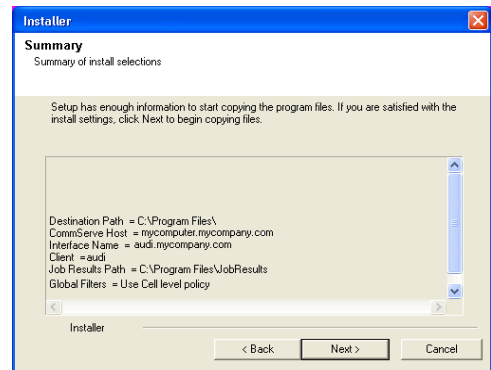
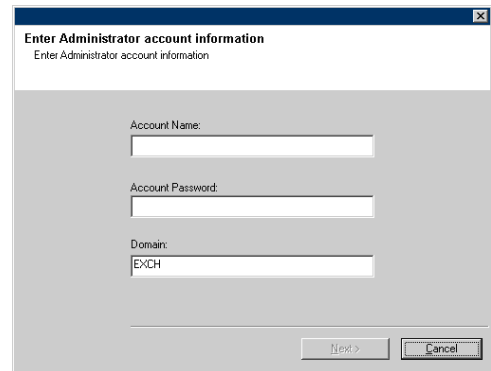
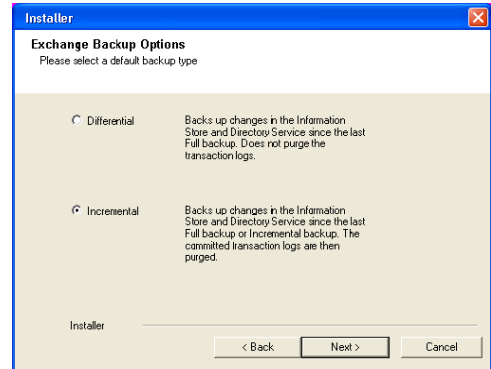
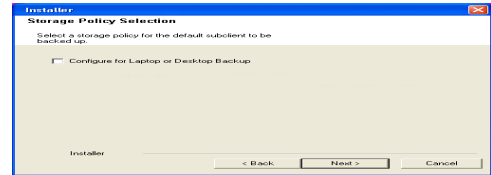
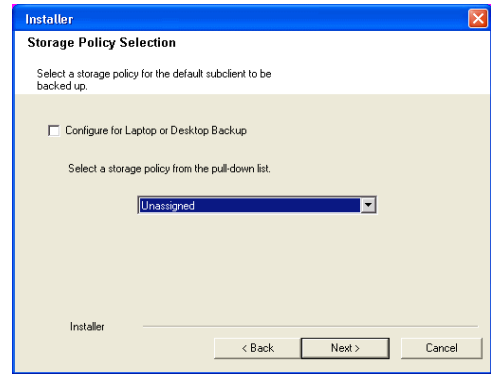
You can create the Storage Policy later in step 31.

20. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
- **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
  - **Incremental** - Specifies that each non-full Exchange Database backup secures only that data that has changed since the last backup of any type. Committed transaction logs are purged.

21. Enter the user credentials to access the Exchange Server to perform the backup operation.
- The User Account must have Exchange Administrator privileges.
  - The installation detects the domain name. If necessary, you can modify the domain name by specifying Windows domain that the Exchange Server resides in.

22. Click **Next**.

23. The install program displays a reminder to verify that Circular Logging is disabled before performing any database backup operations. To verify that Circular Logging is



disabled:

- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
- Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.

24. To install the software on the remaining nodes of the cluster, click **Yes**.

To complete the install for this node only, click **No**.

25. 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.

26. 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**.

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

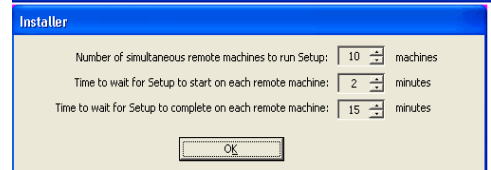
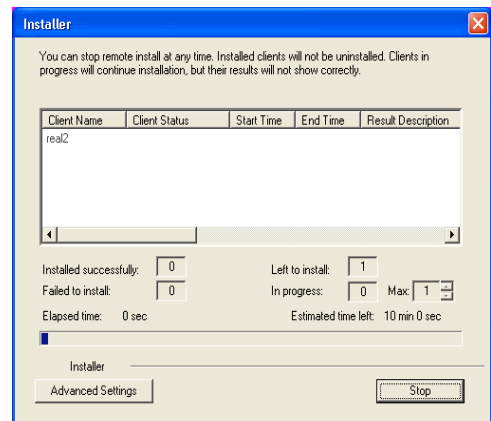
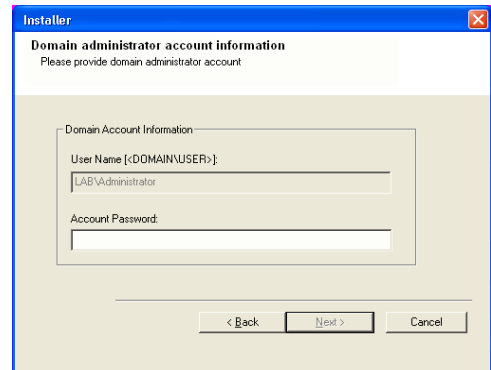
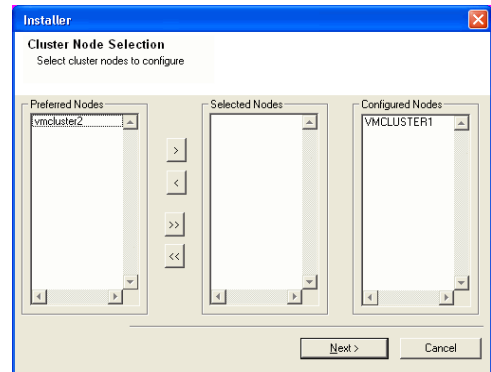
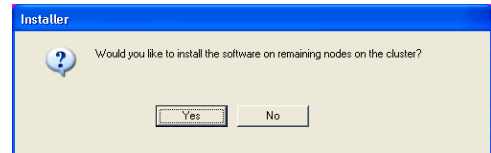
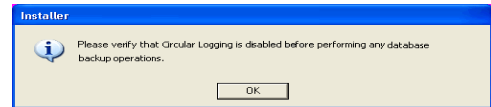
Click **Stop** to prevent installation to any nodes after the current ones complete.

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*.

28. Read the summary for remote installation to verify that all selected nodes were



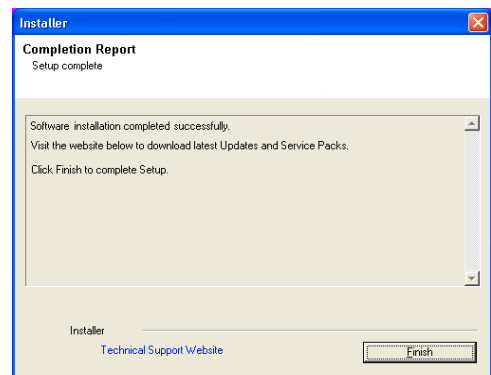
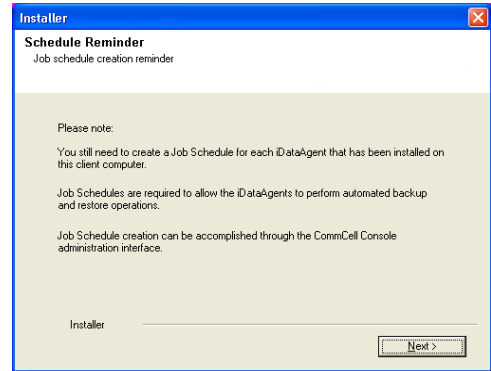
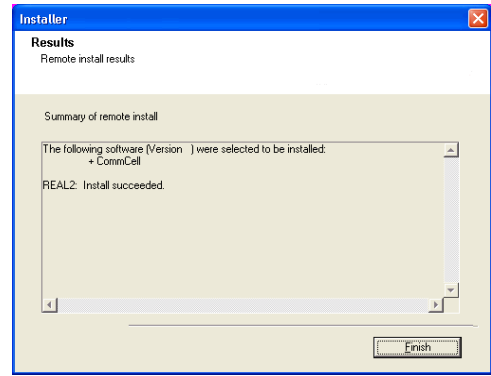
installed successfully.

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.

29. Click **Next**.

30. Click **Finish**.



If you already have a storage policy selected in step 19, Click **Next** button available at the bottom of the page to proceed to the **Configuration** section.

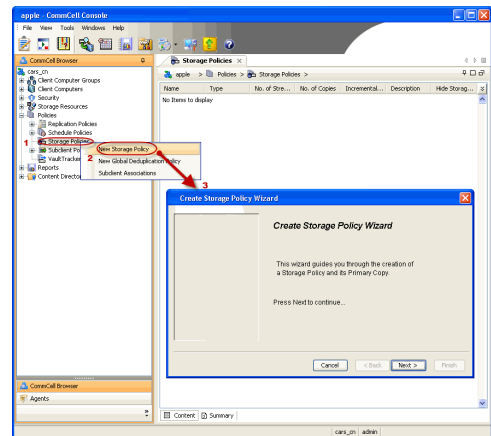
If you do not have Storage Policy created, continue with the following step.

31. 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 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.

32.

Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MSEXchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter MSEXchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

## INSTALL THE EXCHANGE AGENTS

The Windows File System iDataAgent must be first installed onto all of the physical nodes of the cluster. See Install the Microsoft Windows File System iDataAgent if you have not installed it on all of the physical nodes.

Once it has been installed onto the physical nodes, the Exchange Agents (such as Exchange Mailbox iDataAgent, Exchange Public Folder iDataAgent, Exchange Mailbox Archiver and/or Exchange Public Folder Archiver) and Windows File System iDataAgent can be installed from the active node to the virtual server using the following steps described below to install Exchange Agents.

The software can also be automatically installed on all available passive nodes when the software is installed onto the virtual server, or you can choose to install any passive node(s) separately.

### CREATE THE REGISTRY KEYS

Before installing the Exchange Agents, create the bAllowMultiInstances and bAllow32BitInstallOn64Bit registry keys.

1. Create the bAllowMultiInstances registry key.

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 bAllowMultiInstances and by double clicking the bAllowMultiInstances key modify the **Value data** to 1.

2. Create the bAllow32BitInstallOn64Bit registry key.

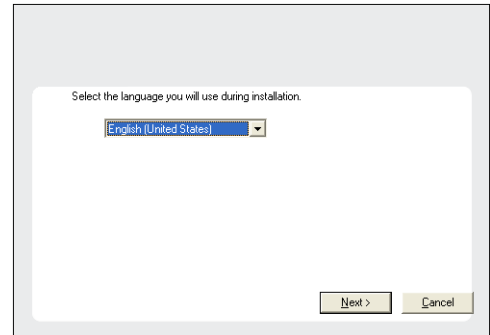
To create the registry key, see the following steps:

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\Wow6432Node.
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 bAllow32BitInstallOn64Bit and by double clicking the bAllow32BitInstallOn64Bit key modify the **Value data** to 1.

## INSTALL PROCEDURE

1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer

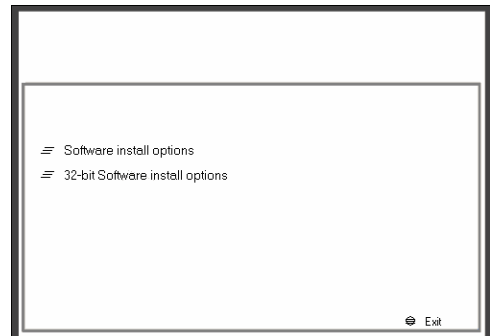
- Administrator of the Exchange Server
2. Run **Setup.exe** from Software Installation Package.
  3. Select the required language.  
Click **Next**.



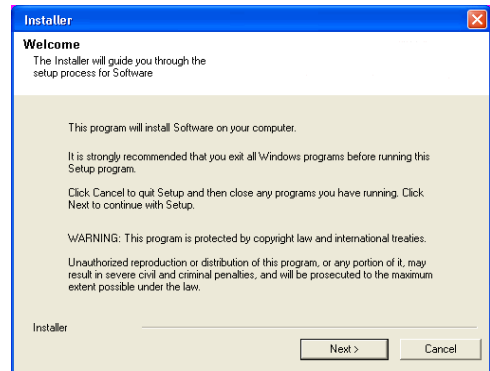
4. Select the **Calypso 32-bit Software install options** to install software.

**NOTES**

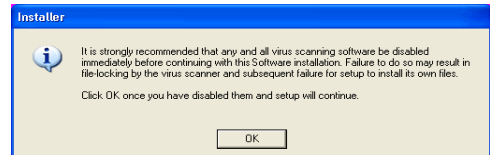
- This screen will only appear when the `bAllow32BitInstallOn64Bit` registry key has been created and enabled on this computer.



5. Click **Next**.



6. Click **OK**.



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



8. Select **Create a new instance** option to install the Exchange Agents on separate instance.

**NOTES**

- This screen will appear when the bAllowMultiInstances registry key has enabled on this computer.
- This screen will not appear if no other software components are installed on the computer.

9. Select **Configure a Virtual Server**.  
Click **Next** to continue.

10. Select the disk group in which the cluster group resides.  
Click **Next** to continue.

11. To install the **Exchange iDataAgents** expand **Client Modules | Exchange**, and select one or more of the following:
  - **Exchange Mailbox iDataAgent**
  - **Exchange Public Folder iDataAgent**

To install the **Exchange Archiver Agents**, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

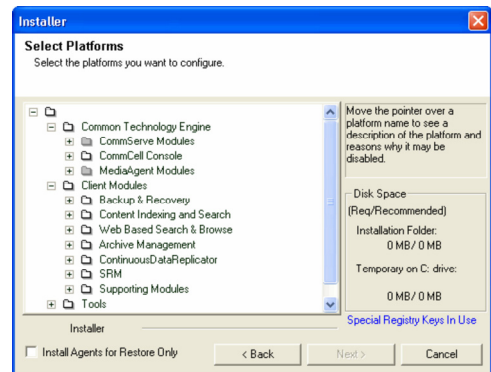
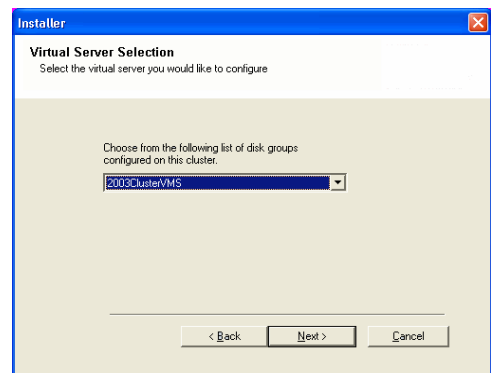
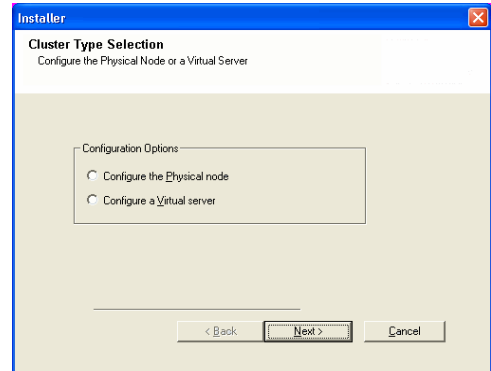
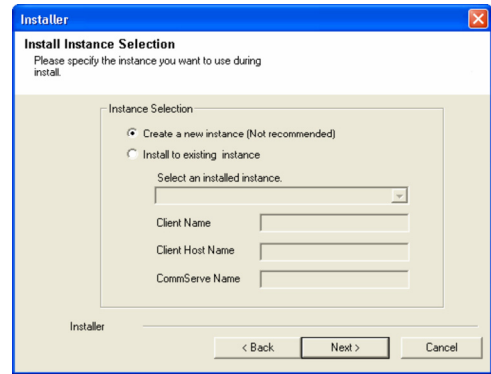
Click **Next**.

Note that the Exchange Database iDataAgents must be installed on the Exchange Server, see Install the Exchange Database iDataAgent for step-by-step procedure.

12. 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**.





13. 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:

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

14. Click **Next**.

If there is any other instance installed on the computer, make sure that the host name does not match the client name entered in the **Select a client name** field in the previous instance.

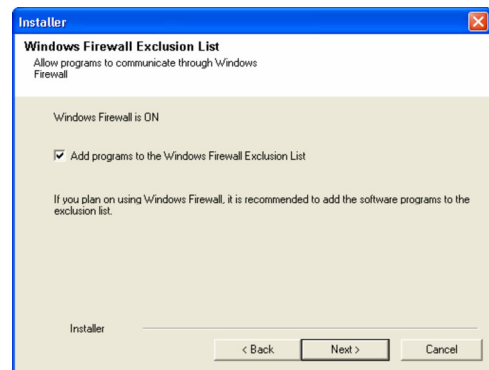
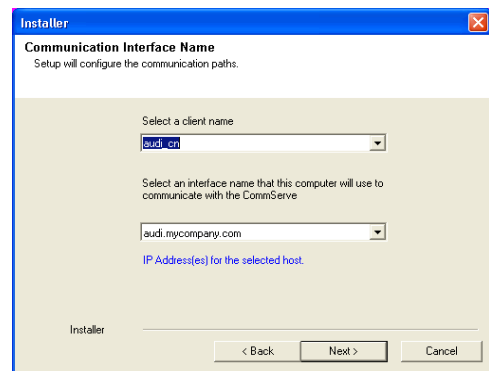
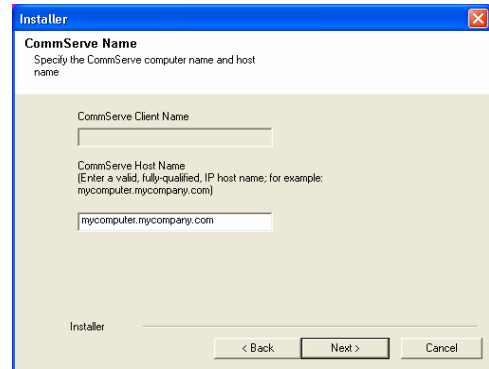
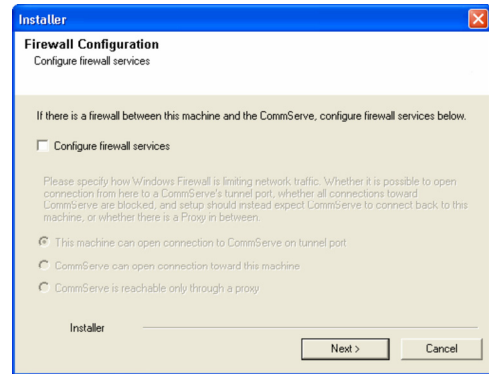
15. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.

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.

16. Click **Next**.



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.

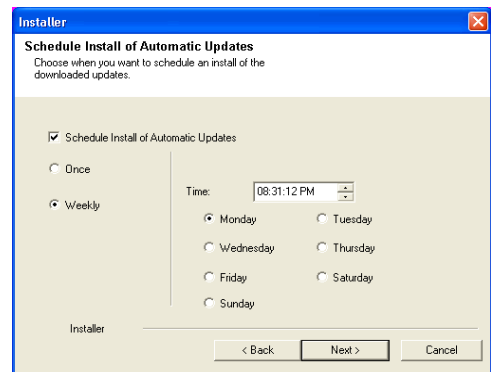
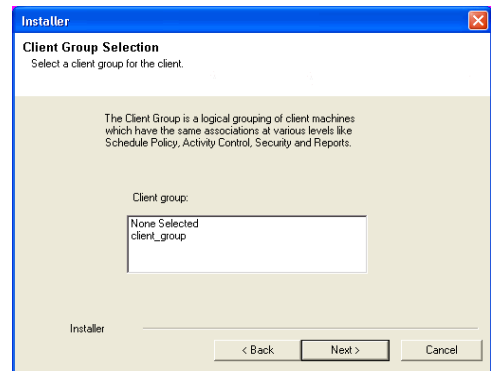
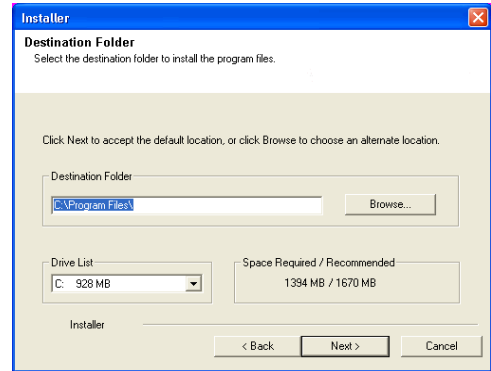
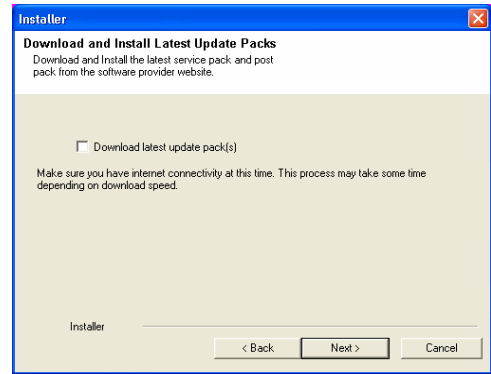
Click **Next**.

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

19. Click **Next**.

20. Select a **Storage Policy**.

Click **Next**.



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

You can create the Storage Policy later in step 31.

21. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.  
Click **Next**.

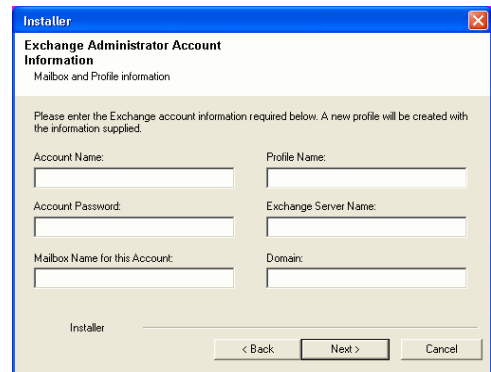
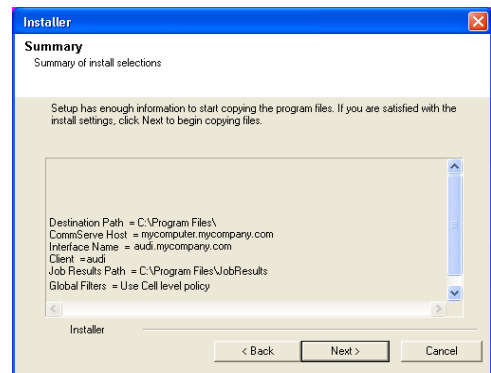
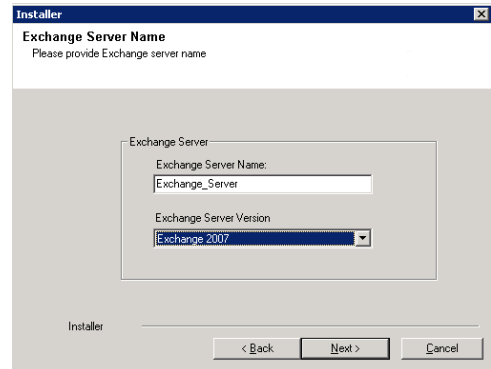
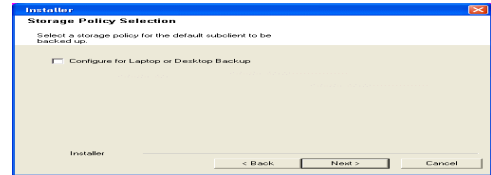
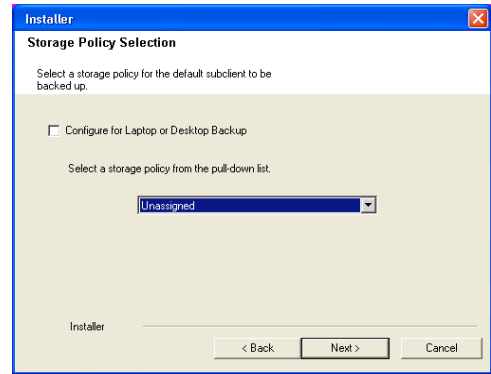
This screen will appear when you are installing Exchange Agents on Non-Exchange Server.

22. Click **Next**.

23. Enter the following Exchange Administrator information then click **Next**.
  - **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
  - **Account Password** - The password assigned to the domain user.
  - **Mailbox Name for this Account** - Mailbox associated with the user above.
  - **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
  - **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.

For Exchange Server 2010, enter the Client Access Role. After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.

- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.
24. To install the software on the remaining nodes of the cluster, click **Yes**.



To complete the install for this node only, click **No**.

25. 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.

26. 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**.

27. 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:

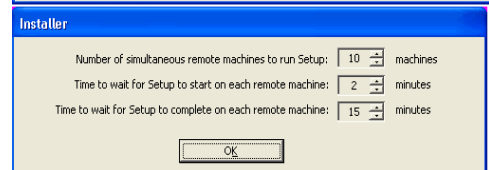
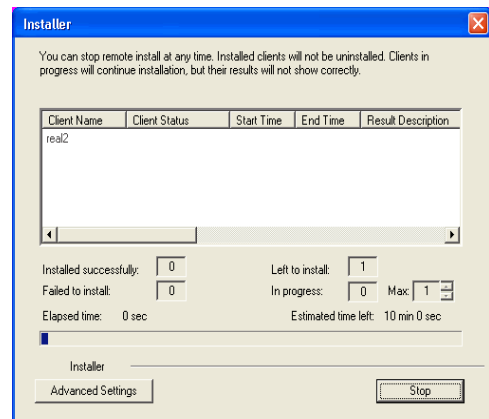
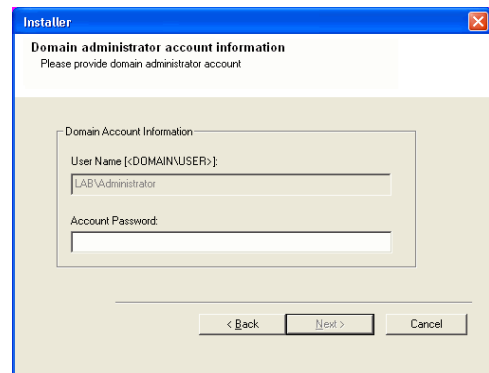
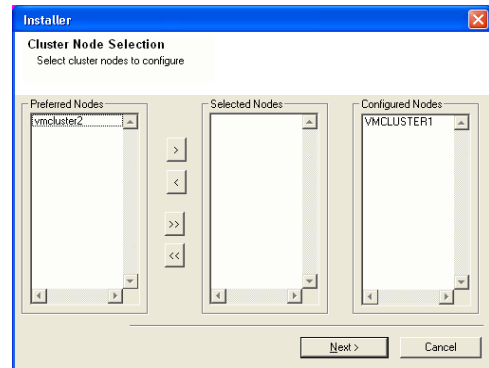
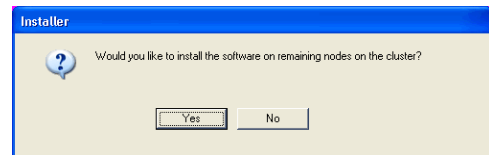
- Maximum number of nodes on which Setup can run simultaneously.
- Time allocated for Setup to begin executing on each node, after which the install attempt will fail.
- Time allocated for Setup to complete on each node, after which the install attempt will fail.

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*.

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

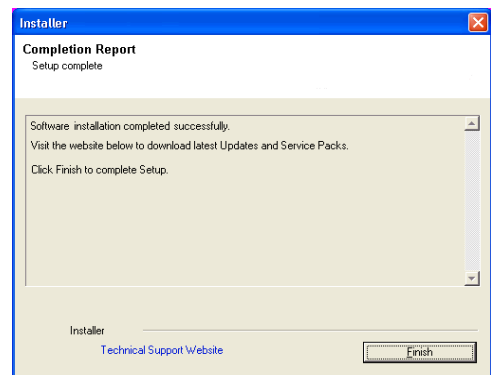
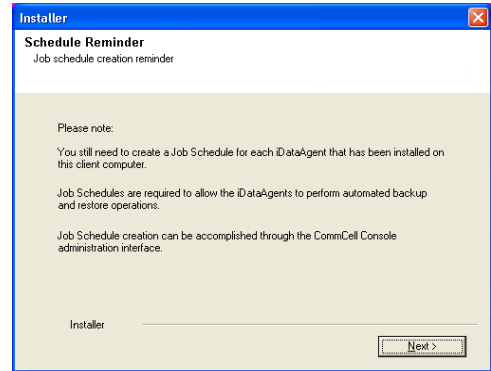
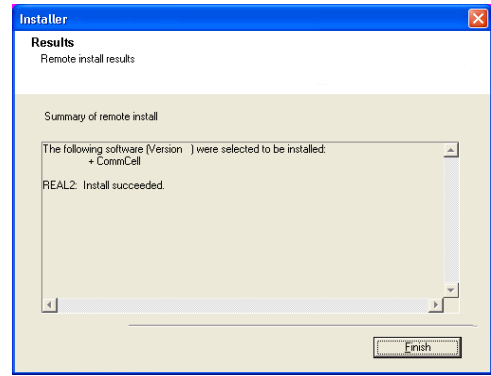
Click **Next**.

- 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.



29. Click **Next**.

30. Click **Finish**.



If you already have a storage policy selected in step 20, Click **Next** button available at the bottom of the page to proceed to the **Configuration** section.

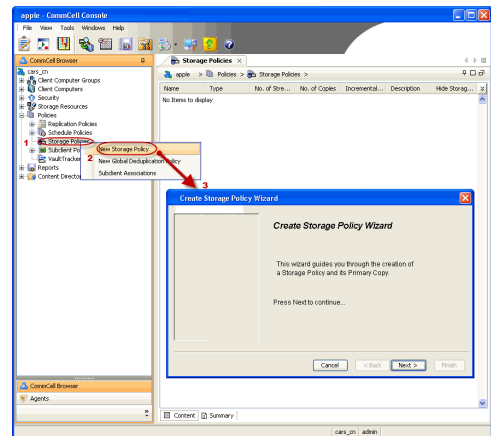
If you do not have Storage Policy created, continue with the following step.

31. 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:
  - 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 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**.

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

**32.**

Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).  
Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.



# Install the 32-bit Exchange Agents on a Non-Exchange Server

◀ Previous   Next ▶

The following procedure describes the steps involved in installing the 32-bit Exchange Agents on 32-bit Non-Exchange Server computer.

## WHERE TO INSTALL

The 32-bit Exchange Agents can be installed on a separate computer with connectivity to the Exchange Server. This method is referred to as a Non-Exchange Server installation and is useful if you want to offload the memory and processing resources required for backups and restores from the Exchange Server.

## 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 remotely install the software on a client computer.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

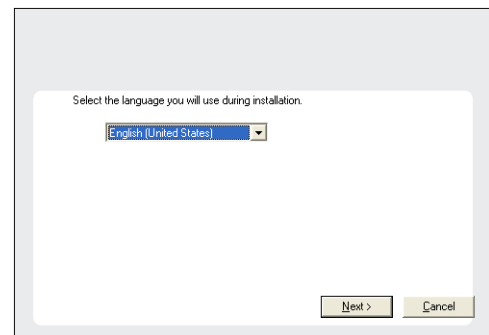
## PREREQUISITES

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

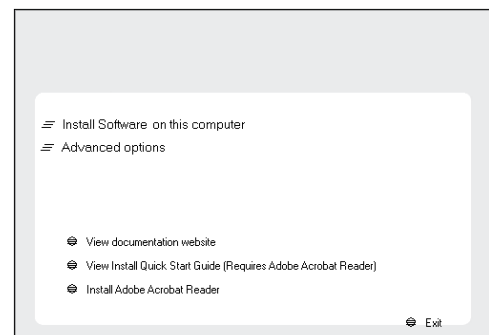
- Service account is a member of Exchange Organization Administrators group.
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Ensure that you assign full access to all mailboxes on the server. For details, see [How do I Assign Full Access to All Mailboxes on a Server](#).

## METHOD 1: INTERACTIVE INSTALL

1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
2. Run **Setup.exe** from Software Installation Package.
3. Select the required language.  
Click **Next**.



4. Select the option to **Install Calypso on this computer**.  
**NOTES:**
  - Your screen may look different from the example shown.



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

6. Select **Create a new instance** option to install the Exchange Agents on separate instance for the purpose of different Exchange Servers.

**NOTES**

- This screen will appear when the bAllowMultiInstances registry key has enabled on this computer.
- This screen will not appear if no other software components are installed on the computer.

7. To install the **Exchange iDataAgents** expand **Client Modules | Exchange**, and select one or more of the following:

- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**

To install the **Exchange Archiver Agents**, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

Click **Next**.

8. 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.

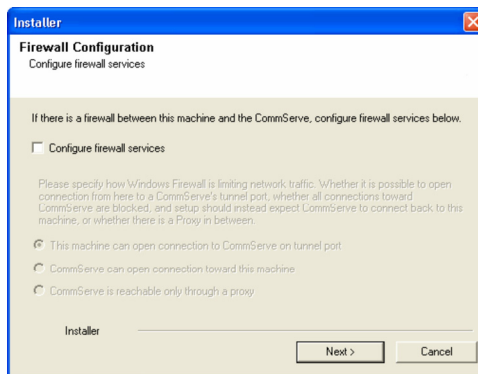
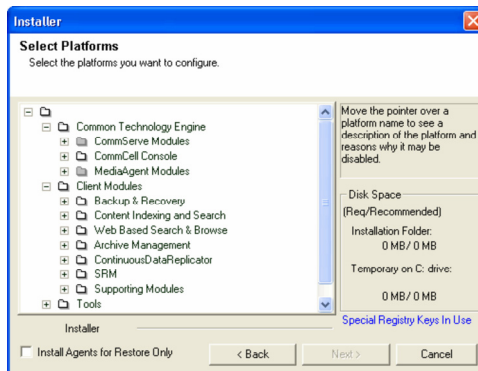
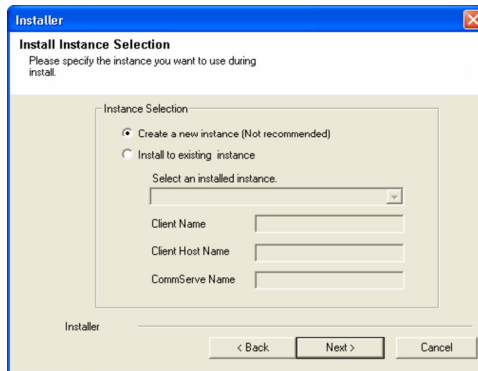
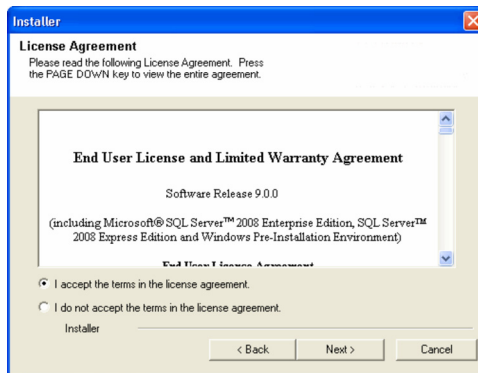
If firewall configuration is not required, click **Next**.

9. 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:

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





10. Click **Next**.

If there is any other instance installed on the computer, make sure that the host name does not match the client name entered in the **Select a client name** field in the previous instance.

11. 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.

12. Verify the default location for software installation.

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

Click **Next**.

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

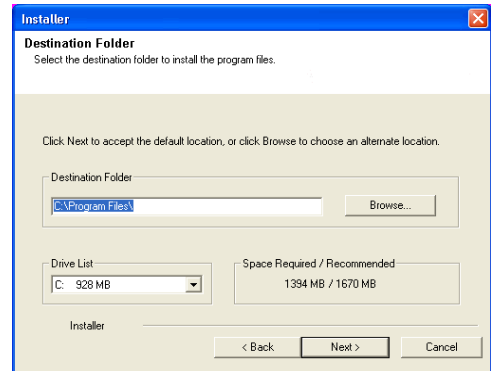
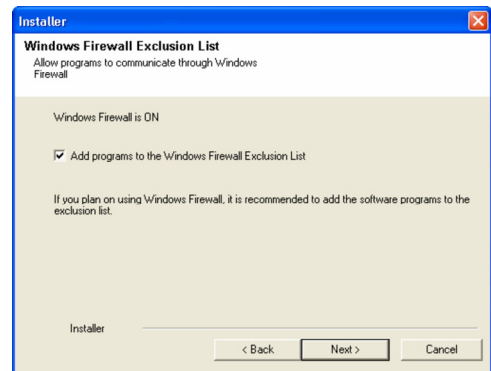
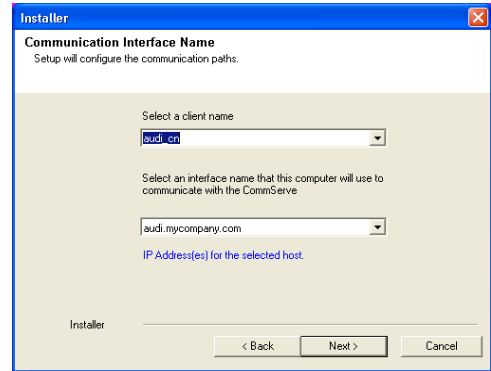
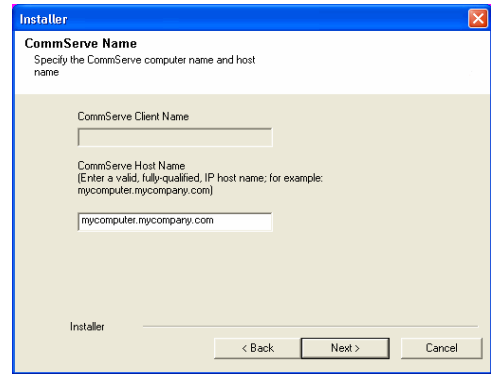
/ : \* ? " < > | #

It is recommended that you use alphanumeric characters only.

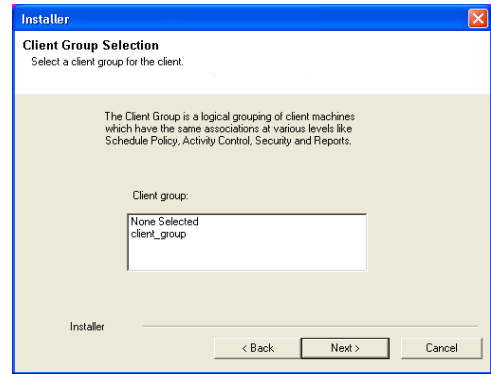
13. Select a Client Group from the list.

Click **Next**.

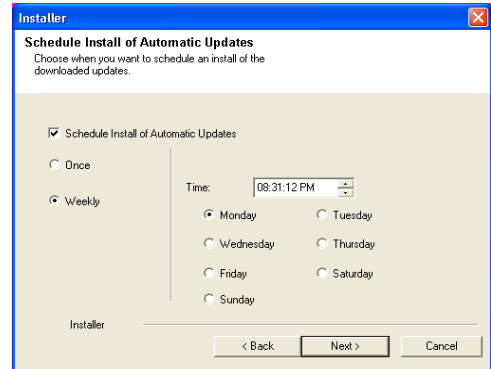
This screen will be displayed if Client Groups are configured in the CommCell Console.



14. Click **Next**.



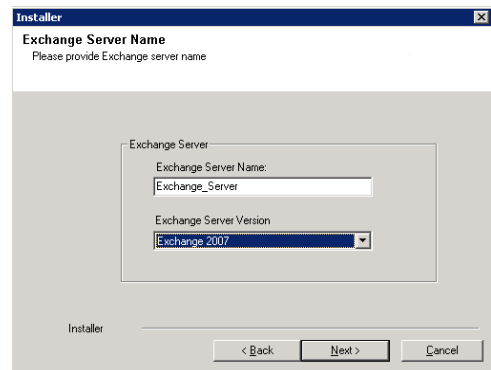
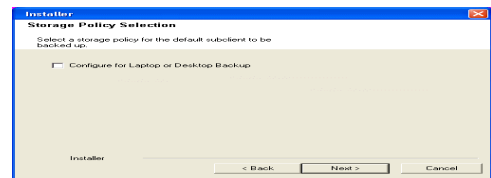
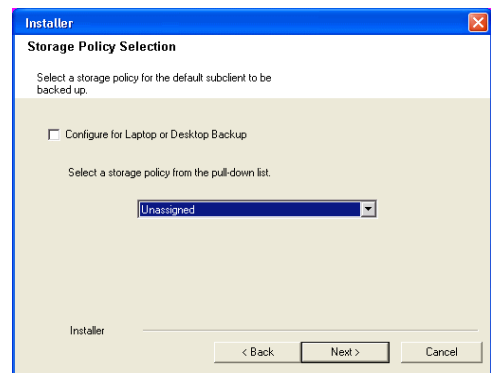
15. Select a **Storage Policy**.  
Click **Next**.



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

You can create the Storage Policy later in step 21.


16. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.  
Click **Next**.



17. Click **Next**.

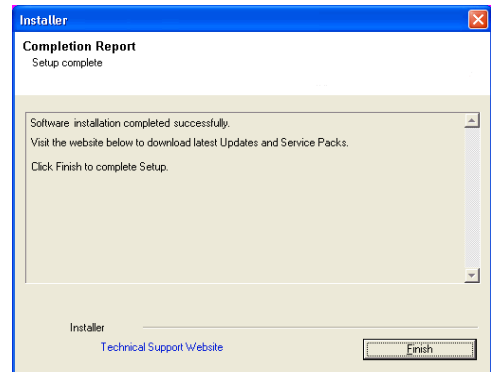
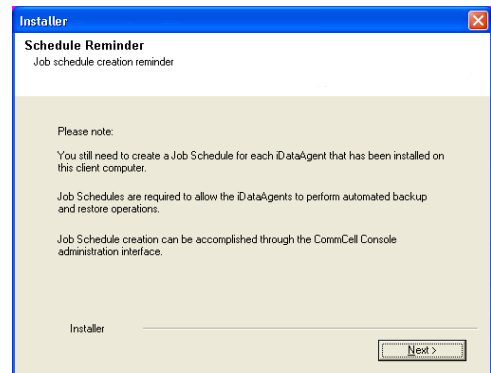
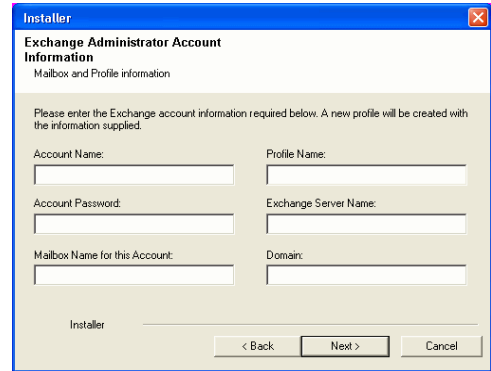
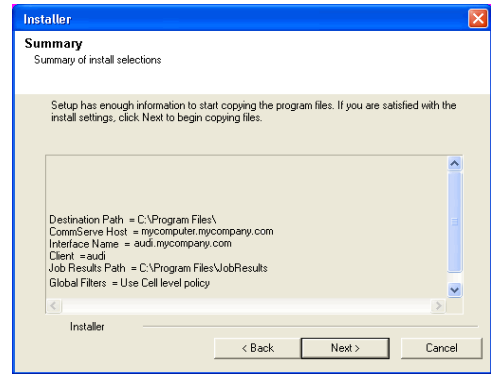
18. Enter the following Exchange Administrator information then click **Next**.
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
  - **Account Password** - The password assigned to the domain user.
  - **Mailbox Name for this Account** - Mailbox associated with the user above.
  - **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
  - **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.
- Enter the Mailbox Role Server name (NetBIOS). After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.
- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.
19. Click **Next**.

20. Click **Finish**.

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

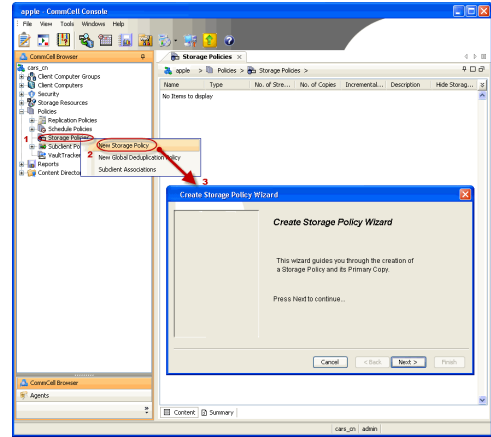
If you do not have Storage Policy created, continue with the following step.

21. 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.

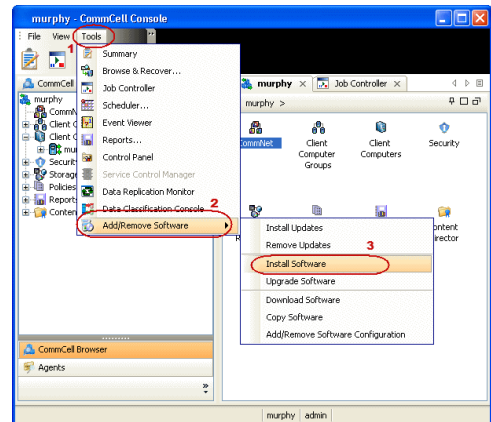


22. Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MSeXchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).  
Enter MSeXchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

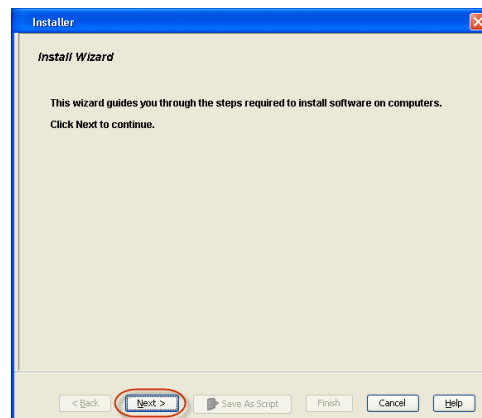
## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.

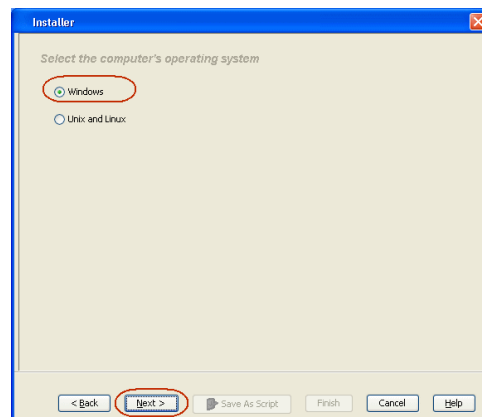


2. Click **Next**.

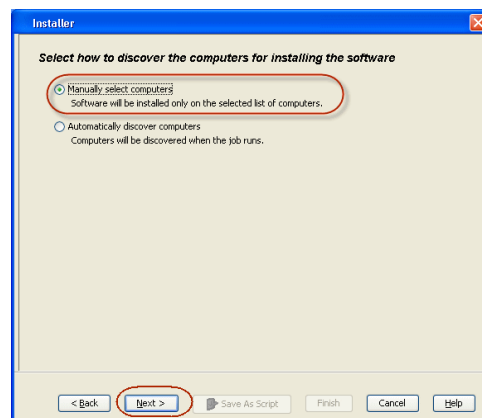
3. Select **Windows**.  
Click **Next**.



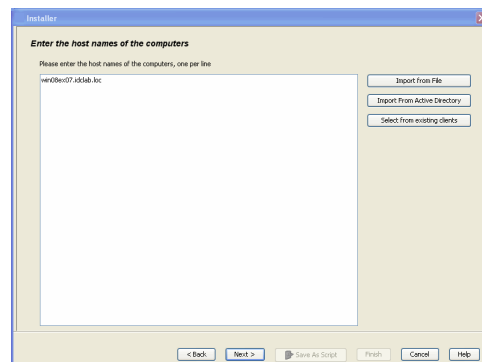
4. Select **Manually Select Computers**.  
Click **Next**.



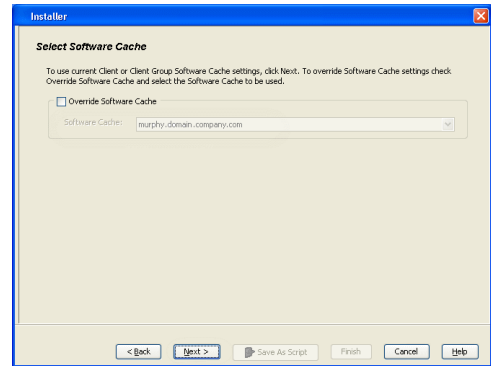
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.  
For example: win08ex07.idclab.loc  
Click **Next**.



6. Click **Next**.



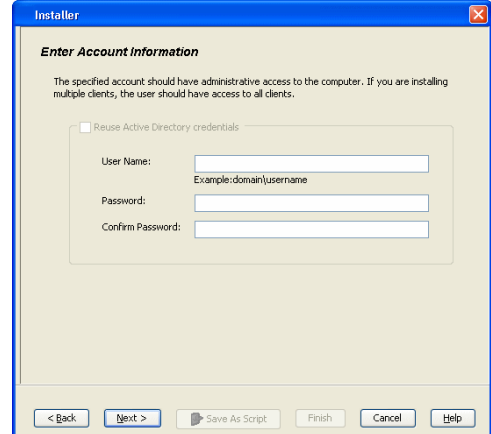
- Specify **User Name** and **Password** that must be used to access the computer.  
Click **Next**.



- To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:
  - **Exchange Database iDataAgent**
  - **Exchange Mailbox iDataAgent**
  - **Exchange Public Folder iDataAgent**

Click **Next**.

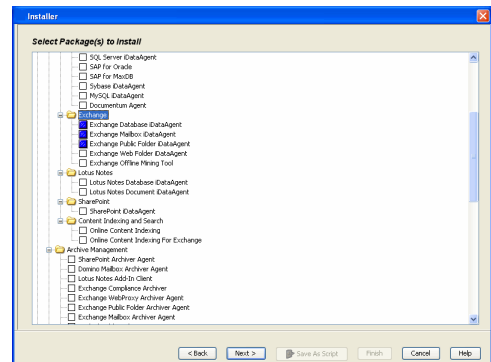
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



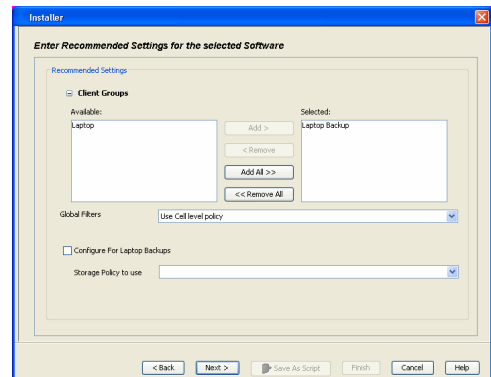
- Select **Client Group** from **Available** and click **Add**.
  - Select a **Storage Policy** from the drop-down list. Click **Next**.

**NOTES:**

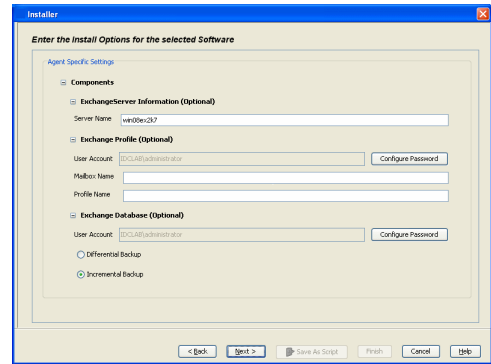
- Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.



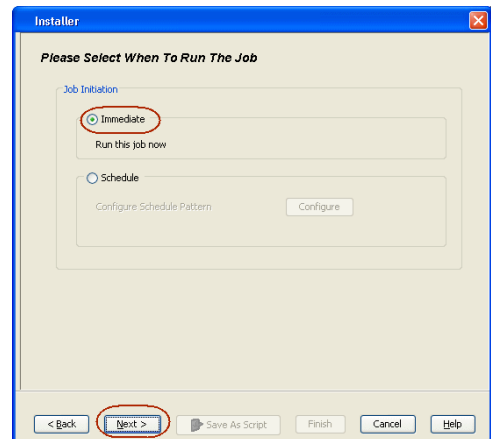
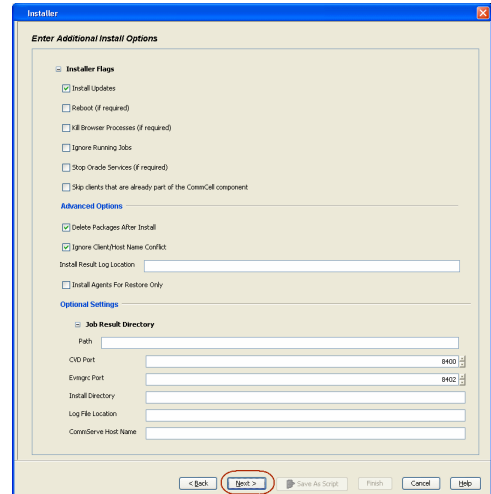
- Type the Agent Specific Settings information.  
Click **Next**.



11. Click **Next**.

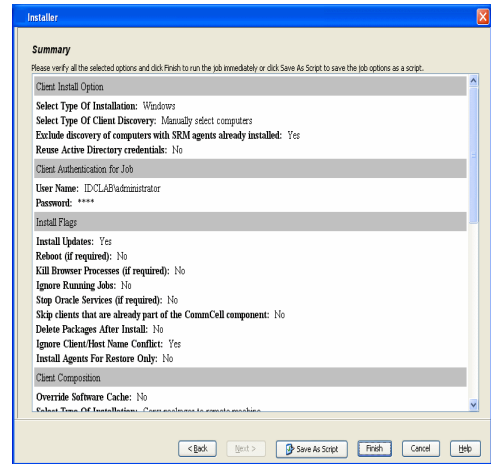


12. Select **Immediate**.  
Click **Next**.

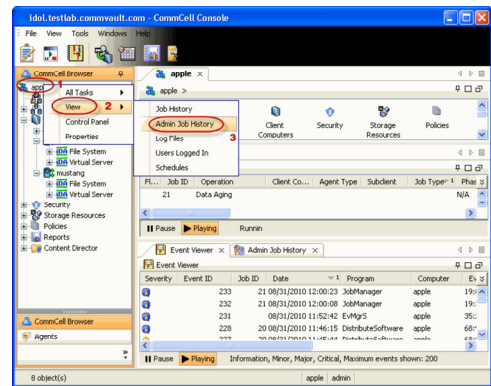
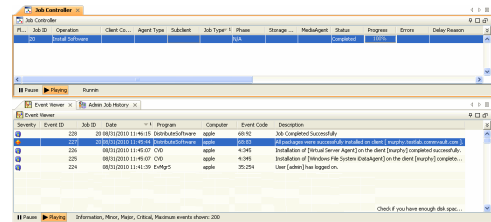


13. Click **Finish**.

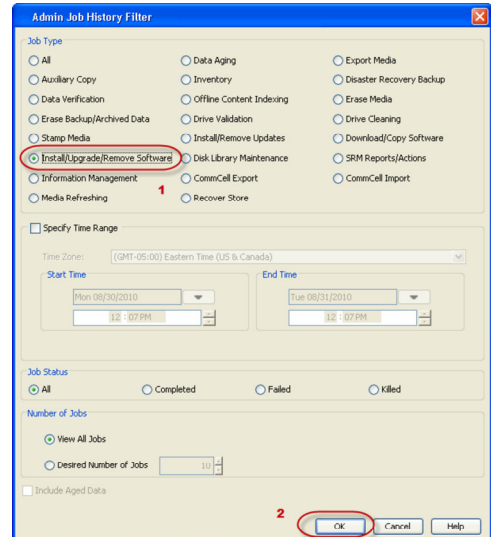
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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



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

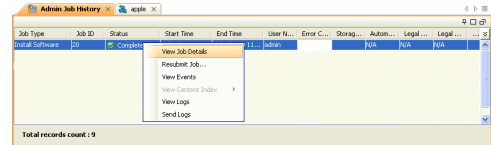


17. You can view the following details about the job by right-clicking the job:

- 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



18. Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

◀ Previous    Next ▶

# Install the Exchange Agents on Exchange Server 2003

◀ Previous    Next ▶

Follow the steps given below to install the Exchange Agents on Exchange Server 2003.

## WHERE TO INSTALL

Install the software directly on the Exchange Server you wish to protect

## 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 remotely install the software on a client computer.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

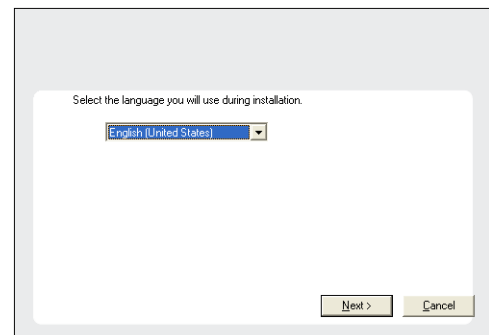
## PREREQUISITES

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

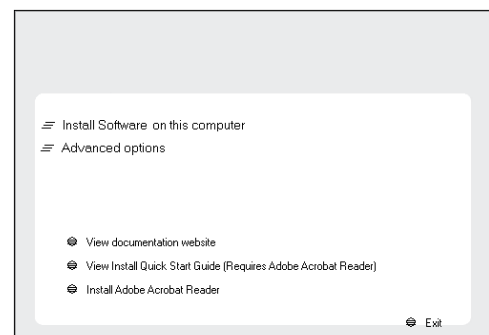
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Using the Exchange System Manager snap-in, right-click the organization object and delegate control.
- Using the Wizard, assign the MailboxAdmin user Exchange Full Administrator privileges.
- Ensure that you assign full access to all mailboxes on the server. For details, see How do I Assign Full Access to All Mailboxes on a Server.

## METHOD 1: INTERACTIVE INSTALL

1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
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. To install the Exchange iDataAgents expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:

- **Exchange Database iDataAgent**
- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**

To install the Exchange Archiver Agents, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

Click **Next**.

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

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

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

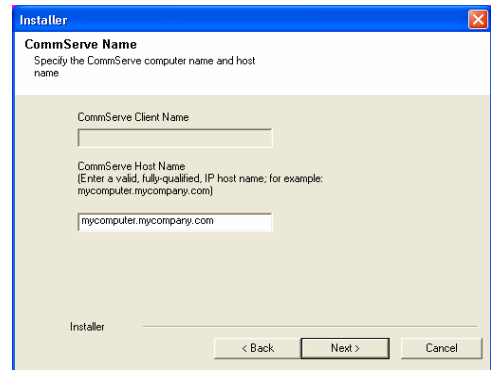
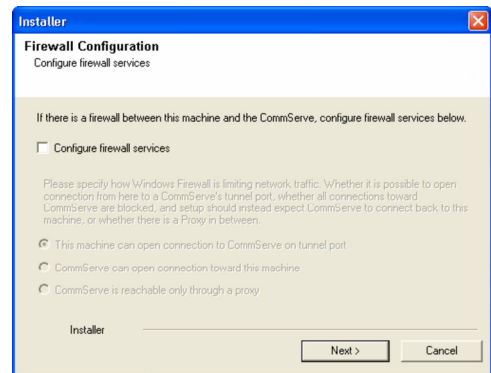
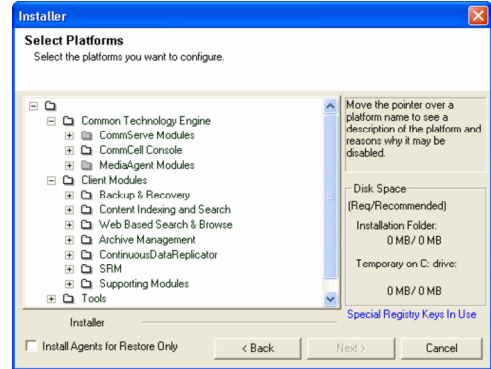
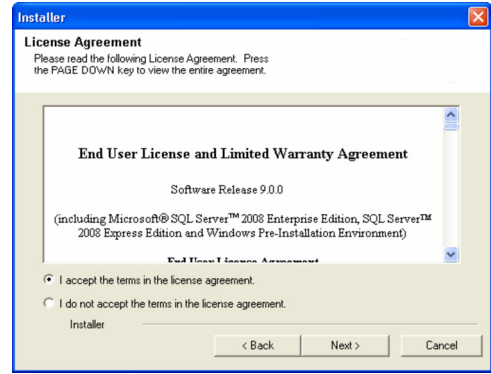
8. Enter the fully qualified domain name of the **CommServe Host Name**.

Click **Next**.

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

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

9. Click **Next**.



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

Click **Next**.

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

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

11. Verify the default location for software installation.

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

Click **Next**.

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

/ : \* ? " < > | #

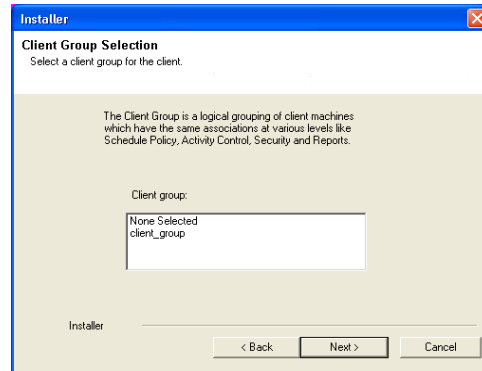
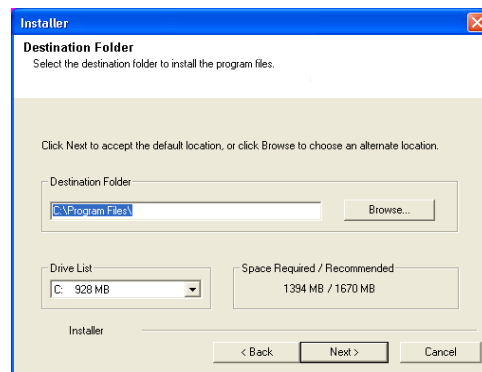
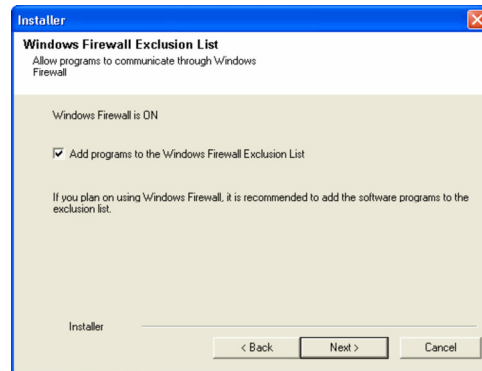
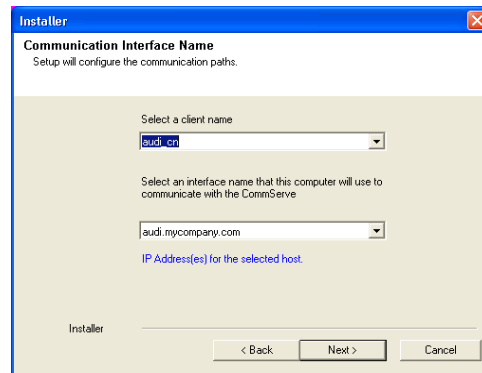
It is recommended that you use alphanumeric characters only.

12. Select a Client Group from the list.

Click **Next**.

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

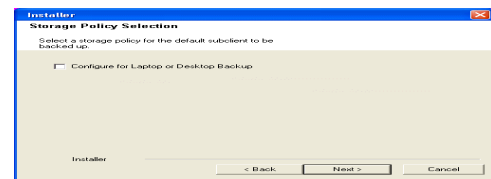
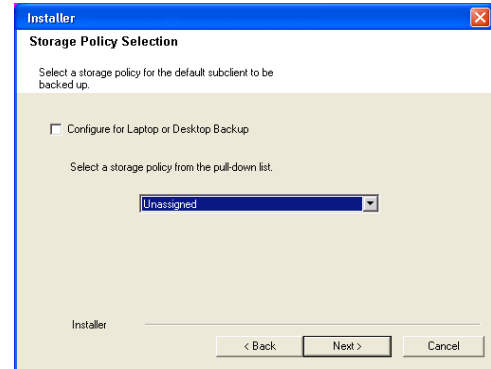
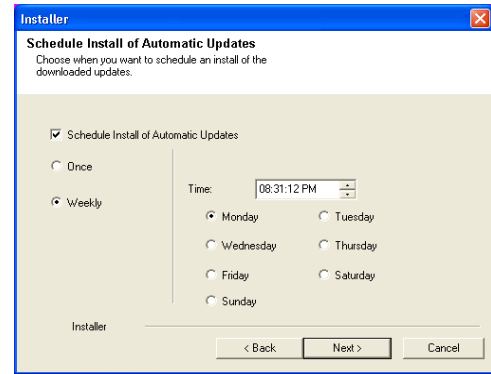
13. Click **Next**.



14. Select a **Storage Policy**.  
Click **Next**.

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

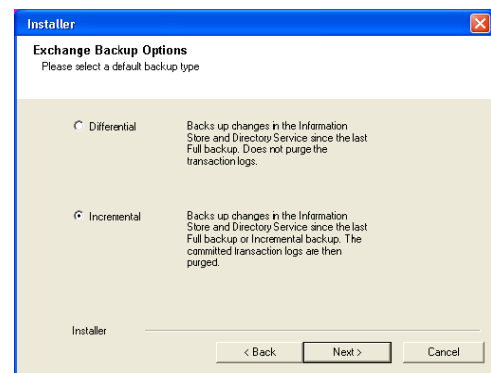
You can create the Storage Policy later in step 25.



- If you are installing the Exchange Database iDataAgent, click Configure Exchange Database Specific Information.
- If you are installing the Exchange Agents, skip to Configure Exchange Agents Specific Information.

## CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

15. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
- **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
  - **Incremental** - Specifies that each non-full Exchange Database backup secures only that data that has changed since the last backup of any type. Committed transaction logs are purged.
16. Enter the user credentials to access the Exchange Server to perform the backup operation.
- The User Account must have Exchange Administrator privileges.
  - The installation detects the domain name. If necessary, you can modify the domain name by specifying Windows domain that the Exchange Server resides in.



17. Click **Next**.

18. The install program displays a reminder to verify that Circular Logging is disabled before performing any database backup operations. To verify that Circular Logging is disabled:
- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
  - Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.

- If you are installing the Exchange Agents, then click Configure Exchange Agents Specific Information.
- If you are installing the Exchange Database iDataAgent, skip to Verify Summary of Install Options.

## CONFIGURE EXCHANGE AGENTS SPECIFIC INFORMATION

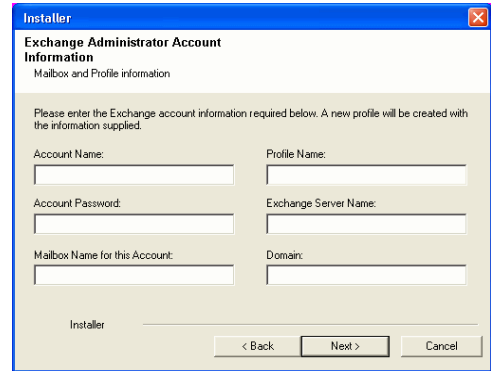
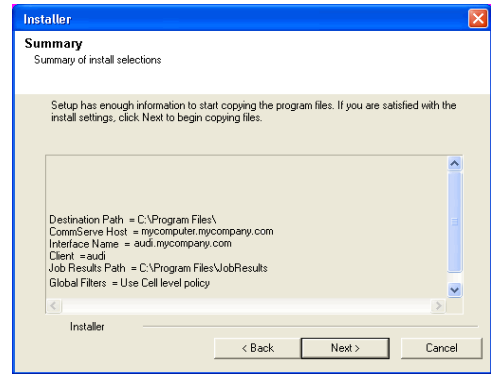
19. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

Click **Next**.

This screen will appear when you are installing Exchange Agents on Non-Exchange Server.

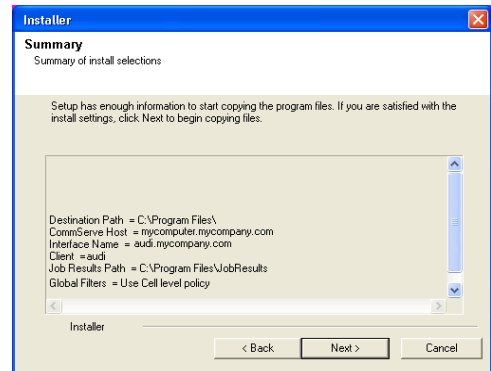
20. Click **Next**.

21. Enter the following Exchange Administrator information then click **Next**.
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
  - **Account Password** - The password assigned to the domain user.
  - **Mailbox Name for this Account** - Mailbox associated with the user above.
  - **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
  - **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.
  - **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.

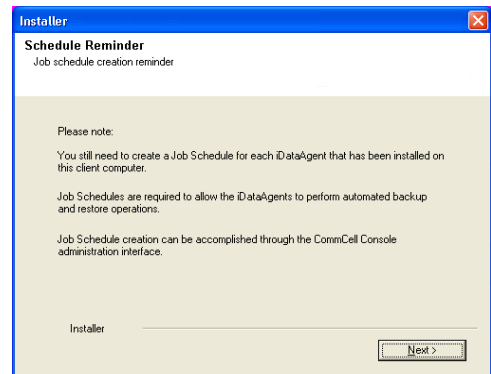


**VERIFY SUMMARY OF INSTALL OPTIONS**

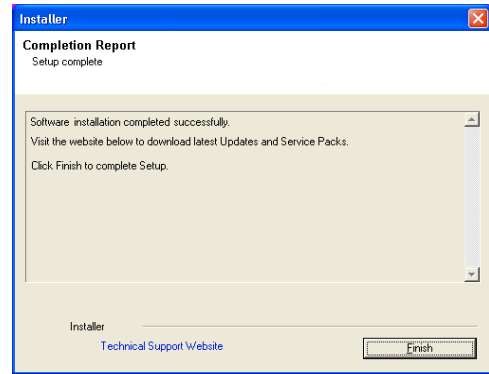
22. Click **Next**.



23. Click **Next**.



24. Click **Finish**.

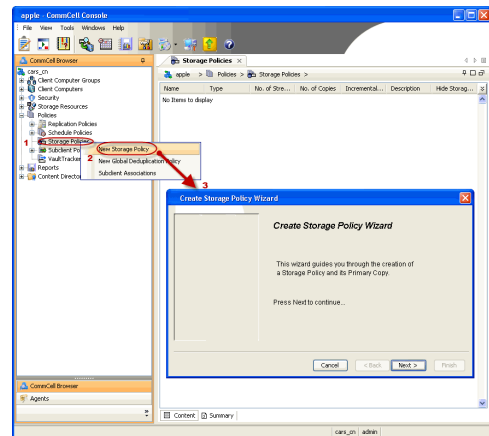


If you already have a storage policy selected in step 14, Click **Next** ► button available at the bottom of the page to proceed to the **Configuration** section.

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

## 25. 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.



## 26. Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).  
Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.

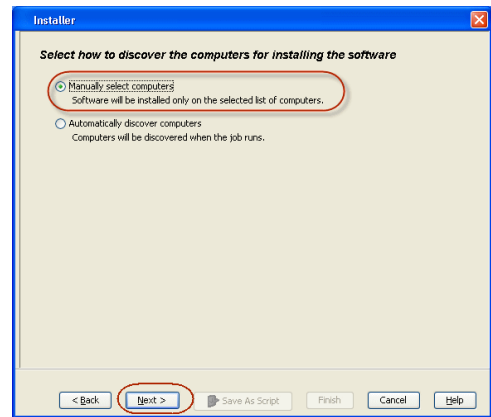
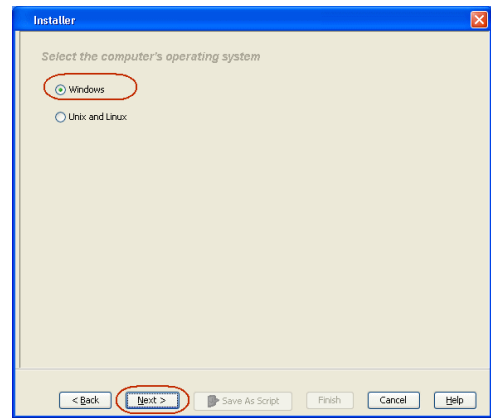
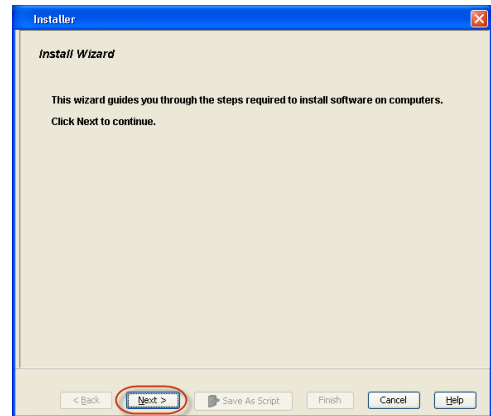
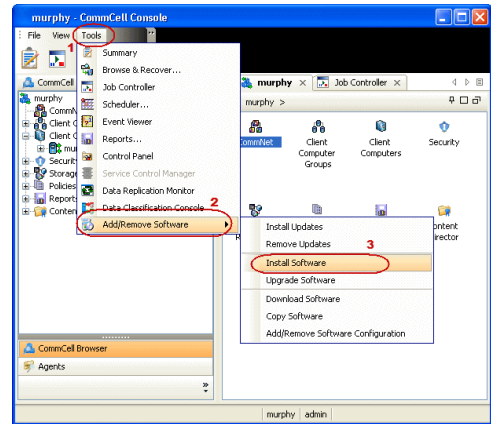


2. Click **Next**.

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

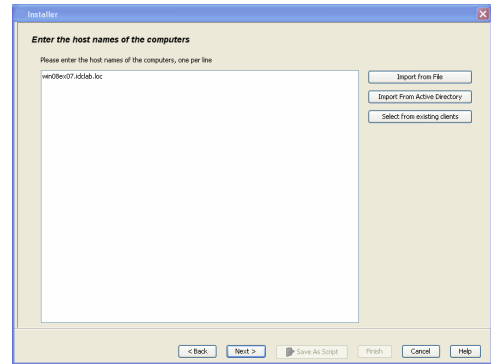
4. Select **Manually Select Computers**.  
Click **Next**.

5. Enter the fully qualified domain name of the computer on which you have Exchange Server.

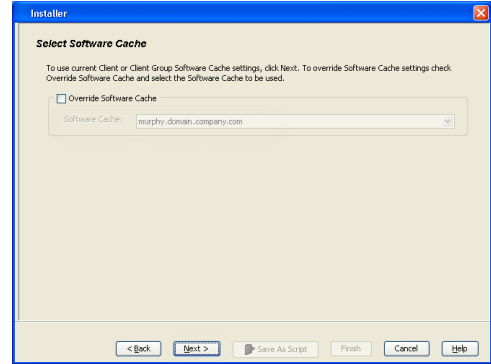


For example: win08ex07.idclab.loc

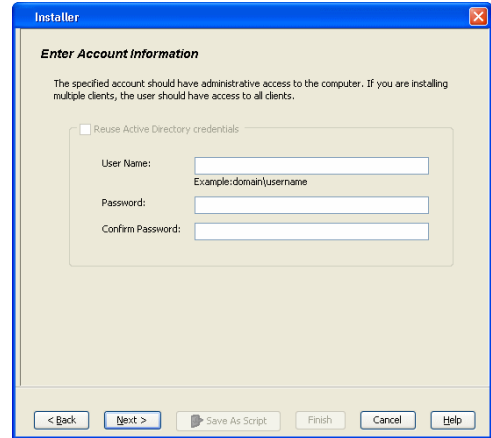
Click **Next**.



6. Click **Next**.



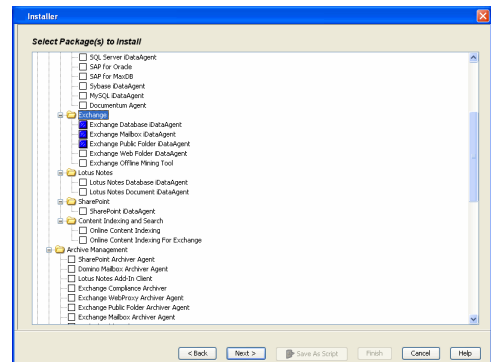
7. Specify **User Name** and **Password** that must be used to access the computer. Click **Next**.



8. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:

- **Exchange Database iDataAgent**
- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**

Click **Next**.

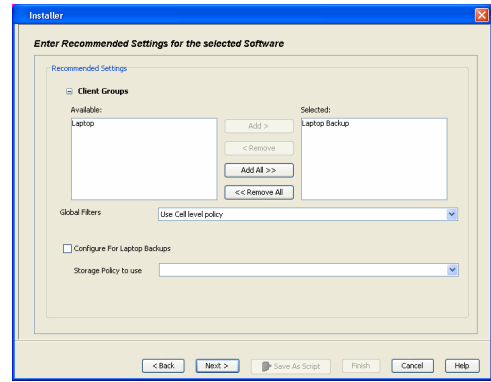


- 9.
- Select **Client Group** from **Available** and click **Add**.
  - Select a **Storage Policy** from the drop-down list. Click **Next**.

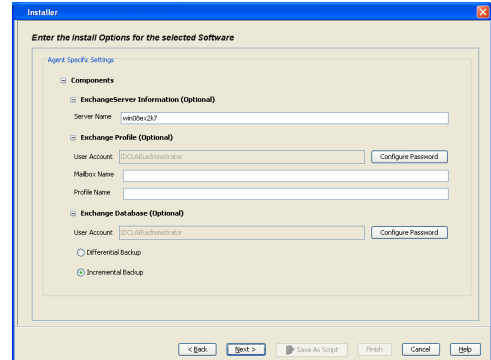
**NOTES:**

- 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.

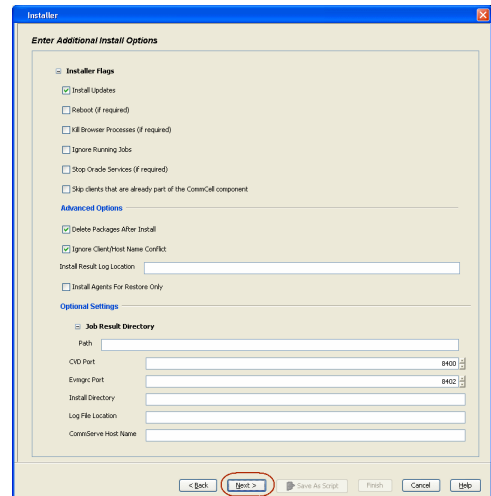
10. Type the Agent Specific Settings information.  
Click **Next**.



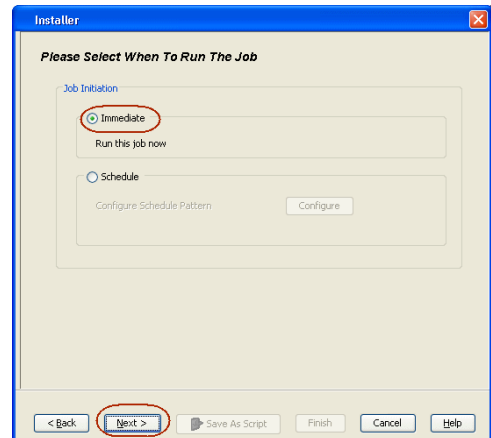
11. Click **Next**.



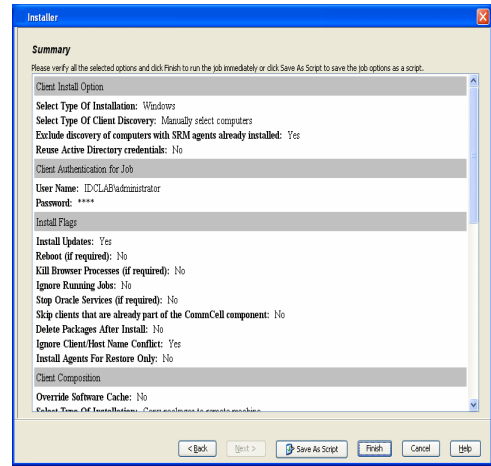
12. Select **Immediate**.  
Click **Next**.



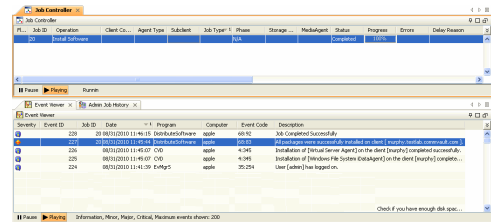
13. Click **Finish**.



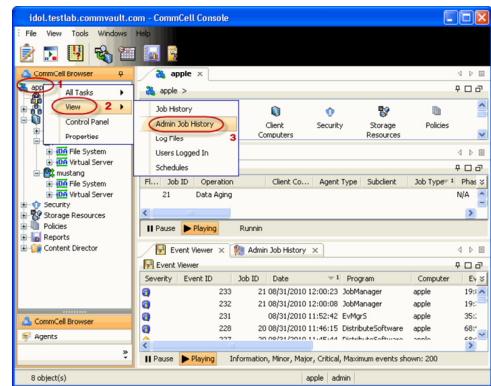
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

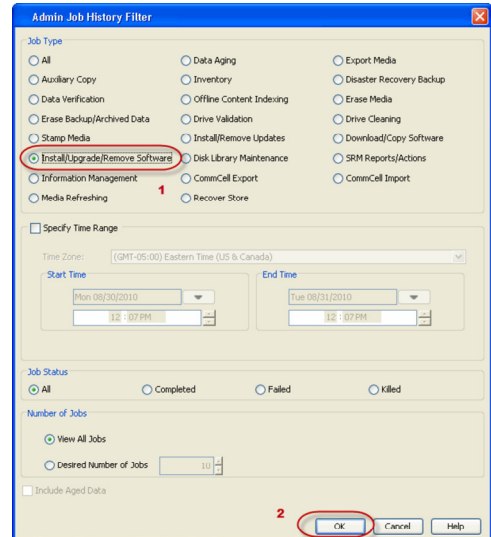


16. Select **Install/Upgrade/Remove Software**.  
Click **OK**.

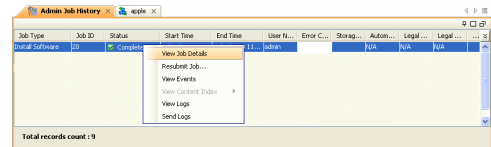


17. You can view the following details about the job by right-clicking the job:

- 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



18. Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

# Install the Exchange Agents for Exchange Server 2003 on a Non-Exchange Server

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Follow the steps given below to install the Exchange Agents on Non-Exchange Server 2003.

## WHERE TO INSTALL

The 32-bit Exchange Agents can be installed on a separate computer with connectivity to the Exchange Server. This method is referred to as a Non-Exchange Server installation and is useful if you want to offload the memory and processing resources required for backups and restores from the Exchange Server.

## 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 remotely install the software on a client computer.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

## PREREQUISITES

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Using the Exchange System Manager snap-in, right-click the organization object and delegate control.
- Using the Wizard, assign the MailboxAdmin user Exchange Full Administrator privileges.
- Ensure that you assign full access to all mailboxes on the server. For details, see How do I Assign Full Access to All Mailboxes on a Server.

## METHOD 1: INTERACTIVE INSTALL

1. Log on to the computer using an account with the following privileges:

- Administrator of the local computer
- Administrator of the Exchange Server

2. Create the bAllowMultiInstances registry key.

### NOTES:

- If any 64-bit agent software is already installed on the Proxy Server, create bAllowMultiInstances registry key to install the Exchange iDataAgents on separate instance.

3. Create the bAllow32BitInstallOn64Bit registry key.

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

5. Select the required language.

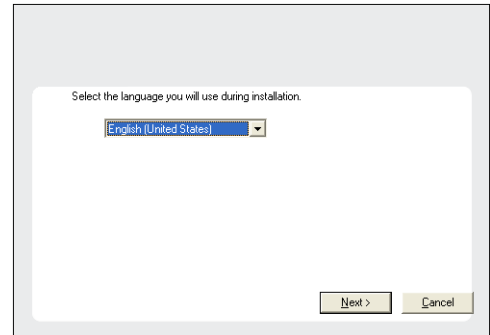
To create the registry key, see the following steps:

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 bAllowMultiInstances and by double clicking the bAllowMultiInstances key modify the **Value data** to 1.

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\Wow6432Node.
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 bAllow32BitInstallOn64Bit and by double clicking the bAllow32BitInstallOn64Bit key modify the **Value data** to 1.

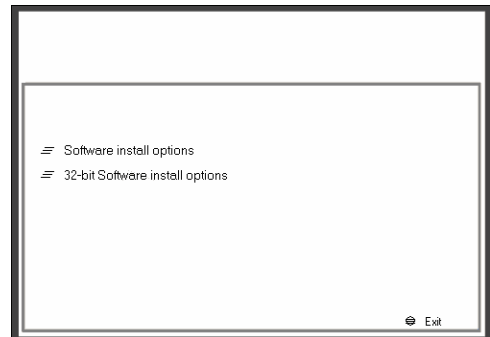
Click **Next**.



6. Select the **Calypso 32-bit Software install options** to install software.

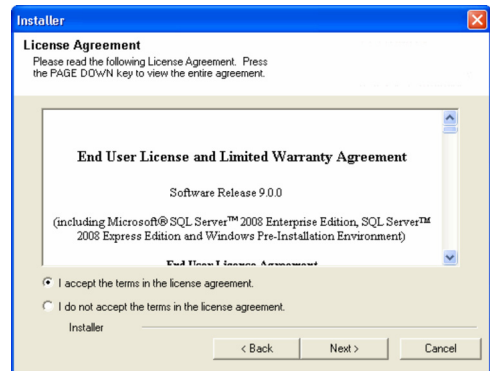
**NOTES**

- This screen will only appear when the bAllow32BitInstallOn64Bit registry key has been created and enabled on this computer.



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

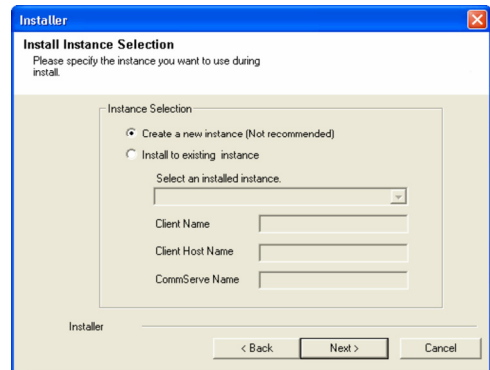
Click **Next**.



8. If any agent software is already installed on the Proxy Server, select **Create a new instance** option to install the Exchange iDataAgents on separate instance.

**NOTES**

- This screen will appear when the bAllowMultiInstances registry key has enabled on this computer.



9. To install the Exchange iDataAgents expand **Client Modules | Exchange**, and select one or more of the following:

- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**

To install the **Exchange Archiver Agents**, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

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:

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

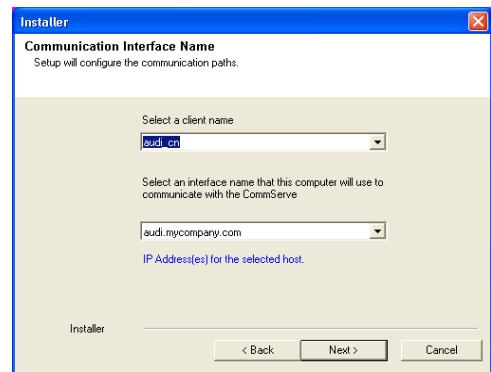
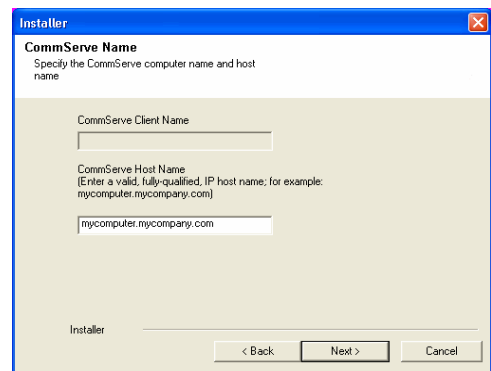
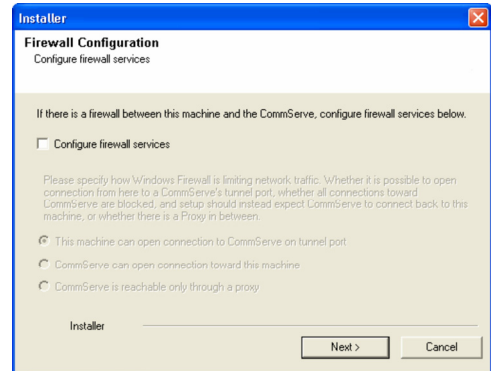
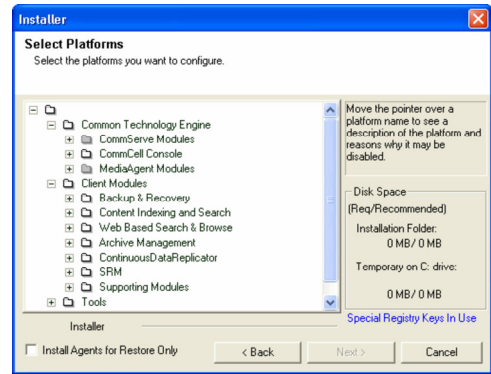
- Click **Next**.

- 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. 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.

15. Select a Client Group from the list.

Click **Next**.

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

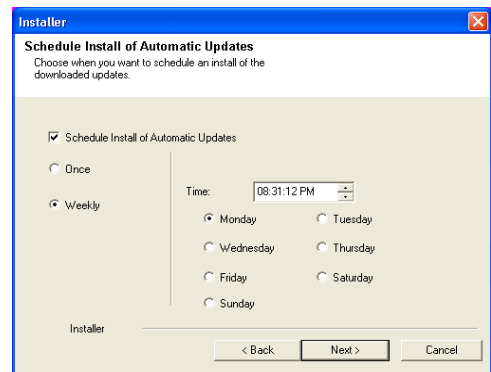
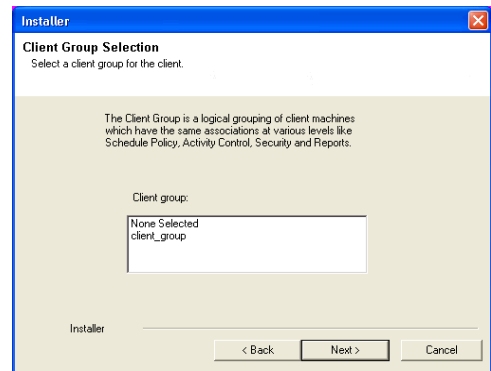
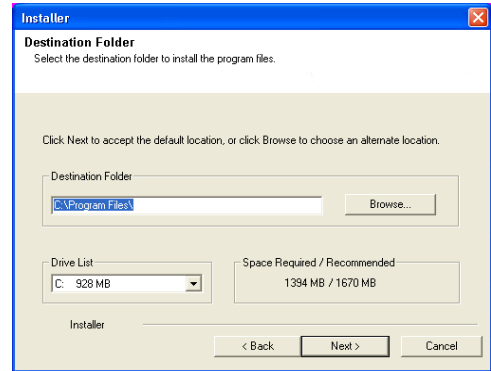
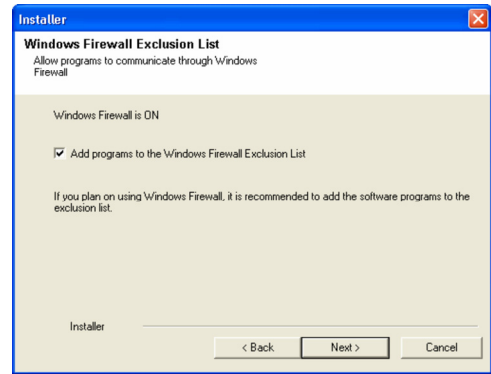
16. Click **Next**.

17. Select a **Storage Policy**.

Click **Next**.

**NOTES**

- A storage policy directs backup data to a media library. Each library has a default storage policy.



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

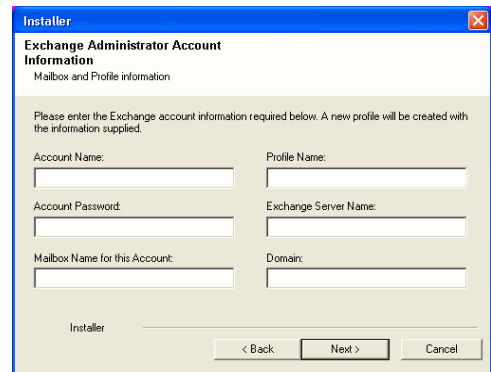
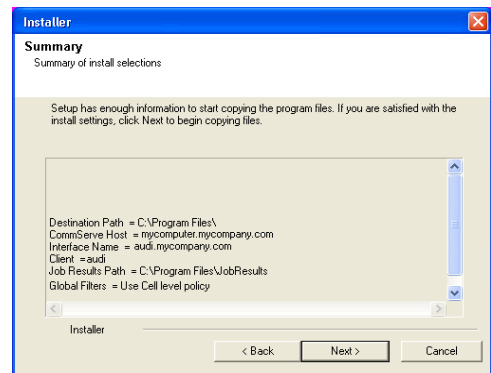
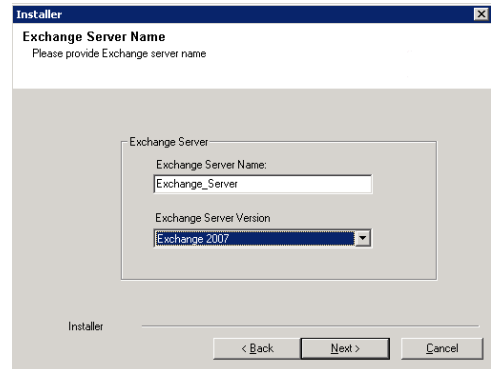
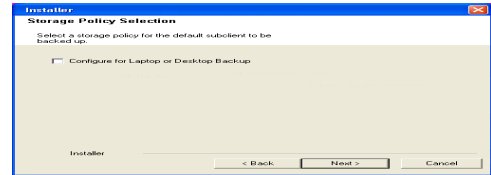
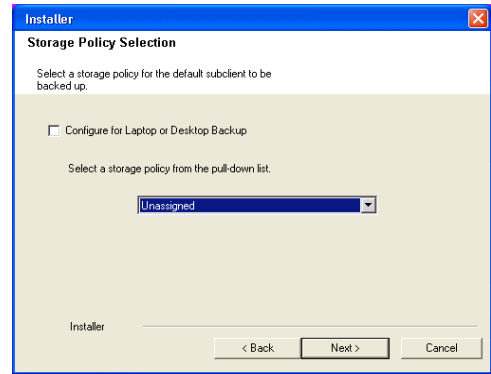
You can create the Storage Policy later in step 23.

18. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.  
Click **Next**.

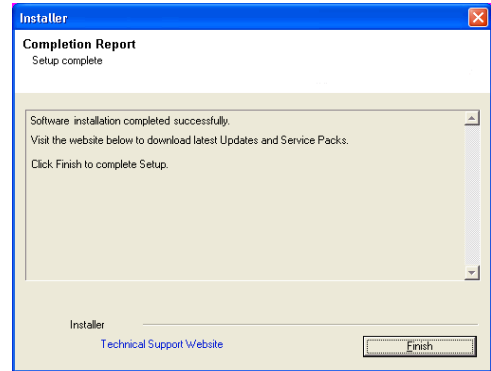
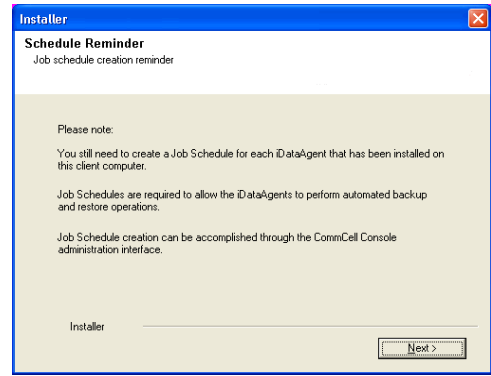
19. Click **Next**.

20. Enter the following Exchange Administrator information then click **Next**.
  - **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
  - **Account Password** - The password assigned to the domain user.
  - **Mailbox Name for this Account** - Mailbox associated with the user above.
  - **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
  - **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.  
  
For Exchange Server 2010, enter the Client Access Role. After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.
  - **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.

21. Click **Next**.



22. Click **Finish**.



If you already have a storage policy selected in step 17, 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.

23. Create a Storage Policy:

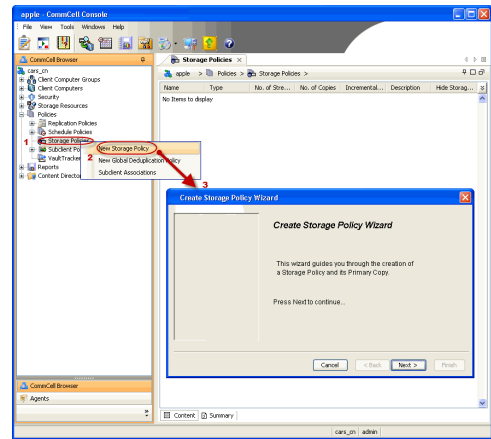
1. From the CommCell Browser, navigate to **Policies**.
2. Right-click the **Storage Policies** and then click **New Storage Policy**.
3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
  - Select the Storage Policy type as **Data Protection and Archiving**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



24. Enable the following registry key to create job specific profiles:

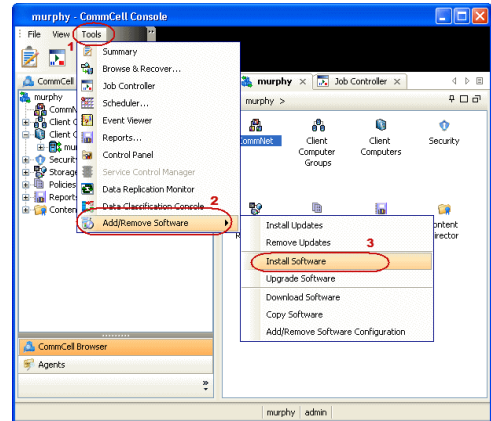
- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).

Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).

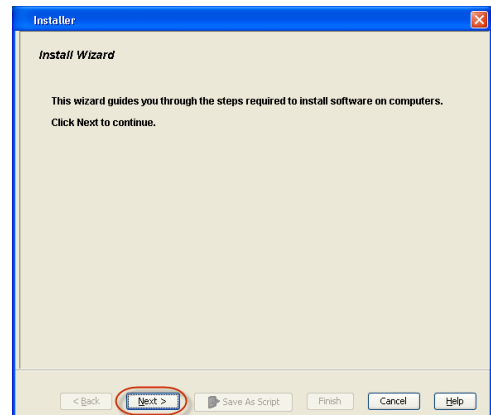
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

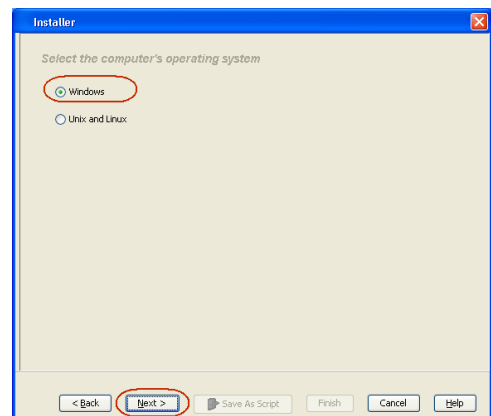
1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.



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 you have Exchange Server.

For example: win08ex07.idclab.loc

Click **Next**.

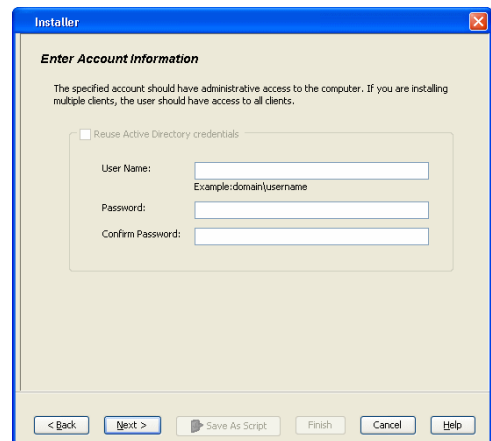
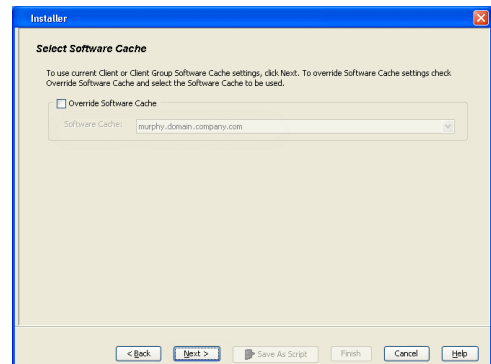
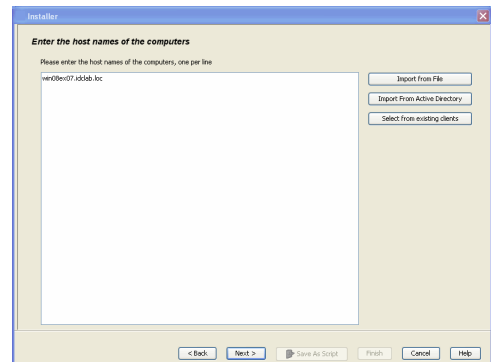
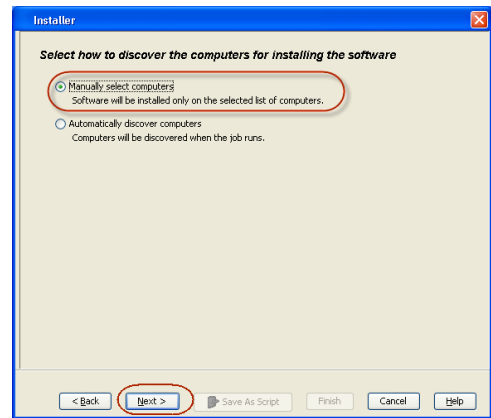
6. Click **Next**.

7. Specify **User Name** and **Password** that must be used to access the computer.

Click **Next**.

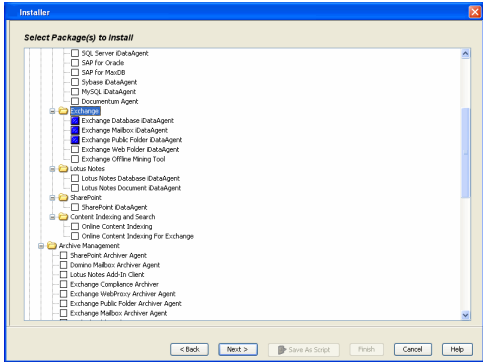
8. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:

- **Exchange Database iDataAgent**
- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**



Click **Next**.

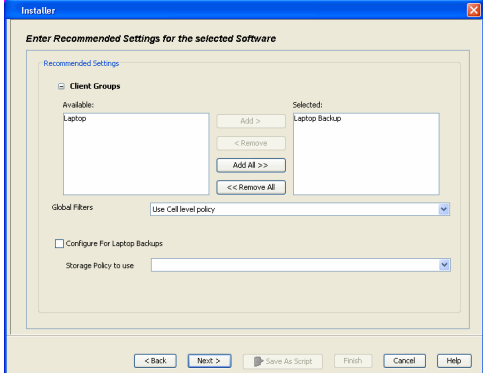
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



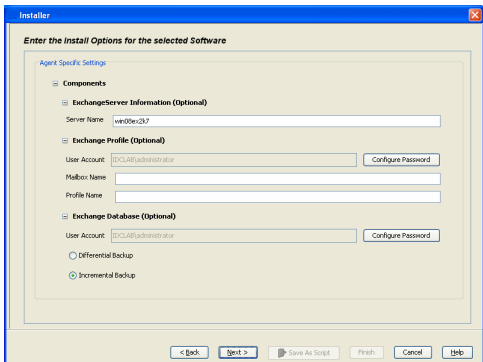
9.
  - Select **Client Group** from **Available** and click **Add**.
  - Select a **Storage Policy** from the drop-down list. Click **Next**.

**NOTES:**

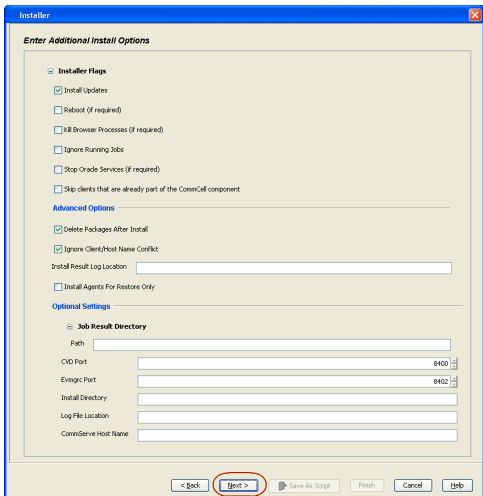
- Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.



10. Type the Agent Specific Settings information.  
Click **Next**.

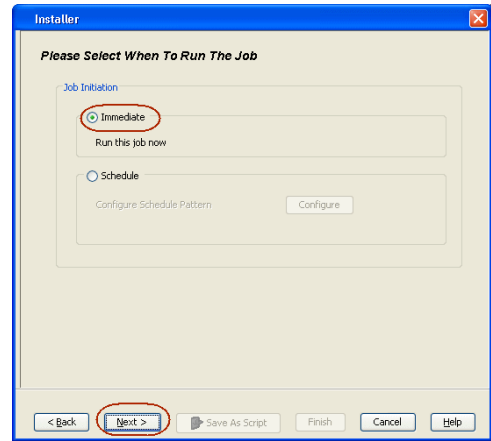


11. Click **Next**.

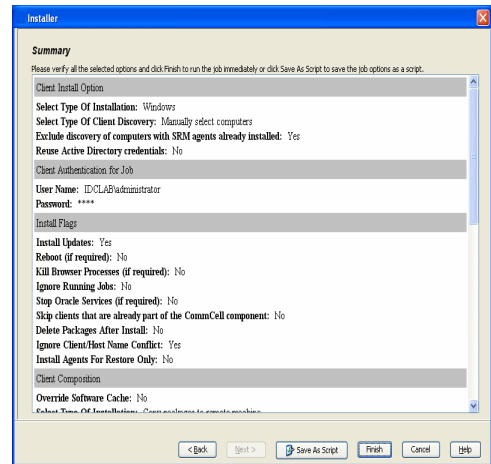


12. Select **Immediate**.  
Click **Next**.

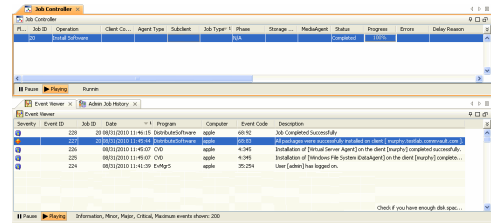
13. Click **Finish**.



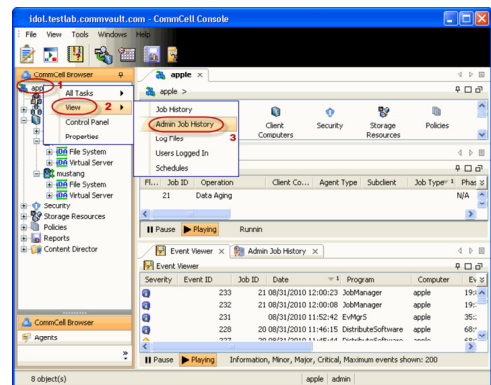
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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



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

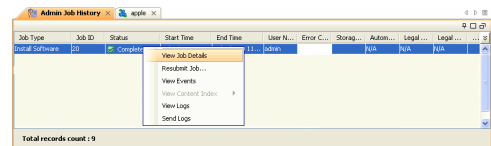
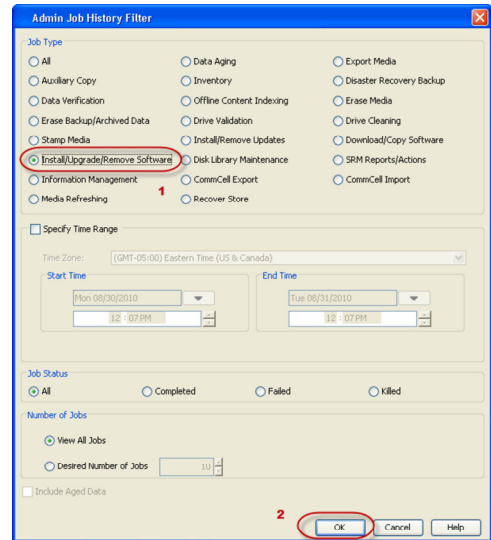


17. You can view the following details about the job by right-clicking the job:

- 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

18. Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MSEXchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter MSEXchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.





# Install the Exchange Agents on Exchange Server 2003 - Clustered Environment

◀ Previous   Next ▶

Follow the steps given below to install the Exchange Agents in clustered environment on the following:

- Exchange Server 2003
- Non-Exchange Server

## WHERE TO INSTALL

The following procedure describes the steps involved in installing the Exchange Agents for Exchange Server 2003 on the following:

- Direct install on a Exchange Server or
- On an Non-Exchange Server computer. This may be used for the following circumstances:
  - In the configuration where a single non-Exchange client is used to backup multiple Exchange Servers.
  - To off-load the backup of Exchange Server, so that the performance of the Exchange Server will not be effected.

## RELATED TOPICS

### Download Software Packages

Provides step-by-step procedure to download the latest packages for software 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.

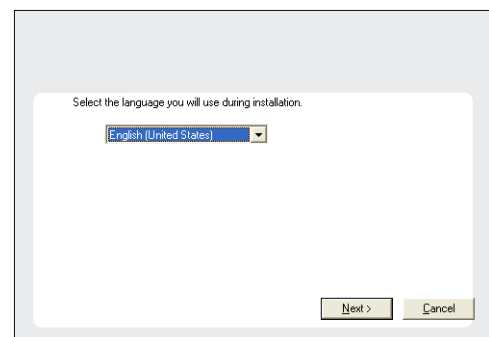
## PREREQUISITES

The below mentioned prerequisites are for Mailbox Agents only. Ensure that you have the following:

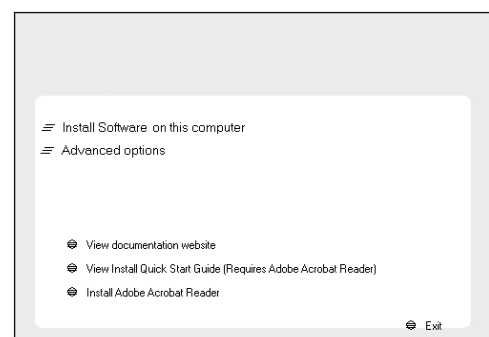
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Using the Exchange System Manager snap-in, right-click the organization object and delegate control.
- Using the Wizard, assign the MailboxAdmin user Exchange Full Administrator privileges.
- Ensure that you assign full access to all mailboxes on the server. For details, see [How do I Assign Full Access to All Mailboxes on a Server.](#)

## INSTALL PROCEDURE

1. Log on to the computer using an account with the following privileges:
  - Administrator of the local computer
  - Administrator of the Exchange Server
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**.

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

8. To install the Exchange iDataAgents expand **Client Modules | Exchange**, and select one or more of the following:

- **Exchange Database iDataAgent**
- **Exchange Mailbox iDataAgent**
- **Exchange Public Folder iDataAgent**

To install the Exchange Archiver Agents, expand **Client Modules | Archive Management**, and select one or more of the following:

- **Exchange Compliance Archiver**
- **Exchange Mailbox Archiver Agent**
- **Exchange Public Folder Archiver Agent**

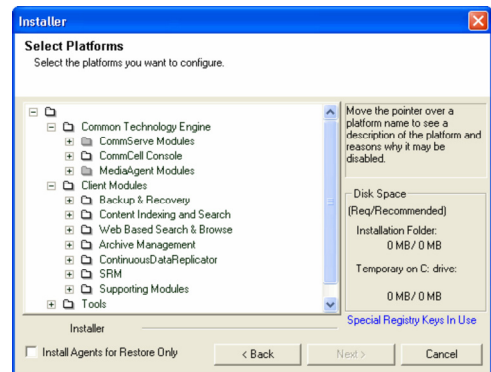
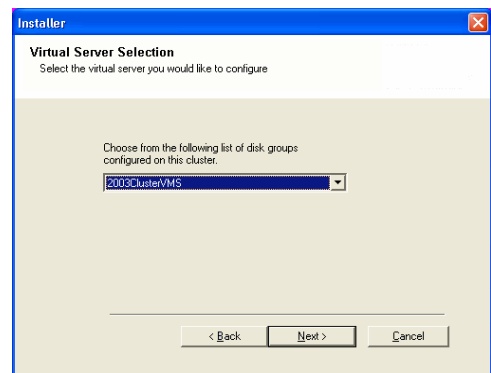
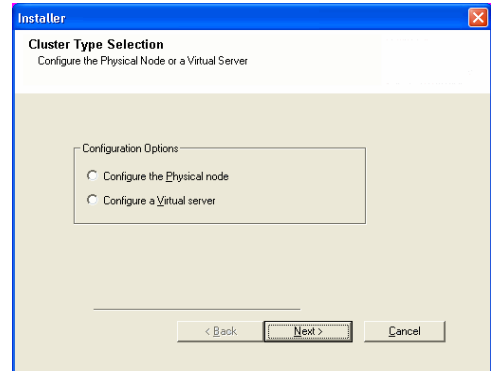
Click **Next**.

For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.

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. 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.

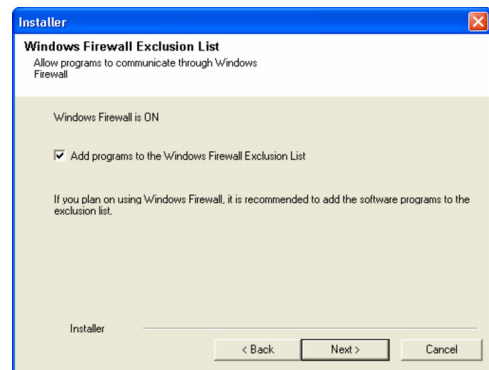
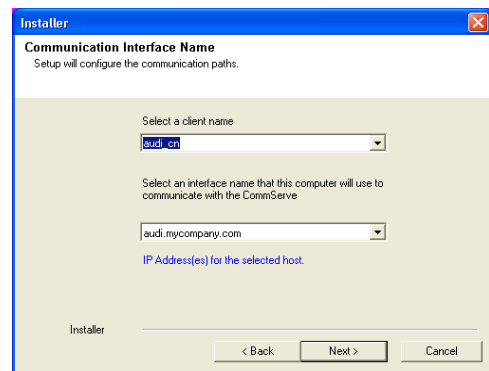
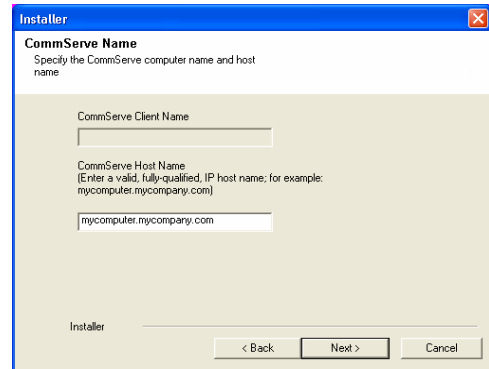
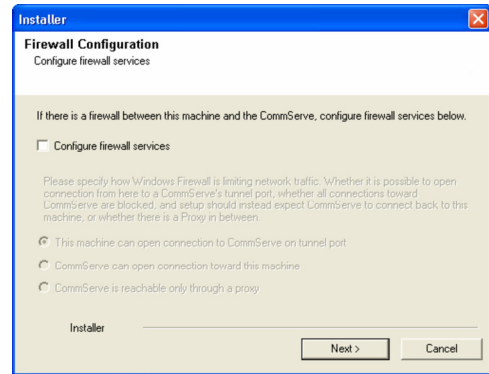
13. Verify the default location for software installation.

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.

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

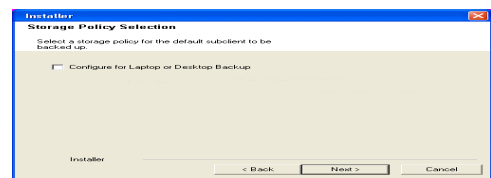
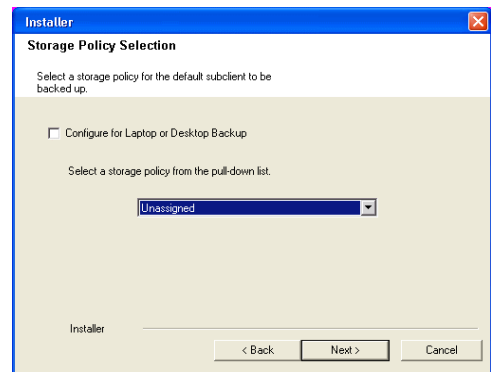
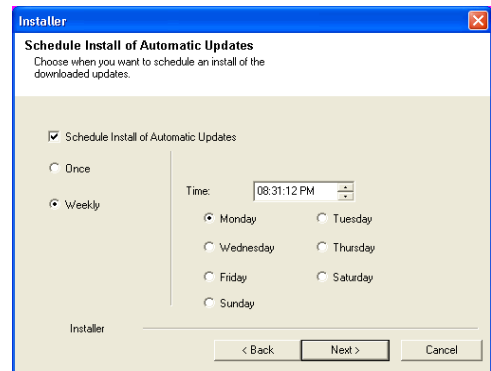
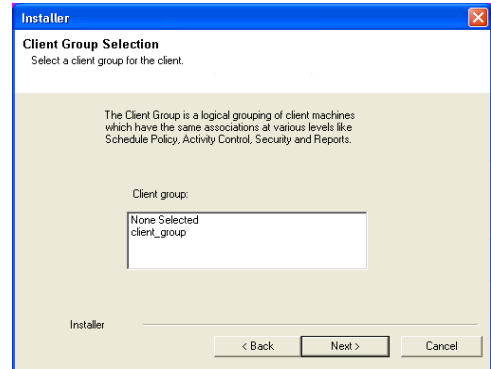
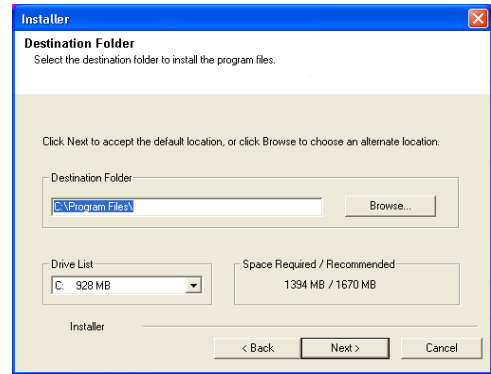
This screen will be displayed if Client Groups are configured in the CommCell Console.

15. Click **Next**.

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

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

You can create the Storage Policy later in step 32.

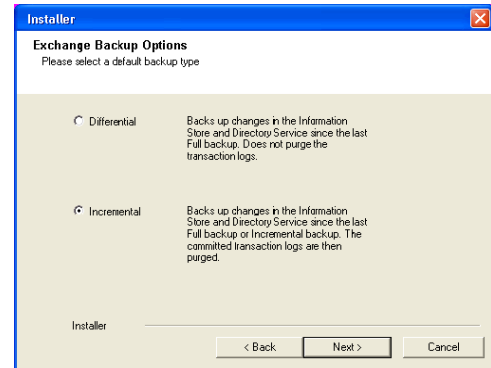


- If you are installing the Exchange Database iDataAgent on the Exchange Server, click Configure Exchange Database Specific Information.

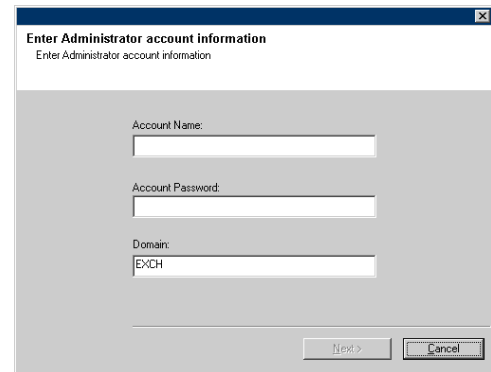
- If you are installing the Exchange Agents on the Non-Exchange Server, skip to Configure Exchange Agents Specific Information.

## CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

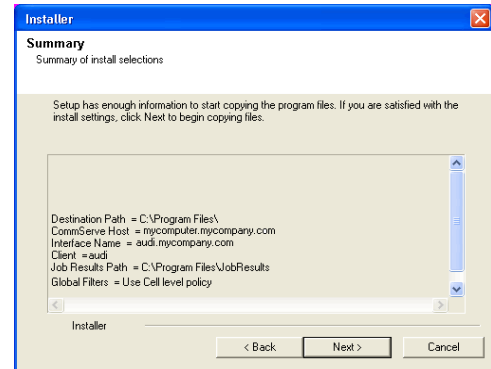
17. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
- **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
  - **Incremental** - Specifies that each non-full Exchange Database backup secures only that data that has changed since the last backup of any type. Committed transaction logs are purged.



18. Enter the user credentials to access the Exchange Server to perform the backup operation.
- The User Account must have Exchange Administrator privileges.
  - The installation detects the domain name. If necessary, you can modify the domain name by specifying Windows domain that the Exchange Server resides in.

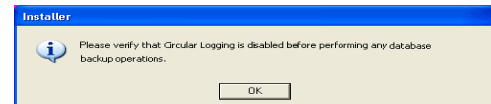


19. Click **Next**.



20. The install program displays a reminder to verify that Circular Logging is disabled before performing any database backup operations. To verify that Circular Logging is disabled:
- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
  - Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.



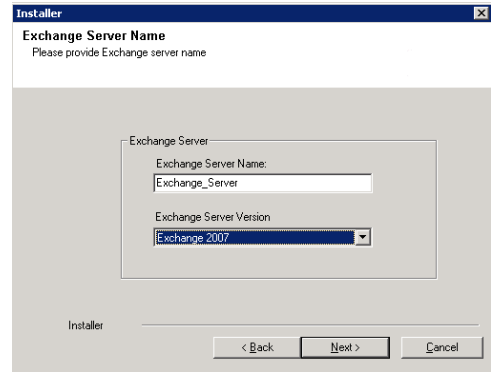
- If you are installing the Exchange Agents, then click Configure Exchange Agents Specific Information.
- If you are installing the Exchange Database iDataAgent, skip to Install Remaining Cluster Nodes.

## CONFIGURE EXCHANGE AGENTS SPECIFIC INFORMATION

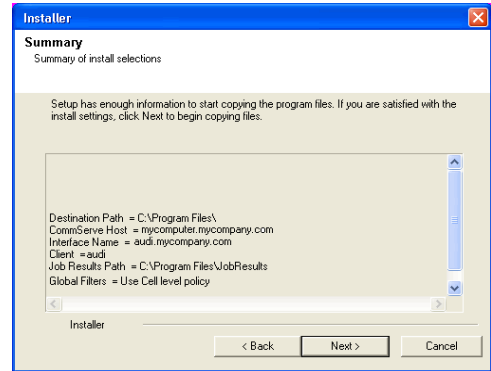
21. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

Click **Next**.

This screen will appear when you are installing Exchange Agents on Non-Exchange Server.



22. Click **Next**.

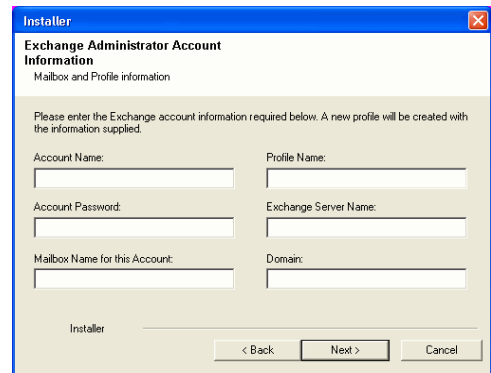


23. Enter the following Exchange Administrator information then click **Next**.

- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
- **Account Password** - The password assigned to the domain user.
- **Mailbox Name for this Account** - Mailbox associated with the user above.
- **Profile Name** - Specify profile name to be created during agent install. This profile is associated with the domain user's mailbox.
- **Exchange Server Name** - Name of the Exchange Server that the agent will communicate with for data protection and recovery operations.

For Exchange Server 2010, enter the Client Access Role. After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.

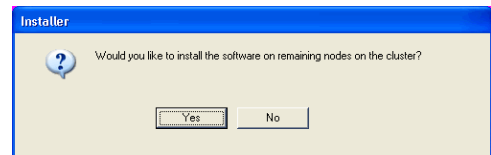
- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.



## INSTALL REMAINING CLUSTER NODES

24. To install the software on the remaining nodes of the cluster, click **Yes**.

To complete the install for this node only, click **No**.



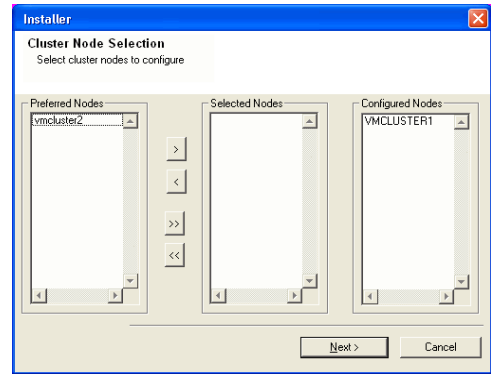
25. Select cluster nodes from the **Preferred Nodes** list and click the arrow button to move them to the **Selected Nodes** list.

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.

26. 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**.



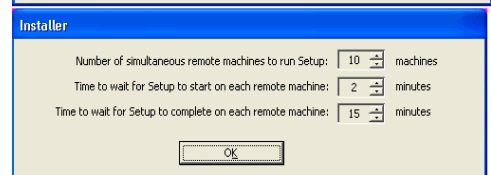
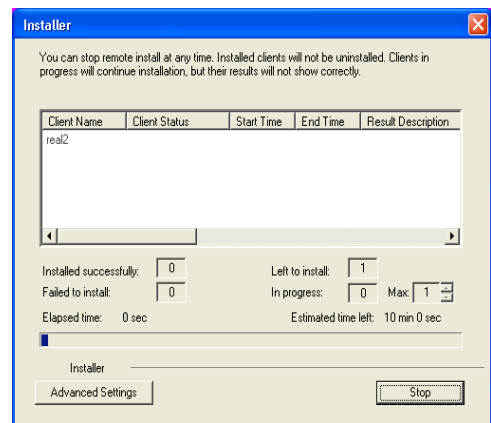
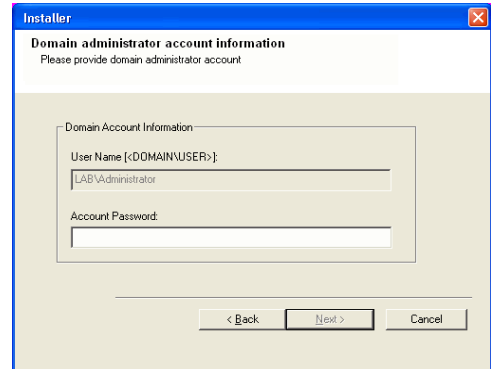
27. The progress of the remote install for the cluster nodes is displayed; the install can be interrupted if necessary.

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.

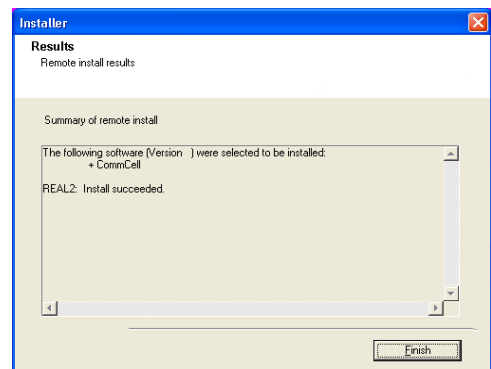
If, during the remote install of a cluster node, setup fails to complete or is interrupted, you must perform a local install on that node. When you do, the install begins from where it left off, or from the beginning if necessary. For procedures, see *Manually Installing the Software on a Passive Node*.



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

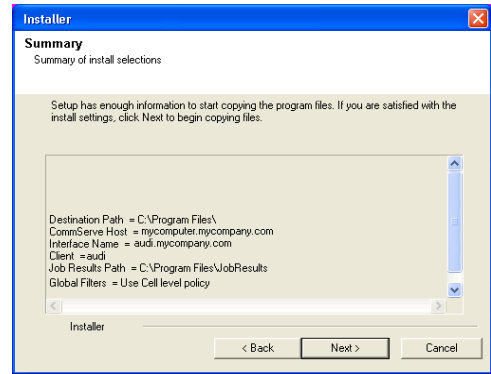
Click **Next**.

- 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.

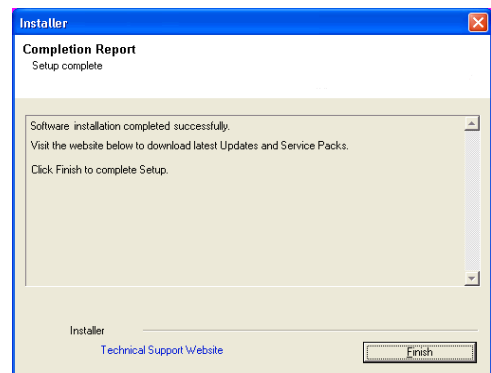
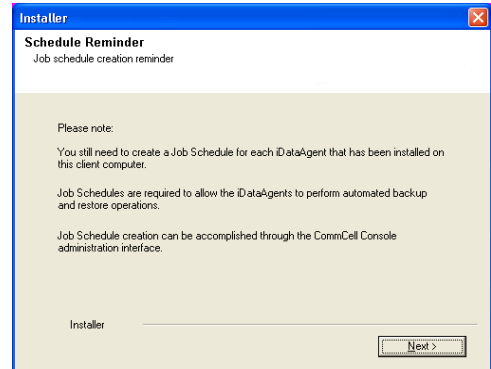


29. Click **Next**.

30. Click **Next**.



31. Click **Finish**.

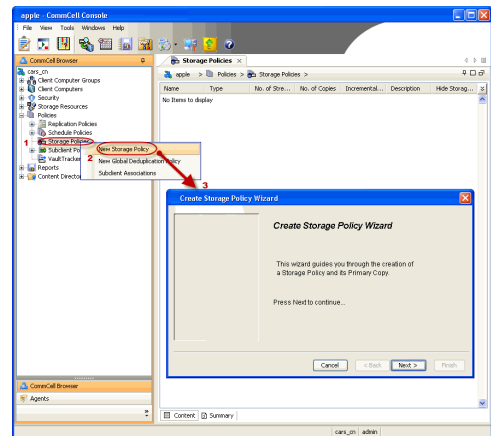


If you already have a storage policy selected in step 16, Click **Next >** button available at the bottom of the page to proceed to the **Configuration** section.

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

32. 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 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.

33.

Enable the following registry key to create job specific profiles:

- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location field. (For Exchange Mailbox iDataAgent).  
Enter MExchangeDMAgent in the Location field. (For Exchange Mailbox iDataAgent).
- Enter REG\_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

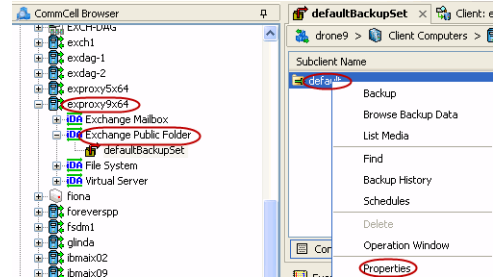


# Getting Started - Exchange Public Folder iDataAgent Configuration

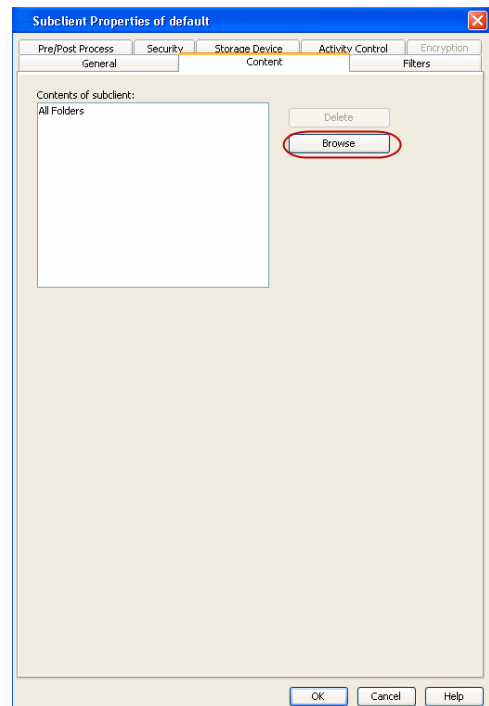


Once the Microsoft Exchange Public Folder iDataAgent is installed, configure a backup set and subclient to facilitate backups.

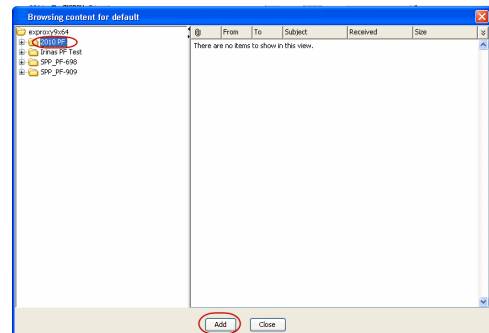
- From the CommCell Console, navigate to **Client Computers** | **<Client>** | **Exchange Public Folder** | **defaultBackupSet**.
  - Right-click the default subclient and then click **Properties**.



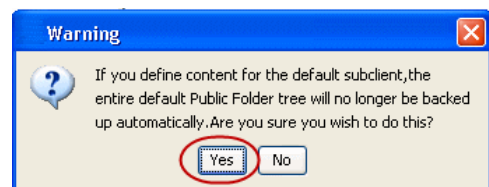
- Click the **Content** tab.
  - Click **Browse**.



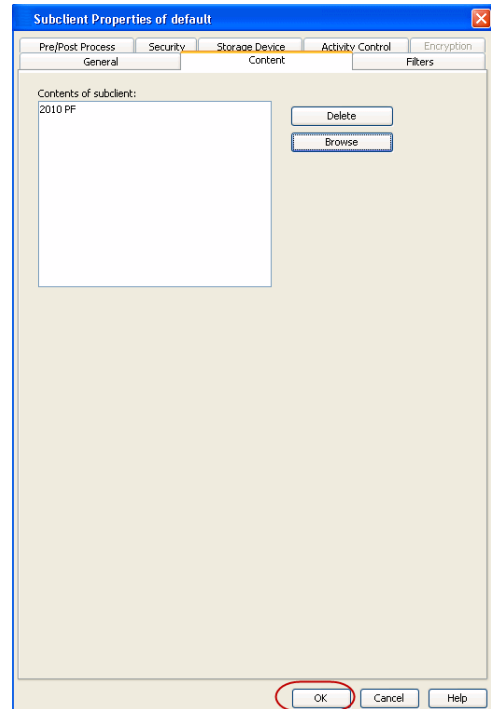
- Select a folder and click **Add**.



- Click **Yes**, then click **Close**.



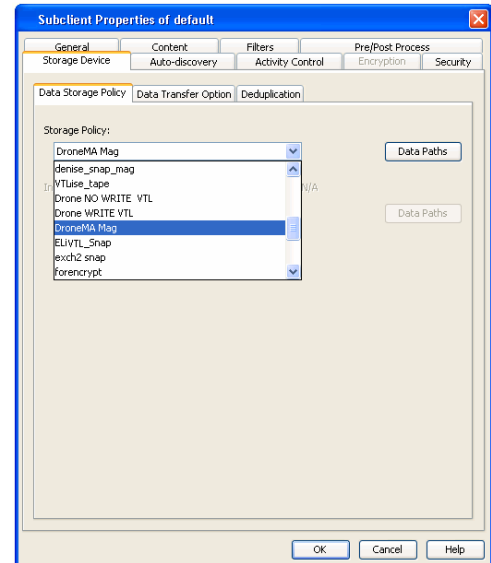
5. Click **OK**.



- 6.
- Click the **Storage Devices** tab.
  - Select a **Storage Policy**.
  - Click **OK**.

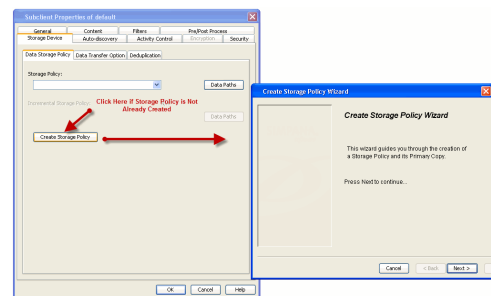
Click **Next** ► to continue.

If you do not have Storage Policy created, click **Create Storage Policy** and proceed to the next step.



7. 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**.
- Select **No** to allow legal hold to use the policy.
- Specify the name of the Storage Policy.
- Specify the name of the primary copy. The primary copy is automatically created along with the Storage Policy.
- Select **No** for use of an existing global deduplication policy.
- Specify name of the default library to which the Primary Copy should be associated. This must be a disk library. Ensure that you select a library attached to a MediaAgent operating in the current release.
- Select the MediaAgent.
- Verify the device streams and the retention criteria information.
- Select **Yes** to enable deduplication for the primary copy. Select the Enable Client Side Deduplication option.
- Name of the Deduplication Store, MediaAgent hosting the Deduplication Store, and the location of the Deduplication Store.
- Review the details and click **Finish** to create the Storage Policy. The primary copy



is also created.



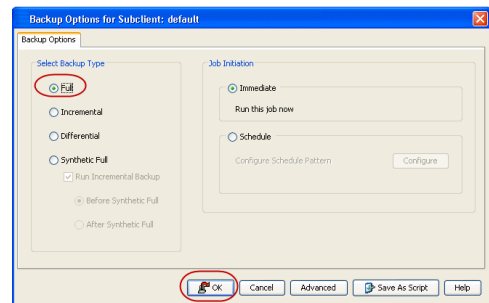
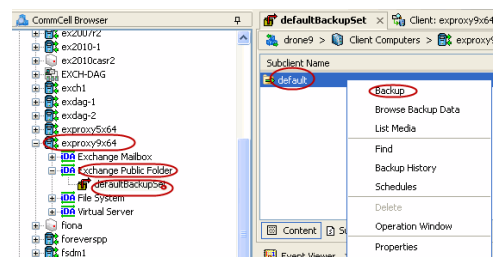
# Getting Started - Exchange Public Folder iDataAgent Backup

◀ Previous Next ▶

WHAT GETS BACKED UP	WHAT DOES NOT GET BACKED UP
Public folders E-mail messages Appointments Contacts Tasks Journal Entries Notes Attachments	Exchange Server Properties Deleted Item Retention Folders are not backed up by default; refer to Configuring Backups for Deleted Item Retention Folders.

## PERFORM A BACKUP

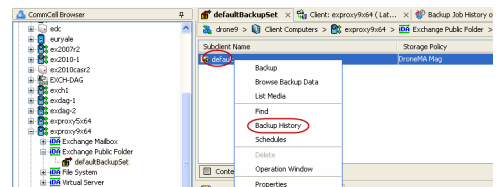
- From the CommCell Console, navigate to **Client Computers** | **<Client>** | **Exchange Public Folder** | **defaultBackupSet**.
  - Right-click the default subclient and click **Backup**.
- Select **Full** as backup type and **Immediate** to run the job immediately.
  - Click **OK**.



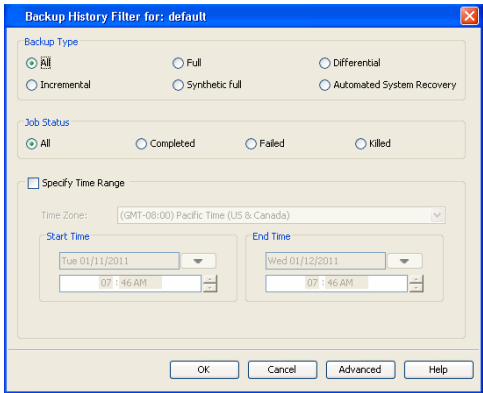
- You can track the progress of the job from the **Job Controller**.



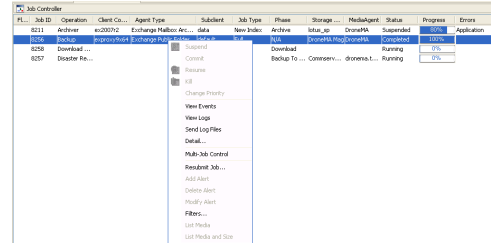
- Once job is complete, view the details of job from the **Backup History**. Right-click the **Subclient** and select **Backup History**.



- Click **OK**.



6. Right-click the job to:
- Resubmit the job.
  - View job details.
  - Filter job information.
  - Control multiple jobs.
  - View events associated with the job.
  - View messages that were backed up.
  - Send the log file that is associated with the job.



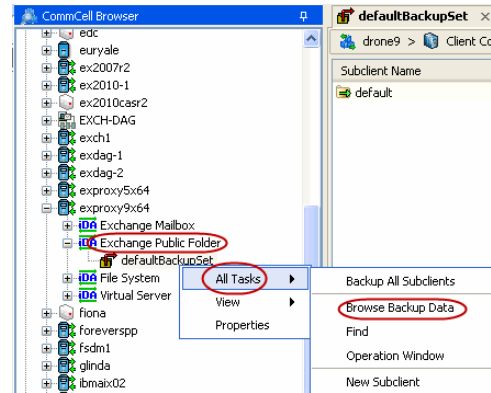
# Getting Started - Exchange Public Folder iDataAgent Restore

< Previous Next >

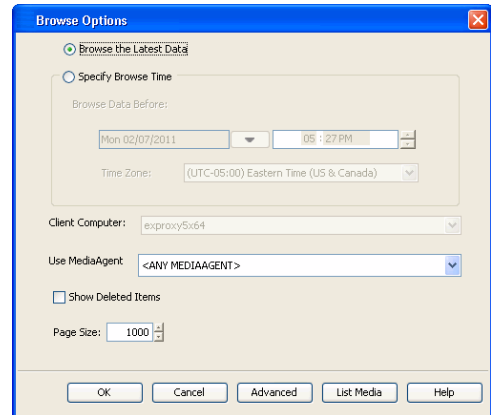
## PERFORM A RESTORE

It is recommended that you perform a restore operation immediately after your first full backup to understand the process. The following section explains how to restore a copy of a public folder.

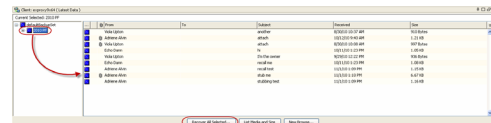
- From the CommCell Console, navigate to **Client Computers** | **<Client>** | **Exchange Public Folder**.
  - Right-click the default backup set and then click **All Tasks** | **Browse Backup Data**.



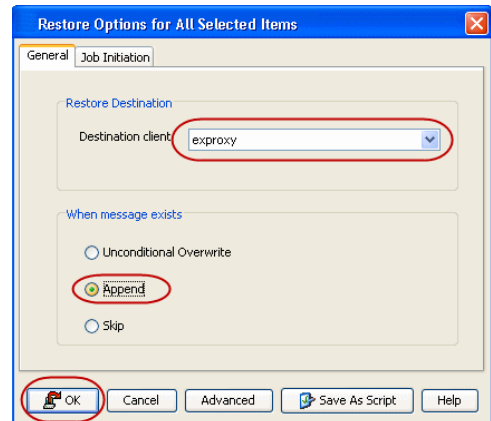
- Click **OK**.



- Select the public folder.
  - Click **Recover All Selected**.

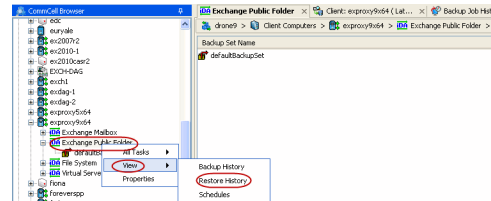
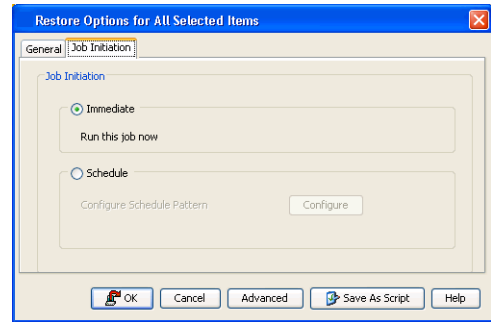


- Select the name of a client computer from the **Destination Client** list.
  - Click **Append**.

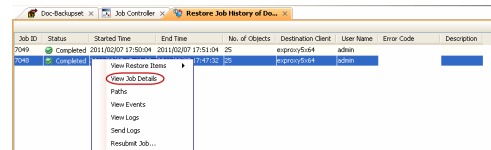
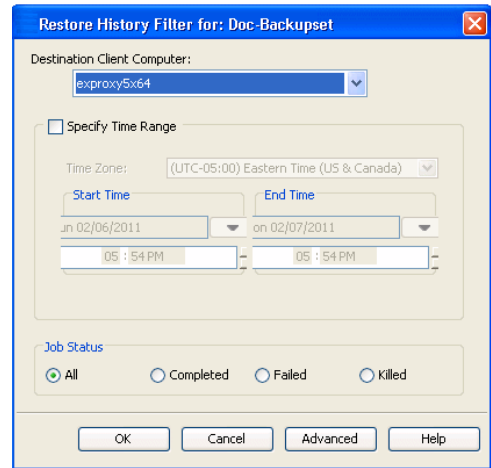


- Select **Immediate** from the **Job Initiation** tab.
  - Click **OK**.

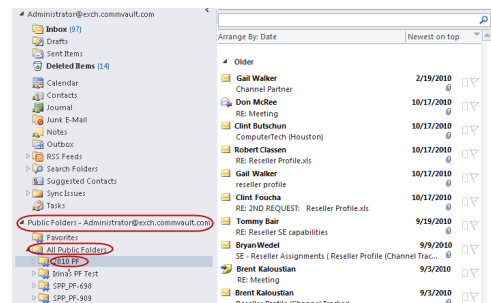
6. You can monitor the progress of the restore job in the **Job Controller** of the CommCell Console.
7. Once the restore job has completed, right-click the agent and click **View | Restore History**.
8. Click **OK**.



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 Paths
  - View Events of the restore job.
  - View Log files of the restore job.



10.
  - On the destination client computer, start Outlook.
  - Click **All Public Folders**.
  - View the restored public folder and appended messages.



**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.



# Advanced - Exchange Public Folder iDataAgent Configuration

## TABLE OF CONTENTS

**Understanding the CommCell Console**

**Adding Public Folders to Backups**

**Grouping Public Folders into User-Defined Subclients**

**Filtering Public Folders from Backups**

**Configuring Backups for Deleted Item Retention Folders**

**Modifying an Agent or Subclient**

**Deleting an Agent, Backup Set, or Subclient**

## UNDERSTANDING THE COMMCELL CONSOLE

The Exchange Public Folder iDataAgent uses the following entities to manage backup and restore operations from the CommCell Console.

### AGENT

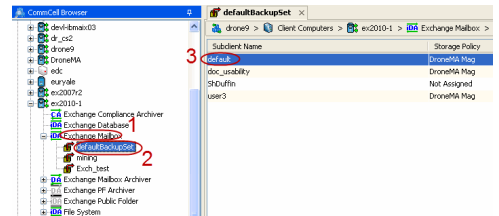
Defines the Exchange Server to be backed up.

### BACKUP SET

Facilitates security settings for all subclients to be backed up.

### SUBCLIENT

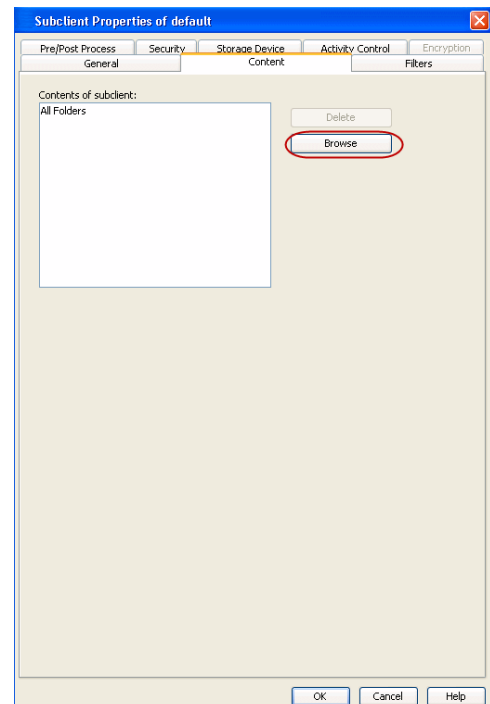
Defines the public folders and the filtering criteria that will be used for backups.



## ADDING PUBLIC FOLDERS TO BACKUPS

You can add additional public folders to backups as follows:

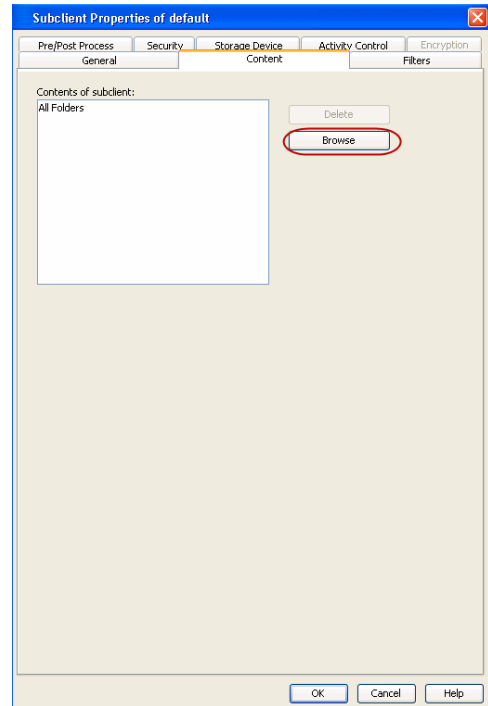
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder | defaultBackupSet**.
2. Right-click the default subclient and then click **Properties**.
3. Click the **Content** tab and then click **Browse**.
4. Select the folders you want to back up and then click **Add**.
5. Click **Yes** to confirm and then click **Close**.
6. Click **OK**.



## GROUPING PUBLIC FOLDERS INTO USER-DEFINED SUBCLIENTS

The Exchange Public Folder iDataAgent provides the facility to divide your backups across a select grouping of public folders. This is accomplished by creating **User-Defined Subclients**, each of which may contain any combination of public folders. Distributing the public folders using subclients can help improve backup performance and provide flexibility for scheduling data protection operations. Any content not assigned to a user-defined subclient remains as content in the default subclient.

1. From the CommCell Browser, right-click the backup set on the source client, and click **All Tasks | New Subclient**.
2. Enter a new subclient name in the **General** tab.
3. Select a Storage Policy for the new subclient and click **OK**.
4. Specify if a backup schedule should be associated to the new subclient and click **OK**.
5. Right-click the subclient and select **Properties**.
6. Click the **Content** tab and then click **Browse**.
7. Select the folders you want to back up and then click **Add**.
8. Click **Yes** to confirm and then click **Close**.
9. Click **OK**.

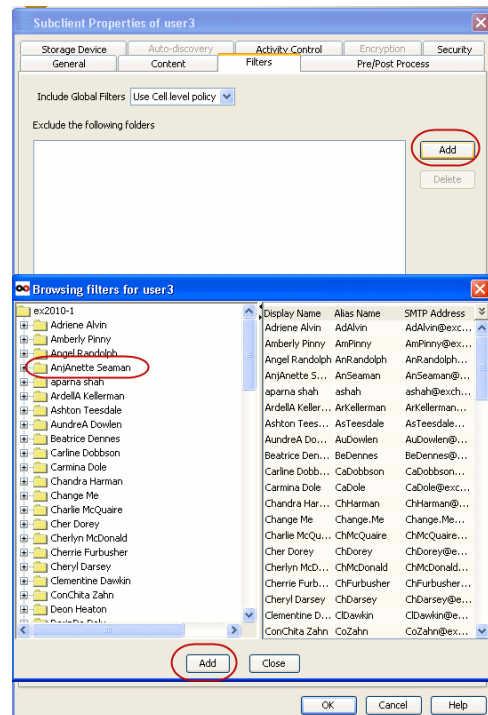


## FILTERING SPECIFIC FOLDERS FROM BACKUPS

You can filter specific public folders from backups as follows:

1. From the CommCell Browser, right-click a subclient and click **Properties**.
2. Click the **Filters** tab, then click **Add** next to **Exclude the following folders**.
3. Select a public folder to exclude.
4. Click **Add**.
5. When finished selecting the items, click **Close**.
6. Click **OK**.

The next time a data protection operation is run, the filter will be used to exclude the folders.

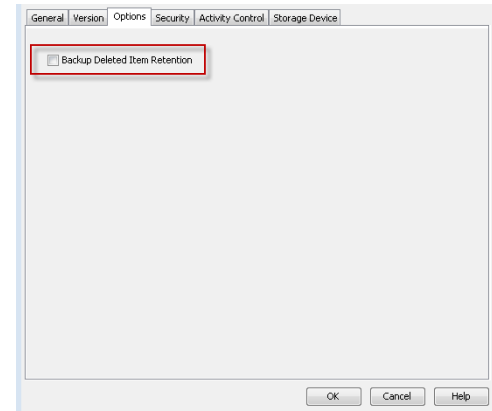


## CONFIGURING BACKUPS FOR DELETED ITEM RETENTION FOLDERS

By default, Deleted Item Retention folders are not included in backups. In some cases, it may be desirable to include them for record keeping purposes. This can be accomplished as follows:

1. From the CommCell Browser, right-click the Exchange Agent and then click **Properties**.
2. From the **Options** tab, select the **Backup Deleted Item Retention** option.

3. Click **OK**.



## MODIFYING AN AGENT OR SUBCLIENT

There are several configurable properties available for your agent that can be modified from the agent, backup set or subclient level as per your need.

It is recommended that that you do not modify the properties of a subclient when a job is in progress for that specific subclient. If a job is in progress, either wait for the job to complete or kill the job from the Job Controller.

The following table describes the properties that can be configured from the agent, backup set and subclient levels.

OPTION	DESCRIPTION	RELATED TOPICS
<b>Change the Profile Name</b>	<p>You can modify the profile that is associated with the appropriate Administrator Public Folder.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and click <b>Properties</b>.</li> <li>3. Select <b>General</b> tab.</li> <li>4. Type the <b>Profile Name</b>.</li> <li>5. Type the <b>Mailbox Name</b>.</li> <li>6. Click <b>OK</b>.</li> </ol>	
<b>Change the Exchange Server Name</b>	<p>You can modify the name of the Exchange Server that is installed on the client computer. However, the Exchange server name should not be the same as Client or Host Name.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and click <b>Properties</b>.</li> <li>3. Select <b>General</b> tab.</li> <li>4. Type the <b>Exchange Server Name</b>.</li> <li>5. Click <b>OK</b>.</li> </ol>	
<b>Change Account</b>	<p>You can change the Exchange administrator account information associated with this agent.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and Click <b>Properties</b>.</li> <li>3. Select <b>General</b> tab.</li> <li>4. Click <b>Change Account</b>.</li> <li>5. Type the Account name in <b>Exchange Administrator Account</b> box.</li> <li>6. Type the Password in <b>Password</b> box.</li> <li>7. Type the password again in <b>Confirm Password</b> box.</li> <li>8. Click <b>OK</b>.</li> </ol>	
<b>Backup Deleted Item Retention</b>	<p>You can choose to backup the Deleted Item Retention folder.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and Click <b>Properties</b>.</li> <li>3. Select <b>General</b>.</li> <li>4. Select <b>Backup Deleted Item Retention</b> check box.</li> <li>5. Click <b>OK</b>.</li> </ol>	

<b>Change the Exchange Version</b>	<p>You can select and modify the version of the Exchange Server from the list.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and Click <b>Properties</b>.</li> <li>3. Select a version from the <b>Exchange Version</b> list.</li> <li>4. Click <b>OK</b>.</li> </ol>	
<b>AD Server</b>	<p>This feature allows you to specify the domain name of one or more Exchange Servers containing public folders and accounts that reside in a non-default domain or in multiple domains.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and Click <b>Properties</b>.</li> <li>3. Select <b>AD Server</b> tab. The AD Server list displays the domain names of one or more non-default exchange servers.</li> <li>4. Click <b>Add</b> to include the domain name of a non-default exchange server.</li> <li>5. Click <b>Delete</b> to remove the domain name of a non-default exchange server.</li> <li>6. Click <b>OK</b>.</li> </ol>	
<b>Rename Backup Set and Subclient</b>	<p>You can rename a backup set and subclient:</p> <p>Renaming backup sets:</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set</b>.</li> <li>2. Right-click the backup set and then click <b>Properties</b>.</li> <li>3. Type the new name in the <b>Backup Set</b> field.</li> <li>4. Click <b>OK</b>.</li> </ol> <p>Renaming subclients:</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set   &lt;user-defined Subclient&gt;</b>.</li> <li>2. Right-click the subclient and then click <b>Properties</b>.</li> <li>3. Type the new name in the <b>Subclient name</b> field.</li> <li>4. Click <b>OK</b>.</li> </ol>	
<b>Change Storage Policies</b>	<p>You can modify the storage policies in any of the following situations:</p> <ul style="list-style-type: none"> <li>• To include a different media for the backup operation.</li> <li>• To use a storage policy with a different retention criteria.</li> </ul> <p>You can change the storage policies from the subclient level.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, right-click the subclient.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Storage Device</b>.</li> <li>4. Select the <b>Storage policy</b> from the drop-down menu.</li> <li>5. Click <b>OK</b>.</li> </ol>	Refer to Storage Policies.
<b>Data Transfer Options</b>	<p>You can efficiently configure the available resources for transferring data secured by data protection operations from the subclient level. This includes the following:</p> <ul style="list-style-type: none"> <li>• Enable or disable <b>Data Compression</b> either on the client or the MediaAgent.</li> <li>• Configure the transfer of data in the network using the options for <b>Network Bandwidth Throttling</b> and <b>Network Agents</b>.</li> </ul> <p>You can configure the data transfer options.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, right-click the subclient.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Storage Device</b>.</li> <li>4. Click <b>Data Transfer Option</b> tab.</li> <li>5. Choose the appropriate software compression option for this subclient.</li> <li>6. Select <b>Throttle Network Bandwidth</b> and set the required bandwidth.</li> <li>7. Click <b>OK</b>.</li> </ol>	Refer to Data Compression and Network Bandwidth Throttling.
<b>View Data Paths</b>	<p>You can view the data paths associated with the primary storage policy copy of the selected storage policy or incremental storage policy. You can also modify the data paths including their priority from the subclient level.</p>	

	<ol style="list-style-type: none"> <li>1. From the CommCell browser, right-click the subclient.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Storage Device</b>.</li> <li>4. Select <b>Storage Policy</b> from the drop-down menu.</li> <li>5. Click <b>Data Paths</b>.</li> </ol>	
<b>Configure a Subclient for Pre/Post Processing of Data Protection</b>	<p>You can add, modify or view Pre/Post processes for the subclient. These are batch files or shell scripts that you can run before or after certain job phases.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>.</li> <li>2. Right-click the iDataAgent and Click <b>Properties</b>.</li> <li>3. Click <b>Properties</b>.</li> <li>4. Click <b>Pre/Post Process</b>.</li> <li>5. Click one of the following phases and type the full path of the process that you want to execute during that phase. Alternatively, click <b>Browse</b> to locate the process (applicable only for paths that do not contain any spaces). <ul style="list-style-type: none"> <li>o <b>PreBackup Process</b></li> <li>o <b>PostBackup Process</b></li> </ul> </li> <li>6. Click <b>OK</b>.</li> <li>7. Select <b>Run Post Backup Process for all attempts</b> to run a post backup process for all attempts.</li> <li>8. For subclients on Windows platforms, <b>Run As</b> displays <b>Not Selected</b>. If you want to change the account that has permission to run these commands, click <b>Change</b>. <ol style="list-style-type: none"> <li>a. In the <b>User Account</b> dialog box, select <b>Use Local System Account</b>, or select <b>Impersonate User</b> and enter the user name and password. Click <b>OK</b>.</li> <li>b. If you selected Local System Account, click <b>OK</b> to the message advising you that commands using this account have rights to access all data on the client computer.</li> </ol> </li> </ol>	Refer to Pre/Post Processes.
<b>Configure Activity Control</b>	<p>You can enable backup and restore operations from the agent and subclient level. However, you can enable restore operations only from the agent level.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, right-click the subclient.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Activity Control</b>, select or clear option(s) as desired.</li> <li>4. Click <b>OK</b>.</li> </ol>	Refer to Activity Control.
<b>Configure User Security</b>	<p>You can configure user security from the agent or subclient level.</p> <p>You can perform the following functions:</p> <ul style="list-style-type: none"> <li>• Identify the user groups to which this CommCell object is associated.</li> <li>• Associate this object with a user group.</li> <li>• Disassociate this object from a user group.</li> </ul> <ol style="list-style-type: none"> <li>1. From the CommCell browser, right-click the subclient.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Security</b>.</li> <li>4. Select the appropriate user groups to which you want to associate to the CommCell object from the <b>Available Groups</b> pane, and then move the user group to the <b>Associated Groups</b> pane.</li> <li>5. Click <b>OK</b>.</li> </ol>	Refer to User Administration and Security.
<b>Enable/Disable Data Encryption</b>	<p>You can enable data encryption from the subclient level. Encryption must be enabled at the client level prior to configuring any instances residing on that client.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, right-click the subclient.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Encryption</b>.</li> <li>4. Select the desired encryption.</li> <li>5. Click <b>OK</b>.</li> </ol>	Refer to Data Encryption.
<b>View Software Version</b>	<p>The <b>Version</b> tab, at the Agent level displays the software version of the component.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, right-click the agent.</li> <li>2. Click <b>Properties</b>.</li> <li>3. Click <b>Version</b>.</li> <li>4. Click <b>OK</b>.</li> </ol>	

<b>CommCell Configuration Report</b>	<p>The CommCell Configuration Report provides the properties of the CommServe, MediaAgents, clients, agents, SRM agents, subclients, and storage policies within the CommCell based on the selected filter criteria.</p> <ol style="list-style-type: none"> <li>1. From the CommCell browser, click <b>Reports</b> icon.</li> <li>2. Select <b>CommCell Configuration</b>.</li> <li>3. Click <b>Run</b>.</li> </ol>	Refer to CommCell Configuration.
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## DELETING AN AGENT, BACKUPSET OR SUBCLIENT

The following sections describe the steps involved in deleting an agent, backup set or subclient.

When you delete an instance or backupset, the associated data is logically deleted and you can no longer access the corresponding data from CommCell Console for recovery purposes.

Refer to the troubleshooting article on Recovering Data Associated with Deleted Clients and Storage Policies for information on how to recover data if you accidentally delete an entity.

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### DELETING AN AGENT

You need to uninstall or DeConfigure the agent software from the client computer before deleting from CommCell Browser. After you delete the client software, you can either leave the corresponding data intact for appropriate action or you can remove the data immediately. If you choose to remove the data immediately, you must delete the agent from the CommCell Browser. If you delete the agent, all of the agent's data is irretrievably lost.

- You cannot delete an agent while operations for that agent are running.
1. From the CommCell Browser, navigate to **Client Computers | <Client>**.
  2. Right-click the **<Agent>**, and then click **Delete**.
  3. A confirmation message is displayed with the following message:

This operation will permanently delete the data backed up from this level and it cannot be restored.

4. Click **OK** to continue with the deletion operation., or click **No** to abort the deletion.

---

### DELETING A BACKUPSET

Consider the following before deleting a Backup Set:

- You cannot delete a default Backup Set.
  - Schedules associated with the Backup Set are also automatically deleted.
1. From the CommCell Browser, navigate to **Client Computers | <Client> | <Agent>**.
  2. Right-click the **<Backup Set>**, and then click **Delete**.
  3. A confirmation message is displayed, asking if you want to delete the Backup Set.

Click **No** to cancel the deletion and retain the Backupset, or click **Yes** to continue the deletion.

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### DELETING A SUBCLIENT

Consider the following before deleting a subclient:

- You cannot delete a default subclient.
  - Schedules associated with the subclient are also automatically deleted.
1. From the CommCell Browser, navigate to **Client Computers | <Client> | <Agent> | <Backup Set>**.
  2. Right-click the **<subclient>** that you want to delete, and then click **Delete**.
  3. A confirmation message is displayed, asking if you want to delete the subclient.

Click **No** to cancel the deletion and retain the subclient, or click **Yes** to continue the deletion.

# Advanced – Microsoft Exchange Public Folder iDataAgent Backup

## TABLE OF CONTENTS

### Full Backups

### Incremental Backups

### Differential Backups

### Scheduling A Backup

### Managing Jobs

Restarting Jobs

Controlling Jobs

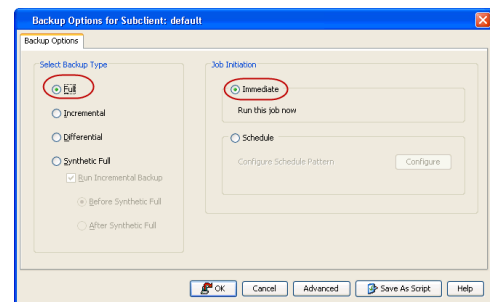
### Additional Options

## FULL BACKUPS

Full backups provide the most comprehensive protection of data.

1. From the CommCell Console, navigate to **<Client> | Exchange Public Folder | defaultBackupSet**.
2. Right click the subclient and click **Backup**.
3. Select **Full** as backup type and **Immediate** to run the job immediately.
4. Click **OK**.

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



## INCREMENTAL BACKUPS

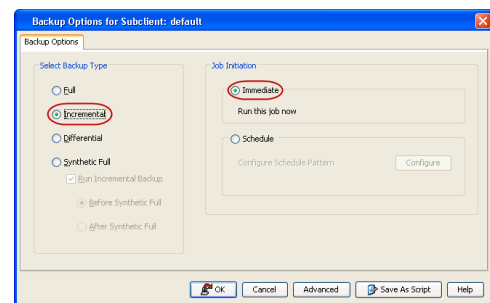
An incremental backup contains only data that is new or has changed since the last backup, regardless of the type. On average, incremental backups consume less media and use less resources than full backups.

The illustration on the right clarifies the nature of full and incremental backups.

Follow steps given below to perform an incremental backup:

1. From the CommCell Console, navigate to **<Client> | Exchange Public Folder | defaultBackupSet**.
2. Right click the subclient and click **Backup**.
3. Select **Incremental** as backup type and **Immediate** to run the job immediately.
4. Click **OK**.

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



## DIFFERENTIAL BACKUPS

A differential backup contains only the data that is new or has changed since the last full backup. Like incremental backups, differential backups also consume less media and use less resources than full backups. Differential backups are cumulative. This means that each differential backup contains all changes accumulated since the last full backup. Each successive differential backup contains all the changes from the previous differential backup.

The illustration on the right demonstrates the nature of differential backups. For simplicity, assume there is a file system that contains six files as represented in the figure.

1. From the CommCell Console, navigate to **<Client> | Exchange Public Folder | defaultBackupSet**.

## RELATED TOPICS

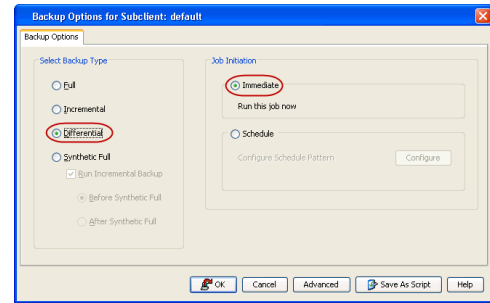
### Scheduling

Provides comprehensive information on scheduling jobs.

### Job Management

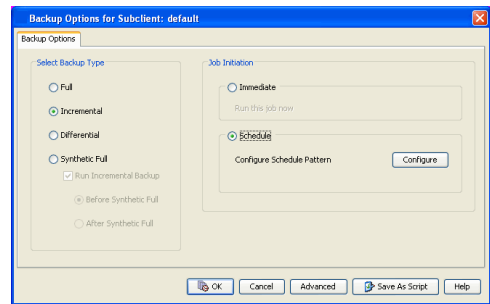
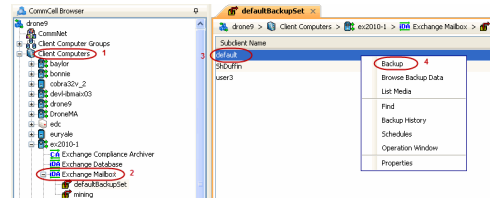
Provides comprehensive information on managing jobs.

2. Right click the subclient and click **Backup**.
3. From the **Backup Options** dialog box, select from the following options:  
 Backup Type:
  - o Select **Differential**.
 Backup Schedule:
  - o Select **Run Immediately**
4. Click **OK**.
5. You can track the progress of the backup job from the **Job Controller** window.
6. When the backup has completed, the Job Controller displays **Completed**.

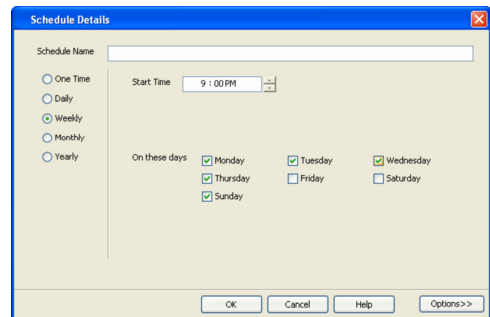


## SCHEDULING A BACKUP

1.
  - From the CommCell Console, navigate to **<Client> | Exchange Public Folder**
  - Right-click the **Subclient** and click **Backup**
2.
  - Select the backup type
  - Click **Schedule**
  - Click **Configure**



3. Select **Schedule Options**. For example:
  - Click **Weekly**
  - Check the days you want the run the backup job
  - Change the Start Time to 9:00 PM
  - Click **OK** to close the Schedule Details dialog box
  - Click **OK** to close the Backup Options dialog box
 The backup job will execute as per the schedule



## MANAGING JOBS

The following sections provide information on the various options available for job management.

### RESTARTING JOBS

Jobs that fail to complete successfully are automatically restarted based on the job restartability configuration set in the Control Panel. Keep in mind that changes made to this configuration will affect all jobs in the entire CommCell.

To Configure the job restartability for a specific job, you can modify the retry settings for the job. This will override the setting in the Control Panel. It is also possible to override the default CommServe configuration for individual jobs by configuring retry settings when initiating the job. This configuration, however, will apply only to the specific job.

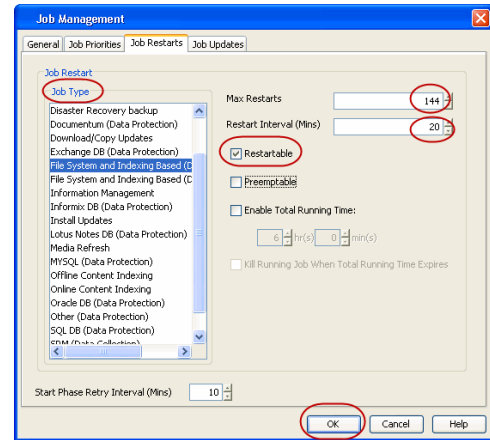
Backup jobs for this Agent are resumed from the point-of-failure.

### CONFIGURE JOB RESTARTABILITY AT THE COMMSERVE LEVEL

1. From the CommCell Browser, click **Control Panel** icon.



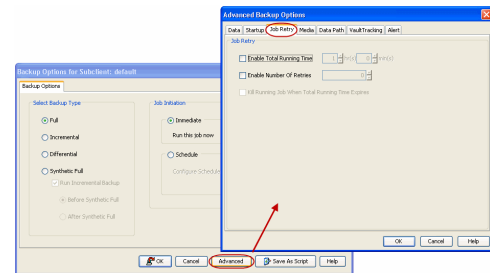
2. Select **Job Management**.
3. Click **Job Restarts** tab and select a **Job Type**.
  - o Select **Restartable** to make the job restartable.
  - o Change the value for **Max Restarts** to change the maximum number of times the Job Manager will try to restart a job.
  - o Change the value for **Restart Interval (Mins)** to change the time interval between attempts for the Job Manager to restart the job.
4. Click **OK**.



**CONFIGURE JOB RESTARTABILITY FOR AN INDIVIDUAL JOB**

1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox**
2. Right-click the **Subclient** and select **Backup**
3. Click **Advanced**.
4. In the **Advanced Backup Options** dialog box, click the **Job Retry** tab.
5. Select **Enable Total Running Time** and specify the maximum elapsed time before a job can be restarted or killed.
 

Select **Kill Running Jobs When Total Running Time Expires** to kill the job after reaching the maximum elapsed time.
6. Select **Enable Number Of Retries** and specify the number of retries.
7. Click **OK**.



**CONTROLLING JOBS**

The following controls are available for running jobs in the Job Controller window:

<b>SUSPEND</b>	Temporarily stops a job. A suspended job is not terminated; it can be restarted at a later time.
<b>RESUME</b>	Resumes a job and returns the status to Waiting, Pending, Queued, or Running. The status depends on the availability of resources, the state of the Operation Windows, or the Activity Control setting.
<b>KILL</b>	Terminates a job.

**SUSPENDING A JOB**

1. From the Job Controller of the CommCell Console, right-click the job and select **Suspend**.
2. The job status may change to **Suspend Pending** for a few moments while the operation completes. The job status then changes to **Suspended**.

**RESUMING A JOB**

1. From the Job Controller of the CommCell Console, right-click the job and select **Resume**.
2. As the Job Manager attempts to restart the job, the job status changes to **Waiting, Pending, or Running**.

**KILLING A JOB**

1. From the Job Controller of the CommCell Console, right-click the job and select **Kill**.
2. Click **Yes** when the confirmation prompt appears if you are sure you want to kill the job. The job status may change to **Kill Pending** for a few moments while the operation completes. Once completed, the job status will change to **Killed** and it will be removed from the Job Controller window after five minutes.

**ADDITIONAL OPTIONS**

Several additional options are available to further refine your backup operations. The following table describes these options, as well as the steps for configuring them.

Be sure to read the overview material referenced for each feature prior to using them.

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OPTION	DESCRIPTION	RELATED TOPICS
<b>Catalog</b>	<p>Use the Catalog options to select index cache sharing and granular restartability options for the job. Note that these options are not applicable for the disaster recovery data protection.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set</b>.</li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup</b>.</li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced</b>.</li> <li>4. Select <b>Data</b> and choose one of the following: <ul style="list-style-type: none"> <li>o <b>Use shared profile if present with transaction logging</b> if you wish to use the shared index cache profile of the MediaAgent (if configured) to save a copy of the job's index cache for index cache sharing <i>with</i> transaction logging feature for granular job restartability.</li> <li>o <b>Use shared profile if present without transaction logging</b> if you wish to use the shared index cache profile of the MediaAgent (if configured) to save a copy of the index cache for index cache sharing <i>without</i> transaction logging feature for granular job restartability. This is not a recommended configuration.</li> <li>o <b>Use transaction logging</b> to use transaction logging feature to provide granular job restartability (without using shared profile for index cache sharing).</li> <li>o <b>None</b> to use neither shared profile nor transaction logging.</li> </ul> </li> <li>5. Click <b>OK</b>.</li> </ol>	
<b>Startup Options</b>	<p>The Job Manager will use the startup priority setting when allocating the required resources. This is useful if you have jobs that are very important and must complete, or jobs that can be moved to a lower priority.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set</b>.</li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup</b>.</li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced</b>.</li> <li>5. Select <b>Startup</b>.</li> <li>6. Select <b>Default Priority</b>. You can select <b>Change Priority</b> for a job, between 0 (highest priority) and 999 (lowest priority).</li> <li>7. Select <b>Start up in suspended State</b> to specify the selected job to start in the Job Controller in a suspended state.</li> <li>8. Click <b>OK</b>.</li> </ol>	Refer to Job Priority and Priority Precedence.
<b>Job Retry Options</b>	<p>The Job Retry option helps in configuring the retry behavior of the backup jobs. You can specify the maximum elapsed time before a job can be restarted or killed and the maximum number of restart attempts.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set</b>.</li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup</b>.</li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced</b>.</li> <li>5. Select <b>Job Retry</b>.</li> <li>6. Select <b>Enable Total Running Time</b> and specify the maximum elapsed time in hours and minutes.</li> <li>7. Select <b>Number Of Retries</b> and specify the number of retries. Based on this number, the Job Manager attempts to restart the job.</li> <li>8. Select <b>Kill Running Jobs When Total Running Time Expires</b>. The job will be killed when the job is still in running status even after reaching the maximum elapsed time.</li> <li>9. Click <b>OK</b>.</li> </ol>	Refer to Job Management.
<b>Start New Media</b>	<p>The Start New Media option helps in starting the backup/archive operation on a new media. This media management feature provides a degree of control over where the data physically resides.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set</b>.</li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup</b>.</li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced</b>.</li> <li>5. Select <b>Media</b>.</li> <li>6. Select <b>Start New Media</b>.</li> <li>7. Click <b>OK</b>.</li> </ol>	Refer to Start New Media.
<b>Mark Media Full</b>	<p>The Mark Media Full on Success option marks the Media as Full, 2 minutes after the successful completion of the backup/archive. This feature prevents any other data being written to the same media.</p>	Refer to Export Media.

	<ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set.</b></li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup.</b></li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced.</b></li> <li>5. Select <b>Media.</b></li> <li>6. Select <b>Mark Media Full on Success.</b></li> <li>7. Click <b>OK.</b></li> </ol>	
<b>Allow other Schedules to use Media Set</b>	<p>The Allow Other Schedules to use Media Set option allows jobs that are part of the schedule or schedule policy and using the specific storage policy to start a new media. It also prevents other jobs from writing to the same set of media.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set.</b></li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup.</b></li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced.</b></li> <li>5. Select <b>Media.</b></li> <li>6. Select <b>Allow Other Schedules To Use Media Set.</b></li> <li>7. Click <b>OK.</b></li> </ol>	Refer to Creating an Exportable Media Set.
<b>Extend Job Retention</b>	<p>This option allows you to extend the retention end time of the selected job. You can extend the retention period to infinite period or for a specified number of days. You can also extend to storage policy default period.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set.</b></li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup.</b></li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced.</b></li> <li>5. Select <b>Media.</b></li> <li>6. Select any of the following Extend Job Retention period options: <b>Infinite/Number of days/Storage Policy default.</b></li> <li>7. Click <b>OK.</b></li> </ol>	
<b>Data Path Options</b>	<p>Data Protection operations use a specific data path (Library, MediaAgent, Drive Pool, and Drive) to perform the backup operations as configured in the CommCell. By default, the system automatically identifies the data path for the backup operations. The following are some of the important situations where you may need to change the data path:</p> <ul style="list-style-type: none"> <li>• When the preferred MediaAgent, library or drive pool is not available during the backup</li> <li>• When you need to use a different MediaAgent, library or drive pool for load balancing purposes.</li> <li>• When you need to direct that backup to a particular location for compliance purposes.</li> </ul> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set.</b></li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup.</b></li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced.</b></li> <li>5. Select <b>Data Path.</b></li> <li>6. Select the <b>MediaAgent</b> and <b>Library.</b></li> <li>7. Select the <b>Drive Pool</b> and <b>Drive</b> for optical and tape libraries.</li> <li>8. Click <b>OK.</b></li> </ol>	Refer Change Data Path.
<b>Vault Tracker</b>	<p>The VaultTracker feature provides the facility to manage media that are removed from a library and stored in offsite locations. The VaultTracker function provides the following capabilities in your day-to-day operations:</p> <ul style="list-style-type: none"> <li>• Identifies media that must be sent off-site for storage or brought back from off site locations.</li> <li>• Automatically moves the media in sequence in the library and provides a pick-up list for the operators.</li> <li>• Identifies and tracks the media during transit.</li> <li>• Records and tracks the movement of media not used by all MediaAgents or Foreign Media.</li> </ul> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set.</b></li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup.</b></li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced.</b></li> <li>5. Select <b>VaultTracking.</b></li> </ol>	Refer to VaultTracker or VaultTracker Enterprise.

	<ol style="list-style-type: none"> <li>6. Select the necessary options.</li> <li>7. Click <b>OK</b>.</li> </ol>	
<b>Alerts</b>	<p>The Alert option is used for setting up the criteria to raise notifications/alerts for job statuses such as failure, success, or any other conditions triggered by the backup job. Adding alerts helps the user or the user group to get the notification automatically about the status of the backup job.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent   Backup Set</b>.</li> <li>2. Right-click the <b>Subclient</b> and click <b>Backup</b>.</li> <li>3. From the <b>Backup Options</b> window, click <b>Advanced</b>.</li> <li>5. Select <b>Alert</b>.</li> <li>6. Click <b>Add Alert</b>.</li> <li>7. From the Add Alert Wizard window, select the <b>Threshold and Notification Criteria</b>. Click <b>Next</b>.</li> <li>8. Select the <b>Notification Types</b>. Click <b>Next</b>.</li> <li>9. Select the <b>Users and User Groups</b>. Click <b>Next</b>.</li> <li>10. Verify the <b>Summary</b>.</li> <li>11. Click <b>Finish</b>.</li> <li>12. Click <b>OK</b>.</li> </ol>	Refer to Alerts.
<b>Command Line Backups</b>	<p>Command Line Interface enables you to perform backups from the command line. The commands can be executed from the command line or can be integrated into your own scripts or scheduling programs. In addition, you can also generate scripts for specific operations from the CommCell Console using the <b>Save As Script</b> option. These scripts can later be executed using the commands from the command line interface.</p>	Refer to Command Line Interface.
<b>CommCell Readiness Report</b>	<p>The CommCell Readiness Report provides you with vital information about the condition of your CommCell.</p>	Refer to CommCell Readiness Report.
<b>Backup Job Summary Report</b>	<p>The Backup Job Summary Report provides the details of all the backup jobs of clients.</p>	Refer to Backup Job Summary Report.

# Browse Data - Exchange Public Folder iDataAgent

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### Understanding the Browse Window

#### Browse Data

- Latest Data
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- Data Between a Specified Time
- Include Metadata

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#### Browse Using Media Agent

#### Establish the Page Size for a Browse

## UNDERSTANDING THE BROWSE WINDOW

Browse provides an easy-to-use convenience to search and restore data.

You can open the browse window from client, agent, backupset or subclient level. The sub levels displayed in the browse window is based on where you start the browse operation.

### SELECTING OBJECTS FROM THE BROWSE WINDOW FOR RESTORE

The browse window displays objects and consists of two parts:

- The left pane displays the object tree at the selected level.
- The right pane displays the contents of the selected object.

Note that the window displays only the data that was obtained by a backup. Data that is excluded by a filter, or data which did not exist as of the specified browse time does not appear in the window.

Selections follow these rules:

- All selections are recursive.
- Clicking a box again causes the selection to be cleared.
- If you select an object in the left pane, then all of its contents are selected.
- You can select a specific object in the right pane.

Selection status is revealed by the selection icons as follows:

<input type="checkbox"/>	Indicates that the object is not selected for restoration.
<input checked="" type="checkbox"/>	Indicates that a portion of the object is selected for restoration. i.e., only some of the child object(s) within the selected object.
<input checked="" type="checkbox"/>	Indicates that the entire object, including all of its child objects, are selected for restoration.

Browse and Restore from the CommCell Console allows you browse and restore mailboxes and mailbox items that were backed up. The browse option can also be invoked from the client, agent, backup set, or subclient level.

## BROWSING DATA

Browse and Restore from the CommCell Console allows you browse and restore mailboxes and mailbox items that were backed up. The browse option can also be invoked from the client, agent, backup set, or subclient level.

### BROWSING THE LATEST DATA

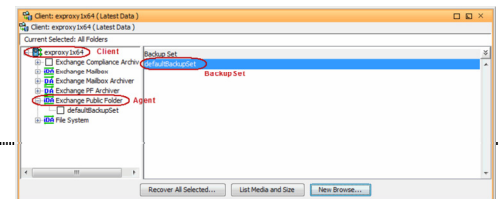
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.

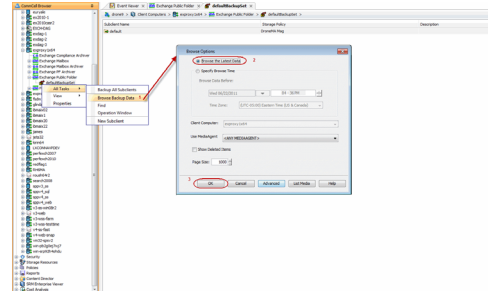
The browse option can also be invoked from the client, agent, backup set, or subclient level.

## RELATED TOPICS

### List Media

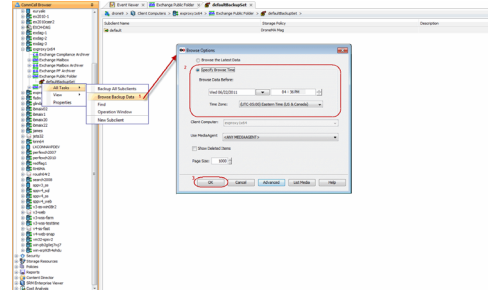
Provides comprehensive information on media management and prediction.





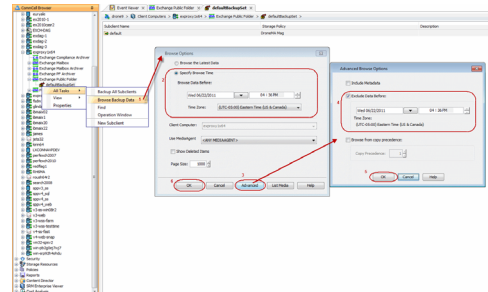
### BROWSING DATA BEFORE A SPECIFIED TIME

1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Public Folder**.
2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. Select **Specify Browse Time** and the **Time Zone**.
4. Click **OK**.



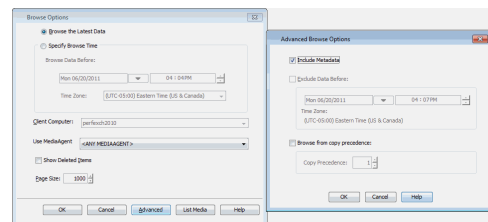
### BROWSING DATA BETWEEN A SPECIFIED TIME

1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Public Folder**.
2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. Select **Specify Browse Time** and the **Time Zone**.
4. Click **Advanced**.
5. Select **Exclude Data Before**, select the date and time from which you wish to view the data in the browse window.
6. Click **OK**.



### INCLUDE METADATA

1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Mailbox**.
2. Right-click the Backupset and click **All Tasks | Browse Backup Data**.
3. Click **Advanced**.
4. Select **Include Metadata** and click **OK**.
5. Click **OK**.



### BROWSE FROM COPIES

By default, when a browse operation is requested, the software attempts to browse from the storage policy copy with the lowest copy precedence. If the data that you want to browse was already pruned from the primary copy, the software searches the other copies of the storage policy, starting from the copy with the lowest copy precedence to a copy with the highest copy precedence.

This feature is useful in the following conditions:

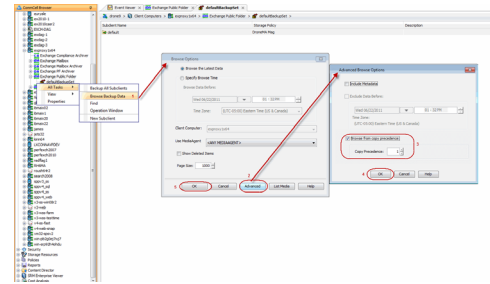
- The media containing protected data for a particular copy has been removed from the storage library, you can choose to browse from a copy whose media are inside the library.
- Allows browsing from a copy that accesses faster disk media rather than slower tape media.
- When media drives used by a particular copy are busy with another operation, this helps in browsing from a different copy to avoid resource conflicts.

1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Public Folder**.

2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, click **Advanced**.
4. In the **Advanced Browse Options** dialog box select the **Browse from copy precedence** option.

If you specify a copy precedence number for a browse operation, the software searches only the storage policy copy with that precedence number in all storage policies used for securing the data. If data does not exist in the specified copy, the browse operation fails even if the data exists in another copy of the same storage policy.

5. Specify the precedence number in **Copy Precedence**.
6. Click **OK** in the **Advanced Browse Options** dialog box .
7. Click **OK** in the **Browse Options** dialog box.



## LIST MEDIA

List media option is useful to predict media required to restore the index required to browse data. This is useful when the index is not available in the index cache.

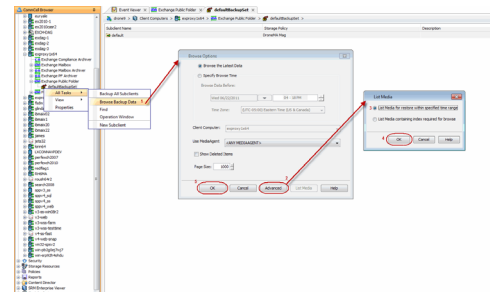
The following section describes how to perform this operation.

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, if required, select the following options:
  - o Click **Browse the Latest Data** to list media associated with the most recent data protection cycle.
  - o Click **Specify Browse Time** to list media associated with data protection operations up to the specified date and time range. Use the **Browse Data Before** box to specify the end date and time.
  - o Click **Advanced** and then click **Exclude Data Before** and then select the date and time from which you wish to list media associated with data protection operations.

Note that you can use the **Specify Browse Time** and **Exclude Data Before** options to list media between a specified date and time range.

4. Click **List Media**.
5. From the **List Media** dialog box, click **List Media for restore within specified time range**.
6. Click **OK**.

The appropriate media is listed in the **Media** dialog box.

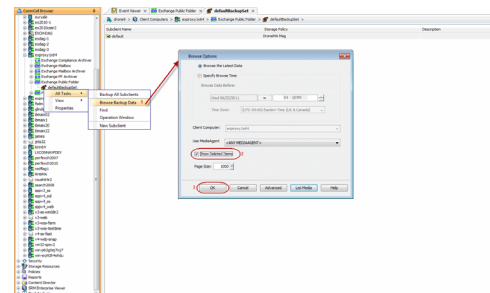


## IMAGE/NO-IMAGE BROWSE

Image browse displays the structure of the entity as it existed as of some specified time. When you browse data in the image mode, the system by default returns the requested data based on the latest image available. The image browse can only restore the latest version. If the requested version was deleted before the most recent full backup, the default browse will not find the data.

The no-image browse is useful for retrieving data that may have been deleted at some unknown time. It is also useful to retrieve a previous backup version.

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, select one of the following options:
  - o Click and select the **Show Deleted Items** option to perform a no-image browse of the data.
  - o Clear the **Show Deleted Items** option to perform an image browse of the data.
4. Click **OK**.

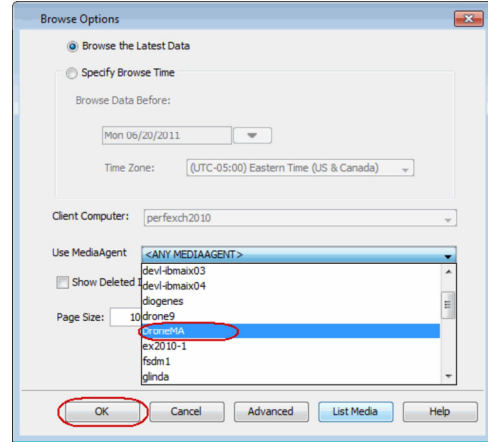


## BROWSE USING MEDIA AGENT

Data can be restored from any compatible library and drive type in the CommCell. By default, the system automatically identifies and restores data from any configured library in the CommCell, even if the media is not available in the original library in which the data protection operation was performed. Use this

procedure to Browse using a specific MediaAgent.

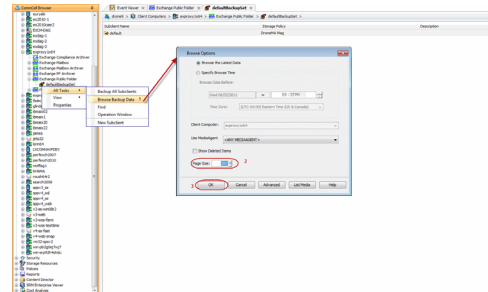
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, choose the **MediaAgent** that must be used to perform the browse.
4. Click **OK**.



## ESTABLISH THE PAGE SIZE FOR A BROWSE

The Page Size option allows you to specify the number of objects to be displayed in the browse window. You can browse through each page list by selecting the appropriate page number in the Browse window. This field reverts back to the default setting after use.

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the BackupSet and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, enter a value for **Page Size**.
4. Click **OK**.





# Advanced - Exchange Public Folder iDataAgent Restore

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### Restoring a Public Folder Item

### Restoring an Attachment

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- Finding a Message with a Specific Subject
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- Quick Search using Sampling
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### Performing an Out-of-Place Restore

### Restoring to a Different Exchange Server Version

### Reviewing Data Selected for Restore

### Scheduling a Restore

### Restoring By Jobs

### Managing Restore Jobs

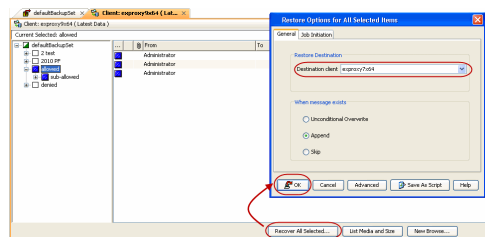
- Restarting Jobs
- Controlling Jobs

### Additional Restore Options

## RESTORING A PUBLIC FOLDER

Follow the steps given below to restore the public folder on the same client from which it was backed up:

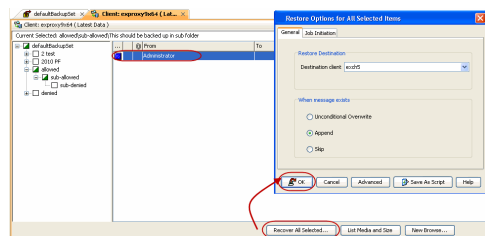
- From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
- Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
- Click **OK**.
- Expand the **defaultBackupSet** and select a public folder in the left pane.
- Click **Recover All Selected**.
- Click **OK**.



## RESTORING A PUBLIC FOLDER ITEM

You can restore individual public folder items, such as messages, to a public folder.

- From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
- Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
- Click **OK**.
- Expand the **defaultBackupSet** and navigate to the required public folder in the left pane.
- Select a public folder item from the right pane.
- Click **Recover All Selected**.
- Click **OK**.



## RESTORING AN ATTACHMENT

Follow the steps given below to browse a backup set and restore an attachment of a message:

## RELATED TOPICS

### Scheduling

Provides comprehensive information on scheduling jobs.

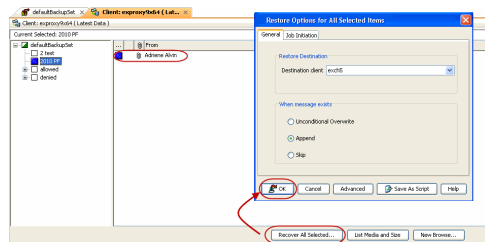
### Job Management

Provides comprehensive information on managing jobs.

### List Media

Provides comprehensive information on media management and prediction.

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Navigate to **defaultBackupSet | <Public Folder>** in the left pane of the **Client Browse** window.
5. In the right pane, select the message that contains the required attachment.  
For all the messages that have attachments, a paper clip icon appears in the list of messages.
6. Click **Recover All Selected**.
7. Click **OK**.



## FINDING AND RESTORING

Use Find to search and locate messages from a data protection backup. Find is available from a backup set, subclient, or by right-clicking a public folder, a message, or a public folder item from the Client Browse tab.

### FINDING A MESSAGE WITH A SPECIFIC SUBJECT

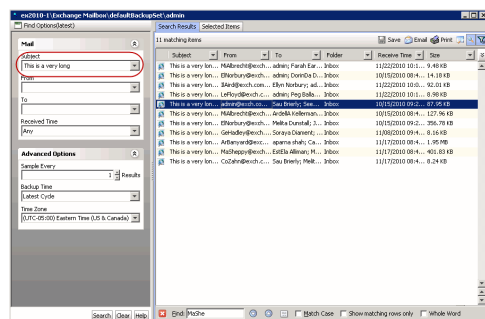
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Type the **Subject** name of the message to narrow the search by a specific subject line containing the specified text string or wildcard pattern. You can search for partial words without the need for wildcard characters at the beginning and/or end of the search string.

These wildcards, or a combination of these wildcards, are supported in the **Subject** field:

- o \* for any number of characters e.g., Accounting\*.
- o ? for any one character e.g., user\_group?.
- o [ ] for a range of characters e.g., [a-k]Lee.
- o [!] for a negation of a range of characters e.g., [!a-k] Lee.

4. Click **Search**.

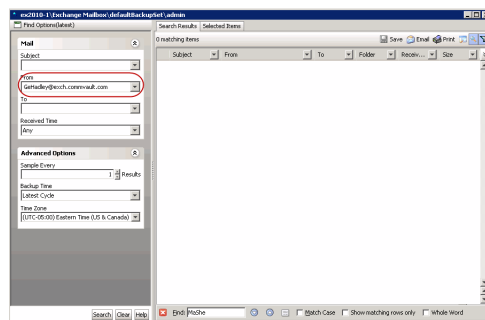
The messages that match the criteria are displayed in Search Results.



### FINDING A MESSAGE FROM A SPECIFIC USER

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. In **From**, narrow the search by entering a specified user who sent the message.
4. Click **Search**.

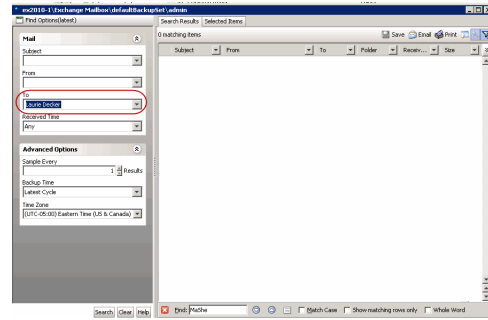
The messages that match the criteria are displayed in Search Results.



### FINDING A MESSAGE SENT TO A SPECIFIC USER

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. In **To**, narrow the search by entering a specified user the message was addressed to. When searching Public Folder data using this field, keep in mind that only e-mails posted to mail-enabled Public Folders will be searchable. If you wish to search posts made to a Public Folder, use the **Subject** or **From** fields instead.
4. Click **Search**.

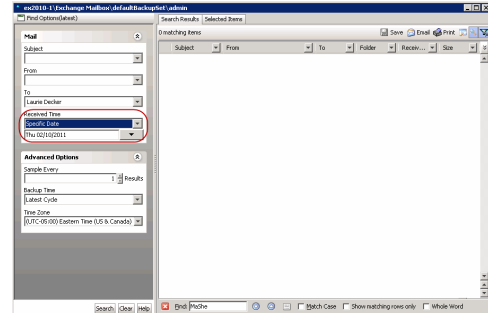
The messages that match the criteria are displayed in Search Results.



## FINDING A MESSAGE RECEIVED IN A SPECIFIC TIME RANGE

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. In **Received Time**, select an entry from the drop-down list to narrow the search to messages received on the specified date or within the specified date range according to date criteria (Any, Today, Yesterday, This Week, This Month, This Year, Is, After, Before, Between, Specific Date). Depending on your selection, additional date range fields may appear below the Received Time field.
4. Click **Search**.

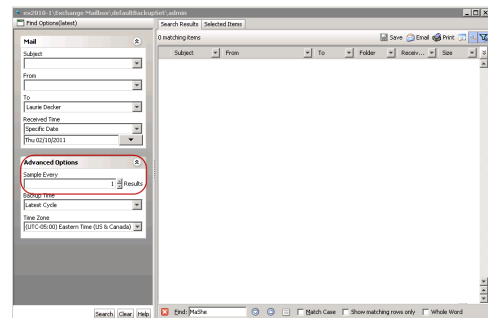
The messages that match the criteria are displayed in Search Results.



## QUICK SEARCH USING SAMPLING

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Click **Advanced Options** to expand and display the fields.
4. In **Sample Every**, specify the rate at which messages are sampled to determine whether they match the search criteria. The default value of 1 indicates that every message will be sampled. Keep in mind that the order in which messages are sampled is based on the order in which the messages were backed up.
5. Click **Search**.

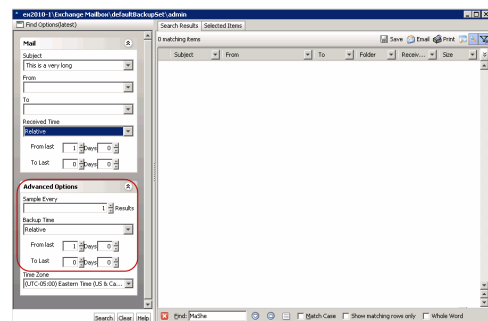
The messages that match the criteria are displayed in Search Results.



## FINDING A MESSAGE BACKED UP AT A SPECIFIC TIME

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Click **Advanced Options** to expand and display the fields.
4. In **Backup Time**, specify a time or time range (Latest Cycle, After, Before, Between, Specific Date, Any, Today, Yesterday, This week, This Month, This Year, or Relative) to narrow searches to messages that were backed up within the time period specified.
5. Click **Search**.

The messages that match the criteria are displayed in Search Results.



## ADDING SEARCH RESULTS TO A LIST

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Enter search criteria (e.g., Subject, From, To, etc.) as explained in the previous sections.

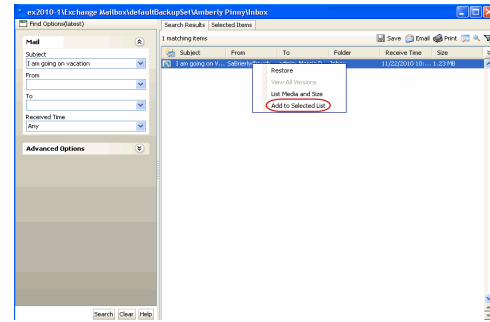
4. Click **Search**.

The messages that match the criteria are displayed in Search Results.

Right-click a message and select **Add to Selected List**.

5. Click the **Selected Items** tab and the message will be displayed.

Moving items to the Selected List lets you control the items you need to restore. You could narrow down the list from the Search Results so that you are able to recover only the items from the Selected List.

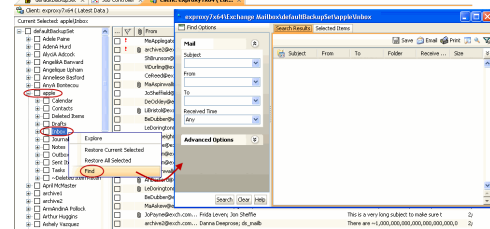


## USING FIND FROM A BROWSE WINDOW

When you access Find as part of a Browse operation, keep in mind that the time range values are not pre-populated by any previously selected time range settings entered on the Browse Options or Advanced Browse Options dialog.

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
4. Right-click a public folder or a public folder item (e.g., calendars, journals, etc.) and select **Find**.
5. Enter search criteria (e.g., Subject, From, To, etc.) as explained in the next few sections.
6. Click **Search**.

The search results are displayed in the right pane. You can optionally save the results, email, or print them.

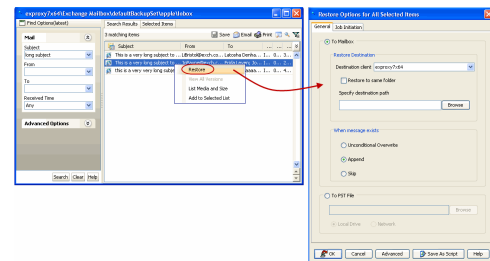


## RESTORING A MESSAGE OR A MAILBOX ITEM FROM THE SEARCH RESULTS

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Enter search criteria and click **Search**.
4. Right-click a public folder or a public folder item from the search results and then select **Restore**.
5. In the **Destination Client** list, select the name of client computer.

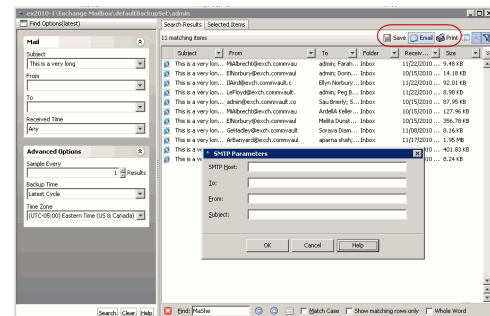
In cases where the mailbox alias name has changed, it is strongly recommended to restore messages out-of-place to the current mailbox alias name. Otherwise, attempting to restore the data in-place to a mailbox alias that no longer exists will cause the restore operation to fail.

6. Click **OK**.



## SAVE, EMAIL, OR PRINT SEARCH RESULTS

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Enter search criteria and click **Search**.
4. Click **Save**, **Email**, or **Print** in the upper-right corner of the window.
5. If **Email** is selected, enter the SMTP parameters (SMTP Host, To, From, Subject).



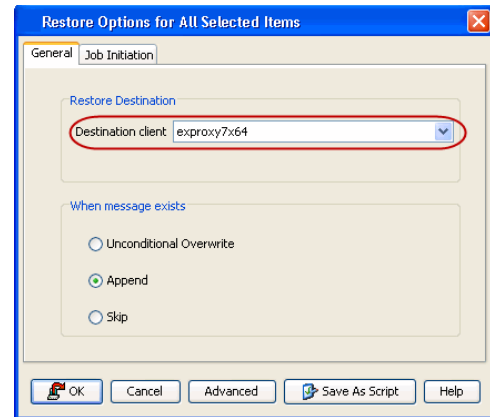
## PERFORMING AN OUT-OF-PLACE RESTORE

By default, the Exchange Public Folder iDataAgent restores data to the client computer from which it originated; this is referred to as an in-place restore. You

can also restore the data to another client computer.

When you perform an out-of-place restore, the restored data assumes the rights (i.e., permissions) of the parent directory.

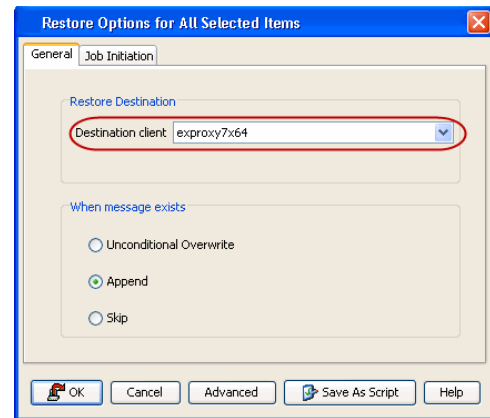
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Select a public folder, a message, or a public folder item from the **Client Browse** window and click **Recover All Selected**.
5. In the **Destination client** list, select the client. The source and destination clients must reside in the same CommCell Console. The destination client must have the Microsoft Exchange Public Folder iDataAgent installed on it.
6. Click **OK** to start the restore.



## RESTORING TO A DIFFERENT EXCHANGE VERSION

When performing a cross-application restore of Exchange public folders from a newer version of Exchange Server to an older version, it follows the same compatibility support provided by the Exchange Server, unless otherwise noted.

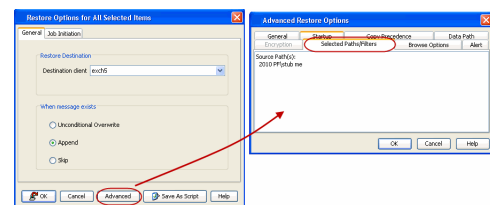
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Select a public folder, a message or a public folder item from the **Client Browse** window and click **Recover All Selected**.
5. In the **Destination client** list, select the client. The source and destination clients must reside in the same CommCell Console. The destination client must have the Microsoft Exchange Public Folder iDataAgent installed on it.
6. Click **OK** to start the restore.



## REVIEWING DATA SELECTED FOR RESTORE

When you select multiple public folders, messages and public folder items from multiple locations, you can review all the data and locations before starting the restore. Follow the steps give below to review the data selected for restore:

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Select a public folder, a message or a public folder item from the **Client Browse** window and click **Recover All Selected**.
5. In the **Destination client** list, select the client. The source and destination clients must reside in the same CommCell Console. The destination client must have the Microsoft Exchange Mailbox iDataAgent installed on it.
6. Click **Advanced**.
7. Select the **Selected Paths/Filters** tab.
8. Click **OK**.
9. Click **OK** to start the restore.

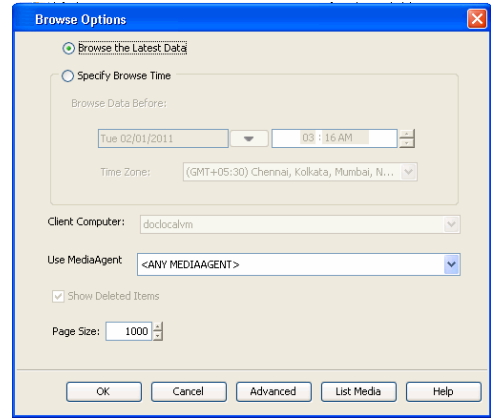


## SCHEDULING A RESTORE

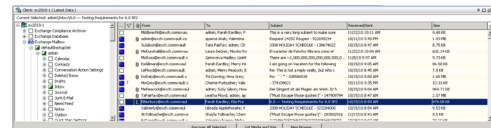
1.
  - From the CommCell Console, navigate to **Client Computers | Exchange Public**

**Folder.**

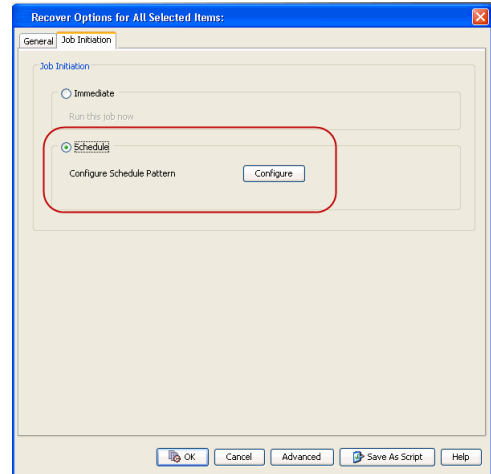
- Right-click a backup set and click **All Tasks | Browse Backup Data.**
- Click **OK.**



- Select one or more public folders in the left pane. The public folder items (e.g., calendars, journals, etc.) will be selected in the right pane.
  - Click **Recover All Selected.**

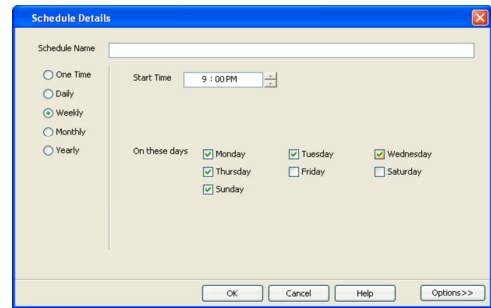


- Click **Job Initiation** tab and click **Schedule.**
  - Click **Configure.**



- Select the appropriate scheduling options. For example:
    - Click **Weekly.**
    - Check the days you want the run the restore job.
    - Change the Start Time to 9:00 PM
    - Click **OK** to close the Schedule Details dialog
    - Click **OK** to close the Restore Options dialog

The restore job will execute as per the schedule.



**RESTORING BY JOBS**

The Restore By Jobs feature provides the facility to select a specific backup job to be restored. This method of restoring data is considerably faster as it reads continuously on the tape and retrieves the data and does not depend on the indexing subsystem to get the seek offsets on the media.

This feature can be used in different scenarios such as the following:

- To restore point-in-time data associated with a specific backup job, such as full, incremental, differential, etc.
- To restore CommServe DR data for the disaster recovery or for creating a hot-site purposes.
- To restore multiplexed data from the same client.

Consider the following when restoring by jobs:

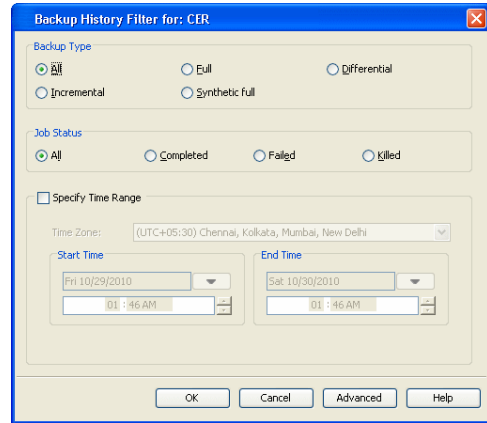
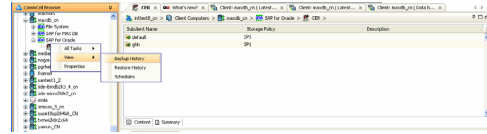
- Run a restore by jobs whenever you want to restore the entire contents of the job.
- Avoid running restores by jobs for jobs associated with the default subclient. If you do this, the entire contents of the machine will be restored. As such, this

may cause problems (e.g., the machine might run out of space) or produce undesirable results (e.g., you might end up restoring operating system files or directories that you really do not want to restore).

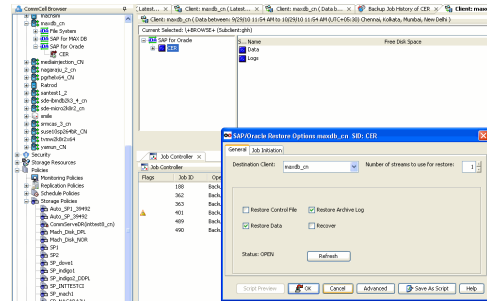
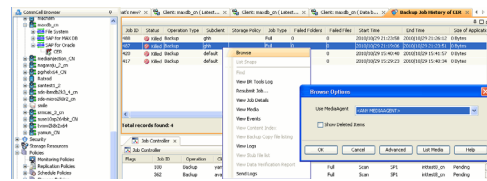
- Avoid modifying the contents of any associated subclients since this may result in the retrieval of older data.

Use the following steps to restore data by jobs.

1. From the CommCell Browser, right-click the level whose data you want to browse, click **View** and then click the **Backup History**.
2. From the **Backup History Filter** window, select the filter options, if any, that you want to apply and click **OK**.



3. From the Backup Job History window, right-click the backup job that needs to be restored and select **Browse**.
4. From the **Browse Options** dialog box, click **OK** to execute the browse using the **Browse the Latest Data** option.
5. From the **Browse** window, select the instance node in the left pane and then select the required data and logs in the right pane, and click the **Recover All Selected** button at the bottom of the window.
6. Select the desired restore options and click **OK**.



## MANAGING RESTORE JOBS

Once you initiate the restore operation, a restore job is generated in the Job Controller. Jobs can be managed in a number of ways. The following sections provide information on the different job management options available:

### RESTARTING JOBS

Jobs that fail to complete successfully are automatically restarted based on the job restartability configuration set in the Control Panel. Keep in mind that changes made to this configuration will affect all jobs in the entire CommCell.

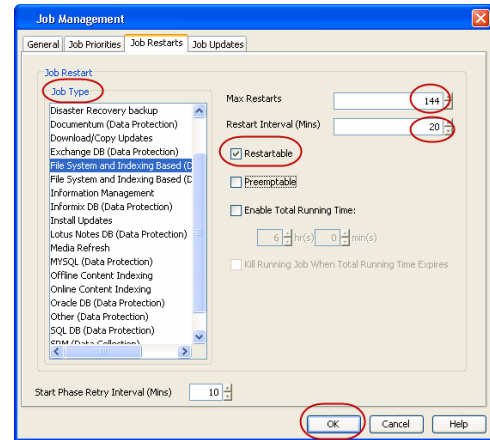
To Configure the job restartability for a specific job, you can modify the retry settings for the job. This will override the setting in the Control Panel. It is also possible to override the default CommServe configuration for individual jobs by configuring retry settings when initiating the job. This configuration, however, will apply only to the specific job.

Backup jobs for this Agent are resumed from the point-of-failure.

### CONFIGURE JOB RESTARTABILITY AT THE COMMSERVE LEVEL

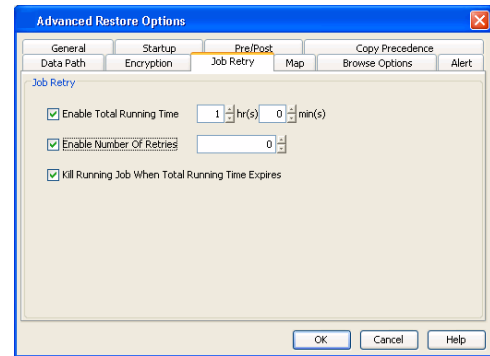
1. From the CommCell Browser, click **Control Panel** icon.

2. Select **Job Management**.
3. Click **Job Restarts** tab and select a **Job Type**.
  - o Select **Restartable** to make the job restartable.
  - o Change the value for **Max Restarts** to change the maximum number of times the Job Manager will try to restart a job.
  - o Change the value for **Restart Interval (Mins)** to change the time interval between attempts for the Job Manager to restart the job.
4. Click **OK**.



**CONFIGURE JOB RESTARTABILITY FOR AN INDIVIDUAL JOB**

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Public Folder | <Backup Set>**.
2. Right-click the **<Subclient>** in the right pane and then click **Browse Backup Data**.
3. Click **OK**.
4. Select the data that you want to restore and click **Recover All Selected**.
5. Click **Advanced** and select the **Job Retry** tab
6. Select **Enable Total Running Time** and specify the maximum elapsed time before a job can be restarted or killed  
 Select **Kill Running Jobs When Total Running Time Expires** to kill the job after reaching the maximum elapsed time.
7. Select **Enable Number Of Retries** and specify the number of retries.
8. Click **OK**.



**CONTROLLING JOBS**

The following controls are available for running jobs in the Job Controller window:

<b>SUSPEND</b>	Temporarily stops a job. A suspended job is not terminated; it can be restarted at a later time.
<b>RESUME</b>	Resumes a job and returns the status to Waiting, Pending, Queued, or Running. The status depends on the availability of resources, the state of the Operation Windows, or the Activity Control setting.
<b>KILL</b>	Terminates a job.

**SUSPENDING A JOB**

1. From the Job Controller of the CommCell Console, right-click the job and select **Suspend**.
2. The job status may change to **Suspend Pending** for a few moments while the operation completes. The job status then changes to **Suspended**.

**RESUMING A JOB**

1. From the Job Controller of the CommCell Console, right-click the job and select **Resume**.
2. As the Job Manager attempts to restart the job, the job status changes to **Waiting, Pending, or Running**.

**KILLING A JOB**

1. From the Job Controller of the CommCell Console, right-click the job and select **Kill**.
2. Click **Yes** when the confirmation prompt appears if you are sure you want to kill the job. The job status may change to **Kill Pending** for a few moments while the operation completes. Once completed, the job status will change to **Killed** and it will be removed from the Job Controller window after five minutes.

**ADDITIONAL RESTORE OPTIONS**

Several additional options are available to further refine your restore operations. The following table describes these options, as well as the steps to implement them.



Be sure to read the overview material referenced for each feature prior to using them.

OPTION	DESCRIPTION	RELATED TOPIC
<b>Skip Errors and Continue</b>	<p>This option enables you to to continue the restore job regardless of media errors and create a file that lists the full path names of the files that failed to get restored. Follow the steps given below to set this option:</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, click <b>Client Computers   &lt;Client&gt;   Exchange Public Folder</b>.</li> <li>2. Right-click the <b>&lt;Backup set&gt;</b> that contains the data you want to restore and select <b>All Tasks   Browse Backup Data</b>.</li> <li>3. In the <b>Browse Options</b> dialog box, click <b>OK</b>.</li> <li>4. In the <b>Client Browse</b> tab, select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. In the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. In the <b>Advanced Restore Options</b> dialog box, click <b>General</b>.</li> <li>7. On the <b>General</b> tab, select the <b>Skip errors and continue</b> check box.</li> <li>8. Click <b>OK</b>.</li> </ol>	
<b>Startup Options</b>	<p>The Startup Options are used by the Job Manager to set priority for resource allocation. This is useful to give higher priority to certain jobs. You can set the priority as follows:</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, click <b>Client Computers   &lt;Client&gt;   Exchange Public Folder</b>.</li> <li>2. Right-click the <b>&lt;Backup set&gt;</b> that contains the data you want to restore and select <b>All Tasks   Browse Backup Data</b>.</li> <li>3. In the <b>Browse Options</b> dialog box, click <b>OK</b>.</li> <li>4. In the <b>Client Browse</b> tab, select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. In the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. In the <b>Advanced Restore Options</b> dialog box, click <b>Startup</b>.</li> <li>7. On the <b>Startup</b> tab, select <b>Change Priority</b>.</li> <li>8. Enter a priority number - 0 is the highest priority and 999 is the lowest priority.</li> <li>9. Select the <b>Start up in suspended State</b> check box to start the job in a suspended state.</li> <li>10. Click <b>OK</b>.</li> </ol>	Refer to Job Priority and Priority Precedence.
<b>Copy Precedence</b>	<p>By default, the system retrieves data from the storage policy copy with the lowest copy precedence. If the data was pruned from the primary copy, the system automatically retrieves data from the other copies of the storage policy in the lowest copy precedence to highest copy precedence order. Once the data is found, it is retrieved, and no further copies are checked.</p> <p>You can retrieve data from a specific storage policy copy (Synchronous Copy or Selective Copy). If data does not exist in the specified copy, the data retrieve operation fails even if the data exists in another copy of the same storage policy. Follow the steps given below to retrieve the data from a a specific storage policy copy:</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, click <b>Client Computers   &lt;Client&gt;   Exchange Public Folder</b>.</li> <li>2. Right-click the <b>&lt;Backup set&gt;</b> that contains the data you want to restore and select <b>All Tasks   Browse Backup Data</b>.</li> <li>3. In the <b>Browse Options</b> dialog box, click <b>OK</b>.</li> <li>4. In the <b>Client Browse</b> tab, select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. In the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. In the <b>Advanced Restore Options</b> dialog box, click <b>Copy Precedence</b>.</li> <li>7. On the <b>Copy Precedence</b> tab, select the <b>Restore from copy precedence</b> check box.</li> <li>8. Enter the copy precedence number.</li> <li>9. Click <b>OK</b>.</li> </ol>	Refer to Recovering Data From Copies.
<b>Data Path Options</b>	<p>The data recovery operations use a default Library, MediaAgent, Drive Pool, and Drive as the Data Path. You can use this option to change the data path if the default data path is not available. Follow the steps given below to change the default data path:</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, click <b>Client Computers   &lt;Client&gt;   Exchange Public Folder</b>.</li> <li>2. Right-click the <b>&lt;Backup set&gt;</b> that contains the data you want to restore and select <b>All</b></li> </ol>	Refer to Change Data Path.

	<p><b>Tasks   Browse Backup Data.</b></p> <ol style="list-style-type: none"> <li>3. In the <b>Browse Options</b> dialog box, click <b>OK</b>.</li> <li>4. In the <b>Client Browse</b> tab, select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. In the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. In the <b>Advanced Restore Options</b> dialog box, click <b>Data Path</b>.</li> <li>7. On the <b>Data Path</b> tab, select the <b>MediaAgent</b> and <b>Library</b>.</li> <li>8. Select the <b>Drive Pool</b> and <b>Drive</b> for optical and tape libraries.</li> <li>9. Select the name of the <b>Proxy</b> server if you wish to restore using a proxy server.</li> </ol> <p>You can select the Proxy server only when you are restoring from a snapshot. This option is not available for a regular restore.</p> <ol style="list-style-type: none"> <li>10. Click <b>OK</b>.</li> </ol>	
<p><b>Encryption</b></p>	<p>If the client's data is encrypted with a pass phrase, you must enter the pass-phrase to start the data recovery operation. Follow the steps given below to enter the pass-phrase:</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, click <b>Client Computers   &lt;Client&gt;   Exchange Public Folder</b>.</li> <li>2. Right-click the <b>&lt;Backup set&gt;</b> that contains the data you want to restore and select <b>All Tasks   Browse Backup Data</b>.</li> <li>3. In the <b>Browse Options</b> dialog box, click <b>OK</b>.</li> <li>4. In the <b>Client Browse</b> tab, select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. In the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. In the <b>Advanced Restore Options</b> dialog box, click <b>Encryption</b>.</li> <li>7. Enter the Pass Phrase.</li> <li>8. Click <b>OK</b>.</li> </ol>	<p>Refer to Data Encryption.</p>
<p><b>Browse Options</b></p>	<p>Deleted files can be manually restored by the user. You can specify the time range for the deleted items to be restored.</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, navigate to <b>Client Computers   &lt;Client&gt;   iDataAgent</b>. The default backup set and subclient are displayed on the right-hand window pane.</li> <li>2. Right-click the <b>Backup Set</b>, click <b>All Tasks</b> and then click <b>Browse</b>.</li> <li>3. From the Browse Options window, click <b>OK</b>.</li> <li>4. Select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. From the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. From the <b>Browse Options</b> tab, select <b>Restore deleted items</b> option.</li> <li>7. Select <b>Specify Time Range</b> option to specify the time zone, start time and end time for the deleted items to be restored.</li> <li>8. Click <b>OK</b>.</li> </ol>	<p>Refer to Job Management.</p>
<p><b>Alerts</b></p>	<p>This option enables users or user groups to get automatic notification on the status of the data recovery job. Follow the steps given below to set up the criteria to raise notifications/alerts:</p> <ol style="list-style-type: none"> <li>1. From the CommCell Browser, click <b>Client Computers   &lt;Client&gt;   Exchange Public Folder</b>.</li> <li>2. Right-click the <b>&lt;Backup set&gt;</b> that contains the data you want to restore and select <b>All Tasks   Browse Backup Data</b>.</li> <li>3. In the <b>Browse Options</b> dialog box, click <b>OK</b>.</li> <li>4. In the <b>Client Browse</b> tab, select the data to be restored and click <b>Recover all Selected</b>.</li> <li>5. In the <b>Restore Options for All Selected Items</b> dialog box, click <b>Advanced</b>.</li> <li>6. In the <b>Advanced Restore Options</b> dialog box, click <b>Alerts</b>.</li> <li>7. Click <b>Add Alert</b>.</li> <li>8. From the <b>Add Alert Wizard</b> dialog box, select the required threshold and notification criteria and click <b>Next</b>.</li> <li>9. Select the required notification types and click <b>Next</b>.</li> <li>10. Select the recipients and click <b>Next</b>.</li> <li>11. Click <b>Finish</b>.</li> <li>12. Click <b>OK</b>.</li> </ol>	<p>Refer to Alert.</p>

<b>Command Line Restores</b>	<p>Command Line Interface enables you to perform backups or restore from the command line. The commands can be executed from the command line or can be integrated into scripts.</p> <p>You can also generate command line scripts for specific operations from the CommCell Browser using the <b>Save As Script</b> option.</p>	Refer to Command Line Interface.
<b>CommCell Readiness Report</b>	<p>The CommCell Readiness Report provides you with vital information, such as connectivity and readiness of the Client, MediaAgent and CommServe. It is useful to run this report before performing the data protection or recovery job. Follow the steps given below to generate the report:</p> <ol style="list-style-type: none"> <li>1. From the <b>Tools</b> menu in the CommCell Console, click <b>Reports</b>.</li> <li>2. Navigate to <b>Reports   CommServe   CommCell Readiness</b>.</li> <li>3. Click the <b>Client</b> tab and click the <b>Modify</b> button.</li> <li>4. In the <b>Select Computers</b> dialog box, clear the <b>Include All Client Computers and All Client Groups</b> check box.</li> <li>5. Select the client from the <b>Exclude</b> list.</li> <li>6. Click the <b>Include &gt;</b> button.</li> <li>7. Click <b>OK</b>.</li> <li>8. Click the <b>MediaAgent</b> tab.</li> <li>9. Clear the <b>Include All MediaAgents</b> checkbox.</li> <li>10. Select the MediaAgent from the <b>Exclude</b> list.</li> <li>11. Click <b>Include &gt;</b>.</li> <li>12. Click <b>Run</b>.</li> </ol> <p>The generated report is displayed.</p>	Refer to CommCell Readiness Report.
<b>Restore Job Summary Report</b>	<p>The Restore Job Summary Report provides you with information about all the data recovery jobs that are run in last 24 hours for a specific client and agent. You can get information such as failure reason, failed objects, job options etc. It is useful to run this report after performing the restore. Follow the steps given below to generate the report:</p> <ol style="list-style-type: none"> <li>1. From the <b>Tools</b> menu in the CommCell Console, click <b>Reports</b>.</li> <li>2. Navigate to <b>Reports   Jobs   Job Summary</b>.</li> <li>3. Click <b>Data Recovery</b> on the <b>General tab</b> in the right pane.</li> <li>4. On the <b>Computers</b> tab, select the client and the agent for which you want to run the report.</li> <li>5. Click <b>Run</b>.</li> </ol>	Refer to Restore Job Summary Report.

# Data Aging - Microsoft Exchange Public Folder iDataAgent

## TABLE OF CONTENTS

### Getting Started

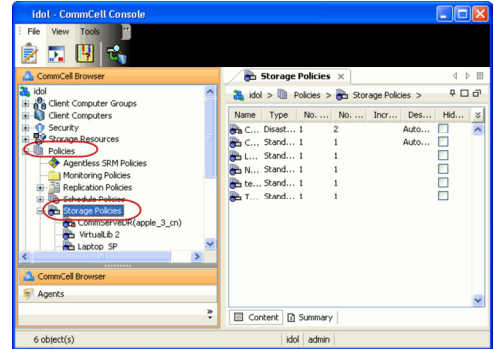
### Extended Retention Rules

## GETTING STARTED

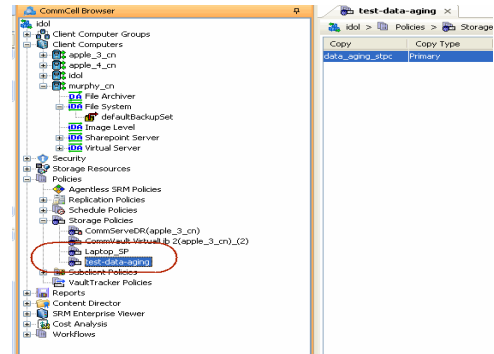
Data Aging is the process of removing old data from secondary storage to allow the associated media to be reused for future backups.

By default, all backup data is retained infinitely. However, you should change the retention of your data based on your needs. Note that if you continue to have infinite retention, you will also need infinite storage capacity.

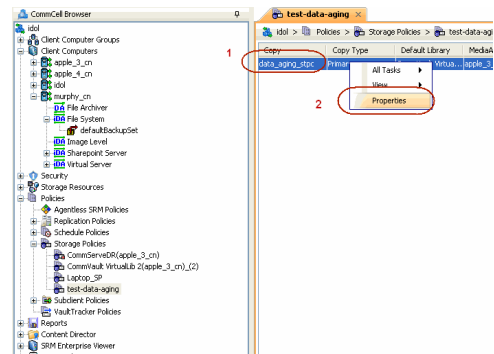
1. From the CommCell Browser, navigate to **Policies | Storage Policies**.



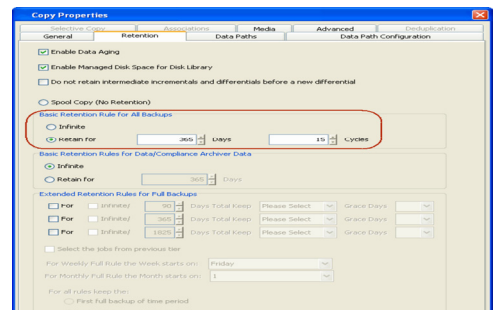
2. Highlight the **Storage Policy**.



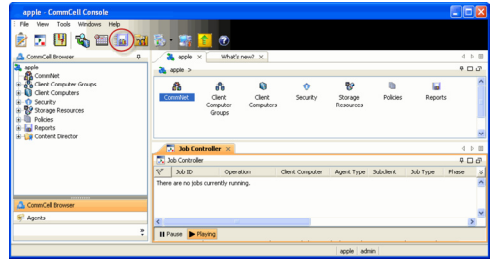
3. From the right pane, right-click the **Storage Policy Copy** and click the **Properties**.



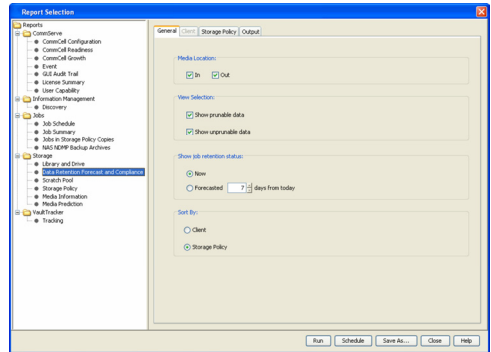
4.
  - Click the **Retention** tab.
  - Click the **Retain For** in the **Basic Retention Rules for All Backups** area.
  - Enter number of days to retain the data.
  - Enter number of cycles to retain the data.
  - Click **OK**.



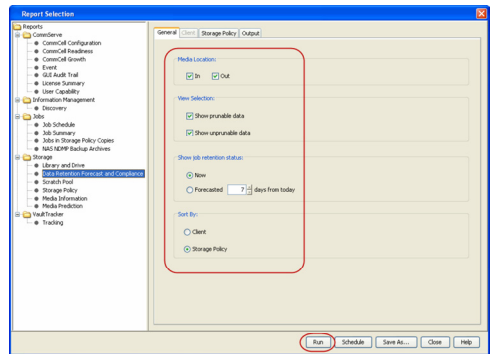
5. From the CommCell Browser, click the **Reports** icon.



6. Expand Reports and select **Data Retention Forecast and Compliance**.



7. Click **Run**.

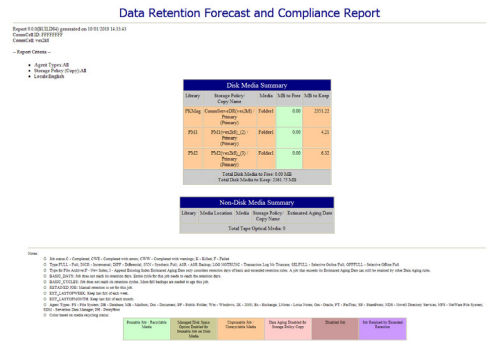


8. The report will display the data to be pruned when a data aging job is run.

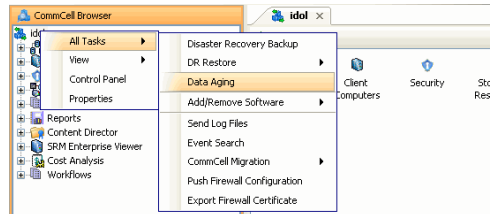
To ensure only data intended for aging is actually aged, it is important to identify the data that will be aged based on the retention rules you have configured. Hence, ensure this report includes only the data you intend to age.

If necessary, fine-tune your rules so that only the intended data is aged.

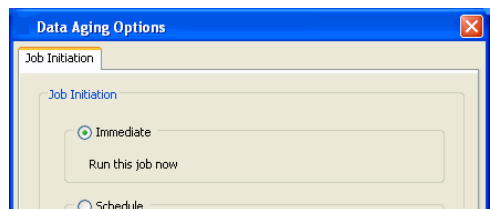
Once you run a data aging job, the data will be lost.



9. From the CommCell Console, right click the CommServe icon and click **All Tasks | Data Aging**.

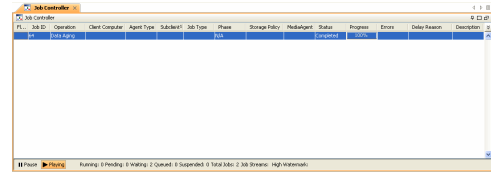


10. Select **Immediate** in the Job Initiation section and click **OK**.



11. You can track the progress of the job from the **Job Controller** window. When the job has completed, the Job Controller displays **Completed**.

Make sure that the job completes successfully. If the job did not complete successfully, re-run the job.



## EXTENDED RETENTION RULES

Extended retention rules allow you to keep specific full (or synthetic full) backups for longer periods of time.

Extended retention rules can be used in the following circumstances:

- If you have a single drive tape library
- If you want to create a hierarchical retention scheme (grandfather-father-son tape rotation)

In all other cases, it is recommended that the Auxiliary Copy feature be used for extended storage as it actually creates another physical copy of the data, thereby reducing the risk of data loss due to media failure.

## UNDERSTANDING EXTENDED RETENTION RULES

Extended retention allows you to retain a specific full (or synthetic full) backup for an additional period of time. For example, you may want to retain your monthly full backups for 90 days.

Extended retention rules allow you to define three additional "extended" retention periods for full (or synthetic full) backups. For example:

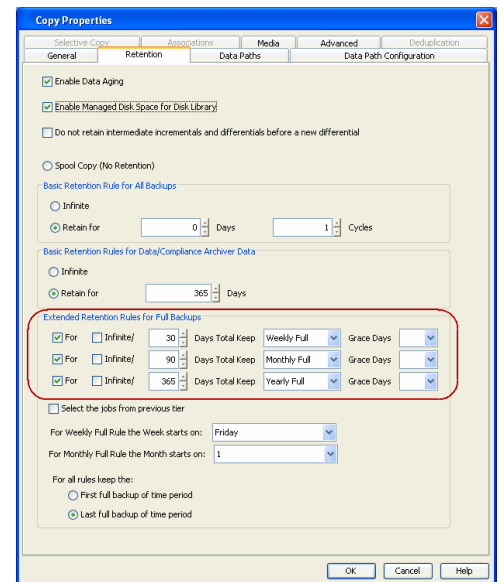
- You may want to retain your weekly full backups for 30 days.
- You may want to retain your monthly full backup for 90 days.
- You may want to retain your yearly full backup for 365 days.

A backup job will be selected for extended retention based on its start time. For example: If a backup job starts at 11:55 pm on August 31st and ends at 1 am on September 1st, then it will be selected as the last full backup for the month of August and will be picked up for extended retention.

## SETTING UP EXTENDED RETENTION RULES

Use the following steps for setting up the extended retention rules:

1. Right-click the storage policy copy and click **Properties**.
2. Click the **Retention** tab.
3. Set the basic retention rules by clicking **Retain for** and entering the number of days and cycles appropriate for your organization.
4. Set the extended retention rules as follows:
  - Click the **For** button.
  - Enter the number of **Days Total** to retain the backup.
  - Click the **Keep** drop-down list, and select the desired backup criteria (e.g., Monthly Full).
  - Click the **Grace Days** drop-down list and select the number of days (e.g., 2).
5. Repeat Step 4 to configure additional extended retention.
6. Click **OK**.



## ADVANCED TOPICS

### Data Aging - Advanced

Provides comprehensive information on additional Data Aging capabilities.

# Additional Operations - Microsoft Exchange Public Folder iDataAgent

## TABLE OF CONTENTS

**Audit Trail**

**Auxiliary Copy**

**Erasing Backup Data**

**Global Filters**

**License Administration**

**Online Help Links**

**Operating System and Application Upgrades**

**Operation Window**

**Schedule Policy**

**Storage Policy**

**Subclient Policy**

**Uninstalling Components**

## AUDIT TRAIL

The Audit Trail feature allows you to track the operations of users who have access to the CommCell. This capability is useful if a detrimental operation was performed in the CommCell and the source of that operation needs to be determined.

Audit Trail tracks operations according to four severity levels:

- **Critical:** This level records operations that will result in imminent loss of data.
- **High:** This level records operations that may result in loss of data.
- **Medium:** This level records changes to the general configuration of one or more entities. Such changes may produce unintended results when operations are performed.
- **Low:** This level records changes to status, addition of entities, and other operations that have minimal impact on existing CommCell functions.

To set Audit Trail retention periods:

1. From the **Tools** menu in the CommCell Console, click **Control Panel**, and then select **Audit Trail**.
2. From the **Audit Trail** dialog box, select the desired retention time (in days) for each severity level.
3. Click **OK**.

## AUXILIARY COPY

An auxiliary copy operation allows you to create secondary copies of data associated with data protection operations, independent of the original copy.

1. Expand the **Policies** node, right-click storage policy for which you want to perform an auxiliary copy, click **All Tasks**, and then click **Run Auxiliary Copy**.
2. If you are starting the auxiliary copy operation from the CommServe level, select the storage policy for which you wish to perform the auxiliary copy.

If you are starting the auxiliary copy operation from the Storage Policy level, the Storage Policy field is already populated with the name of the Storage Policy you selected.

3. If the source copy is configured with a shared library, select the **Source MediaAgent** for the auxiliary copy.
4. Click **OK** to start the auxiliary copy operation. A progress bar displays the progress of the operation.

## ERASING BACKUP DATA

The Erase Data feature allows you to permanently erase any data that can be backed up. Using Erase Data, you can erase Public Folderes, folders in a Public Folder, messages within a folder, and attachments.

---

### CONFIGURING ERASE DATA

To erase data, you need to first assign a Filter Storage Policy for Erasing Data. Follow the steps given below to assign a Filter Storage Policy:

1. From the CommCell Browser, right-click the storage policy that you want to use as a filter storage policy, then click **Properties**.

2. From the **General** tab of the **Storage Policy Properties** dialog box, select the **Allow Erase Data** check box.
3. Click **OK**.
4. From the CommCell Browser, right-click the **<Agent>** and then click **Properties**.
5. From the **Storage Device** tab of the agent **Properties** dialog box, select a filter storage policy from the **Filter Storage Policy** list.
6. Click **OK**.

---

## RUNNING AN ERASE DATA JOB

After the configuration has been completed, you can now browse and erase data.

1. From the CommCell Browser, right-click the **<Agent>**, select **All Tasks** and then click **Erase Data By Browsing**.
2. You are warned that the data will be permanently removed. Click **Yes** to continue.
3. From the **Erase Data by Browsing** dialog box, click **Browse**.
4. In the **Browse Options** dialog box, select a browse time range and any advanced browse options, and click **OK**.
5. From the browse selection window, select the data objects that you want to erase, and click **OK**.
6. In the **Job Initiation** tab, select **Immediate** to run the job immediately.

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

## GLOBAL FILTERS

Global Filters are exclusions that filter data from backups across all Agents in a CommCell that support the feature. Global Filters serve as a template for files, folders, and entities that should always be excluded from all (or most) backups in a CommCell, such as temporary data a computer does not retain or data that is recoverable by means other than a restore. This saves space on media and enhances backup performance.

By default, filters configured for a particular subclient override any Global Filters configured for the CommCell. You can, however, configure subclients to include global filters along with any filters already configured for the subclient.

---

## CONFIGURE GLOBAL FILTERS

1. From the CommCell Browser, right-click the CommServe, click **Control Panel**, and then click **Global Filters**.
2. Select **Use Global Filters on All Subclients**.
3. Click **Browse** to locate the files or folders to be excluded from backups and click **OK**.
4. Click **OK** to save your changes.

---

## ENABLE/DISABLE GLOBAL FILTERS FOR A SUBCLIENT

1. From the CommCell Browser, right-click the subclient for which you want to enable Global Filters and click **Properties**.
2. Click the **Filters** tab.
3. Select one of the following values from the **Include Global Filters** list:
  - o **ON** to enable Global Filters for this subclient.
  - o **OFF** to disable Global Filters for this subclient.
4. Click **OK**.

## LICENSE ADMINISTRATION

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### REQUIRED LICENSES

The Exchange Public Folder iDataAgent requires the **iDataAgent for Exchange Public Folder** license.

---

### CONVERTING EVALUATION LICENSES TO PERMANENT LICENSES

If you installed the software using an Evaluation License, you can upgrade to a Permanent License as follows:

1. From the CommCell Browser, right-click the CommServe icon, click **Control Panel**, and then click **License Administration**.
2. Select the **Update License** tab and then click **Convert**.
3. Check the box that corresponds to the evaluation license you would like to upgrade and then click **Convert**.



The license information is updated in the **License Administration** window.

## USING CAPACITY-BASED LICENSING

License Usage by Capacity is a licensing mechanism that allows you to obtain licenses based on the amount of data you back up. It provides the following features:

- Flexibility of usage on all agents, rather than being tied to number of server, agents, etc.
- Allows you to purchase licenses based on your data protection needs

Both **Core** and **Enterprise** license types are available. Refer to License Usage by Capacity for comprehensive information on utilizing this method.

## RELEASING A LICENSE

If you no longer require a license on a computer, such as cases where the computer is being retired, you can release the license and use it later for another computer. Backup data from the retired computer can still be restored after the license is released provided the data is not aged.

1. From the CommCell Browser, right-click the name of the client from which you want to release a license, click **All Tasks**, and then click **Release License for Client**.
2. Click **OK** to continue releasing the license
3. Click **Yes** to confirm you want to release the license or **No** to abort.

## ONLINE HELP LINKS

Use the following links to view the online help for the corresponding tabs in the CommCell Console:

OPERATIONS	ENTITY	ONLINE HELP LINKS	SUB LINKS
<b>CONFIGURATION</b>	Agent	Exchange Public Folder Properties (General) Exchange Public Folder Properties (Version) Exchange Public Folder Properties (Security) Exchange Public Folder Properties (Activity Control) Exchange Public Folder Properties (Storage Device)	
	Backup Set	Exchange Public Folder Properties (General) Exchange Public Folder Properties (Security)	
	Subclient	Subclient Properties of <Subclient Name> (General) Subclient Properties of <Subclient Name> (Contents) Subclient Properties of <Subclient Name> (Filters) Subclient Properties of <Subclient Name> (Pre/Post Process) Subclient Properties of <Subclient Name> (Security) Subclient Properties of <Subclient Name> (Storage Device) Subclient Properties of <Subclient Name> (Activity Control) Subclient Properties of <Subclient Name> (Encryption)	
<b>BACKUP</b>	Backup Options	Backup Options for Subclient <Subclient Name>	Advanced Backup Options Save As Script Command Line XML Options
	Advanced Backup Options	Advanced Backup Options (Data) Advanced Backup Options (Startup) Advanced Backup Options (Job Retry) Advanced Backup Options (Media) Advanced Backup Options (Data Path) Advanced Backup Options (VaultTracking) Advanced Backup Options (Alert)	
<b>RESTORE</b>	Restore Options	Exchange Public Folder Restore Options (General) Exchange Public Folder Restore Options (Job Initiation)	Save As Script
	Advanced Restore Options	Advanced Restore Options (General) Advanced Restore Options (Options) Advanced Restore Options (Copy Precedence) Advanced Restore Options (Data Path)	

	Advanced Restore Options (Selected Path/ Filters)	
	Advanced Restore Options (Startup)	
	Advanced Restore Options (Alert)	
	Advanced Restore Options (Browse Options)	

## OPERATING SYSTEM AND APPLICATION UPGRADES

Operating system upgrades are only supported when upgrading from one version of an OS to a different version of the same OS (e.g., Win2003 to Win2008). The two methods of upgrading are:

- **Seamless Upgrade** - This involves uninstalling the Agent software, upgrading the operating system, and then re-installing the Agent software.
- **Full OS Replacement** - This involves performing a clean install of a new version of the OS, re-installing any application software, then re-installing the CommServe, MediaAgent, and/or Agent software.

For Full OS Replacement, the client computer must be configured to have the CommServe, MediaAgent, and/or Client software re-installed to the same location, the same Fully Qualified Domain Name or short domain name, the same partitions, disk drive format (FAT, NTFS, et. al.), and IP configuration as previously.

If it is necessary to remove Agent software to facilitate an operating system or application upgrade, do not delete the icon for the Agent from the CommCell Console, or all associated backed up data will be lost.

Use the following strategy to upgrade the operating system software:

- Identify the computers you want to upgrade and the CommCell components installed on each of these computers.
- Choose the type of upgrade procedure you want to use on each computer: seamless or full replacement.
- CommServe, MediaAgent, and Client computers can be upgraded in any order.

## OPERATION WINDOW

By default, all operations in the CommCell can run for 24 hours. To prevent certain operations from running during certain periods of the day, you can define operation rules so that these operations are disabled during those times.

When operation rules are configured, operations that are started within the time window specified will go to a queued (as opposed to pending) state. Once the time window specified in the operation rule has elapsed, these queued or running operations will resume automatically.

1. In the CommCell Browser, right-click the appropriate entity, click **All Tasks**, and then click **Operation Window**.
2. Click **Add**.
3. From the **Operation Window** dialog box:
  - o Enter the name of the rule in the **Name** field.
  - o Select either an administration, data protection (either full or non-full), and/or a data recovery operation from the **Operations** pane.
4. Click **OK**.

## SCHEDULE POLICY

A schedule policy is a defined schedule or group of schedules for specific operations to be performed on associated objects within the CommCell. When the schedules from a policy are run, the specified operations, (e.g., auxiliary copy, backup, etc..) will be performed on the associated CommCell objects.

1. Expand the **Policies** node, right-click **Schedule Policies** and click **Add**.
2. Type the **Name** of the schedule policy.
3. Select the **Type** of schedule policy.
4. Select the **Agent Type**.
5. Type a description of the schedule policy.
6. Click **Add**.
7. Enter a Schedule Name in the **Schedule Pattern** tab.
8. Click **OK**.
9. On the **Associations** tab, select the objects to be associated with the schedule policy.
10. Click **OK**.

## STORAGE POLICY

A Storage policy defines the data lifecycle management rules for protected data. Storage policies map data from its original location to a physical storage media and determine its retention period.

1. Expand the **Policies** node, right-click **Storage Policies**, and select **New Storage Policy**.
2. Click **Next**.
3. Select **Data Protection and Archiving** to create a regular storage policy or **CommServe Disaster Recovery Backup** to backup the CommServe database and click **Next**.
4. Click **Next**.
5. Enter the name of storage policy and click **Next**.
6. Enter the name of the primary copy and click **Next**.
7. From the drop down box, select the default library for the primary copy and click **Next**.
8. From the drop down box, select the MediaAgent and click **Next**.
9. Enter number of data streams and set the retention period for the policy and click **Next**.
10. Click **Next**.
11. Click **Browse**, browse to your designated deduplication store location and click **Next**.
12. Confirm your selections and click **Finish**.

## SUBCLIENT POLICY

Subclient policies allow you to configure multiple subclients within a CommCell from a centralized template. This alleviates the need to manually configure each subclient that shares a similar configuration.

1. Expand the **Policies** node, right-click **Subclient Policies** and click **New Subclient Policy**.
2. Enter policy name in the **Name** entry field, then select the appropriate file system type from the **iDataAgent** drop-down list.
3. In the Subclient pane, assign a storage policy for each subclient template by clicking in the drop down box under the **Storage Policy** column.
4. Click **OK**.

## UNINSTALLING COMPONENTS

You can uninstall the components using one of the following method:

Method 1: Uninstall Components Using the CommCell Console

Method 2: Uninstall Components from Add or Remove Programs

---

### METHOD 1: UNINSTALL COMPONENTS USING THE COMMCELL CONSOLE

1. From the CommCell Browser, right-click the desired Client Computer and click **All Tasks -> Add/Remove Programs** and click **Uninstall Software**.
2. **Uninstall Software Options** dialog will appear.
3. In the **Uninstall Software** tab, select **Uninstall All** to uninstall all the software packages.
4. In the **Job Initiation** tab, select **Immediate** to run the job immediately.

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

---

### METHOD 2: UNINSTALL COMPONENTS FROM ADD OR REMOVE PROGRAMS

1. Click the **Start** button on the **Windows** task bar and then click **Control Panel**.
2. Double-click **Add/Remove Programs**.  
For Windows Vista/Windows 2008, click Uninstall a Program in the **Control Panel**.
3. Click **Remove** to uninstall the components in the following sequence:
  1. <Agent>
  2. File System iDataAgent
  3. Base Software

## **ADVANCED TOPICS**

Provides comprehensive information about additional capabilities for the following features:

- Audit Trail
- Auxiliary Copy
- Erase Backup Data
- Global Filters
- License Administration
- License Usage by Capacity
- Operating System and Application Upgrades
- Operation Window
- Schedule Policy
- Storage Policies
- Subclient Policies
- Uninstalling Components

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# Erase Backed Up Data - Exchange Public Folder iDataAgent

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- Enable Erase Data in Storage Policy

### Running an Erase Data Job

### Using Find to Erase Data

### Viewing Erased Data

- Admin Job History
- View Erased Data in a Log File
- View Erased Data in an Erased Data Job Summary Report

### Viewing Job History

## OVERVIEW

The Erase Data feature allows you to permanently erase any data that was backed up. This is useful if you want to erase data so that it cannot be restored again. For example, you may want to erase data for legal purposes or compliance regulations.

Keep in mind that the erase data operation only erases the backup data - the source data will remain on the local hard drive. Therefore, it is recommended to delete the data from the source first so that it will not be backed up again.

The Erase Data operation makes the data inaccessible for browsing and recovery - the data will remain on the media and take up space until it is aged off according to the retention rules set for the data. Data will not be recoverable using any data recovery methods. If the backup job is already content indexed, the data being erased will be removed from the index.

Using Erase Data, you can erase data such as public folders, message or items within a Public folder such as email messages, appointments, contacts, tasks, journal entries, notes, HTML files, image files, and attachments.

## PREREQUISITES

The Erase Data feature requires:

- An Erase Data license to permanently erase data.
- The **Allow Erase Data** option needs to be enabled in the Storage Policy Properties dialog box as explained in the Configuring Erase Data.
- The MediaAgent must be installed on the CommServe.

## CONFIGURING ERASE DATA

To erase data, you need to first configure the following:

- Assign a Filter Storage Policy for Erasing Data
- Enable Erase Data in Storage Policy

## ASSIGN A FILTER STORAGE POLICY

To erase data, a filter storage policy needs to be associated with the Agent. Ensure that the filter storage policy that you associate with the agent has retention criteria that is greater than or equal to the retention criteria of the storage policy for the data to be erased.

- From the CommCell Browser, right-click the appropriate agent icon and then click **Properties**.

### NOTES

- Your screen may look different from the example shown.

- From the **Storage Device** tab of the agent **Properties** dialog box, select a filter storage policy from the **Filter Storage Policy** list.

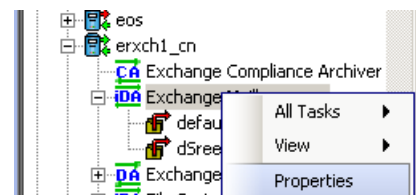
## RELATED TOPICS

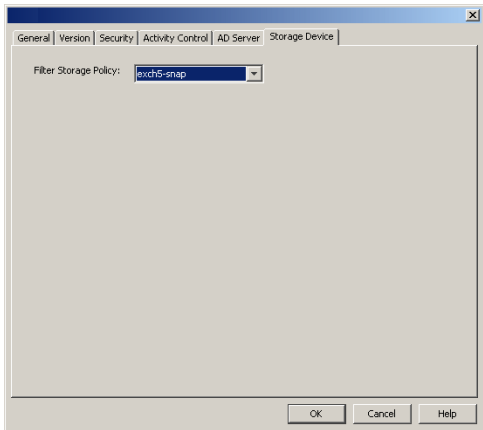
### Support

The list of Agents that support erasing data.

### How Do I

The most common procedures for erasing data.



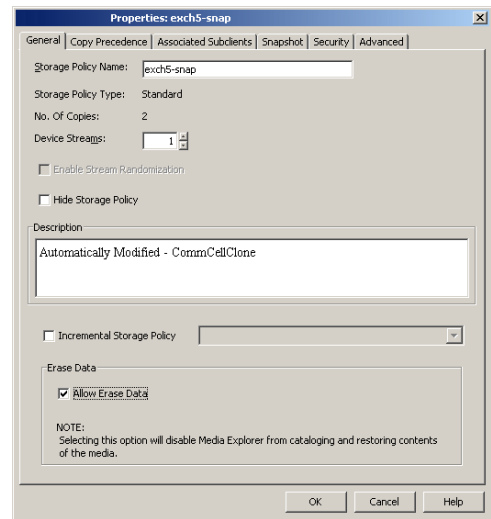
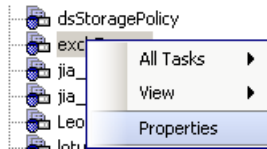


3. Click **OK**.

### ENABLE ERASE DATA IN STORAGE POLICY

To erase data, the storage policy assigned to the subclient where data will be erased needs permission to allow the erasing of data. Ensure that the retention criteria of the storage policy for the data to be erased is equal or greater to the filter storage policy that is associated with the agent.

1. From the CommCell Browser, right-click the storage policy you want to allow for the erasing of data, then click **Properties**.
2. From the **General** tab of the **Storage Policy Properties** dialog box, select the **Allow Erase Data** check box.



3. Click **OK**.

### RUNNING AN ERASE DATA JOB

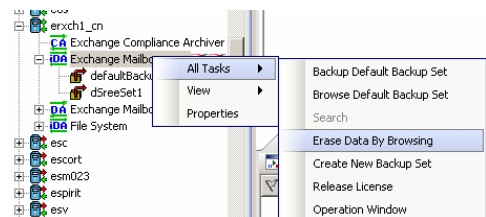
After the configuration has been completed, you can now browse and erase data.

### RUN OR SCHEDULE ERASE DATA JOB

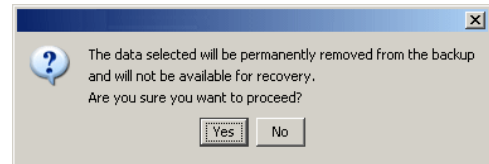
1. From the CommCell Browser, right-click the agent or instance that contains the data which you want to erase, select **All Tasks** and then click **Erase Data By Browsing**.

**NOTES**

- Your screen may look different from the example shown.

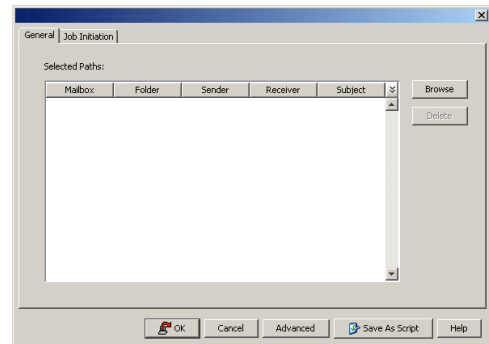


- You are warned that the data will be permanently removed. Click **Yes** to continue.

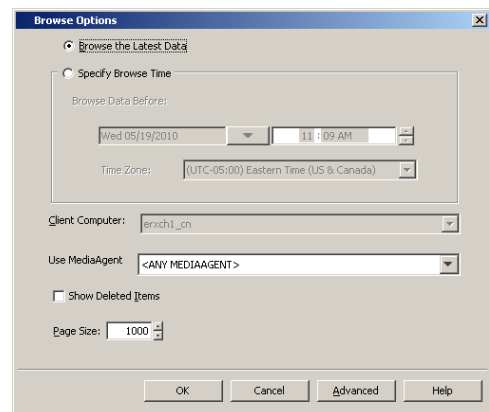


- From the **Erase Data by Browsing** dialog box, click **Browse**.

When a path is selected and a browse time is specified, all data that matches the path will be erased even if the data was not backed up in the specified time range.

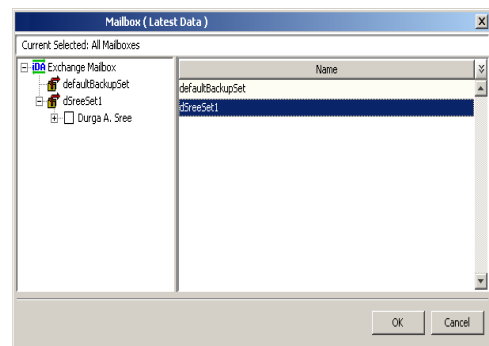


- In the **Browse Options** dialog box, select a browse time range and any advanced browse options, and click **OK**.



- From the browse selection window, select the data objects that you want to erase, and click **OK**.

If you need to erase data from a specific folder that is not visible in the current browse selection, you need to browse to a point in time to a backup that included the folder. Then, you can select the data under that folder to be erased.



- Optionally, you can click **Advanced** to configure an alert for this job.
- Click **Job Initiation** if you would like to run this job immediately or schedule it.
  - Click **Immediate** and then **OK** to run the job now. When the job is done, Job Controller displays Completed.
  - If **Schedule** is selected, click **Configure** to create a schedule for this operation. Your Erase Data by Browsing operation will execute according to the specified schedule. See Create a Job Schedule for more information.

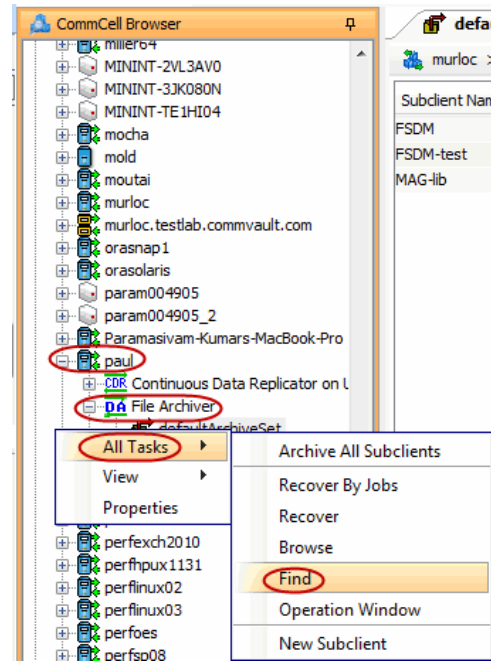
## USING FIND TO ERASE DATA

The Find feature allows you to search and locate data such as files, directories, and messages in a backup. Once located, this data can be erased. After erasing the data, it can no longer be browsed or restored. However, the data will remain on the media and take up space until it is aged off according to the retention rules set for the data.

Keep in mind that the erase data operation only erases the backup data - the source data will remain on the local hard drive. Therefore, it is recommended to delete the data from the source first so that it will not be backed up again.

- From the CommCell Browser, navigate to **Client Computers** | **<Client>** | **<Agent>**.

Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.

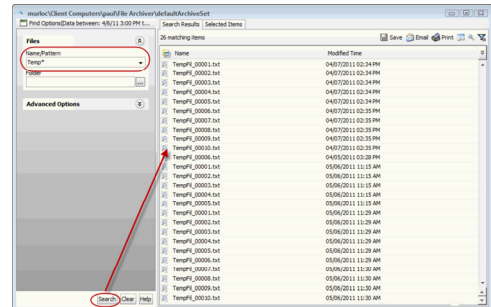


- Enter search criteria. For example, you can type a file name in **Name/Pattern** to narrow the search. You can search for partial words without the need for wildcard characters at the beginning and/or end of the search string.

These wildcards, or a combination of these wildcards, are supported:

- \* for any number of characters e.g., Accounting\*.
- ? for any one character e.g., user\_group?.
- [ ] for a range of characters e.g., [a-k]Lee.
- [!] for a negation of a range of characters e.g., ![a-k] Lee.

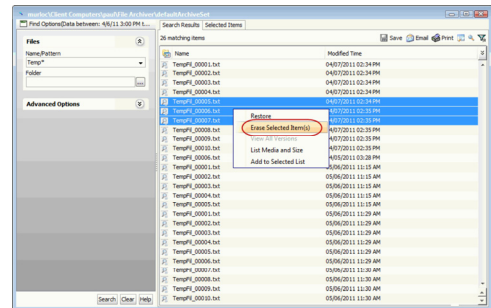
Click **Search**. The data that matches the criteria are displayed in Search Results.



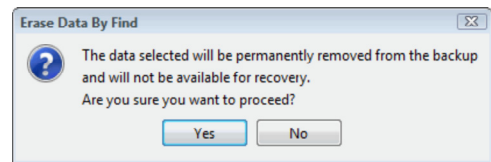
- Select one or more items.

Right-click the items and select **Erase Selected Item(s)**.

You can also erase data when it has been moved to Selected Items.

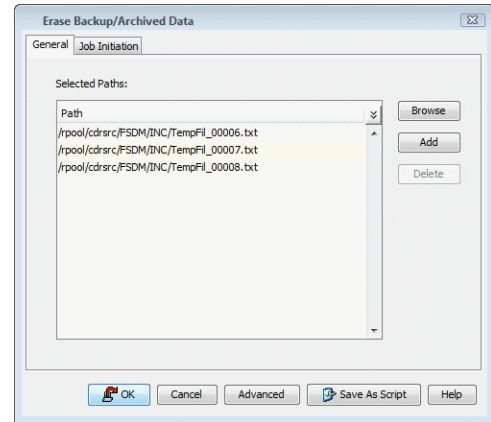


- Click **Yes**.



- Optionally, modify what will be erased by selecting either **Browse**, **Add**, or **Delete**. Confirm the data to be erased and click **OK**.





## VIEWING ERASED DATA

These features are available to view the data erased.

### ADMIN JOB HISTORY

You can view detailed, historical information about the Erase Data jobs in the **Admin Job History Filter** dialog box.

▶ To view admin job history:

1. From the CommCell Browser, right-click the CommServe, click **View**, and then click **Admin Job History**.
2. From the Admin Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
3. The Admin Job History dialog box displays with the specified filter options.
4. Click **Close**.

### VIEW ERASED DATA IN A LOG FILE

The files have been erased can be viewed in the `Se1Delete.log` file. For example, `TempFil_00008.txt` is a file that had been erased:

```
4836 17a4 10/15 14:37:10 1106 ::main() - 1: '/ext3/fsdm/HW_1/erasedata/TempFil_00008.txt'
```

▶ To view the log files of a CommServe, MediaAgent, or client computer.

1. From the CommCell Browser, right-click a CommServe, MediaAgent, or client computer, click **View**, and then click **Log Files**. The **Select the Log File to Open** window displays.
2. To see a specific log file, either select the log file name from the list or type the name of the log file in the field provided. (In the **Files of type** field, **Log Files (\*.log)** is displayed by default.) Click **Open**. The contents of the log file are displayed.

### VIEW ERASED DATA IN AN ERASED DATA JOB SUMMARY REPORT

An Administrative Job Summary Report provides details of all the Erase Data jobs.

▶ To create an Erase Data Job Summary report:

1. From the CommCell Browser, click the **Reports** icon.
2. Select **Job Summary** from the **Reports** pane of the **Report Selection** dialog box.
3. From the General tab, select **Administrative Jobs** and then select **Erase Backup/Archived Data**.
4. Select the filter criteria to include in the Erase Backup/Archived Data Job Summary Report from the various tabs (e.g., Computers, Selection, Options, Time Range).
5. From the Output tab, select the output format and/or save options for the report.
6. Click one of the following: **Run** to generate the report immediately, **Schedule** to schedule the reports for specific times, **Save Template** to save the report filter options into the My Reports node, or **Close** to exit the window.

See Erase Backup/Archived Data Job Summary Report for details.

## VIEWING JOB HISTORY

Once an erase data job has completed, it may be useful to view specific historical information about the job, such as the following:

- Items that failed during the job
- Items that succeeded during the job
- Details of the job
- Media associated with the job
- Events of the job
- Log files of the job.

This information can be viewed in the Job History window. The history provided depends on the entity from which the job history is viewed. For example, viewing job history from the subclient level will yield information for the jobs performed for that subclient. Conversely, viewing job history from the instance level will yield information for jobs run from all subclients within that instance.

To view the backup job history:

1. From the CommCell Browser, right-click the entity (client computer, iDataAgent, instance, or subclient) whose backup history you want to view, click **View**, and then click **View Job History**.
2. From the Job History filter window select the filter options, if any, that you want to apply, and then click OK. The system displays the Job History window.
3. Once you have chosen your filter options, they are displayed in the **Job History** window.

To view the additional options discussed above, right-click the desired job choose the appropriate option.

4. Click **OK**.

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## **Troubleshoot - Microsoft Exchange Public Folder *iDataAgent***

# Frequently Asked Questions - Microsoft Public Folder iDataAgent

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## WHAT MUST THE RESTORE DESTINATION BE FOR A PUBLIC FOLDER?

The restore destination of a public folder must be the same folder tree (All Public Folders) and must exist on the destination Exchange Server.

---

## HOW DO I RESTORE A DELETED PUBLIC FOLDER FROM A USER'S MAILBOX?

In situations where a Public Folder created in a user's mailbox (not the Administrator's mailbox) is backed up and then deleted before it's restored, the user won't see the folder after the restore due to a change in ownership. For security reasons, the system assigns the ownership of the restored folder to the Administrator. Therefore, the user won't see the restored folder unless the Administrator changes the permission back to the user. The Event Viewer will issue the following message to notify you of this condition:

```
"Warning: Please manually set folder [...] permission."
```

If you want the user to be able to view that folder after the restore, which would normally be the case, then the Administrator must manually set the folder permission back to the ownership of the user.

---

## HOW DO I ASSIGN FULL ACCESS TO ALL MAILBOXES ON A SERVER

### FOR EXCHANGE SERVER 2010

- Ensure that the service account is a member of Organization Management group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

To assign full access follow the steps given below:

- Using ADSIEDIT navigate to Configuration | Services | Microsoft Exchange.
- Right-click your organization name, click Properties | Securities and click the Advanced tab.
- Click Edit to modify the permissions set for Organization Management group.
- Click to select Full Control, Receive As and Send As permissions and wait for replication.
- Click the Effective Permission tab and Select the name of the backup account.
- The backup account should display the following as selected:

Full Control

All Extended Rights

Send As

Receive As

- Start the PowerShell and type the following to add the backup account so it has full control over all the databases:

```
Get-MailboxDatabase -server (server name) | Add-ADPermission -user "backup account" -ExtendedRights Receive-As
```

Run the above PowerShell every time a new database is added.

- Navigate to the Exchange Management Console, right-click the <mailbox> and click Manage Full Access Permissions to view the mailbox listed under Full Access Permissions.

### FOR EXCHANGE SERVER 2007

- Service account should be a member of Exchange Organization Administrators group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

### FOR EXCHANGE SERVER 2003

- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Using the Exchange System Manager snap-in, right-click the organization object and delegate control.
- Using the Wizard, assign the MailboxAdmin user Exchange Full Administrator privileges.

## Online Help Topics

### Agent Properties (General)

Use this tab to obtain general information on the selected Agent. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

#### Client Name

Displays the name of the client computer.

#### Billing Department

Displays the name of the billing department, when the Agent is associated with a billing department. For more information on Billing and Costing See the *CommNet Books Online*.

#### iDataAgent/Agent Type

Displays the name of the agent.

#### Installed date

Displays the date on which the agent was installed or upgraded on the client computer.

#### SharePoint Administrator Account

Displays the SharePoint Administrator Account that has required rights to create and modify SharePoint databases. This account will be used for data protection and recovery operations.

#### Stub Recovery Parameters

Specifies whether to enable recall throttling for stub recovery jobs. Selecting this option will allow you to control the number of stub recovery jobs that can be run based on the limits set below. When these options are disabled in the CommCell Console, the system will apply any legacy registry key settings corresponding to these options, where applicable.



It is recommended not to recall more stubs than the limit specified under the Maximum Stub Recovery for Celerra Proxy as it does not detect failure and the data is lost.

- **Maximum Stub Recovery**

Use this space to specify the upper limit for the number of stubs to be recovered for this agent.

- **Time between recall to count as successive in seconds**

Use this space to specify the number of seconds for a recall to be considered as successive.

- **Time to wait after maximum successive recalls limit is reached in seconds**

Use this space to specify the number of seconds that this agent must wait before additional stub recovery jobs can begin after the upper limit has been reached.

#### User Account

Displays the user account used by the system to log in to or access the (the tree of the) server during various jobs (including backups, browses, restores, etc.). For NAS NDMP, displays the NDMP account used by the system to connect to the NAS data server.

#### Change Account

Click to change the account information associated with this agent, as follows:

- For the File Archiver for NetWare Agent, click and enter a user account that has supervisor privileges for the NetWare server.
- For agents with an SharePoint Administrator/SSO Account, click and populate the resulting dialog box only if you changed the SharePoint Administrator/SSO Account and it now differs from the one displayed in the **SharePoint Administrator/SSO Account** field.

#### SSO Account

Displays the SSO Administrator account for the single sign-on service on this SharePoint Server.

#### SharePoint Server Name

Displays the name of the SharePoint Server that is installed on the client computer. Use this space to modify this server name if the name displayed is incorrect (e.g., not the same as the Client name or Host name).

#### Manage Content Automatically

Use this option to automatically assign auto discovered content to the subclients.

#### Index Backup/Restore path

The UNC path for a shared network folder to temporarily store the site index during backup and restore. There should be enough space available on the share for the index to be temporarily stored.



For a SharePoint All-in-One Server, the Index path must be local, not a UNC path.

#### **If topology manager is locked during backup/restore, force its release**

Specifies whether the system should release the lock for the topology manager and therefore allow jobs to complete without interruption. This option is selected by default for new installations.

#### **SQL Databases hosted on a remote SQL Server**

Specifies whether the SharePoint Server is part of a SharePoint Server Farm and whether the SQL Databases are hosted on a remote SQL Server. If selected, the SQL Databases must be backed up using the SQL Server iDataAgent.

#### **Recall items to Recovered Items folder for Outlook**

Specifies whether messages or items recalled from Outlook should be placed in the *Recovered Items* folder. When selected, data will be recalled to the *Recovered Items* folder. When cleared, data will be recalled to the original folder from which the data was archived.

#### **Recall items to Recovered Items folder for Outlook Web Access**

Specifies whether messages or items recalled from Outlook Web Access (OWA) should be placed in the *Recovered Items* folder. When selected, data will be recalled to the *Recovered Items* folder. When cleared, data will be recalled to the original folder from which the data was archived.

#### **Path to Exchange mining tool**

Use this space to type in the fully qualified path to the location where the Exchange Offline Mining Tool (for End-Users) or the Exchange Offline Mining Tool for Administrators resides. Specifying this information is only applicable when configuring the Exchange Offline Mining Tool for integration into the DataArchiver Outlook Add-In interface.

#### **Enable Offline Mining**

Select this option to browse and restore SharePoint document and picture library files from an offline database. When selected, the **Offline Mining Enabler for SharePoint** license is then consumed.

#### **Threshold for number of messages in the Journal Mailbox**

Specifies the number of messages in the Journal Mailbox at which a warning must be generated. If the number of messages in the Journal Mailbox exceeds the specified number, the system generates an event message and generates the *Journal Mailbox Threshold Exceeded* alert, if configured. This field requires that the **Enable Threshold** option be selected first.

#### **Enable Threshold**

Specifies whether to enable the Journal Mailbox Threshold Alert and activates the **Threshold for number of messages in the Journal Mailbox** field.

#### **Description**

Use this space to include relevant comments.

#### **Authenticate Active Directory Domain Controller**

Specifies whether to use or change the user account to authenticate against the Active Directory domain controller to look up group membership for the specified user (per the following fields)

#### **Domain Name**

Use this space to enter the domain name for this user.

#### **User Name**

Use this space to enter the name of the user for the account discussed for the preceding field. The correct format for specifying a user is Domain\User.

#### **Password**

Use this space to enter the password for this user.

#### **Confirm Password**

Retype the password.

#### **Enable SRM feature**

Select this option to Enable SRM Options.

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# Version

Use this dialog box to view the software version and verify the update status. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

## Software Install Directory

Displays the directory path in which the software is currently installed on the client or MediaAgent computer.

## Crypto Library Version

Displays the current version of the Crypto Library module.

## Version Information

Displays the software component version (CommServe, MediaAgent, Client or Agent) installed on the computer.

## Update Status

Displays the update status for each client computer. The possible values and their descriptions are:

- **Unknown**

The software is not able to determine if the client computer meets the baseline level of updates due to an error or an uninstalled client still showing in the CommCell console.

- **Has Diagnostic**

One or more diagnostic updates have been installed on the client computer.

- **Up To Date**

The updates in the client computer match the baseline.

- **Needs Update**

The client computer must be updated to meet the baseline level of updates.

- **Ahead of Cache**

The client computer exceeds the baseline level of updates in the CommServe Cache directory.

## Package

Displays the name of the packages installed on the client.

## Status

Displays the update status for each package. The possible values are: *Unknown*, *Has Diagnostic*, *Up To Date*, *Needs Update*, and *Ahead of Cache*. (Refer to previous section for a description of these values.)

## Updates

Displays the name of the updates.

## Update Information

Specifies the options for installing the updates.

This information is displayed only in the case of remote clients and/or remote MediaAgents. (A client/MediaAgent that is not installed on the CommServe computer)

- **Cache Source**

This information is only displayed for client computers.

- **CommServe**

If selected, the selected client receives its updates from the CommServe computer.

- **Software Cache**

If selected, the selected client receives its updates from the specified Client designated as Software Cache computer.

- **Store Updates Locally**

When selected, indicates that the update packages must be saved on the local computer, before they are installed. Use the space to type the location on the local computer in which the updates must be stored, or click the **Browse** button to select the location on the local computer.

If this option is selected, make sure that there is adequate space for installing the necessary updates. Also note that the system automatically deletes the update packages once they are installed.

*(You cannot specify a different folder to serve as the temporary cache location for NetWare clients; this field is disabled.)*

---

## Agent Properties (Options)

Use this tab to enable or disable backups for the Deleted Item Retention folder on the selected agent.

### Backup Deleted Item Retention

Specifies whether to enable backups for the Deleted Item Retention folder. When selected, the Deleted Item Retention folder will be backed up. When cleared, the Deleted Item Retention folder will not be backed up.

---

## Activity Control

Use this dialog box to enable or disable data management and data recovery on a selected client computer group, client computer, agent, or subclient. Note that not all agents support subclients. For the File Archiver for Windows Agent, use this dialog box to enable or disable Data Classification. Also note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

If data management and data recovery operations are disabled at the client computer group or client level, then these operations below these levels will be disabled. If data management / data recovery operations are enabled at the client computer group or client level, then these operations below these levels will be enabled.

### Enable Data Management / Backups / Archive / QR Volume Creation

Specifies whether data management operations (Backups / Archive / QR Volume Creation) will occur from this client computer group, client computer, agent or subclient.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which data management operations will begin on the selected client computer group, client computer, agent, or subclient.
- Data management operations from this client computer group, client computer, agent, or subclient cannot be started and are skipped.
- Running and waiting data management operations for this client computer group, client computer, agent, or subclient run to completion.
- Stopped data management operations for this client computer group, client computer, agent, or subclient cannot be resumed until this option is enabled.
- Pending data management operations for this client computer group, client computer, agent, or subclient do not run until this option is enabled.

(Job states are indicated in the Job Controller.)

### Enable Data Recovery / Restores / Retrieve / QR Volume Recovery (Not applicable for the subclient level)

Specifies whether data recovery operations (Restores / Retrieve / QR Volume Recovery) will occur from this client computer group, client computer or agent.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which data recovery operations will begin on the selected client computer group, client computer, or agent.
- Data recovery operations for this client computer group, client computer or agent cannot be started and are skipped.
- Running data recovery operations for this client computer group, client computer or agent run to completion.
- Pending data recovery operations for this client computer group, client computer or agent do not run until data recovery operations are enabled.

(Job states are indicated in the Job Controller.)

### Enable Content Indexing

Specifies whether Content Indexing operations will occur from this client computer group, client computer or agent.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which Content Indexing operations will begin on the selected client computer group, client computer, or agent.
- Content Indexing operations are not started and are skipped.
- Running and waiting Content Indexing operations run to completion.
- Content Indexing operations in a pending, queued, or suspended state cannot be resumed until this option is enabled.
- Pending Content Indexing operations cannot run until this option is enabled.

(Job states are indicated by the Job Controller.)

### Enable SRM Data Collection

Specifies whether data collection operations will occur from this agent.



If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which data collection operations will begin on the selected agent.
- Data Collection operations are not started and are skipped.
- Running and waiting Data Collection operations run to completion.
- Data Collection operations in a pending, queued, or suspended state cannot be resumed until this option is enabled.
- Pending Data Collection operations cannot run until this option is enabled.

(Job states are indicated in the Job Controller.)

#### Enable Discovery

Specifies whether discovery operations will occur.

#### Script Preview

Click to display the backup script, based on the current subclient configuration, that will be submitted to RMAN when backups are performed for the selected Oracle subclient.

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## Security

Use this dialog box to:

- Identify the user groups to which this CommCell object is associated.
- Associate this object with a user group.
- Disassociate this object from a user group.

#### Available Groups

Displays the names of the user groups that are not associated with this CommCell object.

#### Associated Groups

Displays the names of user groups that are associated with this CommCell object.

#### Automatically add New Users to the "View All" Group (CommServe Level Only)

Specifies that all new users will automatically be added to the `view All` user group. This group allows users to view all CommCell objects, regardless of the associations of the other user groups they belong to.

#### Require Authentication for Agent Installation (CommServe Level Only)

Enable this option to prompt users for authentication for any agent installation on the CommCell.

#### Client Owners

Specify a user to allow CommCell user access to this client computer through CommCell Console and allow permission to run Web Console browse and restore operations on this client. Each user must be listed in a separate line.

## Agent Properties (Storage Device)

Use this tab to view or change the filter storage policy for Erase Data by Browsing.

#### Filter Storage Policy

Displays the filter storage policy for Erase Data by Browsing that is associated with this agent. To associate a filter storage policy to a new agent or to change the filter storage policy associated with an existing agent, click one in the list.

## Backup Set / Archive Set Properties (General)

- Use the **Backup Set / Archive Set (General)** tab to change the configuration of the selected backup set / archive set.
- Use the **New Backup Set / New Archive Set** dialog box to define a new backup set / archive set.
- Use the **On Demand Backup Set / Archive Set (General)** tab to change the configuration of the selected backup set / archive set.
- Use the **Create New On Demand Backup Set / Archive Set** dialog box to define a new on demand backup set / archive set.

Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the

information is being displayed.

**Client Name / Client Computer**

Displays the name of the Client computer on which this backup set / archive set is found.

**Billing Department**

Displays the name of the billing department, when the backup set is associated with a billing department. For more information on Billing and Costing See the *CommNet Books Online*.

**Agent Type / iDataAgent**

Displays the name of the iDataAgent to which this backup set / archive set belongs.

**Instance**

Displays the name of the instance to which this backup set belongs.

**Partition**

Displays the Lotus Domino Server data path under which this data is found.

**Database Name**

Displays the name of the database.

**Replication Set**

The name of the Replication Set for which the system automatically created this backup set and its default subclient.

**Backup Set / New Backup Set Name**

Specifies the name of the Backup Set. You can use this space to create or modify a name. (Backup Sets for certain iDataAgents cannot be modified.)

**Choose Backupset Type**

• **SharePoint Server Document**

The content of this backup set can specify backing up site collections, sub-sites, areas, libraries, and lists.

• **SharePoint Server Database**

The content of this backup set specifies backing up SharePoint 2007 site collections, WSS web application content databases, shared service providers, WSS searches, global search settings.

• **Force use of V2 APIs**

Specifies to backup SharePoint 2003 site collections, portal sites, site content databases, site indexes, teamsite databases, and webstorage system databases.

**Image Backup Set**

Specifies whether the selected backup set will perform a SnapMirror to Tape (aka smtape) block backup. These backup types are supported for NetApp file servers running ONTAP 8.0 or higher. These types of backups are useful if the volumes on the filers contain mirrored snapshots. Moving mirrored snapshots to tape saves filer disk space and provides fast point-in-time volume recovery of mirrored data.

**Type**

Displays the SharePoint Server version. Applicable only on machines where both SharePoint Server 2003 and 2007 versions exist.

**Archive Set / New Archive Set Name**

Displays the name of the archive set. If applicable, use this space to enter or change the name of the archive set.

**On Demand**

Displays whether the selected backup set / archive set is an On Demand Backup Set / Archive Set.

**Make this the Default backup set**

Specifies whether the selected backup set is the default or a user-defined backup. Selecting this option asserts this backup set as the default. The previously designated default backup set is automatically reallocated as a user-defined backup set. Clearing this option, is accomplished by opening the Backup Set Properties dialog box of some other backup set and clicking this option there, thereby designating that backup set as the default.

**Subclient Content may contain Wildcard Entries**

Allows for the selection of files with specified extensions that can be backed up during the backup operation.

**Make this the Default archive set**

Displays whether the selected archive set is the default, in cases where other types of archive sets are also supported on the same agent (for example: User-Defined Archive Set, DataClassSet, On Demand Archive Set).

**Subclient Policy**

Displays the name of the Subclient Policy associated with this backup set. If no Subclient Policy is associated with this backup set, it will display "<None>".

**Job Options**

- **Use Change Journal**

Specifies that NTFS change journal is used to determine whether files have been modified for all subclients within the backup set.

- **Use Classic File Scan**

Specifies that the classic file scan is used to determine whether files have been modified for all subclients within the backup set.

**Preserve File Access Time**


Specifies whether the file access time is preserved and therefore not modified at the time of backup. Selecting this option may increase the time required to complete a backup.

**Check Archive Bit During Backups**

Specifies whether files are considered modified and therefore backed up based on either the state of the archive bit or the file modification time. In addition, the system resets the Archive bit of every file that it backs up. This option influences the way incremental and differential backups are conducted for all subclients within the backup set. It does not affect the behavior of full backups.

- **Use Data Classification**

Specifies that the Data Classification Enabler is used to determine whether files have been modified for all subclients within the backup set.

	This field is disabled for Online Content Indexing for NAS File Servers.
---	--

- **Decompress Data before Backup**

Specifies that data on a compressed drive is decompressed before being sent to the backup media, thereby preventing data recovery failures when restoring data to a volume that does not support compression. By default, data is backed up in compressed format if the data is on a volume that supports compression. When this option is initially selected, the next backup for each subclient within the backup set is converted to a full. This ensures that all of the client's compressed data is decompressed, including all data backed up prior to this selection.

**Next Backup**

Displays whether the next backup job may be full or non-full. When Next Backup displays Full the next backup job will be changed to a full.

**Available DB Names**

Select the database name(s) to be used as backup set name(s) by clicking the database name(s) and then clicking > to move the name(s) into Selection.

**Selection**

Specify the appropriate backup set (database) name(s) from the Available DB Names.

**Storage Policy for All Log Files**

Specifies the storage policy for all the log files in this backup set. You can use the list to change the storage policy.

**Catalog Partition No.**

Specifies the number of the catalog partition database for the DB2 DPF instance. This is the partition through which access to all system tables must go.

**Connect as a Different User**

Specifies to connect to the DB2 application using a different DB2 user account.

**User Account**

Displays the application User account used by the system to perform all Data Protection and Recovery operations for this backup set.

**Change**

Click to change the application user account.

**Status of <database>**

Displays the status of the database (backup set) as either CONNECTED or DISCONNECTED.

**Refresh**

Displays the most current status of the database.

**Subclient**

Displays those subclients that belong to the backup set / archive set.

**Storage Policies**

Select a storage policy from the list.

#### **Enable Auto-Discover**

Specifies whether to enable auto-discovery of new databases for all subclients of this backup set. Selecting this option will cause the system to discover and assign any new databases at the beginning of each backup operation. This option is available only for default dump backup set of postgresql iDataAgents.

#### **Description**

Use this field to enter a description about the entity. This description can include information about the entity's content, cautionary notes, etc.

#### **Add**

Click to create a subclient for the backup set / archive set.

#### **Edit**

Click to change the properties of a subclient that you select from the list.

#### **Delete**

Removes a subclient that you select from the list.

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## Security

Use this dialog box to:

- Identify the user groups to which this CommCell object is associated.
- Associate this object with a user group.
- Disassociate this object from a user group.

#### **Available Groups**

Displays the names of the user groups that are not associated with this CommCell object.

#### **Associated Groups**

Displays the names of user groups that are associated with this CommCell object.

#### **Automatically add New Users to the "View All" Group** (CommServe Level Only)

Specifies that all new users will automatically be added to the `View All` user group. This group allows users to view all CommCell objects, regardless of the associations of the other user groups they belong to.

#### **Require Authentication for Agent Installation** (CommServe Level Only)

Enable this option to prompt users for authentication for any agent installation on the CommCell.

#### **Client Owners**

Specify a user to allow CommCell user access to this client computer through CommCell Console and allow permission to run Web Console browse and restore operations on this client. Each user must be listed in a separate line.

## Backup/Archive Options

Use this dialog box to schedule or immediately run a backup/archive job. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

#### **Select Backup Type**

##### • **Full**

Specifies the job as a Full backup, which backs up all data for the selected subclient(s).

##### • **Incremental**

Specifies the job as an Incremental backup, which backs up only that portion of the data that is new or has changed since the last backup.

##### ○ **Transaction Log**

Specifies the job as a transaction log backup. This will back up the transaction log, providing point-in-time restore functionality.

##### **Do not truncate log**

Specifies the operation will back up the transaction log in situations where the database is damaged or has not been recovered.

**Skip full after log backup**

Specifies that a full backup will be skipped after a transaction log backup has taken place.



For the Oracle, DB2, Informix, and SAP for Oracle iDataAgents, **Incremental** backup works like **Differential** backups described in the online documentation.

- **Level**

Specifies the level of incremental backup for Oracle backups. Valid values are from 1 to 4.

- **Cumulative**

Specifies a Cumulative Incremental backup at level 1 to 4 for Oracle backups. When cleared, the system performs a non-cumulative backup.

- **Differential**

Specifies the job as a Differential backup, which backs up only that portion of the data that is new or has changed since the last full backup.

**Delta**

Specifies the job as a delta backup, which backs up all data that is new or has changed since the last backup for the selected subclient.

- **Pre-Selected Backup Type**

Specifies the job as either an Incremental or Differential backup, as determined during installation or later through client configuration. An Incremental backup backs up all data that is new or has changed since the last backup for the selected subclient. A Differential backup backs up all data that is new or has changed since the last Full backup for the selected subclient.

- **Synthetic Full**

Specifies the job as a Synthetic Full backup, which creates a Full backup from existing backup data for the selected subclient or backup set (if applicable). The Synthetic Full backup consolidates the backup data; it does not actually back up data from the client computer.



If applicable for your agent, the **Verify Synthetic Full** option in the Advanced Backup Options dialog box will include never-changing files in the next backup. This option is enabled by default.

**Run Incremental Backup**

Specifies the options for running an Incremental backup either immediately before a Synthetic Full backup or immediately after a successfully completed Synthetic Full backup when selected. When cleared, an Incremental backup is not automatically run either immediately before or after the Synthetic Full backup.

- **Before Synthetic Full:** Specifies the operation will back up any data that is new or changed since the previous backup in order to have it included as part of the Synthetic Full backup.
- **After Synthetic Full:** Specifies the operation will back up any data that is new or changed since the backup that occurred prior to the Synthetic Full backup.

**Job Initiation**

- **Run Immediately**

Specifies this job will run immediately.

- **Schedule**

Specifies this job will be scheduled. Click **Configure** to specify the schedule details.

**Configure Alert**

- **Alert**

The currently configured Alert.

- **Add/Modify Alert**

When clicked, opens the Alert Wizard to configure alerts for this operation.

- **Delete Alert**

When clicked, deletes any existing alerts that are already configured.

**Directive File**

Use this space to specify the Directive File to be used when running On Demand Data Protection operations. For NAS NDMP iDataAgents and the File Archiver for Windows Agents, you will specify a Content file instead of a Directive File.

- **Browse**

When clicked, opens a window in which you can browse to and select the Directive File (or Content File for NAS NDMP iDataAgents and the File Archiver for Windows Agents).

### Description

Use this field to enter a description about the entity. This description can include information about the entity's content, cautionary notes, etc.

### Advanced

Click to select advanced backup/archive options, such as create a new index, start new media, and mark media as full.

### Save As Script

Click to open the Save As Script dialog, which allows you to save this operation and the selected options as a script file (in XML format). The script can later be executed from the Command Line Interface using `qoperation execute` command.

When you save an operation as a script, each option in the dialog will have a corresponding xml parameter in the script file. When executing the script, you can modify the value for any of these XML parameters as per need.

To view the XML values for each of the options in the dialog, see the following:

- Command Line XML Options for Active Directory iDataAgent
- Command Line XML Options for Lotus Notes Database iDataAgent
- Command Line XML Options for Lotus Notes Document iDataAgent
- Command Line XML Options for Image Level iDataAgent
- Command Line XML Options for Image Level ProxyHost iDataAgent
- Command Line XML Options for Netware File System iDataAgent
- Command Line XML Options for NAS NDMP iDataAgent
- Command Line XML Options for PostGreSQL iDataAgent
- Command Line XML Options for ProxyHost iDataAgent
- Command Line XML Options for Microsoft Windows File System iDataAgent
- Command Line XML Options for Macintosh File System iDataAgent
- Command Line XML Options for Microsoft Data Protection Manager
- Command Line XML Options for Novell GroupWise iDataAgent

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## Advanced Backup/Archive Options (Data)

You can select advanced backup/archive data options for the operation. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent or enabler for which the information is being displayed.

### Create new index

Specifies the system will create a new index with a full or On Demand data protection operation, and for archive operations. Selecting this option will cause the following to occur for this job only:

- full backup transparent browse capability will be disabled, if it is supported by the agent.
- override the **Create new index on full backup** option on the **Agent Properties (Index)** tab
- for an On Demand Data Protection operation, override the **Set index cycle to every *nn* backup jobs** setting in the **Subclient Properties (General)** tab of the default subclient.
- for Archiver Agents, a new index will be automatically created during the first archiving job run after January 1st provided the associated subclient was created prior to July 1st of the preceding year. If a subclient is created between July 1st and December 31st, the new index will be automatically created during the first archiving job run after January 1st of the year after the next. For example, **Subclient A** was created on March 1st, 2009. When **Subclient A**'s first archiving job of 2010 was run on January 15th 2010, a new index was automatically created. **Subclient B**, however, was created on August 5th, 2009. Therefore, a new index for **Subclient B** will not be created until the first archiving job run in 2011.

Still, a new index can always be created on-demand for an individual job at any time. This is possible by selecting the Create New Index option in the Advanced Backup Options of a backup or schedule policy dialog box.

### Perform Consistency Check

Select this option to perform a consistency check.

- **Throttle check for 1 second**

Enter the number of I/O operations to complete before a consistency check is performed.

### Create Backup Copy immediately

Select to create an inline backup copy to start movement of snapshot to media, immediately after the completion of the SnapProtect backup job.

### Verify Synthetic Full

Specifies to include never-changing files in the next backup when **Synthetic Full** is selected in the Backup Options dialog box. This is especially useful if you run a conventional full backup only once for a given subclient, and then run incremental (or differential) backups with periodic synthetic full backups after that for an extended period of time.

### Catalog

Use this section to select index cache sharing and granular restartability options for the job. Note that these options are not applicable for the disaster recovery data protection.

- **Use shared profile if present with transaction logging**

Select this option if you wish to use the shared index cache profile of the MediaAgent (if configured) to save a copy of the job's index cache for index cache sharing *with* transaction logging feature for granular job restartability.

Shared profile with transaction logging provides job restartability in failover situations. This is a recommended configuration.

- **Use shared profile if present without transaction logging**

Select this option if you wish to use the shared index cache profile of the MediaAgent (if configured) to save a copy of the index cache for index cache sharing *without* transaction logging feature for granular job restartability. This is not a recommended configuration.

- **Use transaction logging**

Select this option to use transaction logging feature to provide granular job restartability (without using shared profile for index cache sharing).

- **None**

Select this option to use neither shared profile nor transaction logging.

## Advanced Backup/Archive/Content Indexing Options (Startup)

You can specify advanced backup/archive/content indexing startup options for the operation. For more information, select one of the following:

### Set a Job Priority

#### Description

Use this field to enter a description about the entity. This description can include information about the entity's content, cautionary notes, etc.

### Startup in Suspended State

## Job Retry

Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent or operation for which the information is being displayed.

### Enable Total Running Time

The maximum elapsed time, in hours and minutes, from the time that the job is created. When the specified maximum elapsed time is reached, as long as the job is in the "Running" state, it will continue; if the job is not in the "Running" state when the specified time is reached, Job Manager will kill the job.

### Enable Number of Retries

The number of times that Job Manager will attempt to restart the job. Once the maximum number of retry attempts has been reached, if the job has still not restarted successfully, Job Manager will kill the job. Note that this job-based setting will not be valid if restartability has been turned off in the Job Management Control Panel.

### Kill Running Jobs When Total Running Time Expires

Option to kill the job when the specified Total Running Time has elapsed, even if its state is "Running". This option is available only if you have specified a Total Running Time.

## Advanced Backup/Archive Options (Media)

You can select advanced backup/archive media options for the operation. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent or enabler for which the information is being displayed.

**Start New Media**

This option starts the backup/migration/archive operation on a new media, which causes the following to occur:

- If removable media is used, the current active media is marked as Appendable and a new media is used for the backup/migration/archive.
- If disk media is used, a new volume folder is created for the backup/migration/archive.

If cleared, the operation automatically uses the current active media or volume.



When using the Informix iDataAgent, if you are using tape and do all of the following, the tape will be marked full for both the data storage policy and the logical logs storage policy, and new media will be made available for both the logs and data even though you are backing up just the logical logs:

- Define a subclient with different storage policies for the logical logs and the data
- Prepare to back up just the logical logs
- Select the **Start new media** option before you start the backup

**Mark Media Full after Successful Operation**

This option marks media full, 2 minutes after the completion of the backup/archive operation. If any jobs are initiated within the 2 minutes, they are allowed to write to the media. If the job was associated with the prior media, new media (such as a new tape) will be used for subsequent jobs. (Applies to all backup/archive types.)

**Allow other Schedule to use Media Set**

This option allows jobs that are part of a schedule policy or schedule and using a specific storage policy to start a new media and also prevent other jobs from writing to the set of media. It is available only when the **Start New Media** and **Mark Media Full** options are enabled, and can be used in the following situations:

- When one scheduled job initiates several jobs and you only want to start new media on the first job.
- When you want to target specific backups to a media, or a set of media if multiple streams are used.

**Reserve Resources Before Scan**

Normally, media is reserved for a job before the operation phase (backup or archive). When selected, this option will reserve the media before the scan phase. This reserves the media earlier because the scan phase precedes the operation phase.

**Job should wait for Inline Copy Resources**

If you are performing a data protection/archive operation on a subclient with a storage policy that has the Inline Copy option enabled, then this option specifies that the operation should wait until resources are available for both the data protection/archive operation and the Inline Copy. (This option is available only if an Inline Copy is created on the storage policy that is being used for this data protection operation).

If cleared, the data protection operation will create the Primary copy even if there are not enough resources to create the Inline Copy.

**Override Job Retention**

- **Infinite:** Select this option to retain this job indefinitely.
- **Number of Days:** Select this option to prune this job after the number of days specified.
- **Storage Policy Default:** Select this option to apply the retention rules of the associated storage policy, which is the default option.

## Advanced Backup Options (Data Path)

Select the data path to be used for the backup/archive operation.

Ensure that the Library, MediaAgent, Drive Pool, and Drive selected for this operation is available online and is a part of the associated Storage Policy.

**Use MediaAgent**

Specifies the name of the MediaAgent that will be used to perform the backup operation. If necessary, you can change the name of the MediaAgent.

For example, if the library is shared and you wish to use a specific MediaAgent (instead of the system selected MediaAgent, or a MediaAgent which may be idle, or less critical) or if you know that the library attached to the specified MediaAgent.

**Use Library**

Specifies the name of the library that will be used to perform the backup operation. Use this option when you wish to backup to a specific library.

**Use Drive Pool**

Specifies the name of the Drive Pool that will be used to perform the backup operation. Use this option when you wish to backup using a specific Drive Pool.

**Use Drive**

Specifies the name of the Drive that will be used to perform the backup operation. Use this option when you wish to backup using a specific Drive from the



selected Drive Pool.

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## Vault Tracking

Select options to export and track media, using Vault Tracker.



Vault Tracking Options will be displayed only when a Vault Tracker license is available in the CommServe.

Vault Tracking options are only applicable for data protection operations using a storage policy associated with a library containing removable media (e.g., tape, optical or stand-alone.)

### Export media after the job finishes

Specifies the media used by the data protection operation and media with the specific Media Status (if specified) will be exported and tracked by Vault Tracker.

### Exclude Media Not Copied

When selected, allows you to exclude media with jobs that have to be copied.

### Media Status

- **All**  
Click to select all media. Clear this option to select media with a specific status.
- **Active**  
Click to select media with its status marked as active.
- **Full**  
Click to select media with its status marked as full.
- **Overwrite Protected**  
Click to select media with its status marked as read-only .
- **Bad**  
Click to select media with its status marked as bad.

### Export Location

Specifies the destination location and lists the stationary locations entered using the **Export Location Details** dialog box.

### Track Transit

Specifies that transit information must be tracked, and lists the transit locations entered using the **Export Location Details** dialog box.

### Use Virtual Mail Slots

Specifies the exported media is stored within the library in the virtual mail slots defined in the **Library Properties (Media)** dialog box.

### Filter Media By Retention

Specifies that the system must automatically filter media based on whether the media has extended retention jobs or not.

- **Media with extended retention job(s)**  
Specifies that media with at least one extended retention job will be exported.
- **Media with no extended retention job(s)**  
Specifies that media with no extended retention jobs will be exported.

---

## Alert

Use this tab to configure an alert for a schedule policy.

### Configure Alert

- **Alert**  
The currently configured Alert.
- **Add/Modify Alert**  
When clicked, opens the Alert Wizard to configure alerts for this operation.

- **Delete Alert**

When clicked, deletes any existing alerts that are already configured.

---

## Browse Options

Use this dialog box to select the basic options under which you want to browse the data secured by a data protection operation in the selected client, agent, instance/partition, or backup set level depending on the functionality of a given agent.

The system provides several browse options. These options influence the behavior of the browse operation in the subsequent Browse window. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

### **Browse the Latest Data**

Specifies whether the browse operation must display data from the most recent data protection operation (from now back to the last full backup) in the Browse window. (This option is selected by default.)

### **Specify Browse Time**

Specifies whether the browse operation must display data, up to the specified date and time in the Browse window. Data secured after the specified date and time will be omitted in this window.

- **Browse Data Before/Browse to Point-In-Time**

Specifies the date and time that must be used to display the data in the Browse window.

- **Time Zone**

Lists the time zones. To change the time zone, click one in the list.

### **Select from Available Browse Times**

Displays a list containing the time of different backup jobs available in the destination, from which data can be browsed. For Workstation Backup Agent, this option displays the list of recovery points available in the destination. Select the desired time.

### **Use MediaAgent**

Specifies the name of MediaAgent that will be used to perform the browse (and restore) operation. If necessary, you can change the name of the MediaAgent. For example, if the library is shared and you wish to use a specific MediaAgent (instead of the system selected MediaAgent, or a MediaAgent which may be idle, or less critical) or if you know that the media containing the data you wish to restore is available in the library attached to the specified MediaAgent.

If the media containing the data is not available in the tape/optical library attached to the MediaAgent, the system will automatically prompt you to insert the appropriate media. In the case of a disk library, the operation will fail if the requested data is not available in the disk library attached to the specified MediaAgent.

### **Client Computer**

Lists the client computers available for the browse operation. This option is available only when the browse operation is performed either from the client node in the CommCell Browser, **Browse & Recover** option from the **Tools** menu in the CommCell Console or when the **New Browse** button is clicked in the Browse window.

### **Specify Browse Path**

Specifies the starting point for the browse operation. Also provides a space for you to type the path.

### **Show Deleted Items**

Specifies whether the operation will browse all the data (including deleted items) secured by all data protection operations for the selected backup set as of the specified browse items.

### **Table View**

Specifies whether the backup data should be displayed as database tables during the browse operation.

### **Image Browsing**

Specifies whether the operation will browse all the data (including deleted items) secured by all data protection operations for the selected backup set as of the specified browse times.

The main difference between image browse and no-image browse is that deleted items are shown only by the no-image browse.

Keep in mind that the display of deleted items depends on whether full backup transparency is enabled. If full backup transparency is disabled (the default), only those deleted items that existed back through the most recent full backup are shown. However if full backup transparency is enabled, the deleted items shown includes those that existed during the time interval from initial index creation through the time being browsed.

To determine whether full backup transparency is enabled or disabled, from the CommCell Browser, right-click the *iDataAgent* and then select **Properties**.

Click the **Index** tab. If **Create new index on full backup** is selected, then full backup transparency is disabled.

#### **File Level Browse (Restore individual files/folders from disk image)**

Specifies whether the operation will browse all the files and folders secured by all data protection operations for the selected backup set as of the specified browse items.

#### **Volume Level Browse (Restore the disk image/volume)**

Specifies whether the operation will browse all the volumes secured by all data protection operations for the selected backup set as of the specified browse items.

#### **Database**

For SQL Server, specifies whether to browse individual databases.

#### **File/File Group**

For SQL Server, specifies whether to browse file groups and files for the databases.

#### **Page Size**

Use the space to enter the default number of objects to be displayed in the Browse window. This field reverts back to the default setting after use. In the Browse window, you can browse through each page list by selecting the appropriate page number.

#### **Browse Data from SQL**

Specifies that SharePoint documents can be mined from an offline mining database.

#### **SQL Instance**

For SharePoint Offline mining, specifies the SQL instance that is associated with the offline mining database. Click ... to select from a list or type the instance name.

#### **User Account**

For SharePoint Offline mining, specifies the Username and Password of the account that can access the instance. Click Edit to enter the username and password.

#### **Config Database**

For SharePoint Offline mining, specifies the Configuration Database that will be used to mine SharePoint documents. Click ... to select from a list or type the Configuration Database name.

#### **Browse only volumes**

Specifies that the browse operation must display only a list of volumes; required for a Volume Level Restore.

#### **Advanced**

Click to access additional browse capabilities.

#### **List Media**

Click to display media required for restore or index restore operations.

#### **Type of Intended Restore (Virtual Server iDataAgent)**

This section provides the facility to select the type of restore you want to perform following the Browse operation.

- **Individual Files/Folders**

Select this option if you intend on performing a file/folder-level restore.

- **Entire Volume**

Select this option if you intend on performing a volume-level restore.

- **Container Restore**

Select this option if you intend on performing a disk-level restore.

#### **Browse/Restore Directory Server data from database**

For Active Directory Offline Mining, enter the path to the database from which you want to restore directory server data. For Active Directory Server databases, this file will be the `ntds.dit` file. For ADAM and Lightweight Server databases, this file will be the `adamntds.dit` file. Click **Browse** to locate the database or enter the complete database path in the **File Path** field.

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## Advanced Browse Options

Use this dialog to access additional browse capabilities for the browse window. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

#### **Use MediaAgent**

Select the MediaAgent associated with the data you want to browse, or select **Any MediaAgent**.

#### **Show Deleted Items**

Specifies whether the operation will browse all the data (including deleted items) secured by all data protection operations for the selected backup set as of the specified browse items.

#### **Page Size**

Specifies the number of objects to be displayed in the browse window.

#### **Include Metadata**

Specifies that the browse operation results must also include data containing metadata information.

#### **Exclude Data Before**

Specifies that the browse operation must return data that has been backed up after the specified date. Also provides a space for you to type the date and time.

#### **Browse from copy precedence**

When selected, the system retrieves the data from the storage policy copy with the specified copy precedence number. If data does not exist in the specified copy, the operation fails even if the data exists in another copy of the same storage policy.

When cleared, (or by default) the system retrieves data from the storage policy copy with the lowest copy precedence. If the data was pruned from the primary copy, the system automatically retrieves the data from the other copies of the storage policy starting with the copy with the lowest copy precedence and proceeding through the copies with higher copy precedence. Once the data is found, it is retrieved, and no further copies are checked.

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## List Media

Use this dialog box to select the options that must be used to predict the required media.

#### **Media For the Latest Data**

Specifies whether the list media operation must display media associated with the most recent data protection operation (from now back to the last full backup) This option is selected by default.

#### **Specify Time Range**

Specifies whether the whether the list media operation must display media associated with the specified date and time.

- **Data Before/Time Range**

Specifies the date and time that must be used to display media.

- **Time Zone**

Lists the time zones. To change the time zone, click one in the list.

#### **Advanced**

Click to access additional options.

## Operation Window

Use this dialog box to add, modify, or delete operation rules for system operations.

#### **Name**

The friendly name assigned to the operation window.

#### **Operations**

The operations included in the rule.

#### **Days**

Displays the days in which the operations in this rule should not be run.

#### **Do not run intervals**

Displays the times in which the operations in this rule should not be run.

**Add**

Click this button to add an operation rule from the Operation Rule Details dialog box.

**Modify**

Click this button to modify an operation rule from the Operation Rule Details dialog box.

**Delete**

Click this button to delete an operation rule.

**Ignore Operation Rules at Higher Levels** (not applicable at the CommServe and Client group level)

Select this option to disable all operation rules set at levels above the currently selected entity.

---

## Subclient Properties (General)

Use Subclient Properties (General) tab to add, modify or view general information on the selected subclient. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent or enabler for which the information is being displayed.

**Client Computer / Client Name**

Displays the name of the Client computer to which this subclient belongs.

**Billable Entity**

The name of the Billable Entity assigned to this subclient.

**Billing Department**

Displays the name of the billing department, when the subclient is associated with a billing department. For more information on Billing and Costing See the *CommNet Books Online*.

**iDataAgent/Agent Type**

Displays the name of the Agent to which this subclient belongs.

**Backup Set**

Displays the name of the Backup Set to which this subclient belongs.

**Instance**

Displays the name of the Instance to which this subclient belongs.

**Policy (External Data Connector Only)**

Displays the name of this policy. You can use this space to enter or modify the name of the policy.

**Database Name**

Displays the name of the Database to which this subclient belongs.

**Partition**

Displays the Lotus Domino Server data path under which data is found for this subclient.

**Subclient Name**

Displays the name of this Subclient. You can use this space to enter or modify the name of the subclient.

**Policy Name**

Displays the name of this policy. You can use this space to enter or modify the name of the policy.

**Subclient Type**

Displays whether this subclient is a database or file/file group type.

**Incremental Support Using**

• **CXBF**

Select this option to perform a CXBF backup for the selected subclient.

• **Checksum**

Select this option to perform a non-CXBF (Checksum) backup for the selected subclient.

**Discover Criteria (External Data Connector Only)**

- **All**

This option discovers all clients associated with the master server.

- **By Agent Type**

This option discovers clients containing the Agent selected in the drop-down menu.

- **By Client Names**

This option discovers clients by their names.

- **Select Client Group for Discovered Clients**

Select a Client group to associate discovered clients to. If desired, you can also **Create a New Group**.

**Disable Auto-Discovery**

Specified to disable the auto-discovery and pre-assignment of SQL databases to the default subclient. By default, SQL databases are automatically discovered and assigned to the default subclient.

**Create New Index Every *nn* Archive Operations**

Displays the interval for index creation by number of archive operations on this subclient. You can use this space to modify the interval setting. This setting can be overridden by selecting the Create New Index option on the Advanced Backup/Archive Options (Data) tab. If overridden, the new index interval counter will start again at zero.

**Set index cycle to every *nn* backup jobs**

For the default subclient of an On Demand Backup Set, displays the interval for index creation by number of backup or migration operations on this subclient. You can use this space to modify the interval setting. This setting can be overridden by selecting the Create New Index option on the Advanced Backup/Migration Options (Data) tab.

**Use Direct Database Access**

Specifies to use the alternate read-only direct access to the SharePoint database to backup objects (e.g., documents, list items) and their metadata. This method can increase the backup speed and is applicable for Document backup sets, WSS v3.0, and MOSS 2007 environments. Requires installing specifically Microsoft SQL Server Native Client 2005 on Front-End Web Server. When selected or deselected, the next backup that is run will be a Full backup.

**Use Direct Access to Restore Selected Entities**

Specifies to restore individual files into the database directly. This is applicable for files in Document backup sets. When restoring the files directly into the database, the IDs of the files will remain the same and will not change.

**Use content file provided by SRM**

Uses content file consisting of files and directories provided by SRM report with on demand action.

**Use VSS**

Specifies whether VSS will be used to back up data for this subclient.

**Use VSS for System State**

Specifies whether VSS will be used to back up the system state for this subclient.

**Use QSnap to handle backup of locked files**

Specifies whether QSnap will be used to back up data (locked files) for this subclient.

**Number of Data Readers**

Use this space to specify the number of simultaneous backup data streams allowed for this subclient. For best performance, this should be set no higher than the number of physical drives that hold this subclient's data, except for specialized hardware such as RAID. For more information, see *Automatic File System Multi-Streaming or Backup - NAS NDMP* in Books Online.

**Allow multiple data readers within a drive or mount point**

Specifies whether multiple data reads are allowed for a single Windows physical drive or Unix mount point during backups on this subclient. This should be selected only for specialized hardware such as RAID, or possibly in the case of spanned volumes. For more information, see *Automatic File System Multi-Streaming* in Books Online.

**Incremental backup should use**

- **UNIX mtime**

Select this option to determine which files are selected for incremental backup by changes in the mtime timestamp.

- **UNIX ctime**

Select this option to determine which files are selected for incremental backup by changes in the ctime timestamp.



When you select **Use Data Classification** in Backup Set Properties, it is recommended not to select "UNIX mtime" and "UNIX ctime" options in this properties box as Incremental Backups for Data Classification scan does not support these options.

#### Informix Server

Displays the name of the Informix instance to which this subclient belongs.

#### Default Subclient

Displays whether this is the default subclient. When a subclient is designated as the default subclient, it will back up/archive all the data for the subclient that is not assigned to any other subclients within the backup set/archive, and it cannot be deleted.

#### Offline Archive

Specifies whether to enable Offline Archive operations on this subclient to allow Outlook Add-In users the capability of retaining a full copy of archived items in local cache on the Outlook client.

#### Celerra Proxy Stub Subclient

Use the following group of options to enter or change the configuration information for the Proxy Stub Subclient feature.

- **Proxy Stub Path**

Use this space to enter, or **Browse** to, the location of the directory on the server where the stubs will reside.

- **HTTP/CIFS Address**

Use this space to enter the HTTP/CIFS address of the proxy stub path specified in the connection configured between the filer and the server.

- **NAS HTTP Port No.**

Displays the port number used for communication with the proxy computer.

#### Collect User Identity

Specifies that during an archive operation, additional ownership/user information is collected and archived. This information is later used to perform owner based searches.

#### Operate in Archive Mode (Domino Mailbox Archiver Agent)

When selected, the Domino Mailbox Archiver Agent will perform archive operations based on the rules established in the **Archive Rules** tab of the **Subclient Properties** dialog box.

- **Operate in Backfill Mode** (Domino Mailbox Archiver Agent)

When selected, this mode allows you to backup and populate the content index with messages that were sent and/or delivered before the point-in-time at which archives of the journaling mailbox begin.

#### Operate in Backup Mode (Domino Mailbox Archiver Agent)

When selected, this mode allows you to perform full, incremental, differential, or synthetic full backups of mailbox databases using the Domino Mailbox Archiver Agent. The **Archive Rules** tab of the **Subclient Properties** dialog box is disabled, backup operations run with no stubbing phase, and all mailbox data (with the exception of design documents) is backed in a similar fashion to the Lotus Notes Document iDataAgent.

#### Description

Use this field to enter a description about the entity. This description can include information about the entity's content, cautionary notes, etc.

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## Subclient Properties (Content)

Use this tab to define the contents of a new subclient or to change the content of an existing subclient. Mailboxes that are listed in the **Contents of subclient** pane are backed up/migrated/archived/content indexed by the subclient.

#### Contents of subclient

Displays a list of mailboxes included as content for this subclient. The autodiscovered mailboxes are displayed in italics whereas manually discovered mailboxes are displayed in normal font. This is to differentiate which mailboxes will be qualified for Automatic Content Management.

- **Display Name**

Displays the Display Name of the mailbox included as content for this subclient.

- **Alias Name**

Displays the Alias Name of the mailbox included as content for this subclient.

- **SMTP Address**

Displays the Simple Mail Transfer Protocol Address of the mailbox included as content for this subclient.

- **Mailbox Store**

Displays the Mailbox Store in which the mailbox resides.

### Configure

Click to discover and change the associations of the mailboxes to the subclients. Any mailboxes included as content for a user-defined backup set/subclient will be automatically excluded from the default backup set/subclient.

### Delete Archived messages after successful archive operations

Specifies whether to delete the contents of the mailbox after the data has been successfully archived. Selecting this option will cause the system to delete the data from mailboxes included in subclient content after the data has been successfully archived.

### Only backup following folders (separated by ;)

This allows you to configure the Exchange Mailbox iDataAgent to backup messages that reside in a specific root-level mailbox folder for the subclient of any backup set. Other folders in the mailbox will not be backed up.

### Perform backup using mining off snapshot

Click to run a data protection job from an offline snapshot copy of the Exchange data. Snap mining can improve performance in that it offloads processing on the production application server.

### Exchange DB client

Specifies the client computer where the Exchange Database is installed.

### Client

Specifies the client computer that was used to create the snapshot.

### Agents

Specifies the agent that was used to create the snapshot of the Exchange data.

### Instance

Specifies the instance that was used to create the snapshot of the Exchange data.

### Backupset

Specifies the backupset that was used to create the snapshot of the Exchange data.

### subclient to use

Specifies the subclient that was used to create the snapshot of the Exchange data

### Exchange DB subclient to use

Specifies the Exchange Database iDataAgent subclient to use for mining the SnapProtect backup.

### Proxy Client

Click and select a proxy computer to run the data protection job of the snapshot on a Proxy Client.

## Pre/Post Process

Use the Pre/Post Process tab to add, modify or view Pre/Post processes for the selected subclient or Replication Set. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent or enabler for which the information is being displayed.

### Pre Backup/Scan/Migrate/Archive/Copy/Snap/Recovery Point process

Displays the name/path of the process that you want to run before the respective phase. You can use this space to enter a process that will execute before this phase on the subclient or Replication Set, or you can use the **Browse** button to search for and select the name/path of the process. The system allows the use of spaces in the name/path, provided they begin with an opening quotation mark and end with a closing quotation mark.




If you are using the Linux File System iDataAgent to back up VMware virtual machines, you must create a PreBackup process script that will allow the system to create the required REDO files. See "Create Pre/Post Backup Process Scripts to Back up VMware Virtual Machines Using the Linux File System iDataAgent" in Books Online for step-by-step instructions.

### Post Backup/Scan/Migrate/Archive/Copy/Snap/Recovery Point process

Displays the name/path of the process that you want to run after the respective phase. You can use this space to enter a process that will execute after this



phase on the subclient or Replication Set, or you can use the **Browse** button to search for and select the name/path of the process. The system allows the use of spaces in the name/path, provided they begin with an opening quotation mark and end with a closing quotation mark.

	<p>If you are using the Linux File System iDataAgent to back up VMware virtual machines, you must create a PostBackup process script that will allow the system to post data back to the virtual machines. See "Create Pre/Post Backup Process Scripts to Back up VMware Virtual Machines Using the Linux File System iDataAgent" in Books Online for step-by-step instructions.</p>
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#### On Source

Specifies whether the PreSnap/PostSnap process will execute on the source computer.

#### On Proxy

Specifies whether the PreSnap/PostSnap process will execute on the proxy computer.

#### Run Post Backup/Scan/Migrate/Archive/Copy/Snap Process for all attempts


Specifies whether this process will execute for all attempts to run the phase. Selecting this option will execute the specified process for all attempts to run the phase, including situations where the job phase is interrupted, suspended, or fails. Otherwise, when the checkbox is cleared the specified process will only execute for successful, killed, or failed jobs.

#### On Primary Host/Backup Host/MediaAgent

Specifies the location of the batch file or shell script that you want to execute after a phase, either on the Primary Host (production server), Backup Host or MediaAgent.

#### Run As / User Account

Displays either the Local System Account, or for added security, another account as having permission to run these commands.

	<p><b>SharePoint Server iDataAgent:</b> Even if the Local System Account is selected as the account to run the Pre/Post processes, the account that actually will be used is the SharePoint Administrator Account for the site in which the SharePoint Server resides. This account was configured during installation and can be changed in Agent Properties.</p>
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#### Change

Click to add or modify the account that has permission to run these commands.

#### Browse

Click to search for and select the Pre/Post Process.

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## Storage Device

Use this dialog box to establish the storage device related settings on the selected subclient. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent or enabler for which the information is being displayed.

The following tabs are displayed:

- (Data) Storage Policy
- Data Transfer Option
- Deduplication

### STORAGE POLICY

Use this tab to select or view storage policy settings on the selected subclient.

#### Data/Database/Transaction Log Storage Policy

Displays the storage policy to which this subclient is currently associated. To associate a storage policy to a new subclient or to change the storage policy associated with an existing subclient, click one in the list.

#### Incremental Storage Policy

Displays the name of the Incremental Storage Policy associated with this subclient, if the storage policy has the Incremental Storage Policy option enabled.

#### Data Paths

Click to view or modify the data paths associated with the primary storage policy copy of the selected storage policy.

#### Number of Data/Database/Transaction Log Backup Streams

Displays the number of streams used for backup operations. To change the number of streams, click one in the list. For DB2 DPF, be sure to set the appropriate number of streams for each database partition by double-clicking the appropriate **Stream** space and typing the desired number.

**Client/Instance/Status/Stream**

Displays the names of the instances according to current backup priority along with other associated information that are included in the Oracle RAC node. To change the backup priority of the instances, click the instance name as appropriate and use the directional arrows provided.

**Maximum Backup Streams**

For Informix, displays the maximum number of streams used for database backup operations, which is determined from the ONCONFIG file. The number of streams for backups cannot be set currently from the CommCell Console. Instead, you must set the BAR\_MAX\_BACKUP parameter in the \$ONCONFIG file on the Informix client. Also, the number of streams specified by the storage policy must be greater than or equal to the number specified by the BAR\_MAX\_BACKUP parameter.

**Data Threshold Streams**

For Oracle RAC, specifies whether to run the backup job immediately when the total number of reserved streams is greater than or equal to the value in this field. If you click this option, use the space provided to change this value if desired.

**Create Storage Policy**

Click to launch the Create a Storage Policy wizard. Once the storage policy has been created, it will be displayed in the list of storage policies to which the selected subclient can be associated.

**Buffer Size**

Use this space to specify the size (in 4 KB pages) of each buffer to be used for building the backup image. The minimum value is 8, and the default value is 1024. If you select value 0, the value of the `backbufz` database manager configuration parameter will be used as the buffer allocation size.

**DATA TRANSFER OPTION**

Use this tab to establish the options for data transfer. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

**Software Compression**

Indicates whether software compression for the subclient or instance is enabled or disabled, and if enabled whether it is performed on the client or MediaAgent computer.

- **On Client**

Click to enable software compression on the client computer.

- **On MediaAgent**

Click to enable software compression on the MediaAgent computer.

- **Use Storage Policy Settings**

Click to use the settings enabled on deduplicated storage policy copy.

This option applies when subclient is associated with a storage policy copy that is deduplicated. See Copy Properties (Deduplication) - Advanced tab for compression settings on deduplicated storage policy copy.

- **Off**

Click to disable software compression.

Note that hardware compression has priority over the software compression. Hardware compression is established in the Data Path Properties dialog box. The above software compression option will take effect when the data path is associated with a disk library, or when hardware compression is disabled in the data path associated with tape libraries.



For non-deduplicated storage policy copy, select **On Client** or **On MediaAgent** options to turn on compression, depending upon your environment.

**Resource Tuning**

Indicates the processes used by the client to transfer data based and whether bandwidth throttling is enabled or not.

- **Network Agents**

Specifies the number of data pipes/processes that the client uses to transfer data over a network. Increasing this value may provide better throughput if the network and the network configuration in your environment can support it. On non-UNIX computers, the default value is 2 and a maximum of 4 can be established if necessary. On UNIX computers the default value is 1 and a maximum of 2 can be established if necessary.

- **Throttle Network Bandwidth (MB/HR)**

Specifies whether the backup throughput is controlled or not. (By default this option is not selected and therefore the throughput is not controlled). When selected, use the space to specify a value for the throughput. By default, this is set to 500. The minimum value is 1 and there is no limit to the maximum value. (In this case the backup throughput will be restricted to the maximum bandwidth on the network.)

Use this option to set the backup throughput, based on the network bandwidth in your environment. Use this option to reduce the backup throughput, so that the entire network bandwidth is not consumed, especially in slow links. Increasing this value will end up consuming the bandwidth with the maximum throughput limited to the network bandwidth capability.

Note that throttling is done on a per Network Agent basis.

#### Application Read Size

This option specifies the amount of application data (such as SQL data, Windows File System data, and virtual machine data) backup jobs will read for each unit transferred to the MediaAgent.

The default value for this options is 64KB; however, this value may be increased to reduce the amount of data read from the given application, which in turn reduces the amount of I/O operations performed against it. As a result, overall backup performance may increase. However, backup memory usage may also increase, which may inadvertently consume additional resources from the application. Thus, it is recommended that this value be set at either the default value or match the block size directed by the application.

## DEDUPLICATION

Use this tab to establish the options for deduplication on the subclient. It indicates whether deduplication for the subclient is enabled or disabled, and if enabled whether the signature generation (a component of deduplication) is performed on the client or MediaAgent computer.

Note that deduplication is supported on disk storage devices. So the deduplication options are applicable only if the subclient is associated with a Storage Policy containing disk storage.

#### On Client

Click to enable signature generation on the client computer.

#### On MediaAgent

Click to enable signature generation on the MediaAgent computer.

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## Filters

Use this tab to add, modify or view the data protection or discovery filter on the selected subclient or Replication Set. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

#### Include Policy Filters

Specifies whether Subclient Policy filters will be used for this subclient, and is applicable only for subclients associated to a Subclient Policy. Selecting this option will cause this subclient to inherit the filter specified in the associated Subclient Policy. Clearing this option overrides the use of Subclient Policy filters on this subclient. See Subclient Policy - Filtering Rules for more information.

#### Include CommCell Level Global Filters / Global Filter

Specifies whether filters set under Control Panel (Global Filters) will be used in addition to the filters set at the subclient level to exclude data from data protection operations for this subclient.

#### Include Global Filters

Displays a list of options for enabling or disabling Global Filters which can be used in addition to the filters set at the subclient level to exclude data from data protection operations for this subclient. To change the setting, select one of the following values from the list:

- **OFF** - Disables Global Filters for this subclient.
- **ON** - Enables Global Filters for this subclient.
- **Use Cell Level Policy** - Enables or disables Global Filters for this subclient depending on whether the **Use Global Filters on All Subclients** option is enabled or disabled on the Control Panel (Global Filters) dialog. If the **Use Global Filters on All Subclients** option is enabled, then the **Use Cell Level Policy** option will enable Global Filters on this subclient. If the **Use Global Filters on All Subclients** option is disabled, then the **Use Cell Level Policy** option will disable Global Filters on this subclient.

#### Exclude these files/folders/directories/patterns/containers/objects

Displays entries that will be excluded from data protection operations for this subclient or Replication Set.

##### *Regular Expressions*

Provided below are details regarding support for the use of regular expressions (or wildcard characters) when adding entries to this exclusion list:

- Exchange Public Folder, Exchange Public Folder Archiver, Novell Directory Services (NDS), and SharePoint Document do not support the use of wildcards when adding entries to this set of exclusions.
- File Share Archiver - If a disk mount path is pointing to a filer share that will be archived, do not include UNC paths in the subclient content. UNC paths

cannot be manually filtered out.

- For NAS NDMP iDataAgents:
  - BlueArc NAS NDMP - has no limitations. The \* wild card is supported at the end of a directory filter (filters starting with /) or at the beginning or end of a file filter (not starting with /).
  - EMC Celerra NAS NDMP:
    - For older versions of DART OS (prior to 5.5), backup filters are not supported. Overlapping content cannot be configured. You cannot have one subclient with /myfs and another with /myfs/dir3. For example, if the default subclient specifies / as the content, and another subclient has /myfs/dir3 defined in the content, then backing up the default subclient will skip all of /myfs.
    - For DART OS 5.5 and above, filters are supported but do not work with volume-based backups. They are not blocked from being specified as an Advanced Backup/Archive Option, but a warning is displayed that the filters are ignored.
    - For DART OS 5.5 and above, a maximum of six directory filters (filters starting with /) and six file filters can be specified in either the default or user-defined subclients. If more filters are specified, a warning is displayed in the Event Viewer. For example, if a subclient specifies /myfs as the content, and another subclient specifies a total of 12 paths (/myfs/dir1 through /myfs/dir12), then when backing up the first subclient, you will receive six warnings indicating /myfs/dir7 through /myfs/dir12) were not filtered.
      - For directory filters, the \* wild card is supported only at the end of the filter.
      - For file filters (not starting with /) the ? wild card matches a single character and the \* wild card matches a string of characters. One of these wild cards can be used at the beginning or at the end of the filter.
  - Hitachi NAS NDMP - backup filters are not supported.
  - NetApp NAS NDMP:
    - Backup filters can be used for file or folder names, but not paths. Thus, if the same filtered file name exists in multiple folders, all occurrences will be filtered. See *Subclients - NAS NDMP* in *Books Online* for details.
    - A maximum of 32 filters can be specified. The \* wild card is supported, but only as the first or last character in the filter.
    - Filters are not supported for the GX model.
- For the Windows, NetWare, Unix, File Archiver Agents, and ContinuousDataReplicator Agents, see Wildcards for more information.

#### System State Filters

Following is a list of acceptable exclusion filters for Windows File System System State:

- {System Protected Files}
- {IIS}
- {COM+ Database}
- {Event Logs}
- {One Touch Files}
- {RSM}
- {Terminal Services Licensing}
- {Disk Quotas}
- {Content Indexing Catalogs}
- {WMI Database}
- {DHCP}
- {WINS}
- {UDDI Database}
- {Remote Storage Database}
- {Certificate Services }
- {Offline Files}
- {Active Directory Application Mode}
- {File Server Resource Manager}
- {NPS Database}

#### Exclude the following mailboxes/folders

Displays mailboxes or folders that will be excluded from data protection operations for this subclient. Wildcards are not supported when adding entries to this exclusion list.

#### Exclude the folders that contain the following patterns

Displays mailbox folder name wildcard patterns that will be excluded from data protection operations for this subclient. The Exchange Mailbox Archiver Agent, and the Exchange Compliance Archiver Agent support the use of wildcard expressions when adding entries to this exclusion list. See Wildcards for more information.

**The following paths and files are excluded**

Displays entries that will be excluded from discovery operations for this subclient. The Lotus Notes Database, Domino Mailbox Archiver, and Lotus Notes Document iDataAgents support the use of wildcard expressions when adding entries to this exclusion list. See Wildcards for more information.

**Pattern/path to be excluded**

Use this space to enter the path of a folder or file that you want to exclude from discovery operations for this subclient. The path must start with a (\), and it must be relative to the data path of the partition. The Lotus Notes Database, Domino Mailbox Archiver, and Lotus Notes Document iDataAgents support the use of wildcard expressions when adding entries to this exclusion list. See Wildcards for more information.

**Except for these files/folders/directories/containers/objects**

Displays entries that will be included in data protection operations for this subclient or Replication Set in cases where a parent object is listed in the Exclude filter.

Provided below are details regarding adding entries to this exceptions list:

- Wildcards are not supported in Exception filters.
- For NAS NDMP iDataAgents, only file names or folder names are valid entries when adding entries to this set of exceptions; paths are not supported.

**Include these files/folders/patterns with every archive**

Displays entries that will be included in archive operations for this subclient in cases where a parent object is listed in the Exclude filter. Note that File Archiver Agents do not support the use of regular expressions (or wildcard characters) when adding entries to this inclusions list.

- File Share Archiver - If a disk mount path is pointing to a file share that will be archived, do not include UNC paths in the subclient content. UNC paths cannot be manually filtered out.

**Add**

Click to manually add an entry to be included in, or excluded from, data protection operations for this subclient or Replication Set.

**Browse**

Click to browse for an entry to be included in, or excluded from, data protection operations for this subclient or Replication Set.

**Edit**

Click to manually edit an entry to be included in, or excluded from, data protection operations for this subclient.

**Delete**


Click to delete a selected filter entry.

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## Wildcards

The supported wildcards include:

Wildcards	Description
*	<p>Any number of any characters. For example:</p> <p><b>Accounting*</b></p> <ul style="list-style-type: none"> <li>• For search operations, the above wildcard pattern returns search results for any messages or items that match the pattern "Accounting" followed by any number of any characters, found in any of the following fields (where applicable): Subject, From, To, Cc, Bcc, Content, or Attachment; (e.g., Accounting Meeting Minutes, Accounting Manager, Accounting Records, etc.).</li> <li>• For filtering operations, the above wildcard pattern filters any mailbox folder name that begins with "Accounting" followed by any number of any characters (e.g., Accounting Mailbox, Accounting Folder, etc.). For more filtering examples using this wildcard character, see the note at the bottom of this page.</li> <li>• For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that begins with "Accounting" followed by any number of any characters (e.g., Accounting Mailbox, Accounting Manager, etc.).</li> </ul>
?	<p>Any one character. For example:</p> <p><b>user_group?</b></p> <ul style="list-style-type: none"> <li>• For search operations, the above wildcard pattern returns search results for any messages or items that match the pattern beginning with "user_group" followed by any one character, found in any of the following fields (where applicable): Subject, From, To, Cc, Bcc, Content, or Attachment; (e.g., user_groupA, user_group1, etc.).</li> <li>• For filtering operations, the above wildcard pattern filters any mailbox folder name that begins with "user_group" followed by any one character (e.g., user_groupA, user_group1, etc.).</li> <li>• For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that begins with</li> </ul>

	"user_group" followed by any one character (e.g., user_groupA, user_group1, etc.).
[ ]	<p>Any range of characters. For example:</p> <p><b>[JT]im</b></p> <ul style="list-style-type: none"> <li>For filtering operations, the above wildcard pattern excludes from data protection operations any mailbox folder name that begins with "J" or "T" and ends with "im" (e.g., Jim, Tim).</li> <li>For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that begins with "J" or "T" and ends with "im" (e.g., Jim, Tim).</li> </ul> <p><b>[a-k]Lee</b></p> <ul style="list-style-type: none"> <li>For filtering operations, the above wildcard pattern excludes from data protection operations any mailbox folder name that begins with any character in the range of "a" through "k" inclusive and that ends with "Lee" (e.g., aLee, bLee, etc.).</li> <li>For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that begins with any character in the range of "a" through "k" inclusive and that ends with "Lee" (e.g., aLee, bLee, etc.).</li> </ul> <p>This wildcard cannot be used for search operations.</p>
[! ]	<p>The negation of a range of characters. For example:</p> <p><b>[!ei]nsure</b></p> <ul style="list-style-type: none"> <li>For filtering operations, the above wildcard pattern excludes from data protection operations any mailbox folder name that ends with "nsure" but does not begin with "e" or "i" (e.g., unsure).</li> <li>For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that ends with "nsure" but does not begin with "e" or "i" (e.g., unsure).</li> </ul> <p><b>[!a-k]Lee</b></p> <ul style="list-style-type: none"> <li>For filtering operations, the above wildcard pattern excludes from data protection operations any mailbox folder name that does not begin with "a" through "k" and that ends with "Lee" (e.g., xLee, yLee, etc.).</li> <li>For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that does not begin with "a" through "k" and that ends with "Lee" (e.g., xLee, yLee, etc.).</li> </ul> <p>This wildcard cannot be used for search operations.</p>
	<p>You can also use a combination of wildcards in a single expression, if the wildcards are supported for the type of operation you are performing. For example, if you wanted to auto-discover all mailbox display names beginning with any characters in the range of "A" through "K" inclusive followed by any number of any characters, you would enter the following wildcard combination:</p> <p><b>[A-K]*</b></p> <p>Keep in mind that the path entered for the subclient filter is based on what level is being filtered out. The examples provided below illustrate this point:</p> <ul style="list-style-type: none"> <li>To filter out a root folder called "Sent Items", specify the name of the folder and the asterisk "*" wildcard with no delimiters, as shown in the following example: <p><b>Sent*</b></p> </li> <li>To filter out a subfolder called "test", specify the full path including the leader "\", as shown in the following example: <p><b>Sent Items\test*</b></p> </li> <li>To filter out any path that ends in a folder name, use the full path including the leader "\" and the asterisk "*" wildcard for the first level, as shown in the following example: <p><b>*\test*</b></p> </li> <li>To filter all directories that begin with a particular word on all drives (e.g. My_Filter), use the global filter: <p><b>*:\**\My_Filter*\**</b></p> </li> <li>If you know the drive letter to filter, use the subclient filter as follows: <p><b>C:\**\My_Filter*\**</b></p> </li> <li>To filter every directory named "temp" on all drives, use the global filter: <p><b>*:\**\temp*\**</b></p> </li> <li>Or use the subclient filter: <p><b>C:\**\temp*\**</b></p> </li> <li>To filter every "recycler" directory on all drives, use the global filter: <p><b>*:\**\RECYCLER*\**</b></p> </li> <li>Or use the subclient filter:</li> </ul>

C:\\*\*\RECYCLER\\*\*

Do not use "temp\*" when all you want to filter is temp, as it will get "template" and other directories with word "temp".

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## Activity Control

Use this dialog box to enable or disable data management and data recovery on a selected client computer group, client computer, agent, or subclient. Note that not all agents support subclients. For the File Archiver for Windows Agent, use this dialog box to enable or disable Data Classification. Also note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

If data management and data recovery operations are disabled at the client computer group or client level, then these operations below these levels will be disabled. If data management / data recovery operations are enabled at the client computer group or client level, then these operations below these levels will be enabled.

### Enable Data Management / Backups / Archive / QR Volume Creation

Specifies whether data management operations (Backups / Archive / QR Volume Creation) will occur from this client computer group, client computer, agent or subclient.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which data management operations will begin on the selected client computer group, client computer, agent, or subclient.
- Data management operations from this client computer group, client computer, agent, or subclient cannot be started and are skipped.
- Running and waiting data management operations for this client computer group, client computer, agent, or subclient run to completion.
- Stopped data management operations for this client computer group, client computer, agent, or subclient cannot be resumed until this option is enabled.
- Pending data management operations for this client computer group, client computer, agent, or subclient do not run until this option is enabled.

(Job states are indicated in the Job Controller.)

### Enable Data Recovery / Restores / Retrieve / QR Volume Recovery (Not applicable for the subclient level)

Specifies whether data recovery operations (Restores / Retrieve / QR Volume Recovery) will occur from this client computer group, client computer or agent.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which data recovery operations will begin on the selected client computer group, client computer, or agent.
- Data recovery operations for this client computer group, client computer or agent cannot be started and are skipped.
- Running data recovery operations for this client computer group, client computer or agent run to completion.
- Pending data recovery operations for this client computer group, client computer or agent do not run until data recovery operations are enabled.

(Job states are indicated in the Job Controller.)

### Enable Content Indexing

Specifies whether Content Indexing operations will occur from this client computer group, client computer or agent.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which Content Indexing operations will begin on the selected client computer group, client computer, or agent.
- Content Indexing operations are not started and are skipped.
- Running and waiting Content Indexing operations run to completion.
- Content Indexing operations in a pending, queued, or suspended state cannot be resumed until this option is enabled.
- Pending Content Indexing operations cannot run until this option is enabled.

(Job states are indicated by the Job Controller.)

### Enable SRM Data Collection

Specifies whether data collection operations will occur from this agent.

If cleared:

- The button **Enable after a Delay** appears to the right side of this operation activity. It allows to pre-determine the date and time at which data collection operations will begin on the selected agent.

- Data Collection operations are not started and are skipped.
- Running and waiting Data Collection operations run to completion.
- Data Collection operations in a pending, queued, or suspended state cannot be resumed until this option is enabled.
- Pending Data Collection operations cannot run until this option is enabled.

(Job states are indicated in the Job Controller.)

#### Enable Discovery

Specifies whether discovery operations will occur.

#### Script Preview

Click to display the backup script, based on the current subclient configuration, that will be submitted to RMAN when backups are performed for the selected Oracle subclient.

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## Filters

Use this tab to add, modify or view the data protection or discovery filter on the selected subclient or Replication Set. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the agent for which the information is being displayed.

#### Include Policy Filters

Specifies whether Subclient Policy filters will be used for this subclient, and is applicable only for subclients associated to a Subclient Policy. Selecting this option will cause this subclient to inherit the filter specified in the associated Subclient Policy. Clearing this option overrides the use of Subclient Policy filters on this subclient. See Subclient Policy - Filtering Rules for more information.

#### Include CommCell Level Global Filters / Global Filter

Specifies whether filters set under Control Panel (Global Filters) will be used in addition to the filters set at the subclient level to exclude data from data protection operations for this subclient.

#### Include Global Filters

Displays a list of options for enabling or disabling Global Filters which can be used in addition to the filters set at the subclient level to exclude data from data protection operations for this subclient. To change the setting, select one of the following values from the list:

- **OFF** - Disables Global Filters for this subclient.
- **ON** - Enables Global Filters for this subclient.
- **Use Cell Level Policy** - Enables or disables Global Filters for this subclient depending on whether the **Use Global Filters on All Subclients** option is enabled or disabled on the Control Panel (Global Filters) dialog. If the **Use Global Filters on All Subclients** option is enabled, then the **Use Cell Level Policy** option will enable Global Filters on this subclient. If the **Use Global Filters on All Subclients** option is disabled, then the **Use Cell Level Policy** option will disable Global Filters on this subclient.

#### Exclude these files/folders/directories/patterns/containers/objects

Displays entries that will be excluded from data protection operations for this subclient or Replication Set.

#### Regular Expressions

Provided below are details regarding support for the use of regular expressions (or wildcard characters) when adding entries to this exclusion list:

- Exchange Public Folder, Exchange Public Folder Archiver, Novell Directory Services (NDS), and SharePoint Document do not support the use of wildcards when adding entries to this set of exclusions.
- File Share Archiver - If a disk mount path is pointing to a filer share that will be archived, do not include UNC paths in the subclient content. UNC paths cannot be manually filtered out.
- For NAS NDMP iDataAgents:
  - BlueArc NAS NDMP - has no limitations. The \* wild card is supported at the end of a directory filter (filters starting with /) or at the beginning or end of a file filter (not starting with /).
  - EMC Celerra NAS NDMP:
    - For older versions of DART OS (prior to 5.5), backup filters are not supported. Overlapping content cannot be configured. You cannot have one subclient with /myfs and another with /myfs/dir3. For example, if the default subclient specifies / as the content, and another subclient has /myfs/dir3 defined in the content, then backing up the default subclient will skip all of /myfs.
    - For DART OS 5.5 and above, filters are supported but do not work with volume-based backups. They are not blocked from being specified as an Advanced Backup/Archive Option, but a warning is displayed that the filters are ignored.
    - For DART OS 5.5 and above, a maximum of six directory filters (filters starting with /) and six file filters can be specified in either the default or user-defined subclients. If more filters are specified, a warning is displayed in the Event Viewer. For example, if a subclient specifies /myfs as the content,



and another subclient specifies a total of 12 paths (/myfs/dir1 through /myfs/dir12), then when backing up the first subclient, you will receive six warnings indicating /myfs/dir7 through /myfs/dir12) were not filtered.

- For directory filters, the \* wild card is supported only at the end of the filter.
- For file filters (not starting with /) the ? wild card matches a single character and the \* wild card matches a string of characters. One of these wild cards can be used at the beginning or at the end of the filter.
- Hitachi NAS NDMP - backup filters are not supported.
- NetApp NAS NDMP:
  - Backup filters can be used for file or folder names, but not paths. Thus, if the same filtered file name exists in multiple folders, all occurrences will be filtered. See *Subclients - NAS NDMP in Books Online* for details.
  - A maximum of 32 filters can be specified. The \* wild card is supported, but only as the first or last character in the filter.
  - Filters are not supported for the GX model.
- For the Windows, NetWare, Unix, File Archiver Agents, and ContinuousDataReplicator Agents, see Wildcards for more information.

#### System State Filters

Following is a list of acceptable exclusion filters for Windows File System System State:

- {System Protected Files}
- {IIS}
- {COM+ Database}
- {Event Logs}
- {One Touch Files}
- {RSM}
- {Terminal Services Licensing}
- {Disk Quotas}
- {Content Indexing Catalogs}
- {WMI Database}
- {DHCP}
- {WINS}
- {UDDI Database}
- {Remote Storage Database}
- {Certificate Services }
- {Offline Files}
- {Active Directory Application Mode}
- {File Server Resource Manager}
- {NPS Database}

#### Exclude the following mailboxes/folders

Displays mailboxes or folders that will be excluded from data protection operations for this subclient. Wildcards are not supported when adding entries to this exclusion list.

#### Exclude the folders that contain the following patterns

Displays mailbox folder name wildcard patterns that will be excluded from data protection operations for this subclient. The Exchange Mailbox Archiver Agent, and the Exchange Compliance Archiver Agent support the use of wildcard expressions when adding entries to this exclusion list. See Wildcards for more information.

#### The following paths and files are excluded

Displays entries that will be excluded from discovery operations for this subclient. The Lotus Notes Database, Domino Mailbox Archiver, and Lotus Notes Document iDataAgents support the use of wildcard expressions when adding entries to this exclusion list. See Wildcards for more information.

#### Pattern/path to be excluded

Use this space to enter the path of a folder or file that you want to exclude from discovery operations for this subclient. The path must start with a (\), and it must be relative to the data path of the partition. The Lotus Notes Database, Domino Mailbox Archiver, and Lotus Notes Document iDataAgents support the use of wildcard expressions when adding entries to this exclusion list. See Wildcards for more information.

#### Except for these files/folders/directories/containers/objects

Displays entries that will be included in data protection operations for this subclient or Replication Set in cases where a parent object is listed in the Exclude filter.

Provided below are details regarding adding entries to this exceptions list:

- Wildcards are not supported in Exception filters.
- For NAS NDMP iDataAgents, only file names or folder names are valid entries when adding entries to this set of exceptions; paths are not supported.

#### **Include these files/folders/patterns with every archive**

Displays entries that will be included in archive operations for this subclient in cases where a parent object is listed in the Exclude filter. Note that File Archiver Agents do not support the use of regular expressions (or wildcard characters) when adding entries to this inclusions list.

- File Share Archiver - If a disk mount path is pointing to a file share that will be archived, do not include UNC paths in the subclient content. UNC paths cannot be manually filtered out.

#### **Add**

Click to manually add an entry to be included in, or excluded from, data protection operations for this subclient or Replication Set.

#### **Browse**

Click to browse for an entry to be included in, or excluded from, data protection operations for this subclient or Replication Set.

#### **Edit**

Click to manually edit an entry to be included in, or excluded from, data protection operations for this subclient.

#### **Delete**

Click to delete a selected filter entry.

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## Encryption

Use this dialog box to select the data encryption options for the selected content. When accessing this dialog box from the Subclient Properties Encryption tab, this setting applies only to the selected subclient content for operations run from the CommCell Console. When accessing this dialog box from the Instance Properties Encryption tab, this setting applies only to third-party Command Line operations. The functionality is not propagated to the Subclient Properties Encryption tabs.

#### **None**

When selected, no encryption will take place during a data protection operations.

#### **Media Only (MediaAgent Side)**

When selected, for data protection operations, data is transmitted without encryption and then encrypted prior to storage. During data recovery operations, data is decrypted by the client.

When using this setting in conjunction with the client property **With a Pass-Phrase**, you will be required to provide a pass-phrase for data recovery operations unless you export the client pass-phrase to the destination client(s). When using pass-phrase security for third-party Command Line operations or DataArchiver Agents stub recovery operations, you must export the pass- phrase to the destination client.

#### **Network and Media (Agent Side)**

When selected, for data protection operations, data is encrypted before transmission and is stored encrypted on the media. During data recovery operations, data is decrypted by the client.

When using this setting in conjunction with the client property **With a Pass-Phrase**, you will be required to provide a pass-phrase for data recovery operations unless you export the client pass-phrase to the destination clients.

#### **Network Only (Agent Encrypts, MediaAgent Decrypts)**

When selected, for data protection operations, data is encrypted for transmission and then decrypted prior to storage on the media. During data recovery operations, data is encrypted by the MediaAgent and then decrypted in the client.

When using this setting in conjunction with the client property **With a Pass-Phrase**, you will not be required to provide a pass-phrase for data recovery operations.

#### **Script Preview**

Click to display the backup script, based on the current subclient configuration, that will be submitted to RMAN when backups are performed for the selected Oracle subclient.

## Restore Options for All Selected Items (General)

Use this dialog box to control how Exchange data will be restored.

### To Mailbox

Specifies whether to restore data to a mailbox, and enables options applicable for this type of restore.

#### Restore Destination

- **Destination client**

Specifies that the restore operation will restore the data to this client. From the pulldown menu, select the client.

- **Restore to same folder**

Select to restore the data to the same path from which it was backed up.

#### Specify Destination Path

Specifies whether the restore operation will restore data to a different path from which it was backed up. Use the corresponding space to enter the path on the destination computer to which the data will be restored, or click **Browse** to specify the destination. If the specified path does not exist, it will be created during the restore process.

#### When message exists

- **Unconditional Overwrite**

Specifies whether the restored data is unconditionally written to the specified location.

- **Append**

Specifies that all items selected for restore will be added to the folder regardless of whether they currently exist or not. The Append option is selected by default.

- **Skip**

Specifies that if an item is selected for restore and that item already exists, it will not be restored.

#### To PST File

Specifies whether to restore data to a PST file, and enables options applicable for this type of restore.

- Use this space to enter the name and path of the PST file to which the messages are to be restored, or click the " ... " button to specify the destination. If the specified path does not exist, it will be created during the restore process.

- **Browse**

Click to select a destination path for the PST file.

#### Local Drive

Specifies that the name and path of the PST file exists on a local drive.

#### Network

Specifies that the name and path of the PST file exists on a network drive.

#### Advanced

Click to select additional restore options.

#### Save As Script

Click to open the Save As Script dialog, which allows you to save this operation and the selected options as a script file (in XML format). The script can later be executed from the Command Line Interface using `qoperation execute` command.

When you save an operation as a script, each option in the dialog will have a corresponding xml parameter in the script file. When executing the script, you can modify the value for any of these XML parameters as per need.

To view the XML values for each of the options in the dialog, see the following:

Command Line XML Options for Exchange Mailbox iDataAgent

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## Job Initiation

Select from the following options. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the operation for which the information is being displayed.

**Immediate****Run This Job Now**

Specifies this job will run immediately.

**Schedule**

Specifies this job will be scheduled. When you click **Configure**, the Schedule Details dialog box will open and allow you to configure the schedule pattern.

**Result file location on CommServe**

This option is only applicable for List Media operations. Specifies the name of the file in which the results of the scheduled list media job must be saved. Click **Browse** to access to the **Directory Browse** dialog box which allows you to select the folder / file in the CommServe computer.

**Automatic Copy**

Specifies that an auxiliary copy operation will be performed at the interval specified. This operation will occur when new data that must be copied is found on the primary copy.

**Interval**

The time interval in which the Automatic Copy will be performed. The default interval is 30 minutes.

**Save As Script**

Click to open the Save As Script dialog, which allows you to save this operation and the selected options as a script file (in XML format). The script can later be executed from the Command Line Interface using `qoperation execute` command.

When you save an operation as a script, each option in the dialog will have a corresponding xml parameter in the script file. When executing the script, you can modify the value for any of these XML parameters as per need.

To view the XML values for each of the options in the dialog, see the following:

Operations Supporting Save As Script

**Configure Alert**

Provides the necessary options to configure the alerts associated with this operation.

- **Add/Modify Alert**

When clicked, opens the Alert Wizard to configure necessary alerts for this operation.

- **Delete Alert**

When clicked, deletes any existing alerts that are already configured.

**Advanced**

Click to select additional options.

**Script Preview**

Click to display the restore script, based on the selected restore options, that will be submitted to RMAN when restores are performed for the selected Oracle client.

## Advanced Restore/Recover/Retrieve Options (General)

Use this dialog box to access additional restore/recover/retrieve options. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the component installed on the client.

**Skip MountPoint Restore**

Specifies whether to filter out mount points that are part of the backup data during the file system restore. When enabled, the file system restore will filter out the mount points from the backed up data. When disabled, mount points will also be restored during the file system restore.

**Automatically Detect Regular Expressions**

Specifies whether to use regular expressions in defining the **Source Paths**. This does not apply to **Filter Paths**. When selected, the system will recognize supported regular expressions (wildcards) in the specified **Source Path**. When cleared, the system will read the specified **Source Path** as literal.

**Restore Space Restrictions**

For NetWare, specifies whether to restore the user space restrictions for folders and volumes. If space restrictions were changed after backup, the backed up restrictions are restored. For example, suppose an original space restriction of 2MB is backed up, and the restriction is later changed to 4MB. If you select **Restore Space Restrictions** and restore the backed up restriction of 2MB, the restriction is reduced to 2MB and any data that exists beyond the 2MB is truncated. (Default = Enabled.)

**Skip Errors and Continue**

For index-based agents, this advanced restore/recover/retrieve option enables a restore/recover/retrieve job to continue despite media errors. This option also provides an output file that lists the full path names of the files that failed to restore/recover/retrieve.

**Recover all protected mails**

For the Exchange Mailbox Archiver Agent, specifies whether to recover all e-mail messages that were backed up or archived in the selected mailbox(es) or folder(s) from the latest data or point-in-time through the oldest available index.

**Disaster recovery/Media recovery (to another machine)**

For Lotus Notes Database, specifies whether to restore and replay transactions when the active extent of the transaction log is lost. This option is also used when you perform a cross-machine restore that includes transaction logs.

Do not select this option unless you are performing either disaster recovery or a cross-machine restore to a new partition.

**Ignore Namespace Requirements**

For NetWare, specifies whether to restore the data backed up from one namespace to another type of namespace. For example, you can restore long file names to an 8.3 namespace. However, when restoring to a namespace different than that from which the data was backed up, any filenames must be valid for at least one of the available namespaces of the destination volume.

This option **must** be used if you are restoring multiple objects and if some of the objects have a longer name than the available namespaces allow. This option ensures that only those files whose filename is valid for at least one of the available namespaces are restored. Those files whose filename is not supported by the available namespaces are not restored.

**Impersonate (Windows, NetWare) User**

Specifies whether to submit the Windows or NetWare logon information for the current restore/recover operation. This information is needed only if you intend to restore/recover data to a mapped network drive, shared network drive, or directory to which you have no write, create, or change privileges, or for restoring to applications.

Depending on the agent, there are as many as three separate User Impersonation accounts: this one for the function described, one for Pre and Post backup/migrate processes, and one for Pre and Post restore/recover processes. Each account operates independently of the other(s).

**Use hardware revert capability if available**

Specifies whether to revert the data to the time when the snapshot was created. Selecting this option brings back the entire LUN to the point when the snapshot was created, overwriting all the modifications to data since the snapshot creation. This option is only available if the snapshot engine used for SnapProtect backup supports the revert operation.

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## Advanced Restore Options (Copy Precedence)

Choose the copy from which you wish to recover or retrieve. Select from the following options:

**Restore/recover from copy precedence**

When selected, the system retrieves the data from the storage policy copy with the specified copy precedence number. If data does not exist in the specified copy, the operation fails even if the data exists in another copy of the same storage policy.

When cleared, (or by default) the system retrieves data from the storage policy copy with the lowest copy precedence. If the data was pruned from the primary copy, the system automatically retrieves the data from the other copies of the storage policy starting with the copy with the lowest copy precedence and proceeding through the copies with higher copy precedence. Once the data is found, it is retrieved, and no further copies are checked.

**Use MediaAgent / Library / Drive Pool**

See Advanced Restore Options (Data Path)

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## Advanced Restore Options (Data Path)

Select the data path for the restore/recovery operation. You can specify the MediaAgent, Library, Drive Pool, and Drive from which the restore operation must be performed.

**Use MediaAgent**

Specifies the name of the MediaAgent that will be used to perform the restore operation. If necessary, you can change the name of the MediaAgent.

For example, if the library is shared and you wish to use a specific MediaAgent (instead of the system selected MediaAgent, or a MediaAgent which may be idle, or less critical) or if you know that the media containing the data you wish to restore is available in the library attached to the specified MediaAgent.

If the media containing the data is not available in the tape/optical library attached to the MediaAgent, the system will automatically prompt you to insert the appropriate media. In the case of a disk library, the operation will fail if the requested data is not available in the disk library attached to the specified MediaAgent.

#### **Use Library**

Specifies the name of the library that will be used to perform the restore operation. Use this option when you wish to restore using a specific library.

For example, if you know that the media containing the data you wish to restore is available in a specific library.

#### **Use Drive Pool**

Specifies the name of the Drive Pool that will be used to perform the restore operation. Use this option when you wish to restore using a specific Drive Pool.

To restore NAS data, select the drive pool type that was used to perform the backup, *i.e.*, if a drive pool associated with an NDMP Remote Server was used to perform the backup, select a drive pool associated with an NDMP Remote Server. Similarly, if an NDMP drive pool was used, specify an NDMP drive pool.

#### **Use Drive**

Specifies the name of the drive in the drive pool that will be used to perform the restore operation. Use this option when you wish to restore using a specific Drive in the Drive Pool.

#### **Use Proxy**

Specifies the name of the proxy server that will be used to perform the restore operation. Use this option when you wish to restore using a proxy server.

## **Advanced Restore Options (Encryption)**

### **Pass-Phrase**

Enter the pass-phrase that is currently assigned to the client, whose data you are restoring. Note that if you have changed the pass-phrase since you secured the client data, you need to provide the new pass-phrase here, not the old one.

### **Re-enter Pass-Phrase**

Re-enter the pass-phrase for confirmation.

If you attempt an immediate restore of encrypted data that was pass-phrase protected without entering the pass-phrase here, the restore operation will fail.

If you have an exported pass-phrase set up, and you enter the pass-phrase under **Decryption**, you over-ride (not overwrite) the client properties pass-phrase. Thus, if you enter the pass-phrase incorrectly, the restore does not complete successfully.

## **Advanced Restore Options (Selected Paths/Filters)**

Displays the selected paths and filters for this operation.

## **Startup**

Select from the following options. Note that all the options described in this help may not be available and only the options displayed in the dialog box are applicable to the operation for which the information is being displayed.

### **Priority**

- **Use Default Priority**

If selected, the default priority for this type of job will be used in determining how the Job Manager will allocate resources for this job.

- **Change Priority**

Use this option to manually specify the priority for the job, between 0 (highest priority) and 999 (lowest priority). The Job Manager will use the priority setting when allocating the required resources. This is useful if you have jobs that are very important and must complete, or jobs that can be moved to a lower priority.

### **Start up in suspended state**

Specifies that this job will start in the Job Controller in a suspended state and cannot run until the job is manually resumed using the **Resume** option. This option can be used to add a level of manual control when a job is started. For example, you could schedule jobs to start in the suspended state and then choose which scheduled jobs complete by resuming the operation started in the suspended state.

### Description

Use this field to enter a description about the entity. This description can include information about the entity's content, cautionary notes, etc.

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## Advanced Restore Options (Browse Options)

Use this dialog box to restore deleted areas (file stores). Select from the following options:

### Restore Deleted Items

Specifies that restore operation will include all data that was secured during all data protection operations, which includes deleted items.

### Specify Time Range

Specifies to restore data within a specified time zone and time threshold. Select the checkbox to enable this option. Clearing the checkbox disables this option. If this option is enabled, set the following parameters:

- **Time Zone** - Restores only those jobs within a specified time zone. Click the pull-down list and click the desired time zone.
  - **Start Time** - Displays the start time for the restore operation. Click the pull-down arrow and click a date; use the up and down arrows to specify a time.
  - **End Time** - Displays the end time for the restore operation. Click the pull-down arrow and click a date; use the up and down arrows to specify a time.
- 

## Alert

Use this tab to configure an alert for a schedule policy.

### Configure Alert

- **Alert**

The currently configured Alert.

- **Add/Modify Alert**

When clicked, opens the Alert Wizard to configure alerts for this operation.

- **Delete Alert**

When clicked, deletes any existing alerts that are already configured.