

User Guide - Exchange Mailbox *iDataAgent*

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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

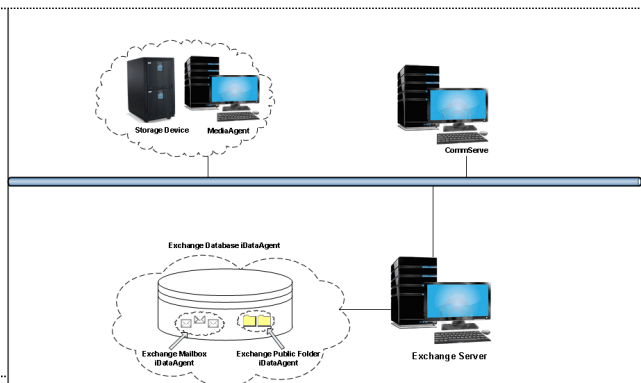
The Exchange Public Folder iDataAgent backs up public folders for quick retrieval of shared data between Exchange users, such as group documents, messages, attachments, and calendars. As with the Exchange Mailbox iDataAgent, regular backups of mailboxes also provide the facility to quickly restore any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

ADD-ON COMPONENTS

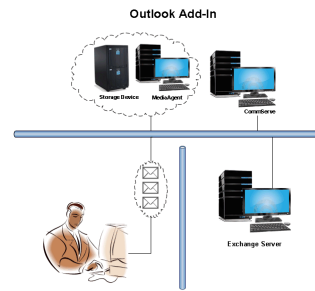
SNAPPROTECT BACKUP

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

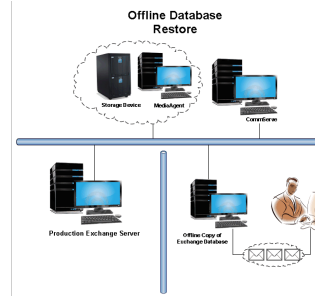


Outlook Add-In fully integrates with Microsoft Outlook to provide users with a convenient way to browse, search and restore mailbox items directly from Outlook. All mailbox entities, including messages, attachments, calendar items, and notes, are retrievable from either the locally installed Outlook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

DATABASE	Includes all operational elements of the Exchange Server, such as Stores, Transaction Logs, Patch Files, and Exchange Organizational Data.
NON-EXCHANGE SERVER	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.
AFFINITY	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:

EXCHANGE 2010	EXCHANGE 2007	EXCHANGE 2003
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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 Mailbox iDataAgent

System Requirements | **Supported Features**

The following requirements are for the Microsoft Exchange Mailbox iDataAgent:

APPLICATION

Microsoft Exchange 2003 32-bit Server up to the latest service pack
Microsoft Exchange 2007 64-bit Server up to the latest service pack
Microsoft Exchange 2010 64-bit 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

OWA PROXY ENabler

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

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.

NETWORK

TCP/IP Services configured on the computer.

MICROSOFT VISUAL C++

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

.NET FRAMEWORK

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

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

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 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.

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.

EXCHANGE SERVER VERSION

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

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.

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.

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.

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

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

WILL YOU BE INSTALLING THE AGENTS IN A CLUSTERED ENVIRONMENT?

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
INSTALLING ON THE EXCHANGE SERVER			
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
INSTALLING ON THE EXCHANGE SERVER			
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
INSTALLING ON A NON-EXCHANGE SERVER			
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
INSTALLING ON THE EXCHANGE SERVER			
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
INSTALLING ON A NON-EXCHANGE SERVER			
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
INSTALLING ON THE EXCHANGE SERVER			
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
INSTALLING ON A NON-EXCHANGE SERVER			
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

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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.

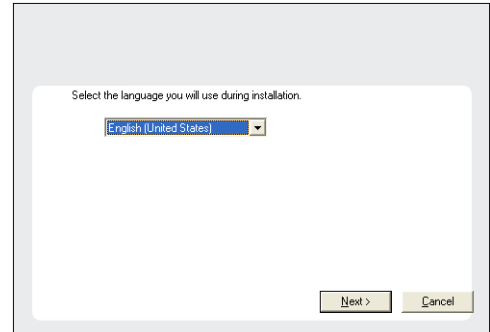
- Navigate to the Exchange Management Console, right-click the <mailbox> and click Manage Full Access Permissions to view the mailbox listed under Full Access Permissions.

FOR EXCHANGE SERVER 2007

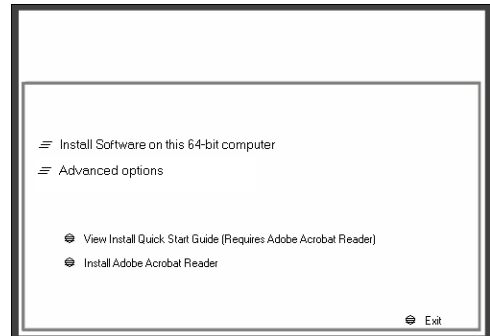
- Service account should be a member of Exchange Organization Administrators group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

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.

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:

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

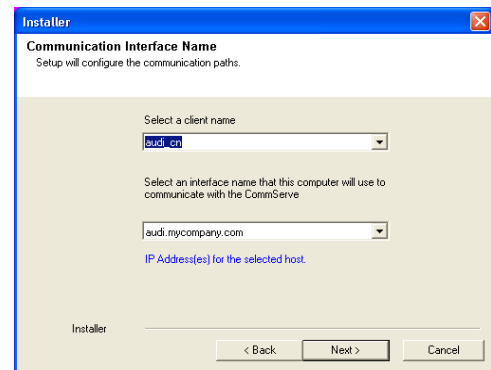
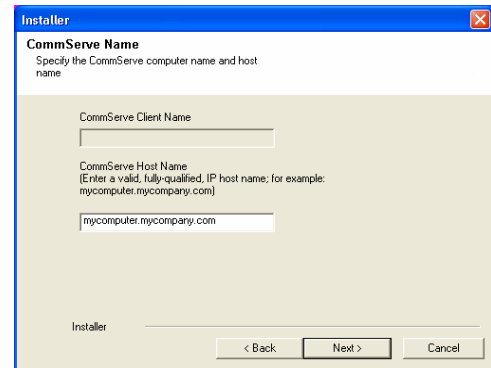
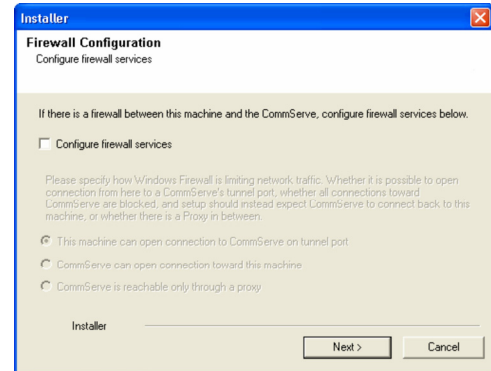
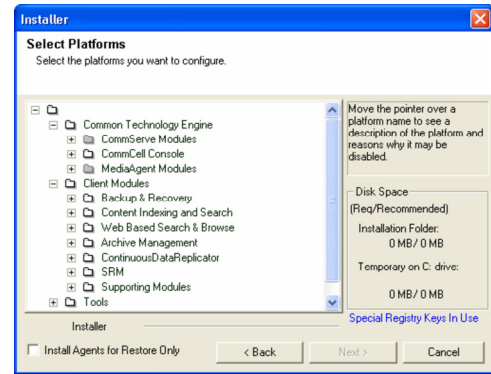
9. Click **Next**.

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.

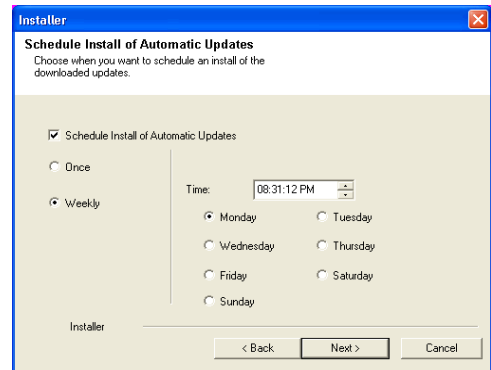
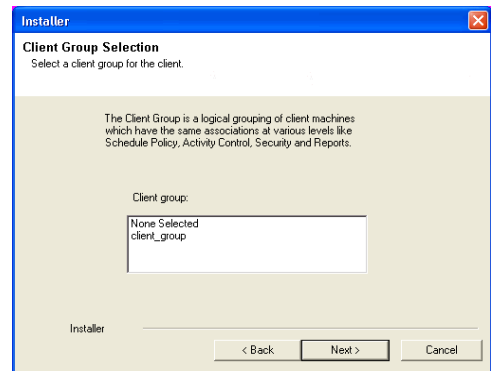
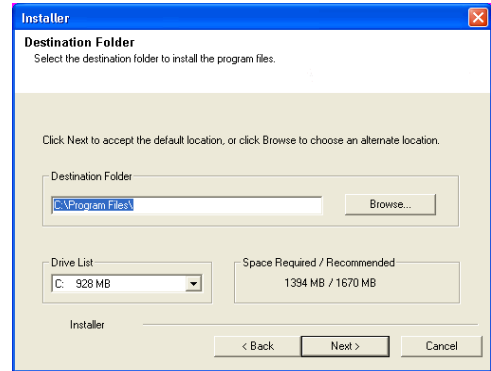
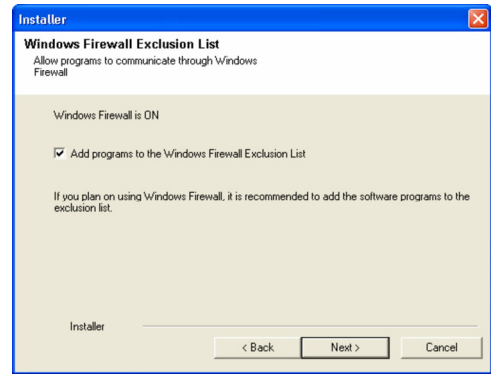
Click **Next**.

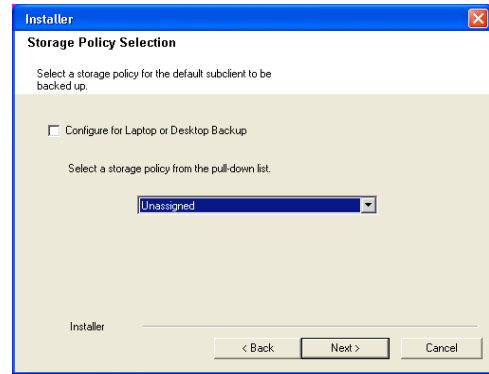
This screen will be displayed if Client Groups are configured in the CommCell Console.

13. Click **Next**.

14. Select a **Storage Policy**.

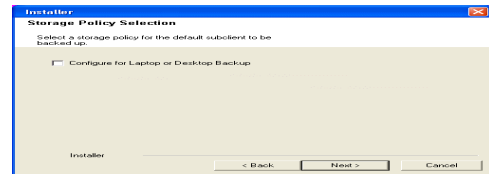
Click **Next**.





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

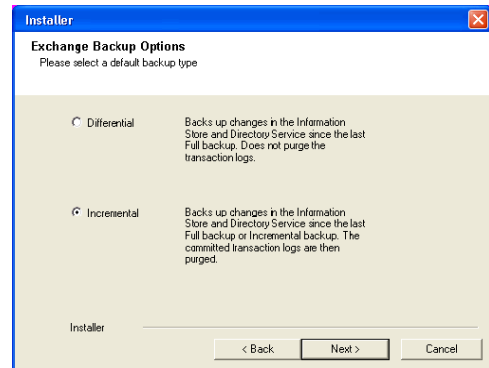
You can create the Storage Policy later in step 24.



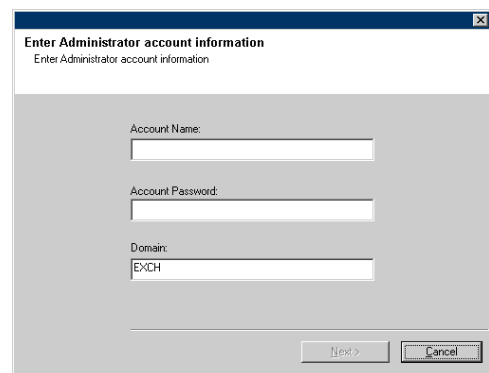
- If you are installing the Exchange Database iDataAgent on the Exchange Server, click Configure Exchange Database Specific Information.
- If you are installing the Exchange Agents on the Non-Exchange Server, skip to Configure Exchange Agents Specific Information.

CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

- 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.



- 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.



- 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.

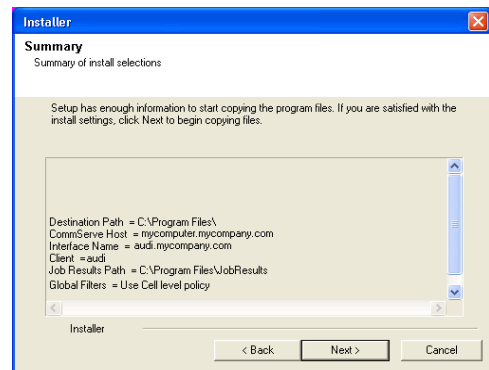
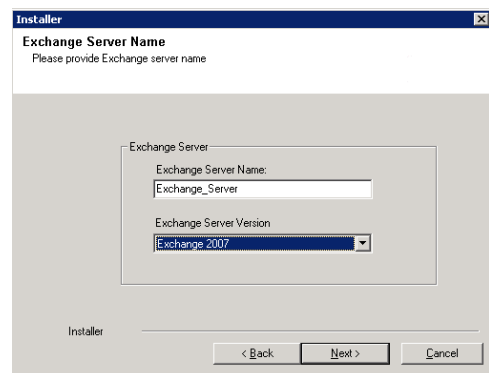
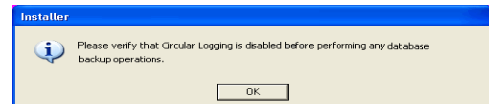
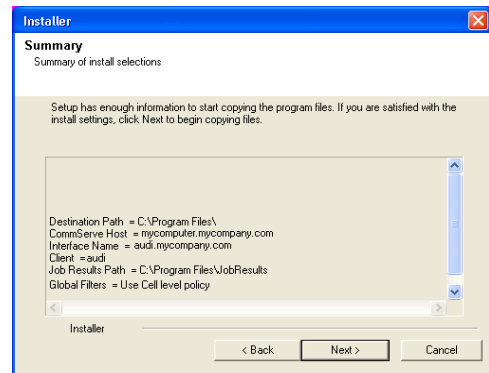
Click **Next**.

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**.

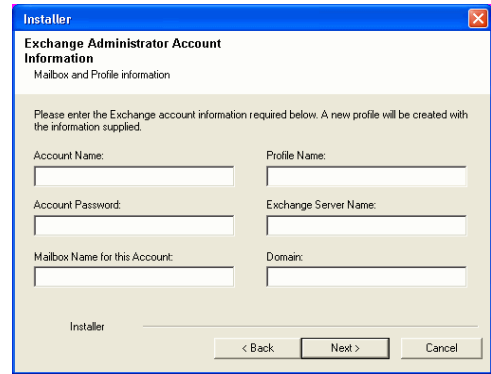
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
- **Account Password** - The password assigned to the domain user.
- **Mailbox Name for this Account** - Mailbox associated with the user above.
- **Profile Name** - 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.

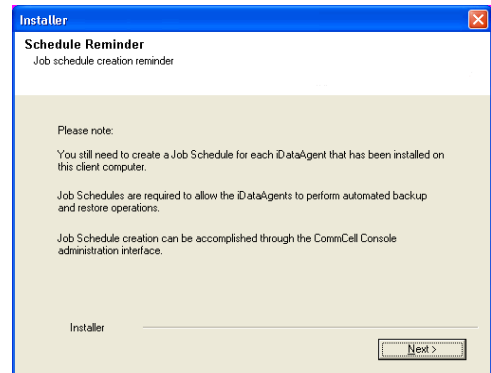
Enter the Mailbox Role Server name (NetBIOS). After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.

- **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.

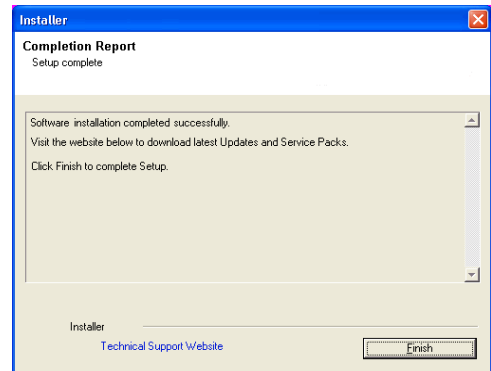


VERIFY SUMMARY OF INSTALL OPTIONS

22. Click **Next**.



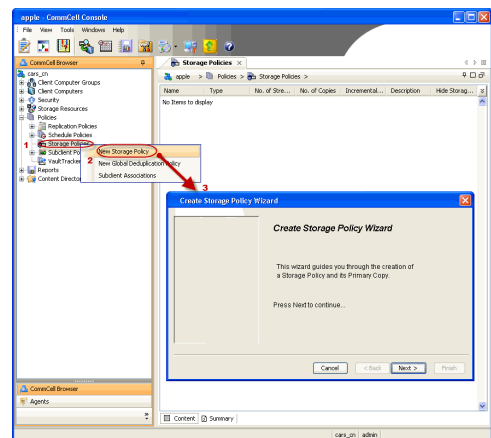
23. Click **Finish**.



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.

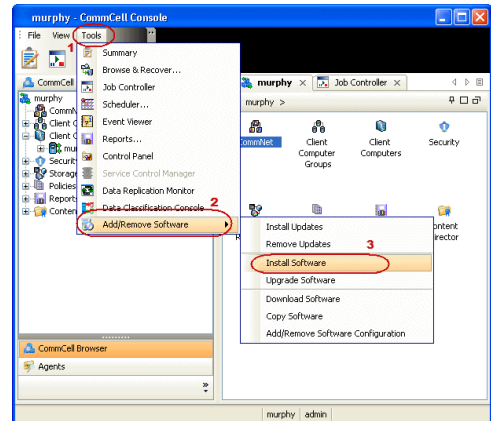
25.

Enable the following registry key to create job specific profiles:

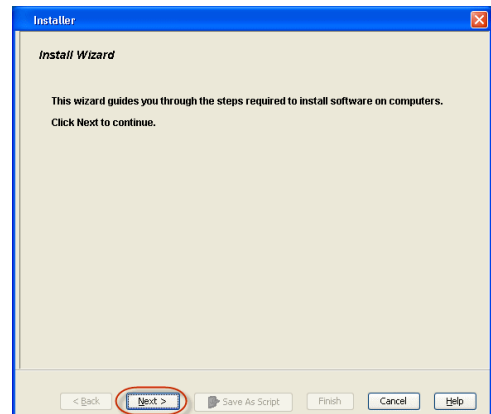
- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location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

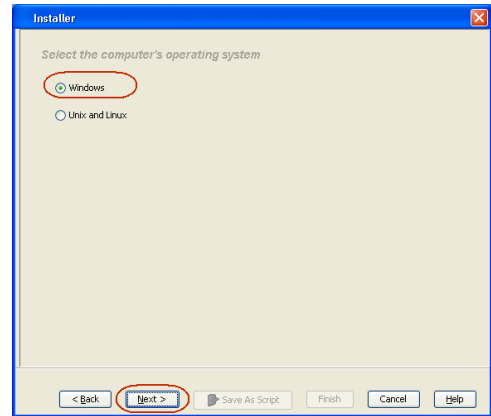


2. Click **Next**.

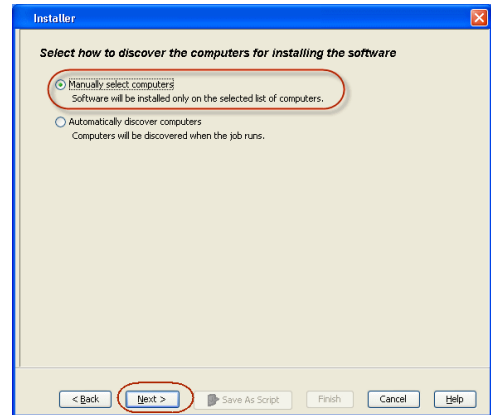


3. Select **Windows**.
Click **Next**.

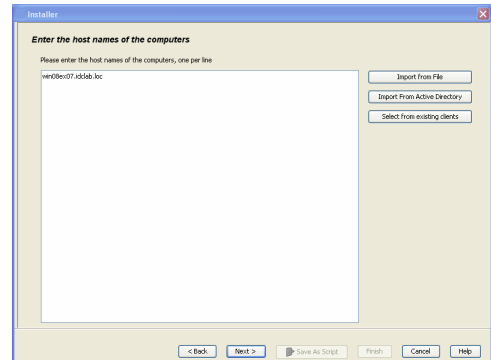
4. Select **Manually Select Computers**.
Click **Next**.



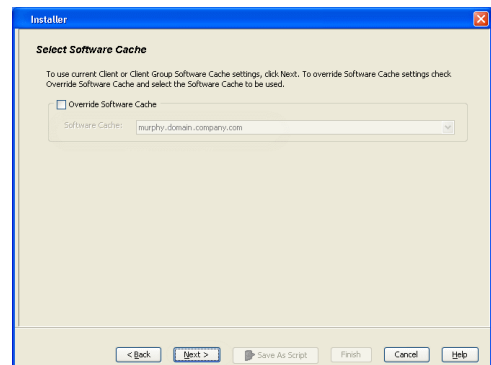
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.
For example: win08ex07.idclab.loc
Click **Next**.



6. Click **Next**.



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

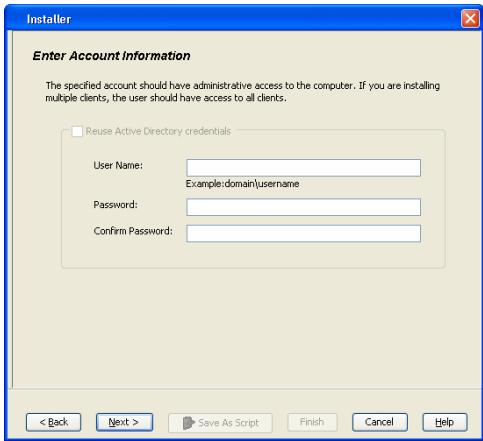


8. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:

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

Click **Next**.

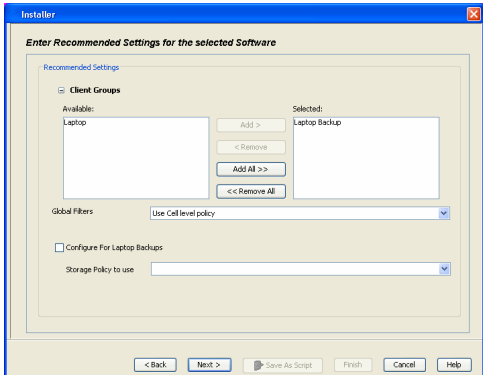
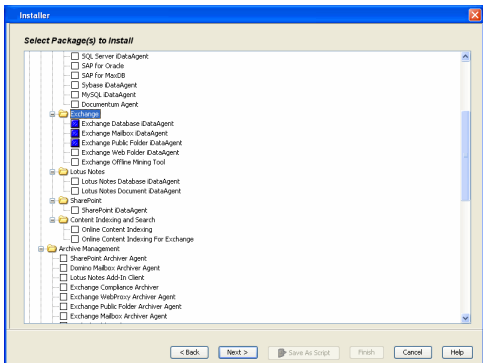
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



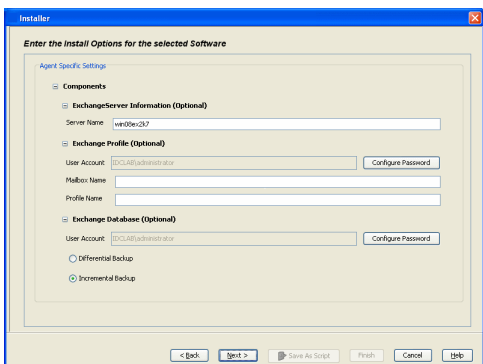
- 9.
- Select **Client Group** from **Available** and click **Add**.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.

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.

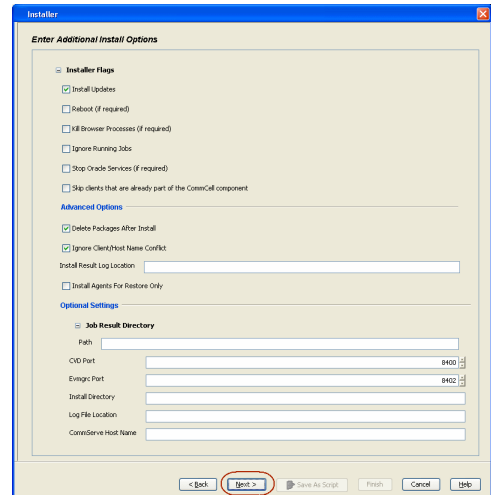


10. Type the Agent Specific Settings information.
Click **Next**.

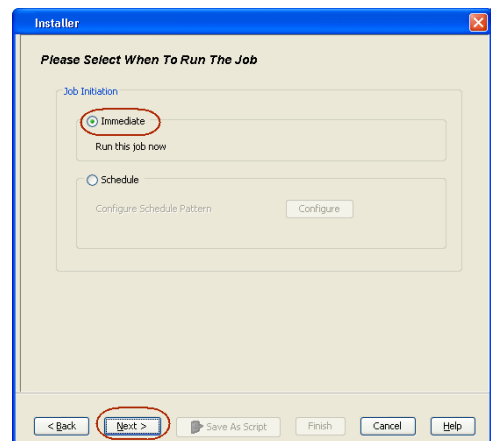


11. Click **Next**.

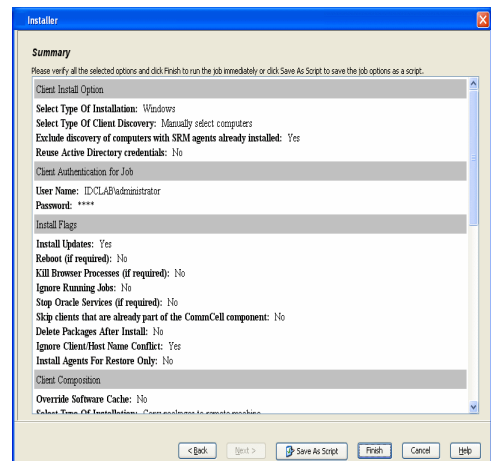
12. Select **Immediate**.
Click **Next**.



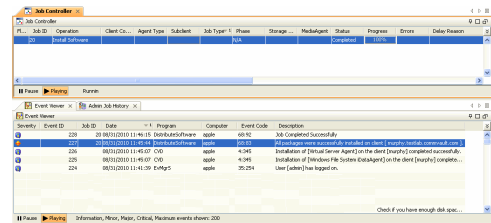
13. Click **Finish**.



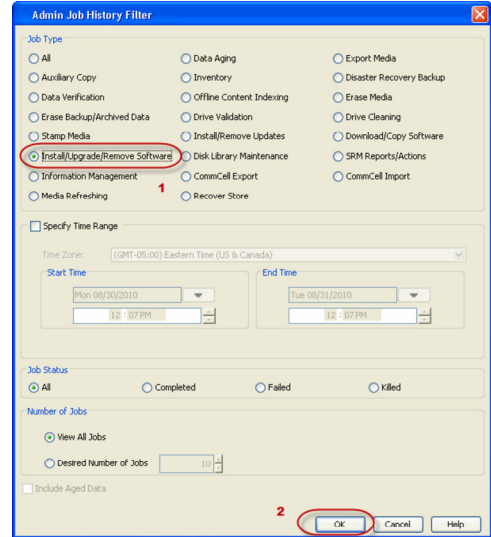
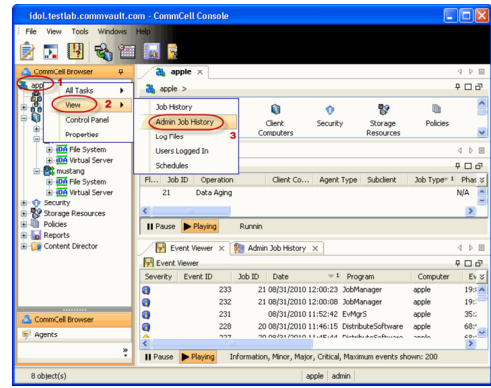
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



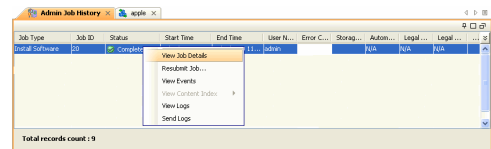
15. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.



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 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:

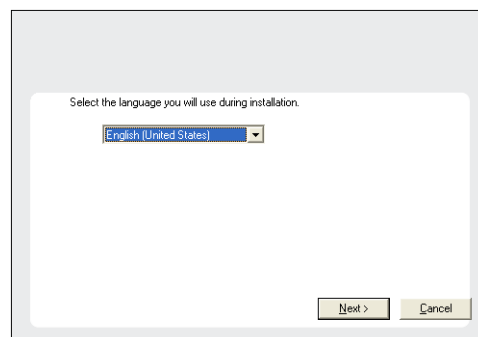
- Ensure that the proxy computer has been added to the same Domain in which the Exchange Server 2007 resides.
- Install Microsoft Outlook 2007 or higher on the off-host proxy computer in order to supply the software drivers necessary for Exchange-based agents to function in an off-host proxy configuration.

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

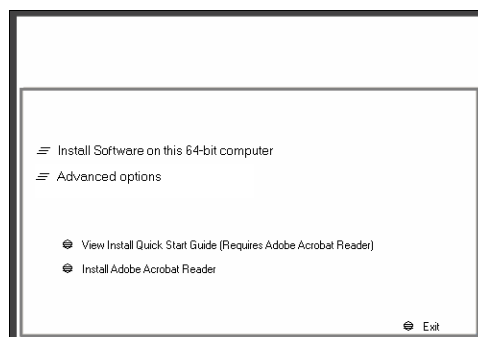
1. Log on to the computer using an account with the following privileges:
 - Administrator of the local computer
 - Administrator of the Exchange Server
2. Run **Setup.exe** from the Software Installation Package.
3. Select the required language.
Click **Next**.



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

NOTES:

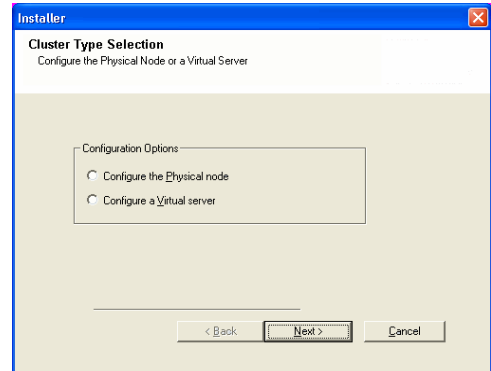
- Your screen may look different from the example shown.



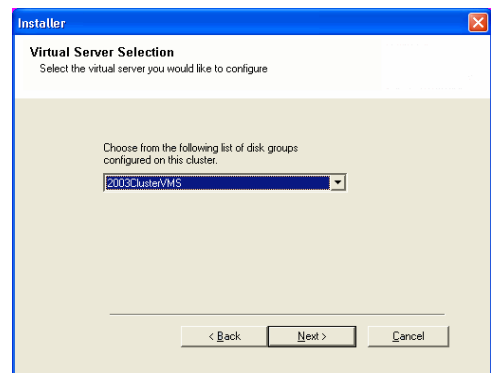
5. Select **I accept the terms in the license agreement**.
Click **Next**.



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**

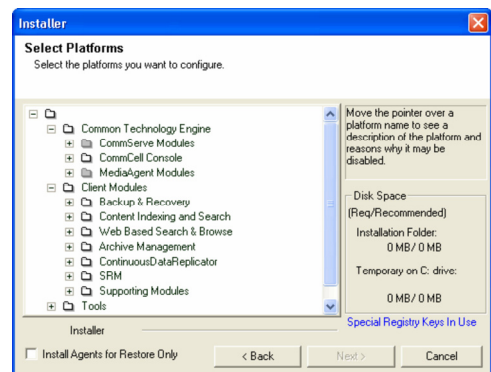
Click **Next**.

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.

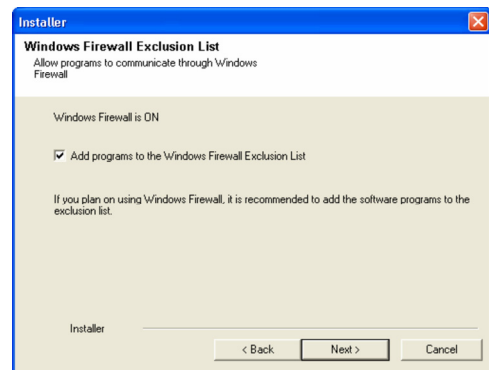
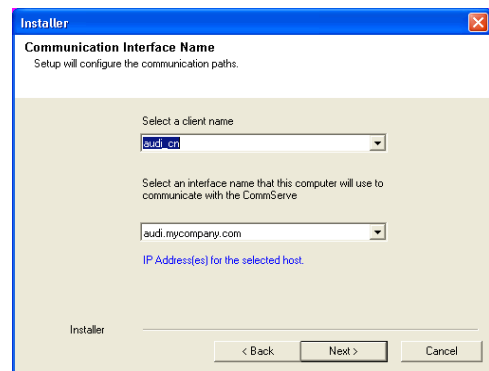
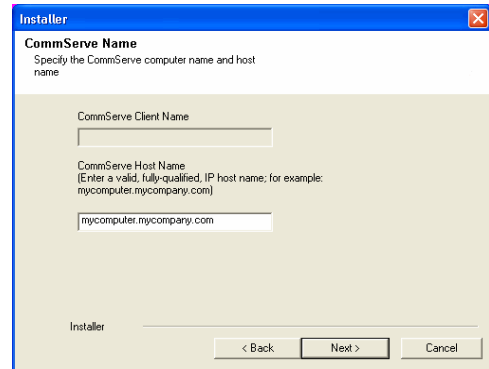
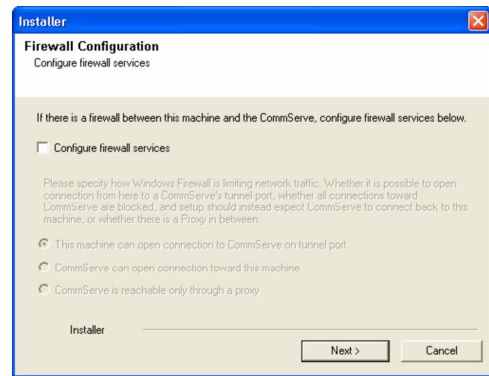
13. Verify the default location for software installation.

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**.

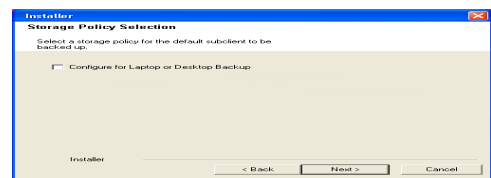
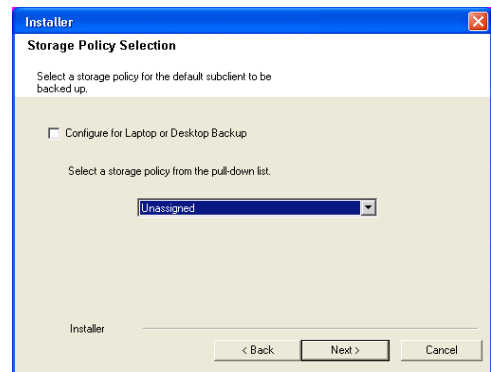
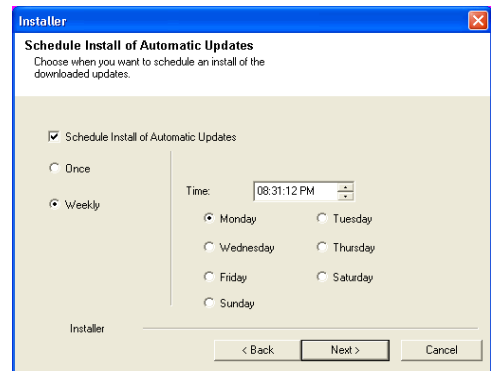
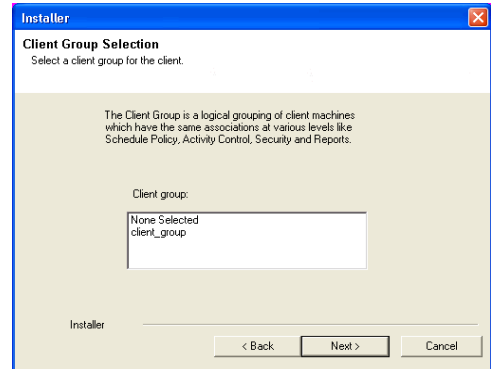
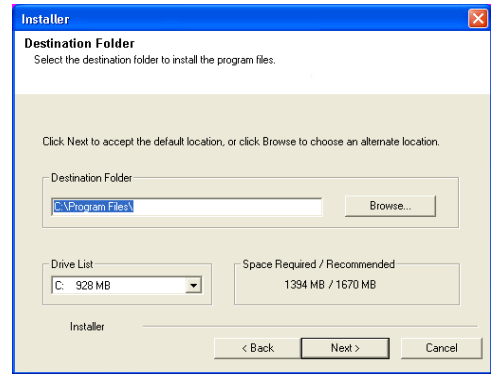
This screen will be displayed if Client Groups are configured in the CommCell Console.

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.

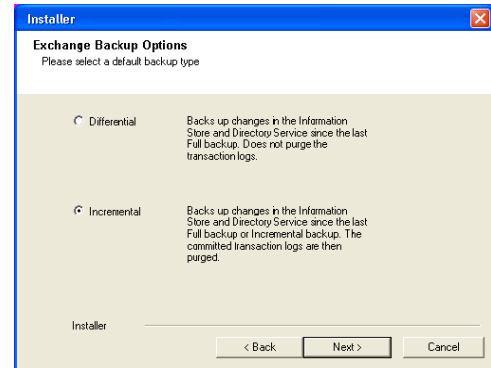


- If you are installing the Exchange Database iDataAgent on the Exchange Server, click Configure Exchange Database Specific Information.

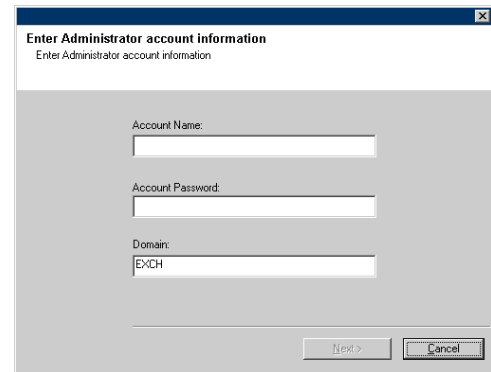
- If you are installing the Exchange Agents on the Non-Exchange Server, skip to Configure Exchange Agents Specific Information.

CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

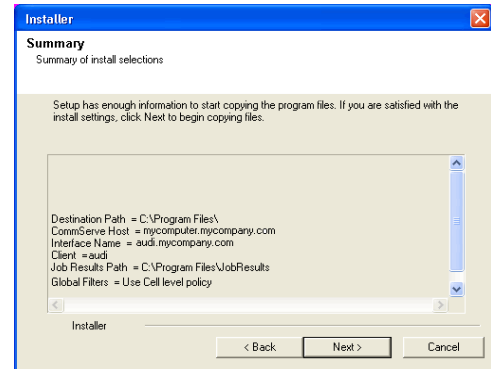
17. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
- **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
 - **Incremental**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

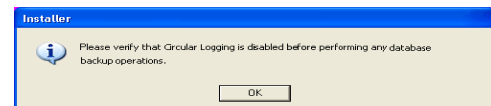


19. Click **Next**.



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**.



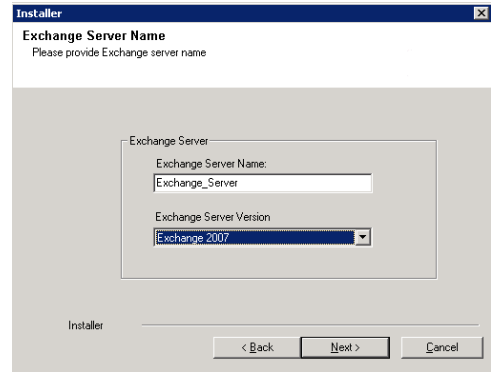
- If you are installing the Exchange Agents, then click Configure Exchange Agents Specific Information.
- If you are installing the Exchange Database iDataAgent, skip to Install Remaining Cluster Nodes.

CONFIGURE EXCHANGE AGENTS SPECIFIC INFORMATION

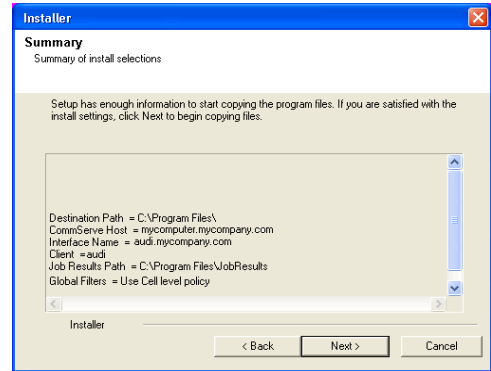
21. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

Click **Next**.

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

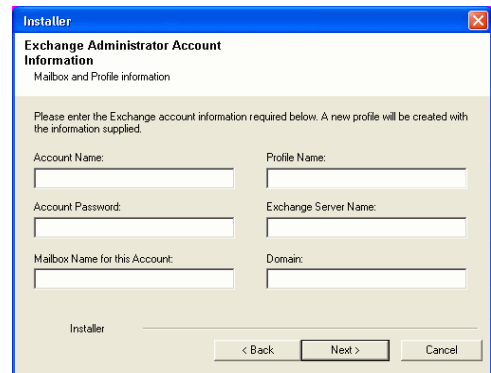


22. Click **Next**.



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

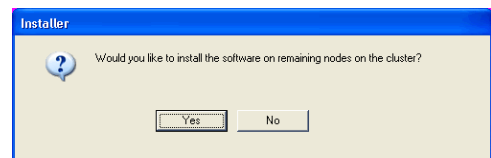
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
- **Account Password** - The password assigned to the domain user.
- **Mailbox Name for this Account** - Mailbox associated with the user above.
- **Profile Name** - 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**.

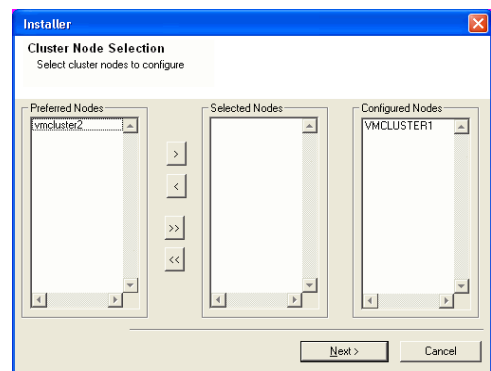
To complete the install for this node only, click **No**.



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**.

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*.

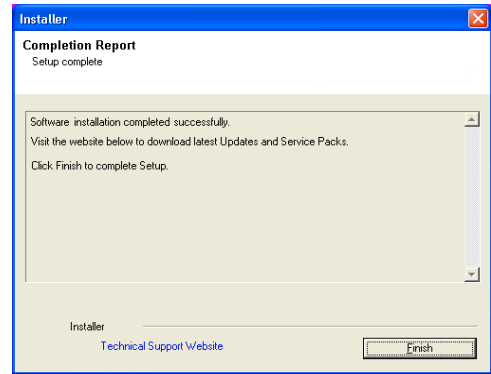
28. Read the summary for remote installation to verify that all selected nodes were installed successfully.

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**.

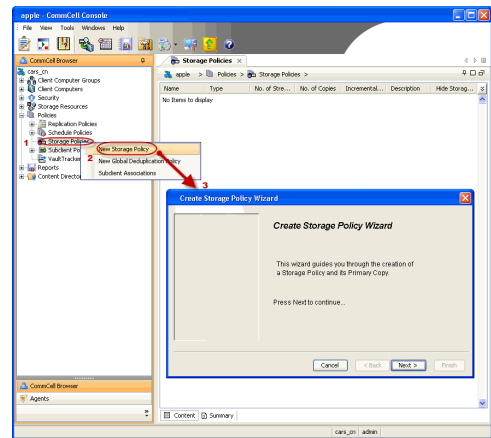


If you already have a storage policy selected in step 16, Click **Next** ► button available at the bottom of the page to proceed to the **Configuration** section.

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

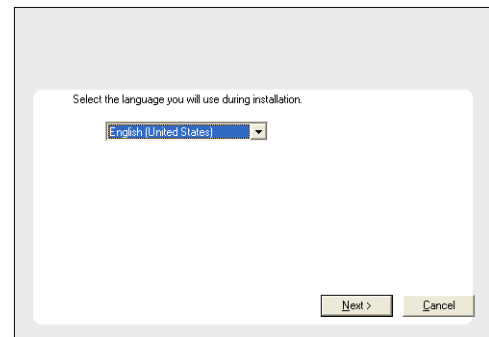
- Service account should be a member of Exchange Organization Administrators group.
- Ensure that the mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.

METHOD 1: INTERACTIVE INSTALL

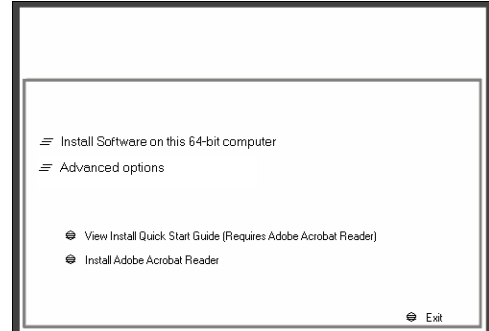
INSTALL THE EXCHANGE DATABASE /DATAAGENT

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

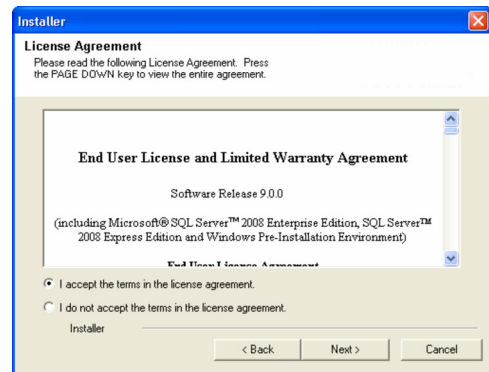
1. Log on to the computer using an account with the following privileges:
 - Administrator of the local computer
 - Administrator of the Exchange Server
2. Run **Setup.exe** from **Software Installation Package**.
3. Select the required language.
Click **Next**.



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**.

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:

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

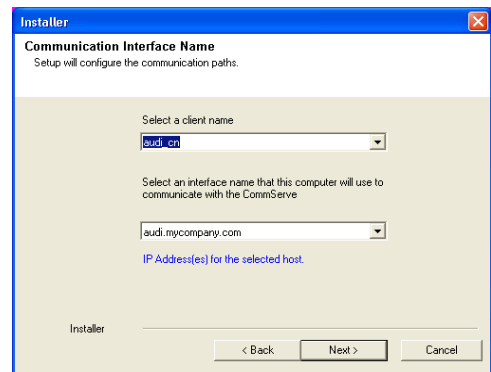
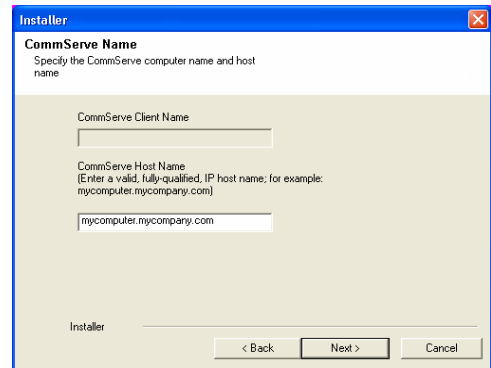
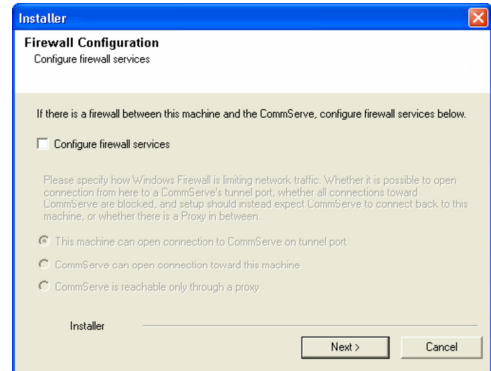
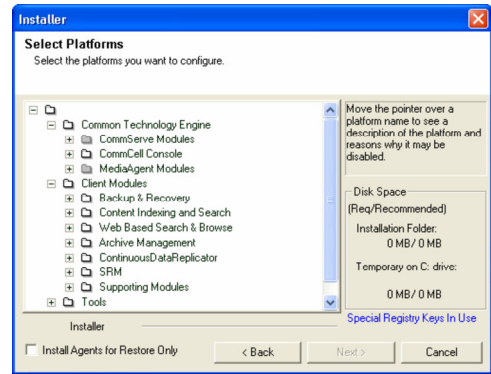
9. Click **Next**.

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.

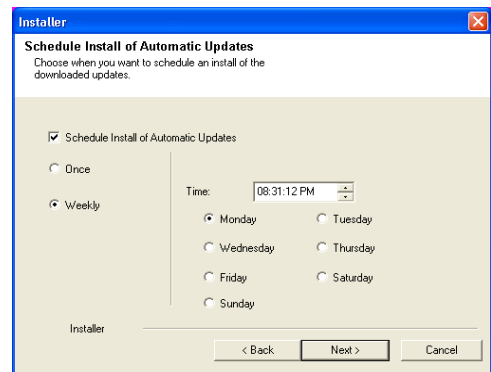
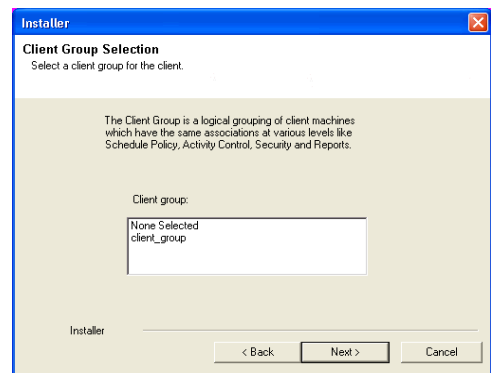
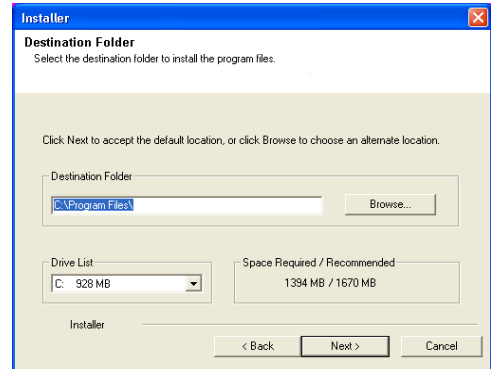
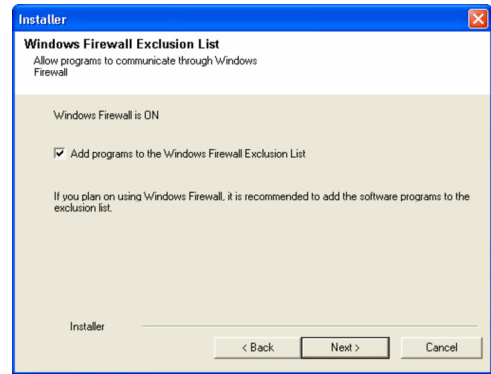
Click **Next**.

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**.

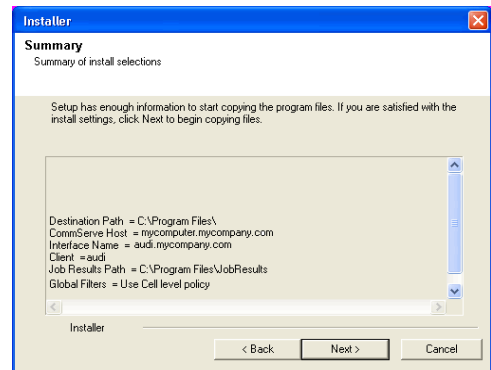
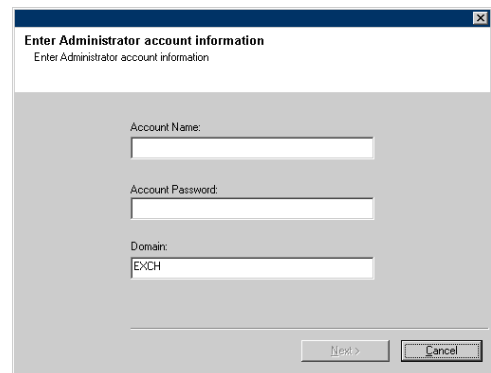
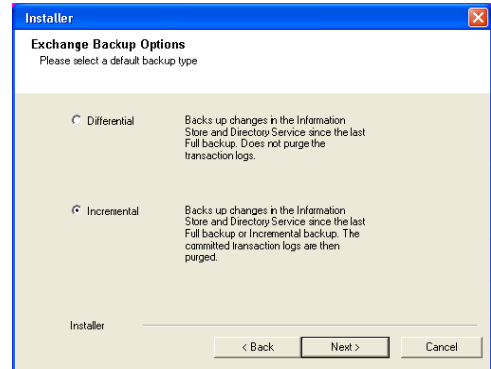
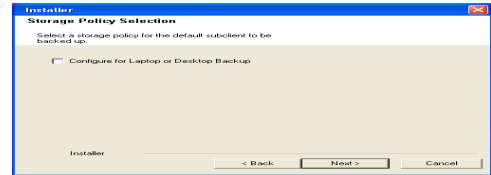
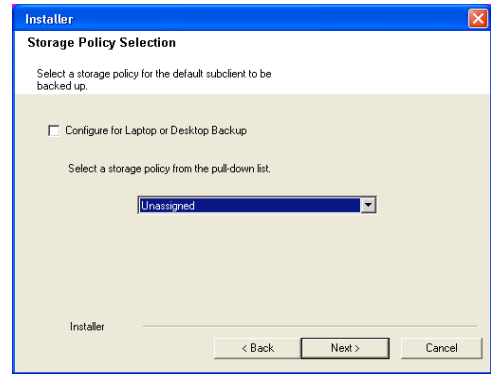
You can create the Storage Policy later in step 21.

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

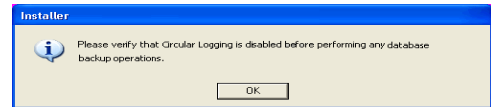


disabled:

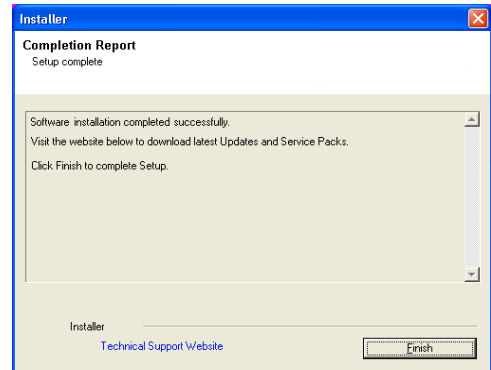
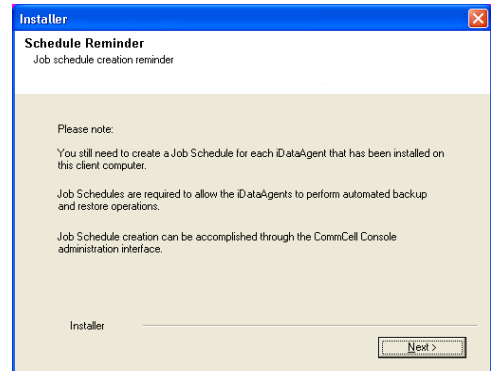
- From Exchange System Manager, navigate to and expand the server that the Database iDataAgent is being installed on.
- Verify that the Circular Logging check box has not been selected for each Storage Group. If Circular Logging has been enabled for a Storage Group, disable it at this time.

Click **OK**.

19. Click **Next**.



20. Click **Finish**.

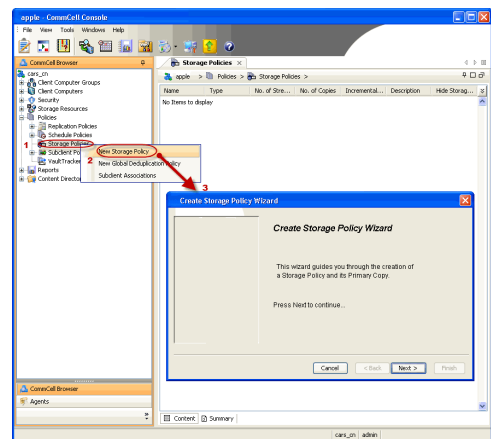


If you already have a storage policy selected in step 14, Click **Next >** button available at the bottom of the page to proceed to the **Configuration** section.

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**.

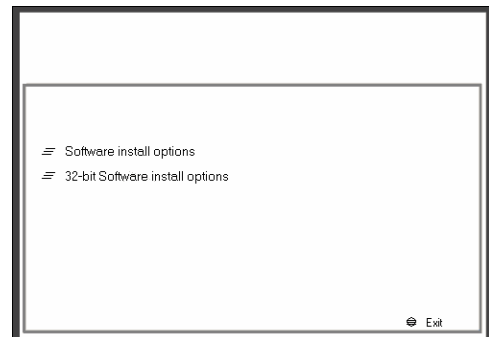
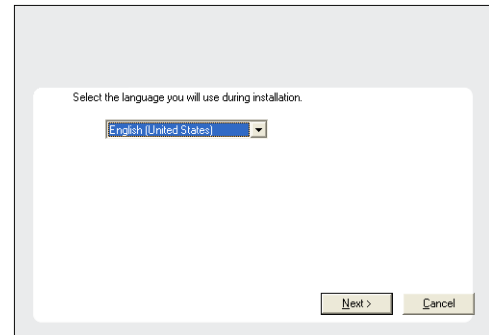
Click **Next**.

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:

/ : * ? " < > | #

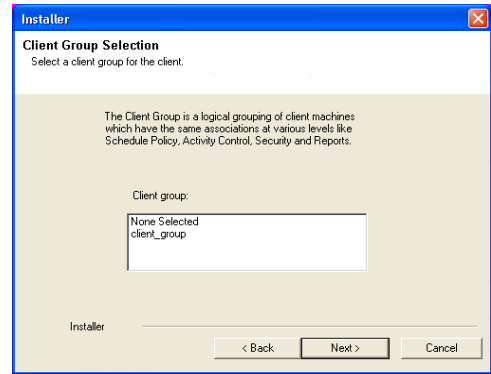
It is recommended that you use alphanumeric characters only.

35. Select a Client Group from the list.

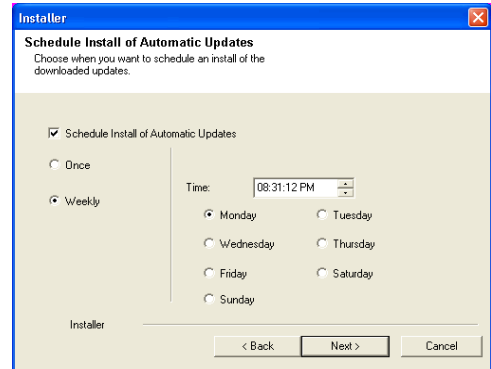
Click **Next**.

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

36. Click **Next**.



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

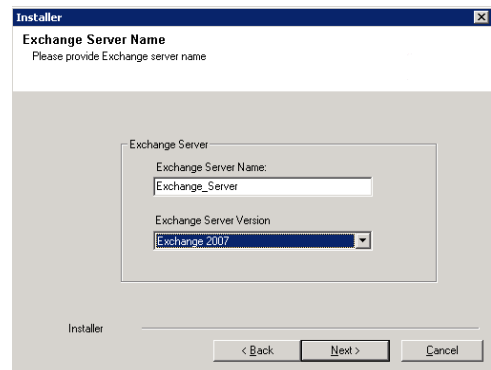
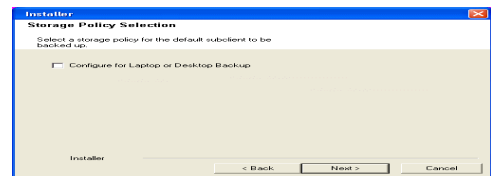
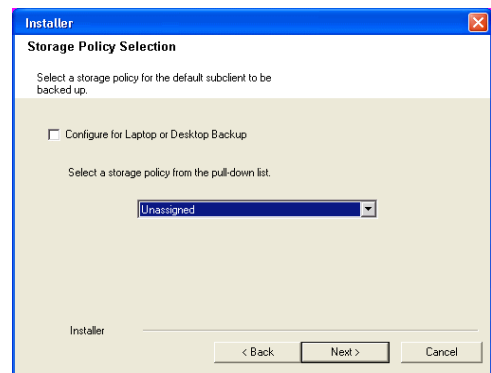


If you do not have Storage Policy created, this message will be displayed.
Click **OK**.

You can create the Storage Policy later in step 43.

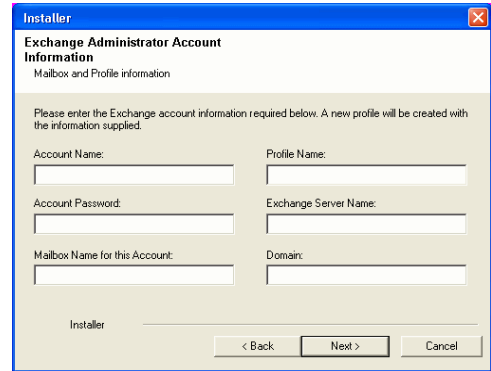
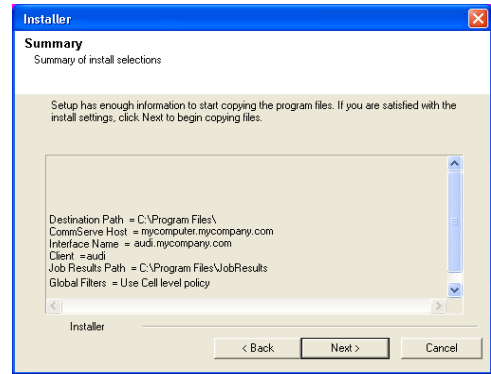
38. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.
Click **Next**.

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

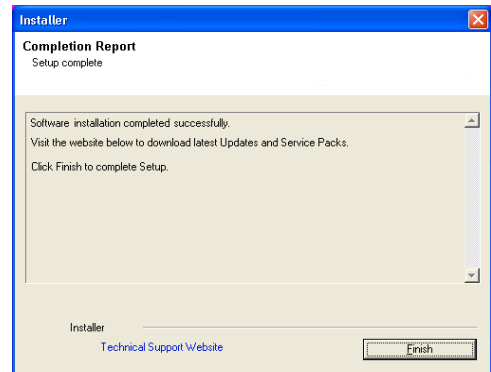
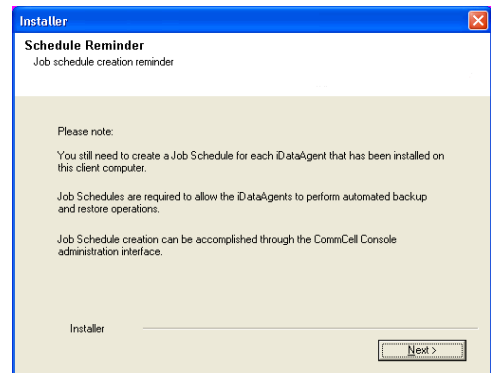


39. Click **Next**.

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**.



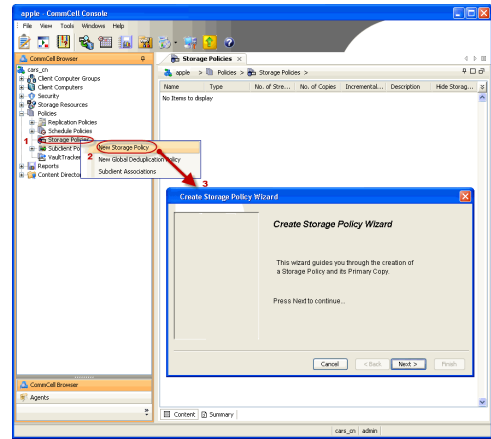
If you already have a storage policy selected in step 37, Click **Next** button available at the bottom of the page to proceed to the **Configuration** section.

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.

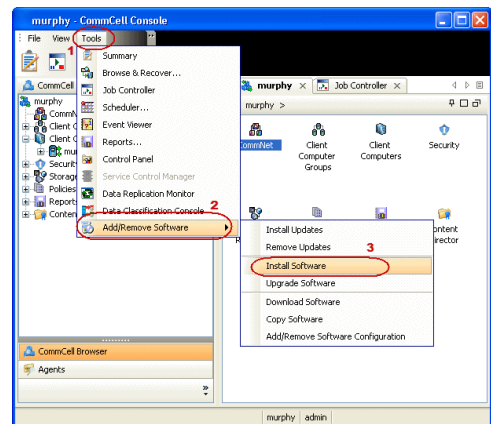


44. Enable the following registry key to create job specific profiles:

- 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.

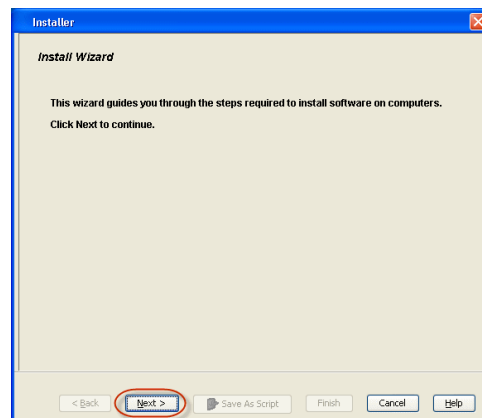
METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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

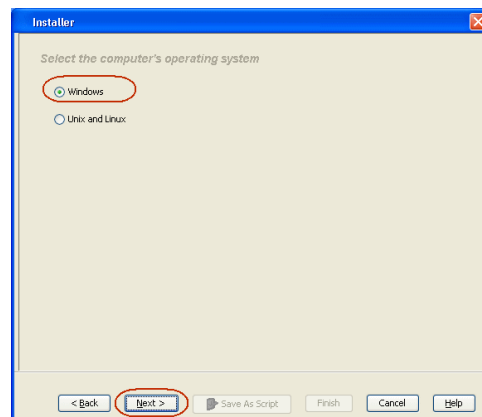


2. Click **Next**.

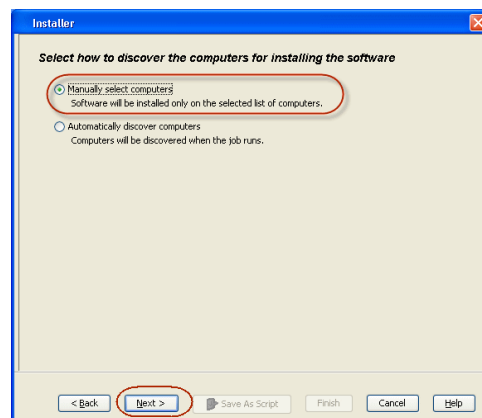
3. Select **Windows**.
Click **Next**.



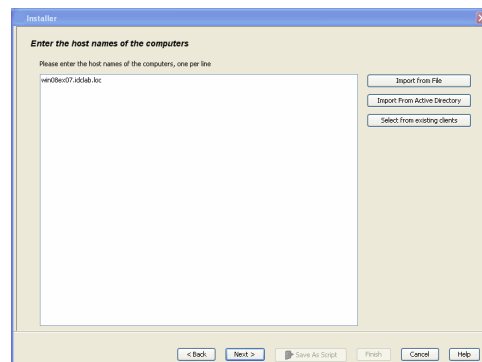
4. Select **Manually Select Computers**.
Click **Next**.



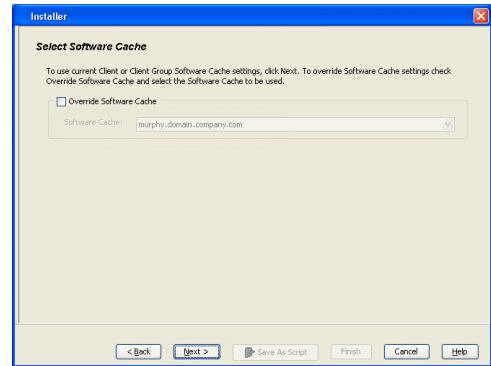
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.
For example: win08ex07.idclab.loc
Click **Next**.



6. Click **Next**.



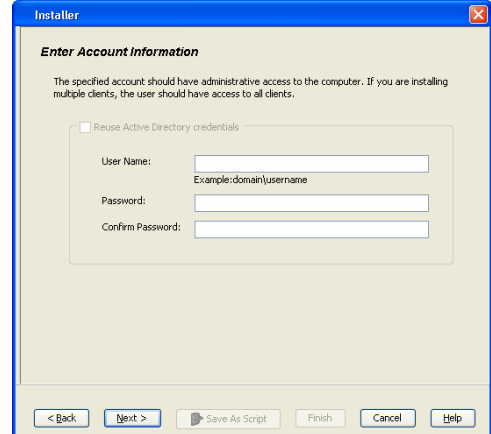
7. Specify **User Name** and **Password** that must be used to access the computer. Click **Next**.



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**.

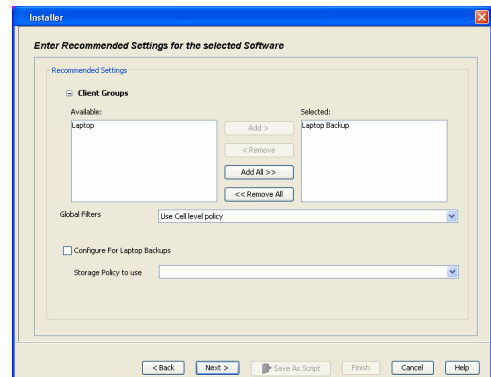
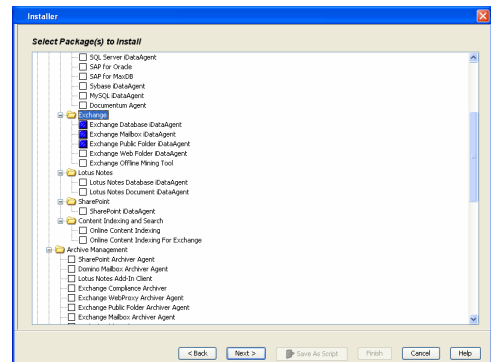
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



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

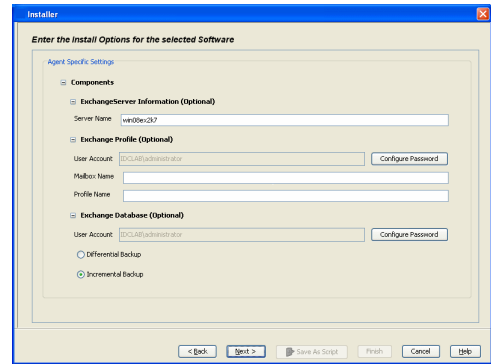
NOTES:

- 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.

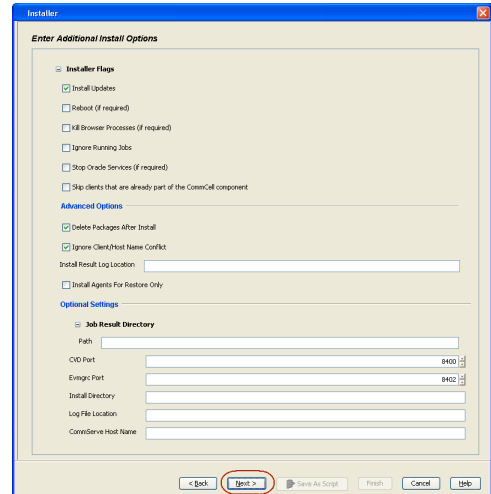


10. Type the Agent Specific Settings information. Click **Next**.

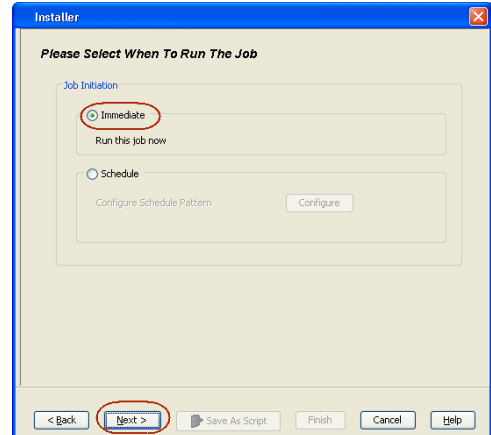
11. Click **Next**.



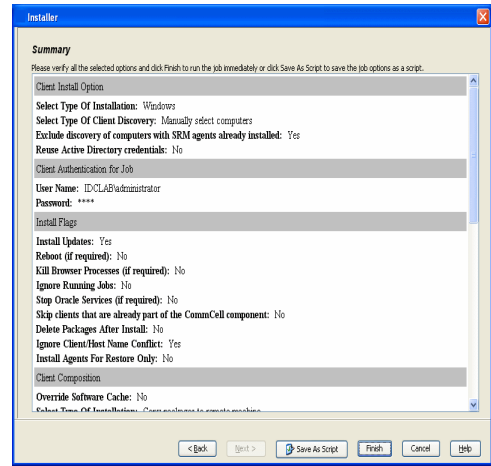
12. Select **Immediate**.
Click **Next**.



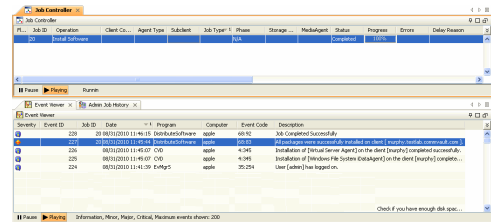
13. Click **Finish**.



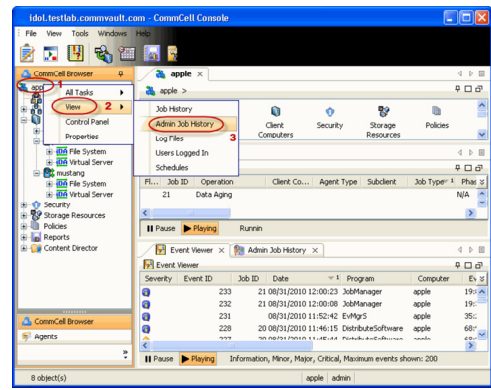
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

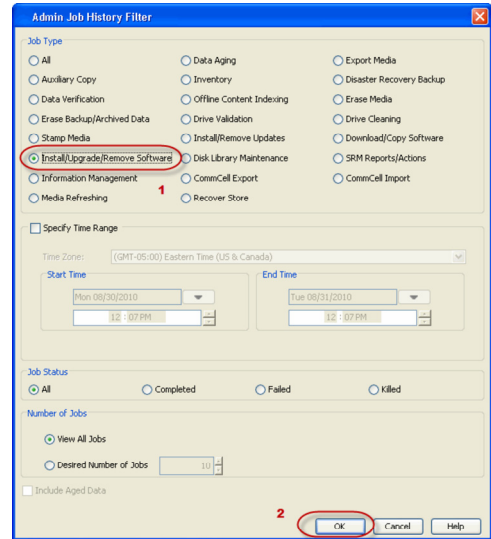


16. Select **Install/Upgrade/Remove Software**. Click **OK**.

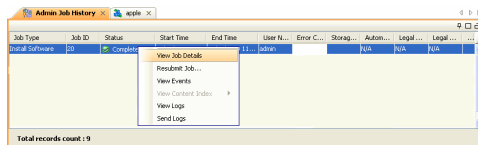


17. You can view the following details about the job by right-clicking the job:

- 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 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.

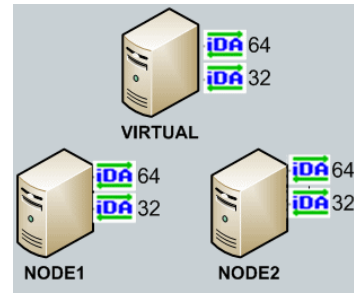
EXCHANGE AGENTS IN X64 CLUSTERS

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.

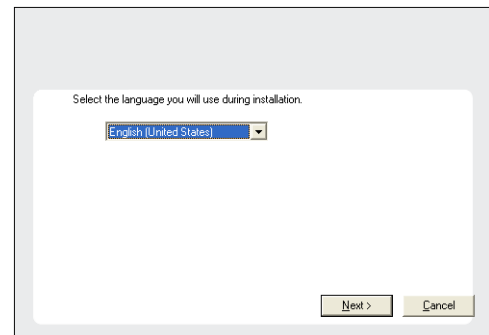
The sample image shown on the right illustrates the required configuration for installing 32-bit Exchange Agents in an x64 cluster.



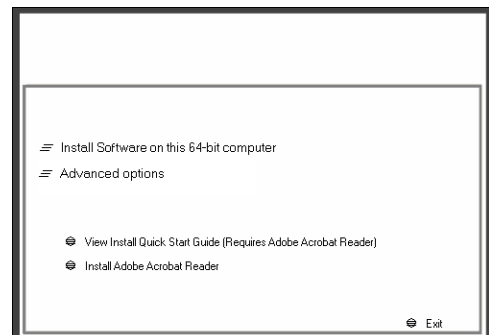
INSTALL THE EXCHANGE DATABASE iDATAAGENT

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

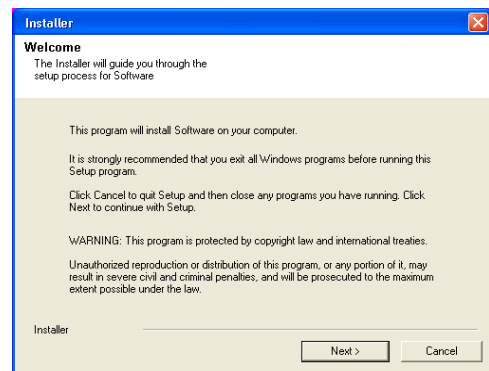
1. Log on to the computer using an account with the following privileges:
 - Administrator of the local computer
 - Administrator of the Exchange Server
2. Run **Setup.exe** from **Software Installation Package**.
3. Select the required language.
Click **Next**.



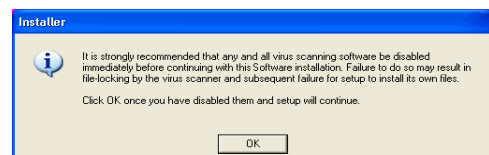
4. Select the option to **Install Calypso on this 64-bit computer**.
NOTES:
 - Your screen may look different from the example shown.



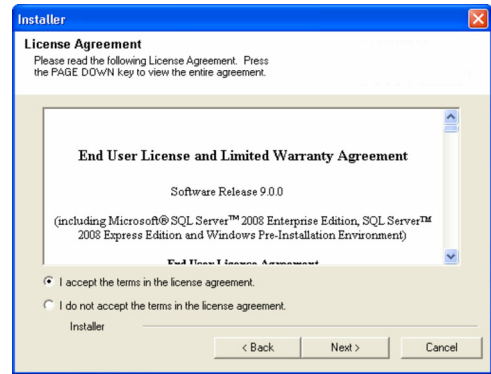
5. Click **Next**.



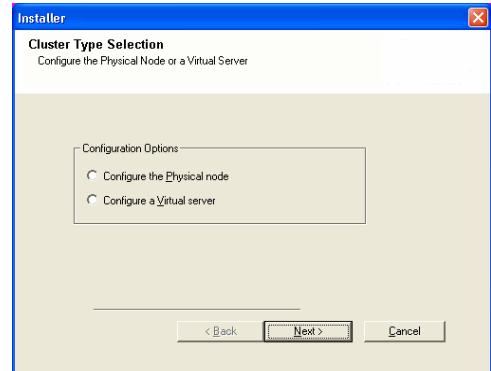
6. Click **OK**.



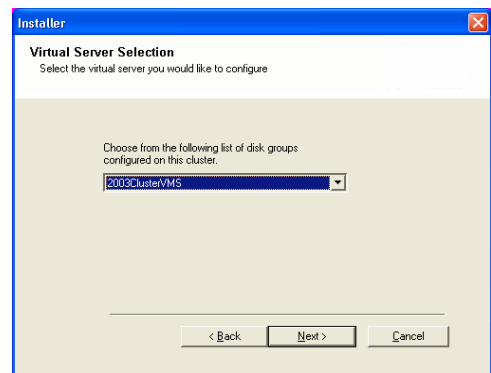
7. Select **I accept the terms in the license agreement**.
Click **Next**.



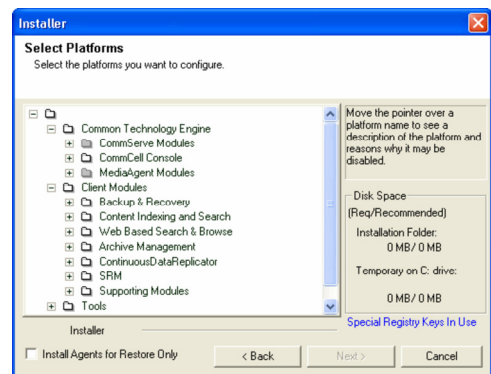
8. Select **Configure a Virtual Server**.
Click **Next** to continue.



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**.

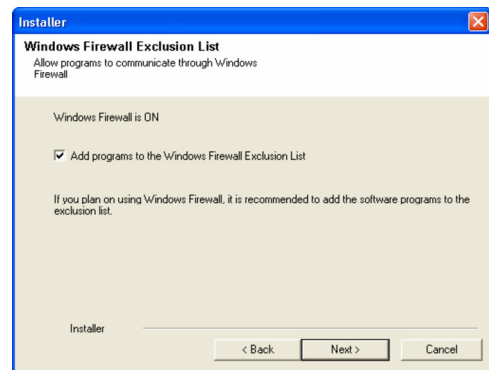
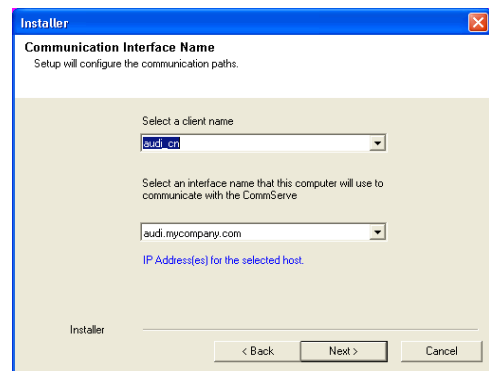
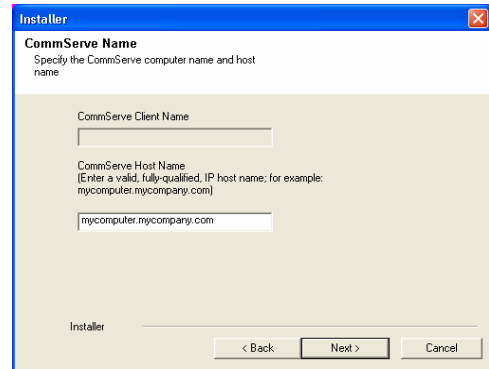
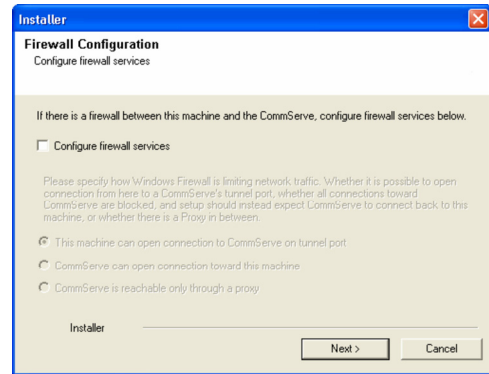
This option enables CommCell operations across Windows firewall by adding CommCell programs and services to Windows firewall exclusion list.

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.

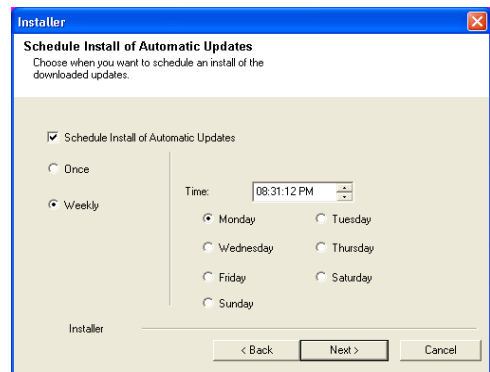
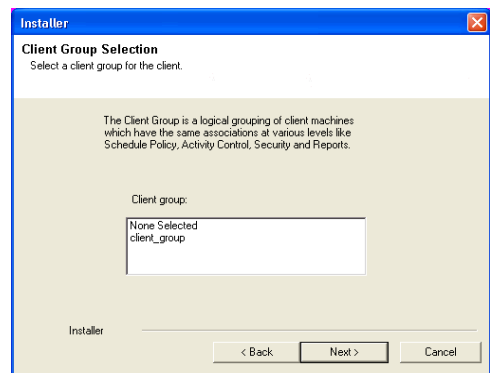
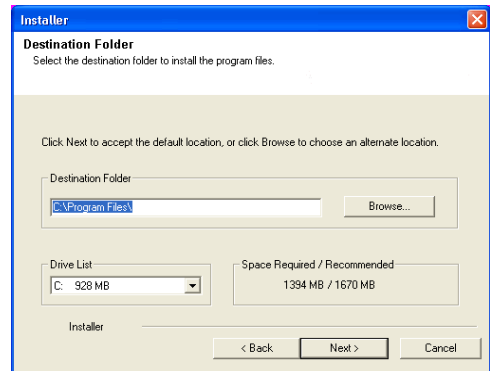
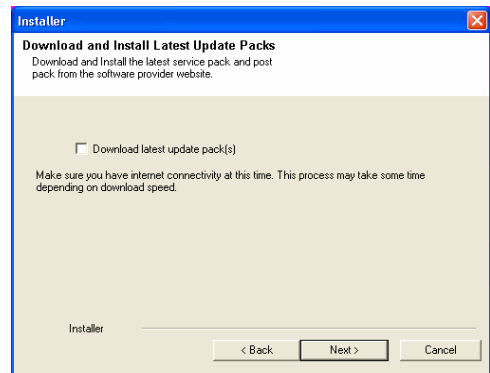
Click **Next**.

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**.

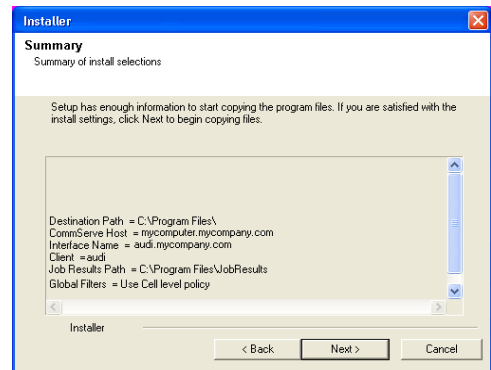
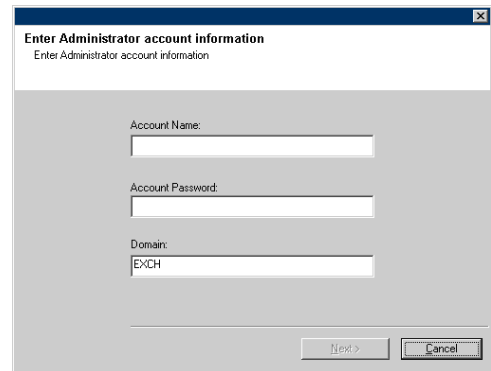
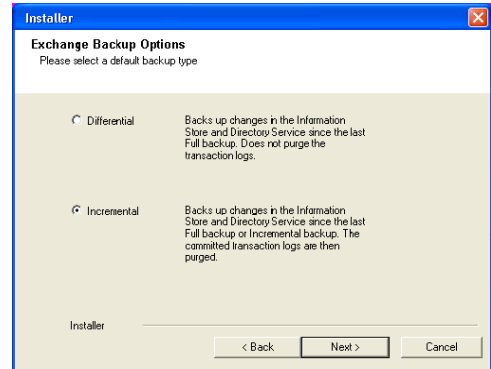
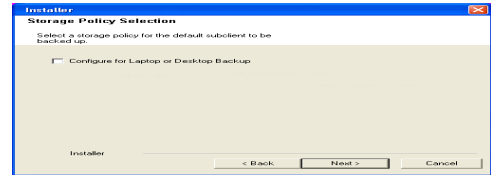
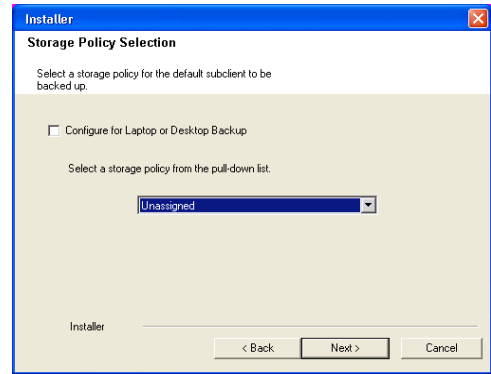
You can create the Storage Policy later in step 31.

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.

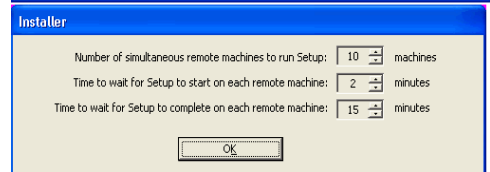
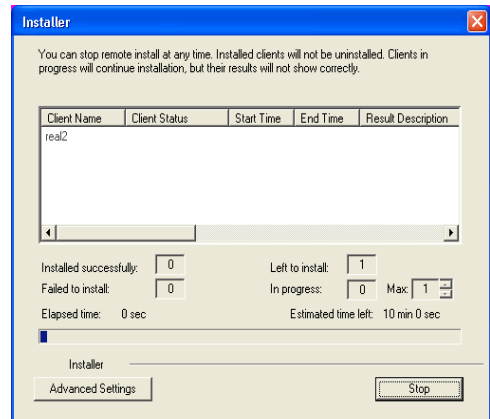
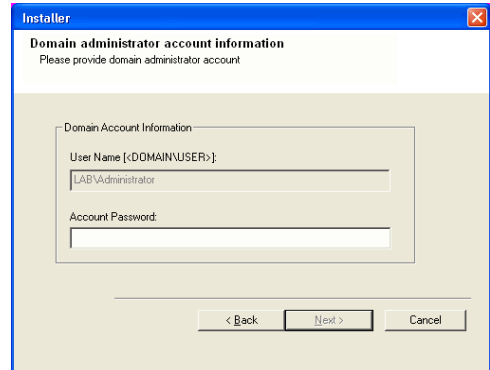
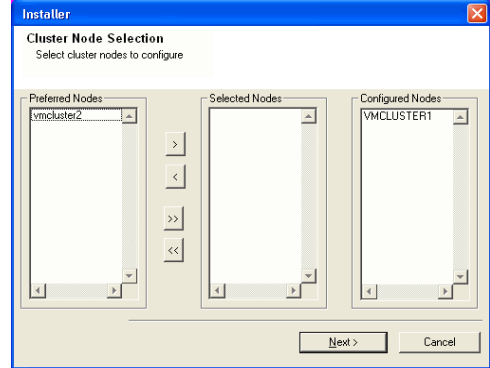
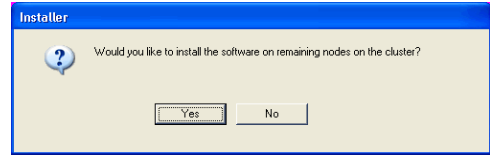
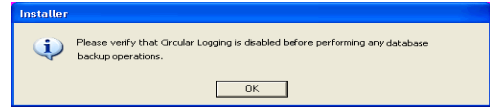
Click **Stop** to prevent installation to any nodes after the current ones complete.

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



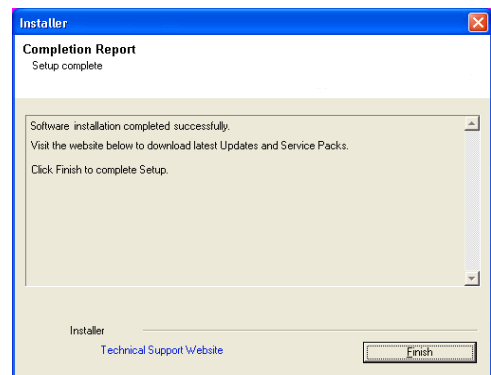
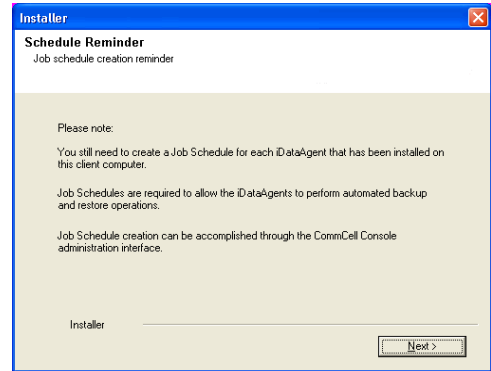
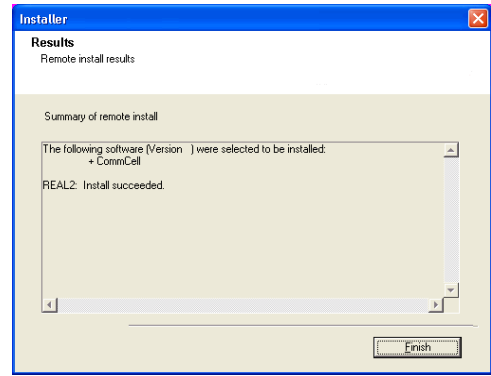
installed successfully.

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.

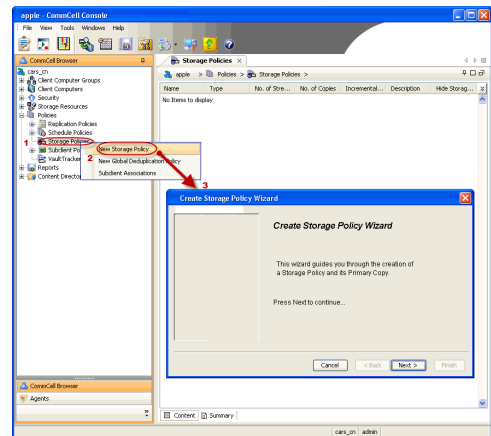
If you do not have Storage Policy created, continue with the following step.

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.

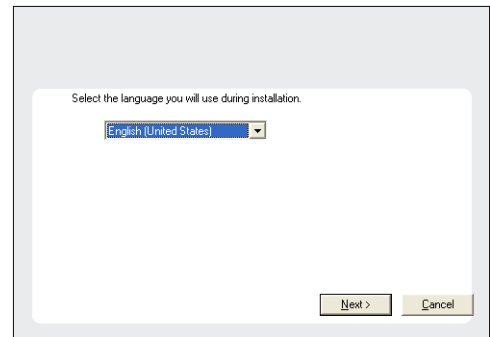
To create the registry key, see the following steps:

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

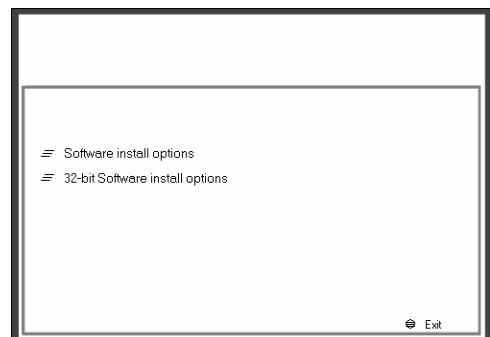
- Administrator of the Exchange Server
2. Run **Setup.exe** from Software Installation Package.
 3. Select the required language.
Click **Next**.



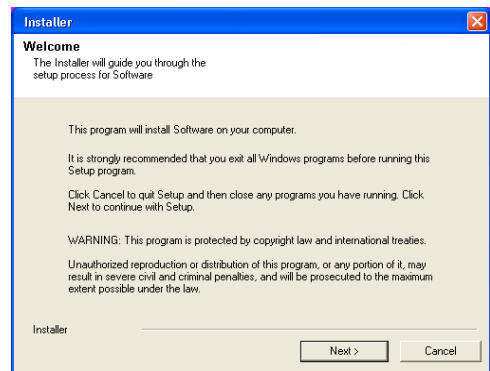
4. Select the **Calypso 32-bit Software install options** to install software.

NOTES

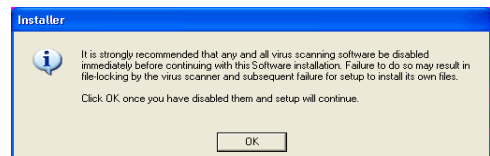
- This screen will only appear when the `bAllow32BitInstallOn64Bit` registry key has been created and enabled on this computer.



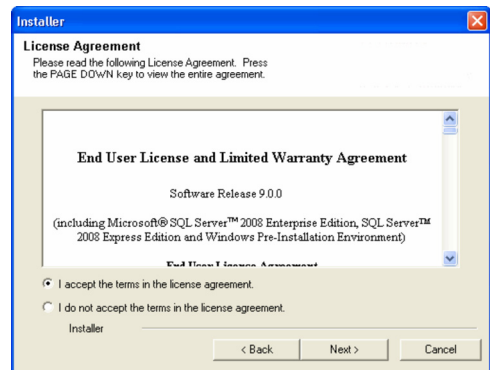
5. Click **Next**.



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**

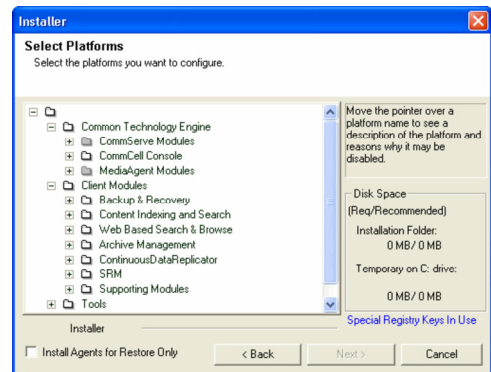
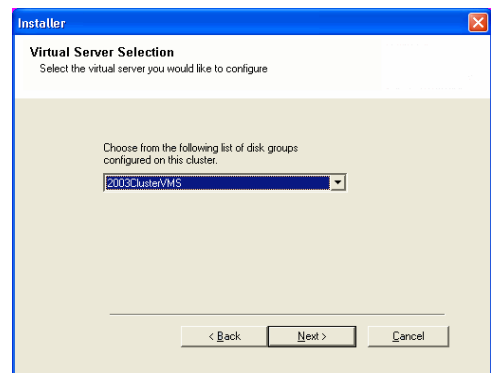
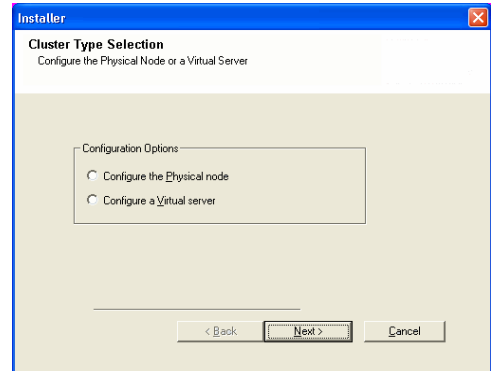
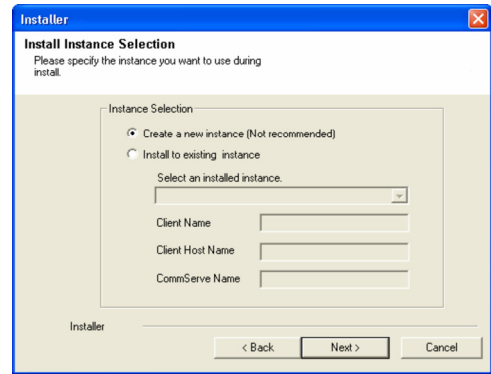
Click **Next**.

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.

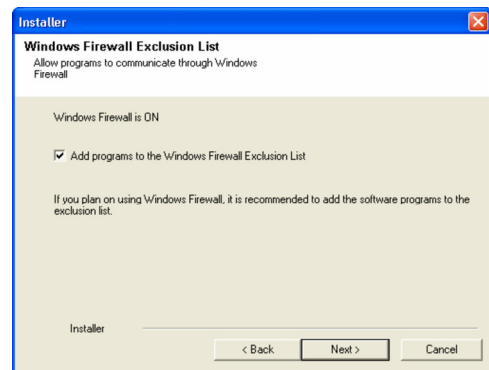
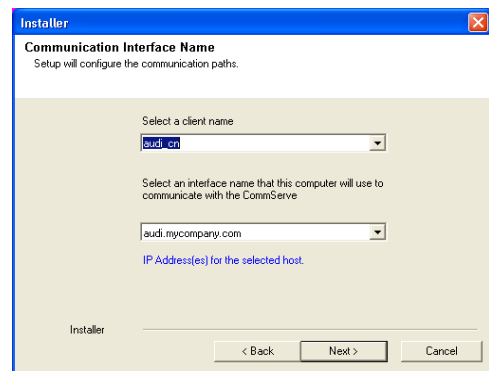
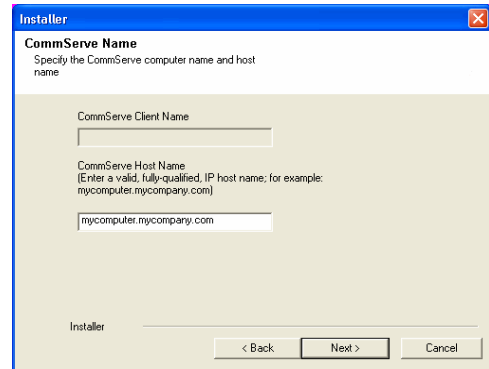
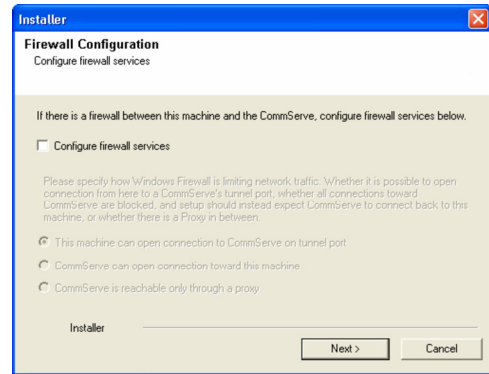
15. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.

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.

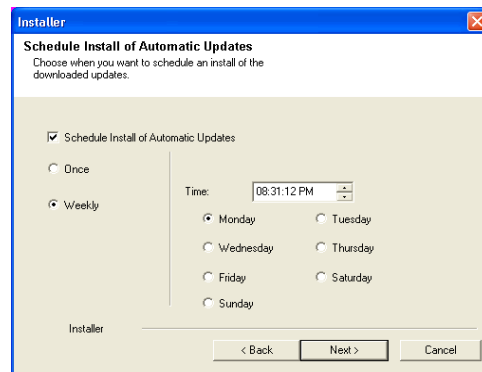
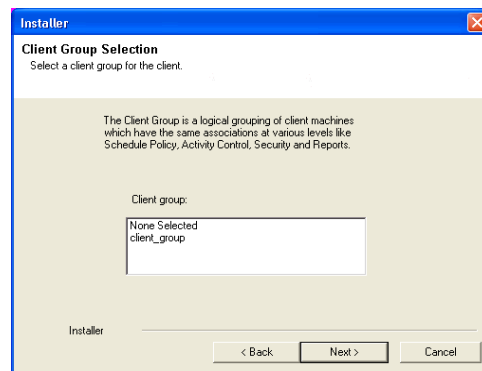
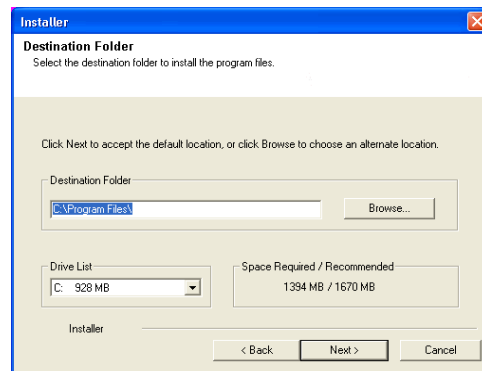
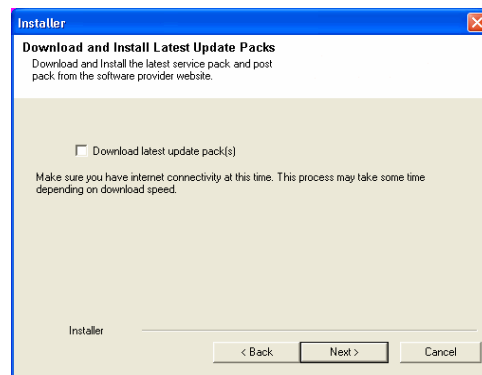
Click **Next**.

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**.

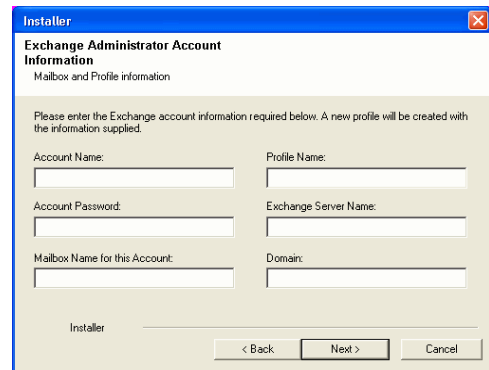
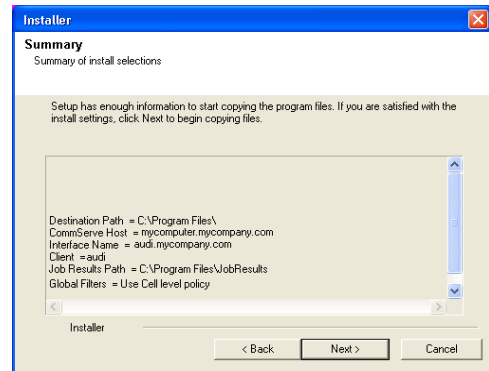
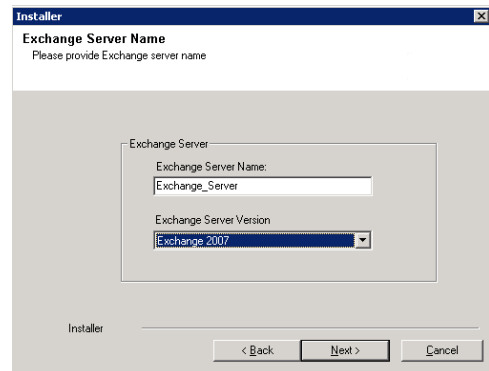
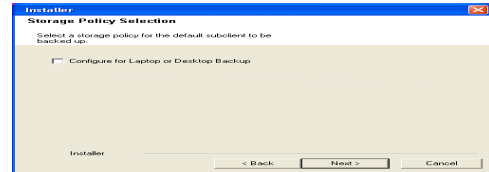
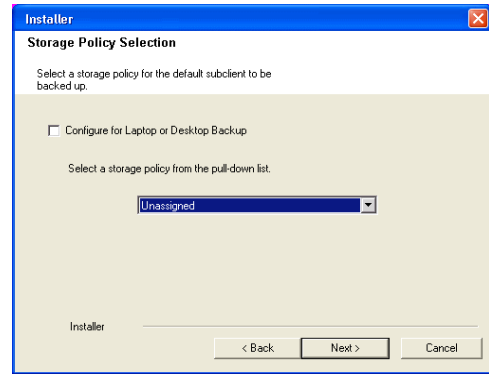
23. Enter the following Exchange Administrator information then click **Next**.

- **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:

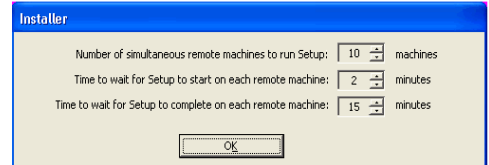
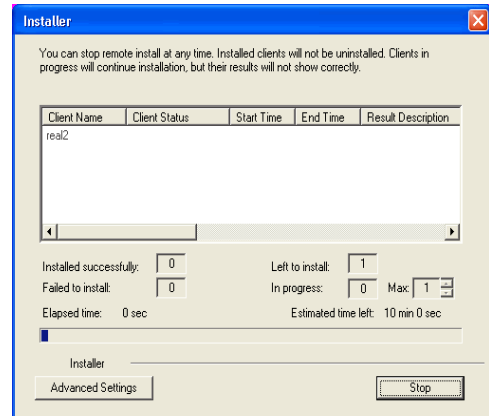
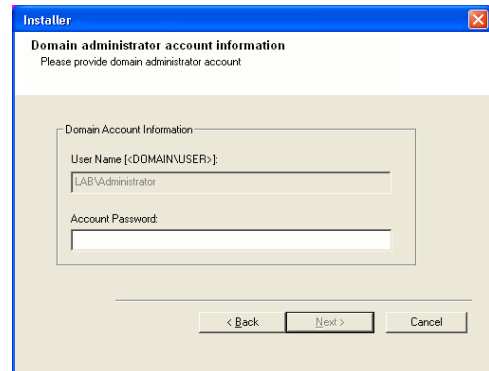
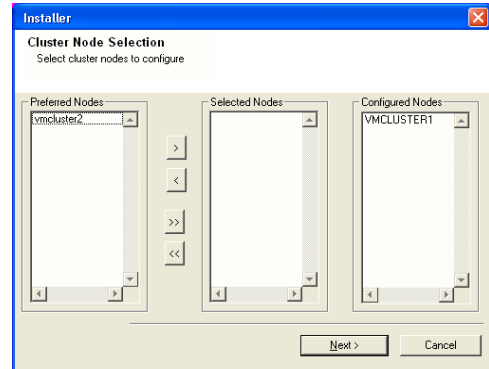
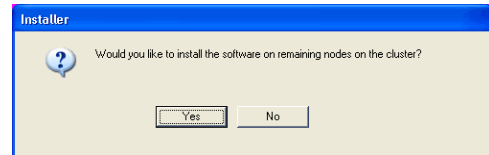
- Maximum number of nodes on which Setup can run simultaneously.
- Time allocated for Setup to begin executing on each node, after which the install attempt will fail.
- Time allocated for Setup to complete on each node, after which the install attempt will fail.

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.

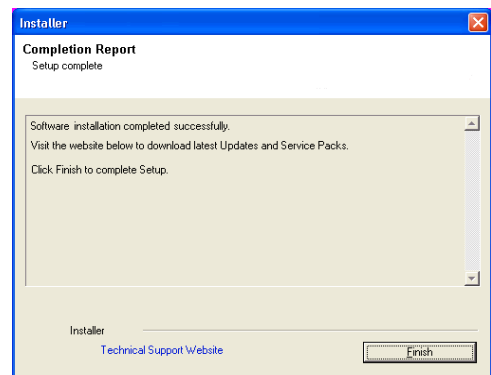
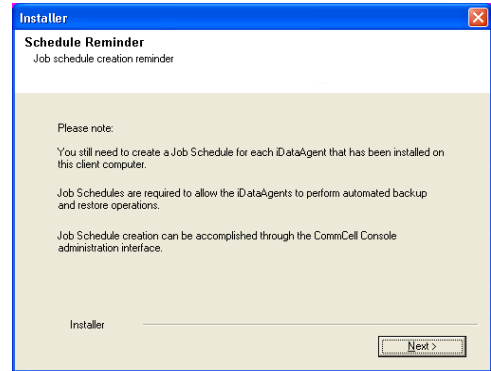
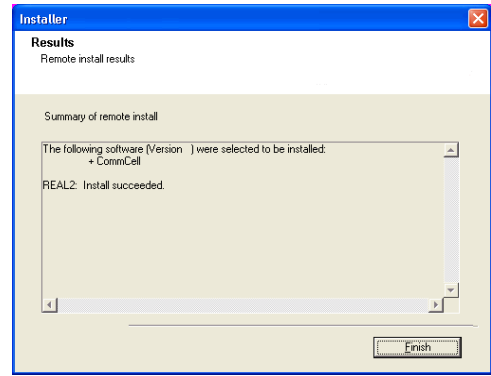
Click **Next**.

- 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.

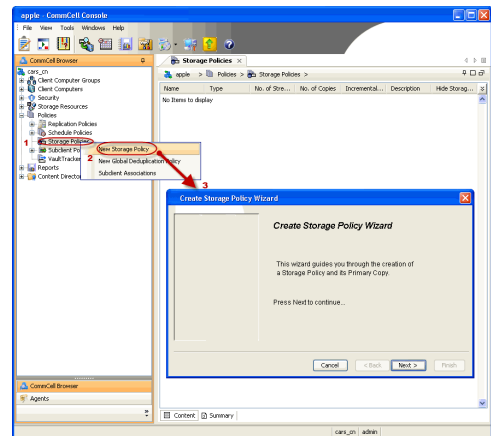
If you do not have Storage Policy created, continue with the following step.

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:
 - 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.



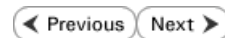
Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to select the folder and then click **Next**.

- 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 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 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.

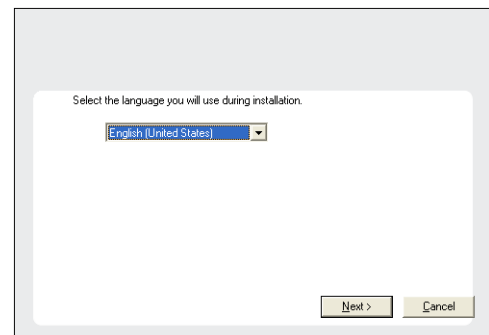
PREREQUISITES

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

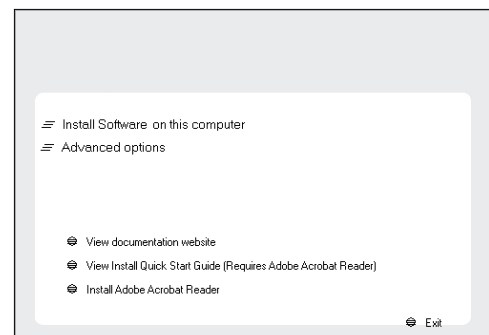
- Service account is a member of Exchange Organization Administrators group.
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Ensure that you assign full access to all mailboxes on the server. For details, see [How do I Assign Full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

- 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.

- 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.

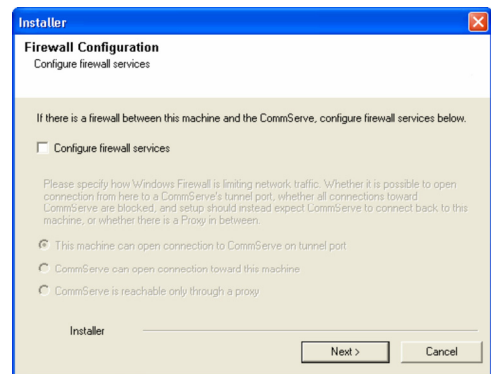
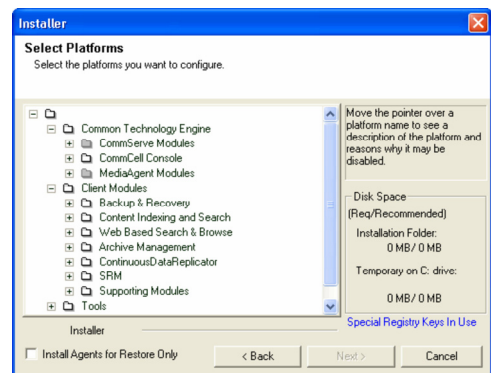
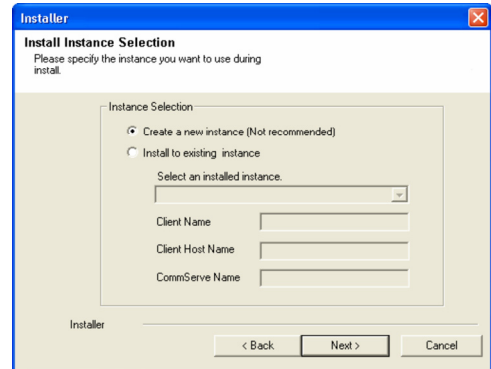
If firewall configuration is not required, click **Next**.

- 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:

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



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:

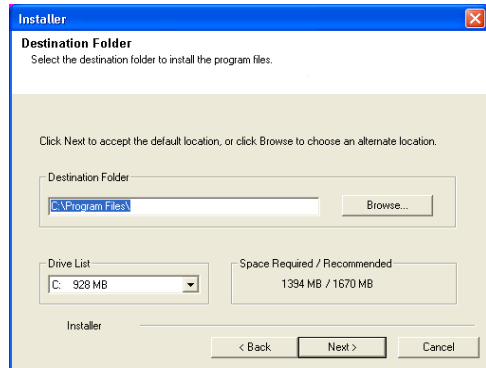
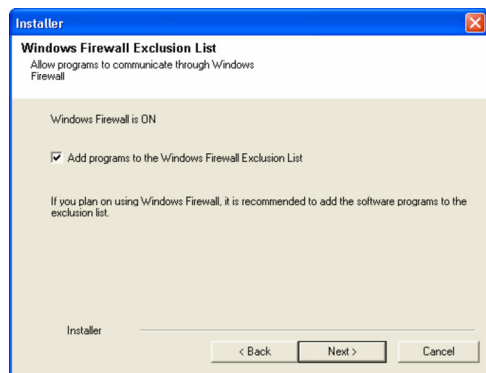
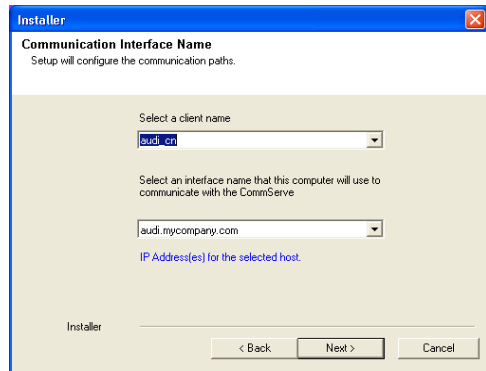
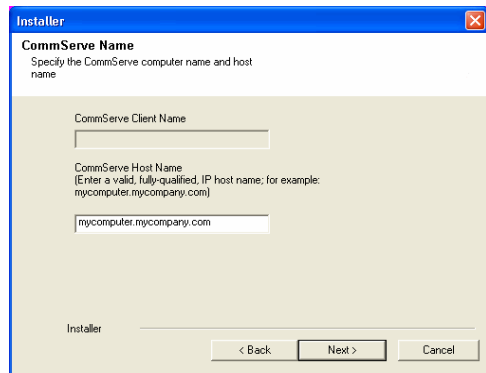
/ : * ? " < > | #

It is recommended that you use alphanumeric characters only.

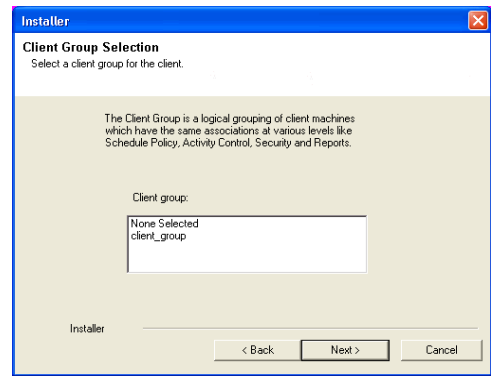
13. Select a Client Group from the list.

Click **Next**.

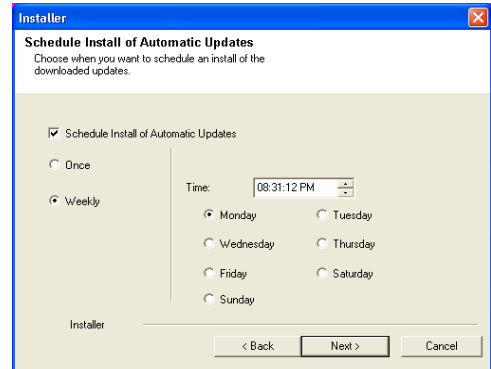
This screen will be displayed if Client Groups are configured in the CommCell Console.



- 14. Click **Next**.



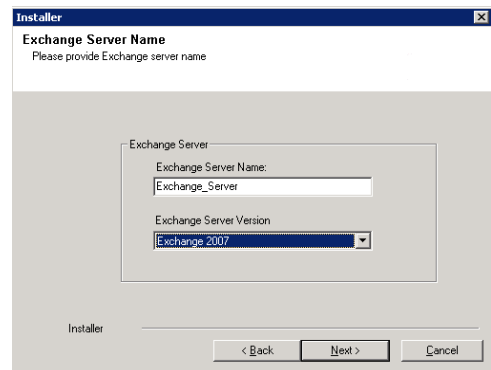
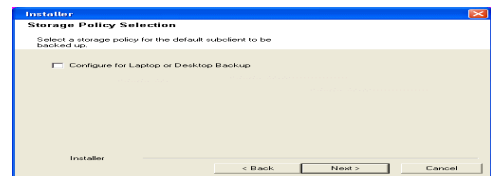
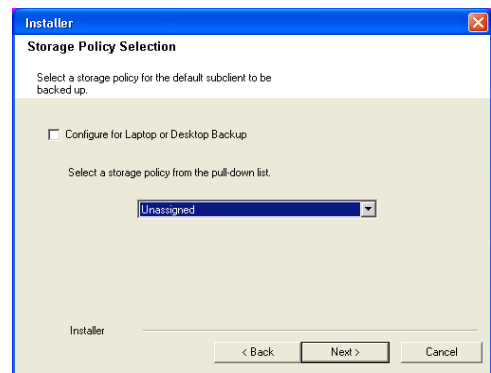
- 15. Select a **Storage Policy**.
Click **Next**.



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**.

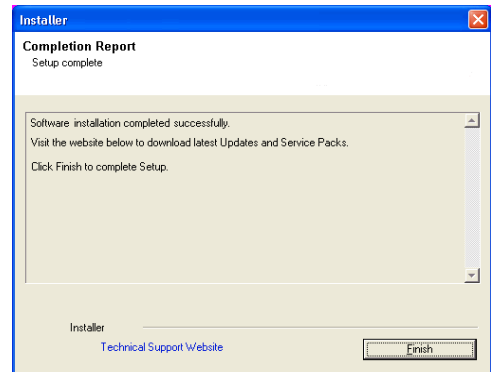
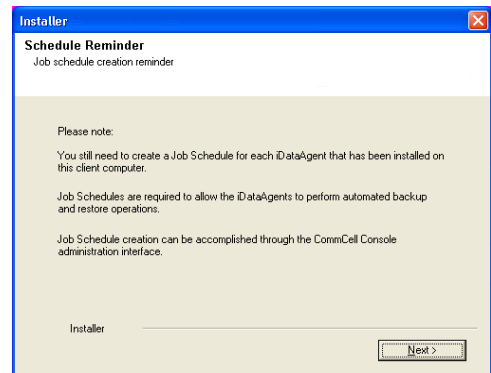
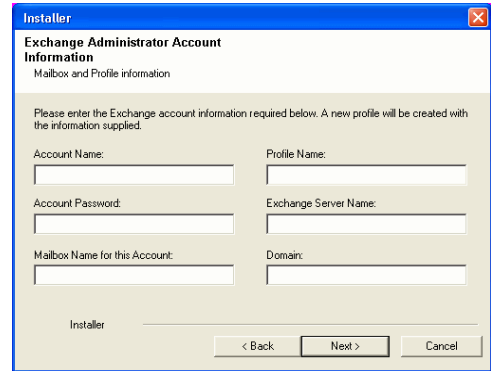
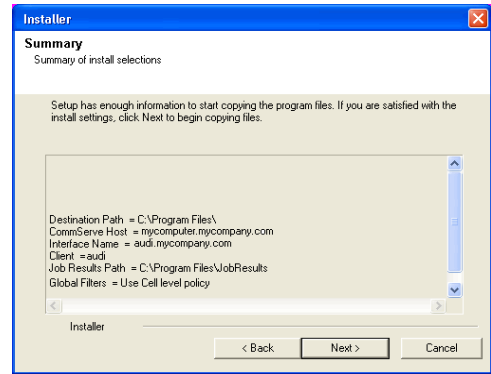
18. Enter the following Exchange Administrator information then click **Next**.
- **Account Name** - Domain user account created with the exchange server administrator permissions. Do not include the domain name here.
 - **Account Password** - The password assigned to the domain user.
 - **Mailbox Name 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**.

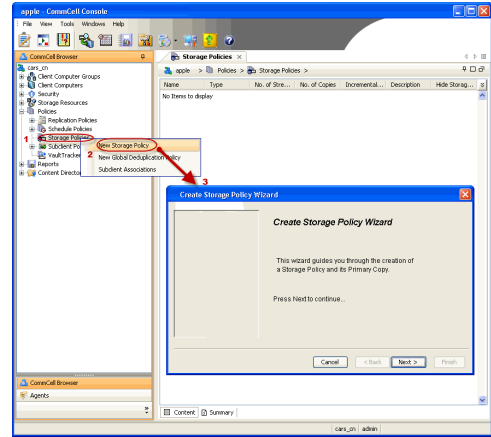
 If you already have a storage policy selected in step 15, Click **Next** button available at the bottom of the page to proceed to the **Configuration** section.
If you do not have Storage Policy created, continue with the following step.

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.

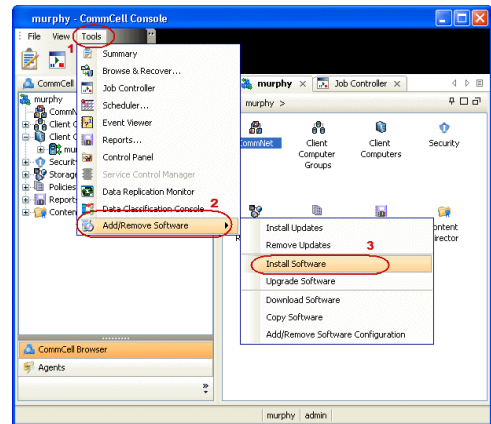


22. Enable the following registry key to create job specific profiles:

- 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.

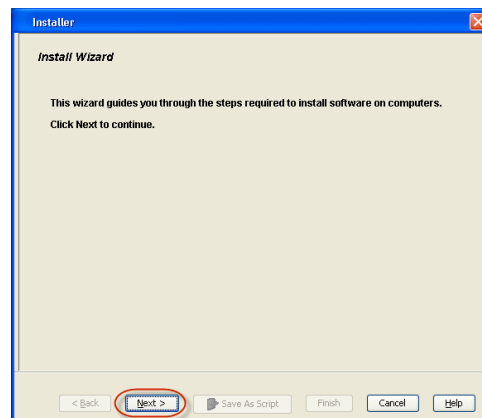
METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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

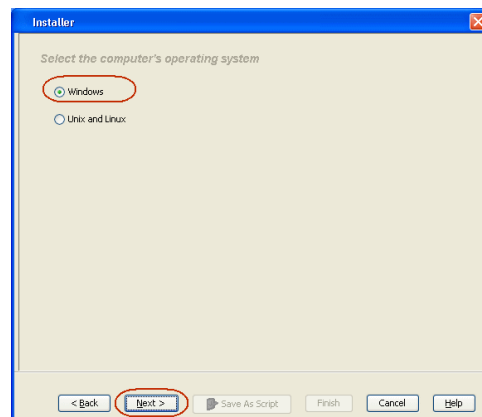


2. Click **Next**.

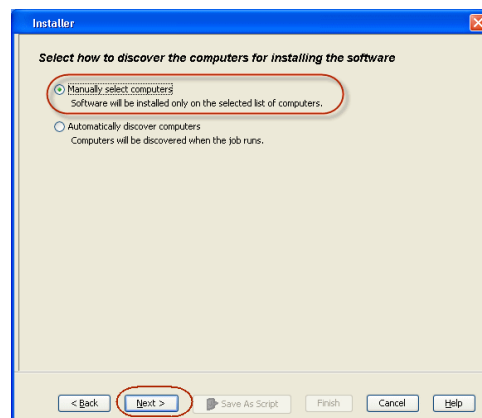
3. Select **Windows**.
Click **Next**.



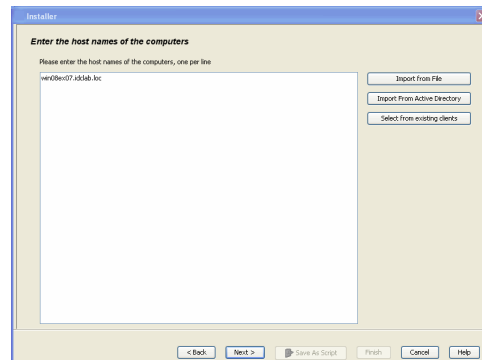
4. Select **Manually Select Computers**.
Click **Next**.



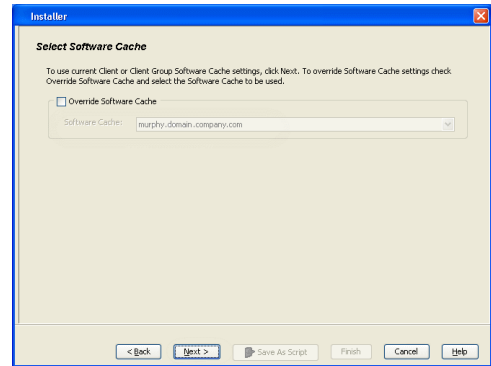
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.
For example: win08ex07.idclab.loc
Click **Next**.



6. Click **Next**.



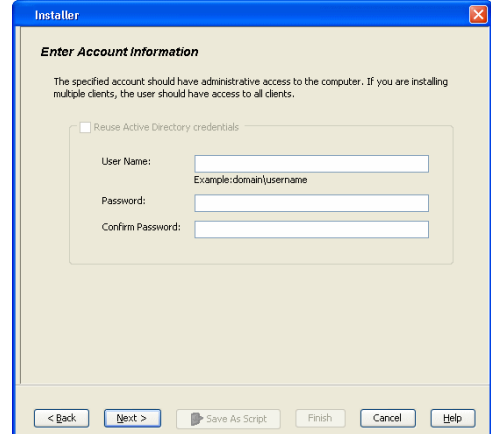
7. Specify **User Name** and **Password** that must be used to access the computer.
Click **Next**.



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**.

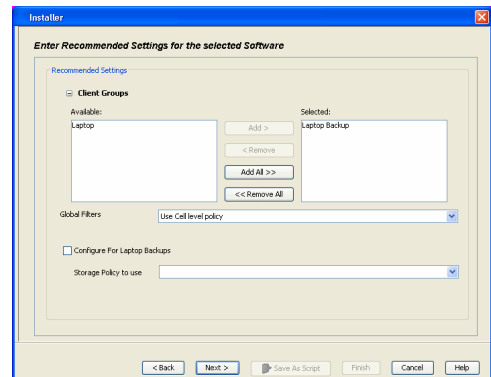
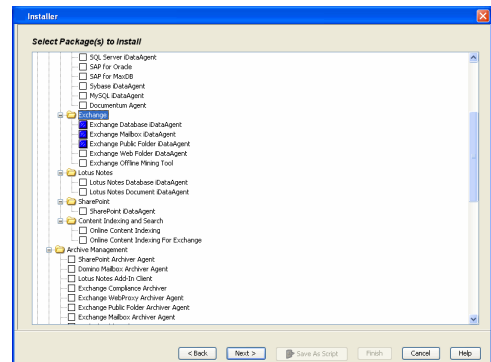
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



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

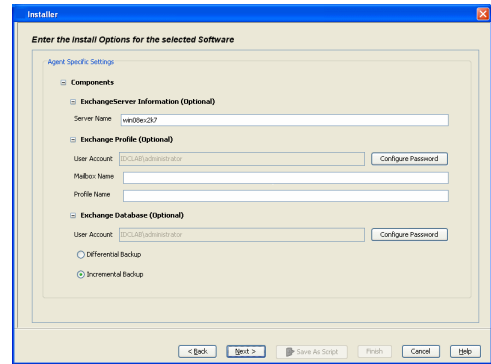
NOTES:

- 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.

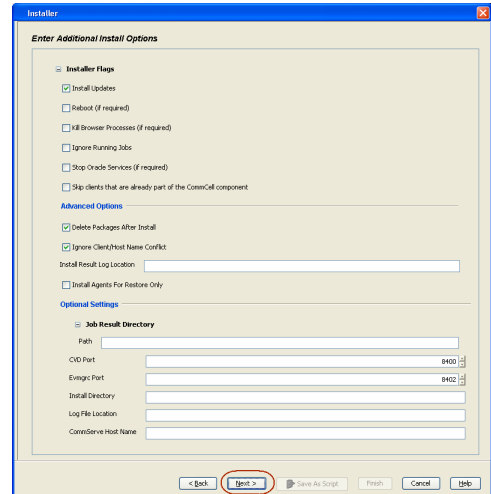


10. Type the Agent Specific Settings information.
Click **Next**.

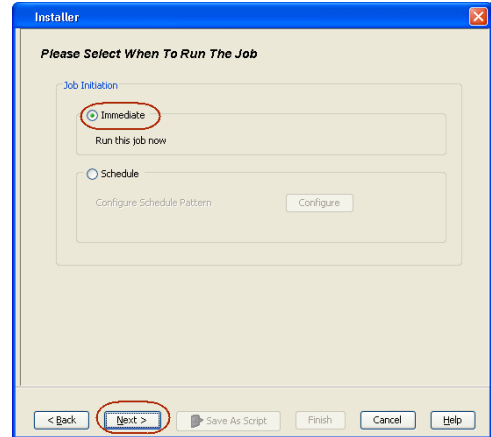
11. Click **Next**.



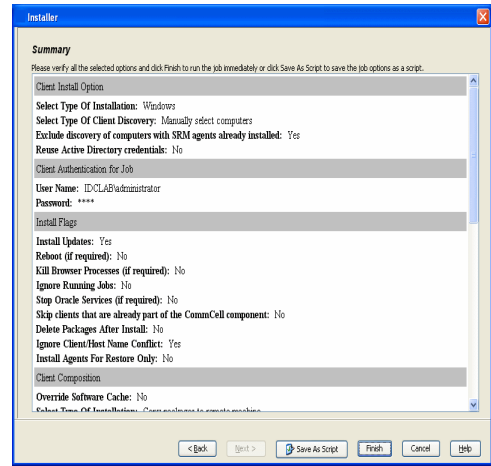
12. Select **Immediate**.
Click **Next**.



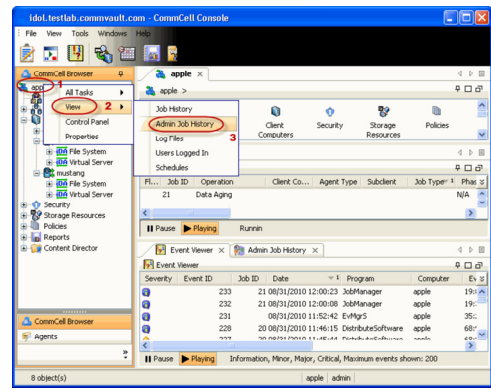
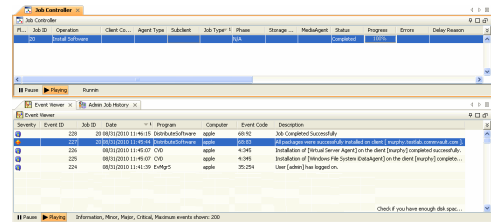
13. Click **Finish**.



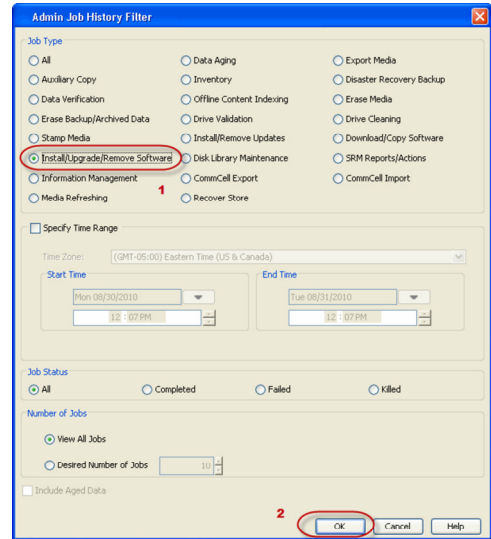
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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



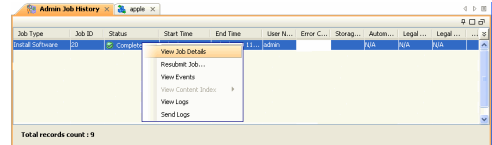
16. Select **Install/Upgrade/Remove Software**. Click **OK**.



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 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 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.

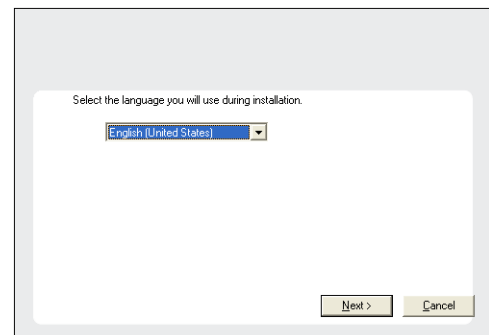
PREREQUISITES

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

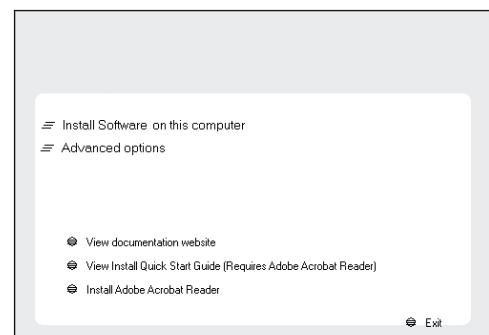
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Using the Exchange System Manager snap-in, right-click the organization object and delegate control.
- Using the Wizard, assign the MailboxAdmin user Exchange Full Administrator privileges.
- 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**.

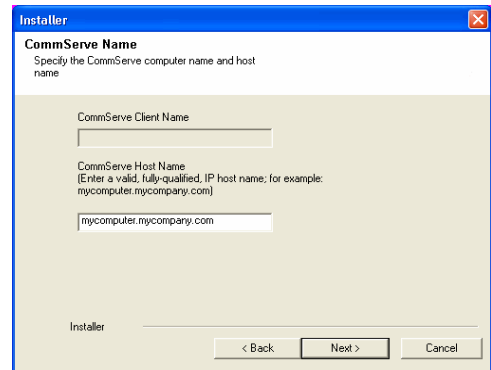
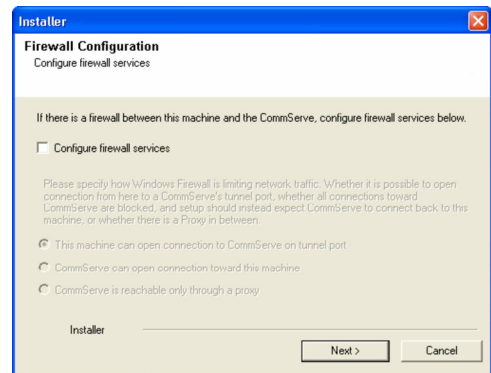
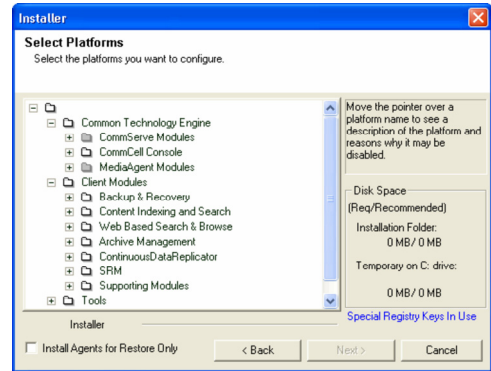
8. Enter the fully qualified domain name of the **CommServe Host Name**.

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:

/ : * ? " < > | #

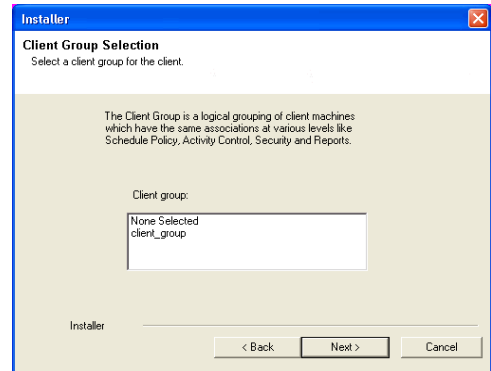
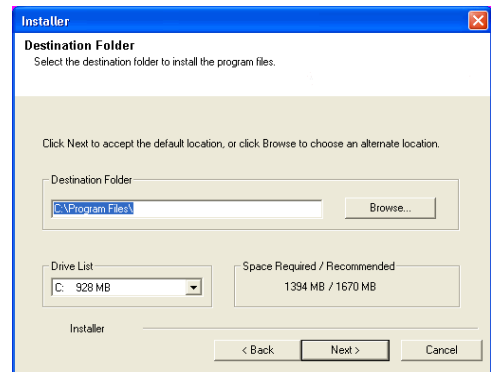
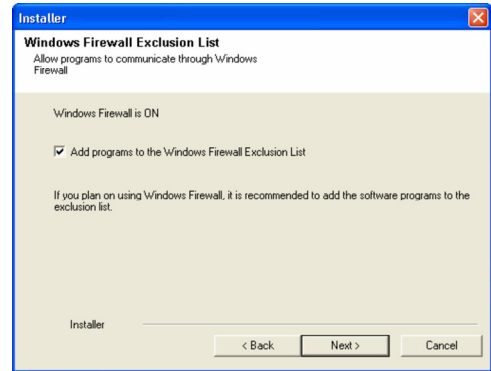
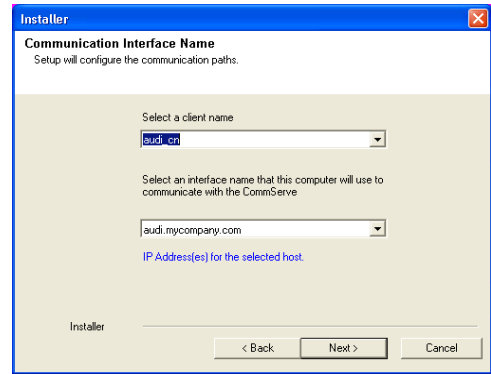
It is recommended that you use alphanumeric characters only.

12. Select a Client Group from the list.

Click **Next**.

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

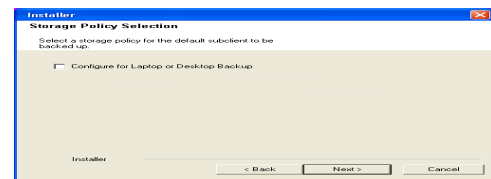
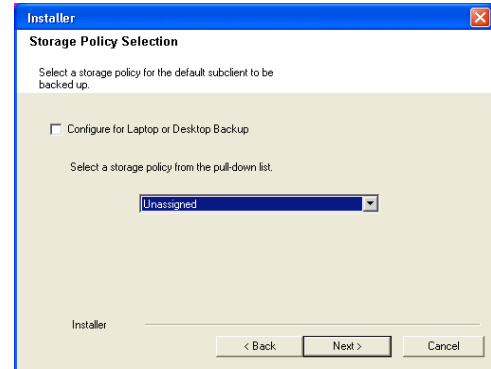
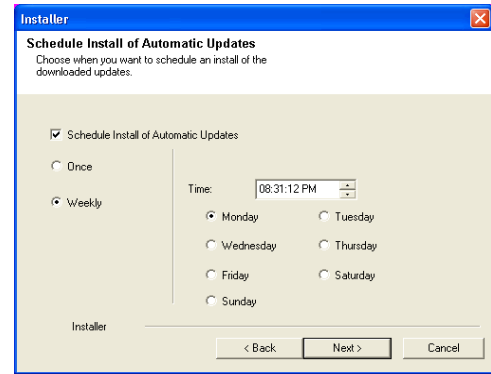
13. Click **Next**.



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

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

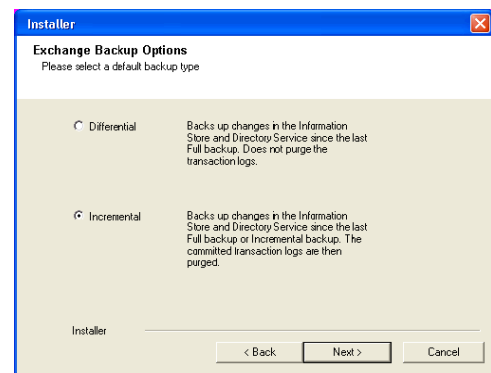
You can create the Storage Policy later in step 25.



- 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

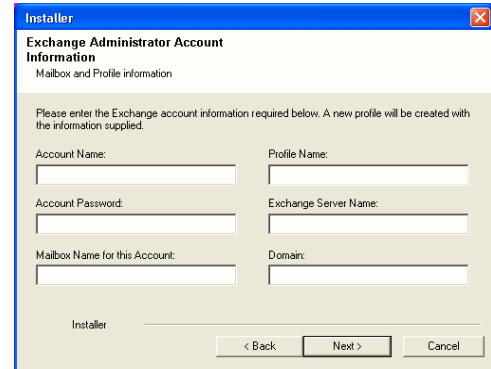
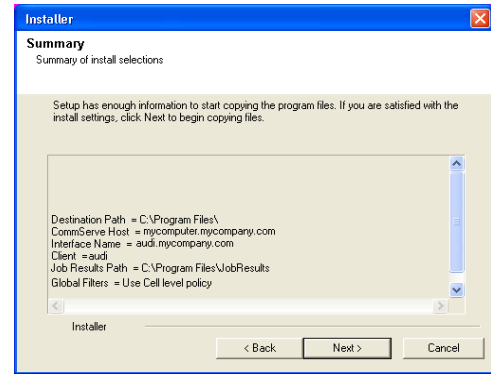
19. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

Click **Next**.

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

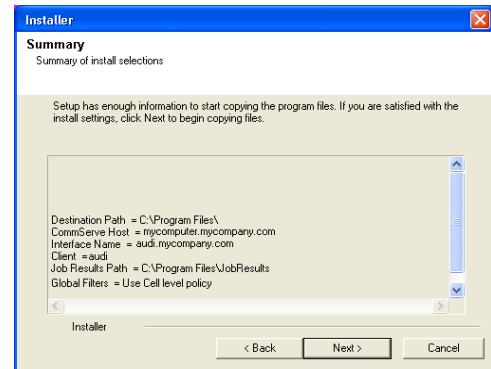
20. Click **Next**.

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.

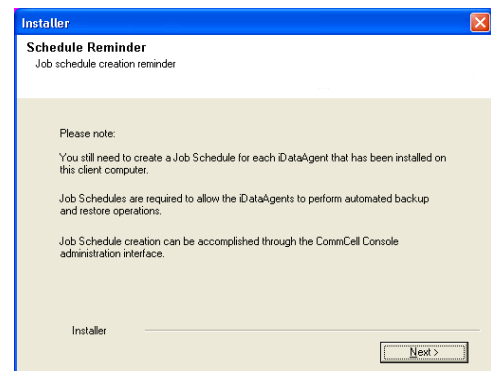


VERIFY SUMMARY OF INSTALL OPTIONS

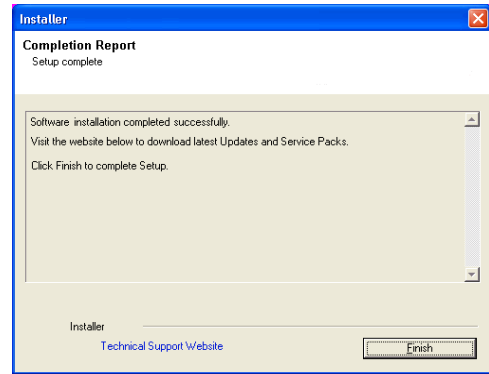
22. Click **Next**.



23. Click **Next**.



24. Click **Finish**.

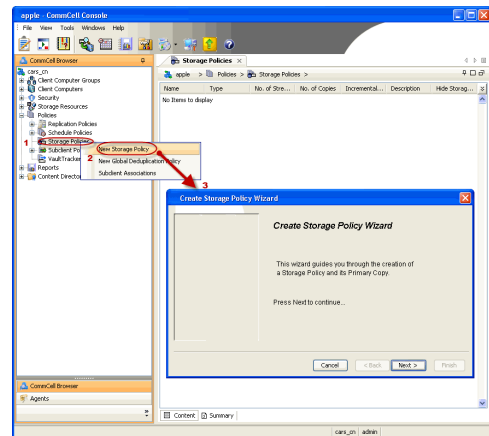


If you already have a storage policy selected in step 14, Click **Next** ► button available at the bottom of the page to proceed to the **Configuration** section.

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.

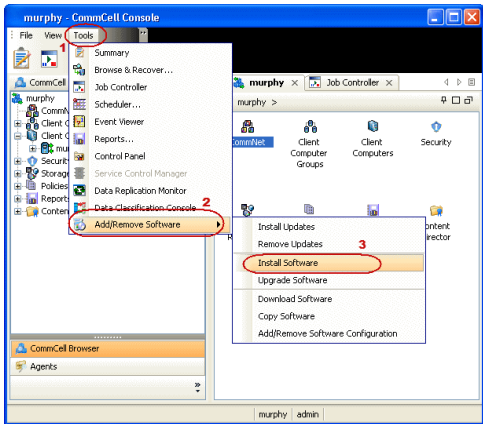


26. Enable the following registry key to create job specific profiles:

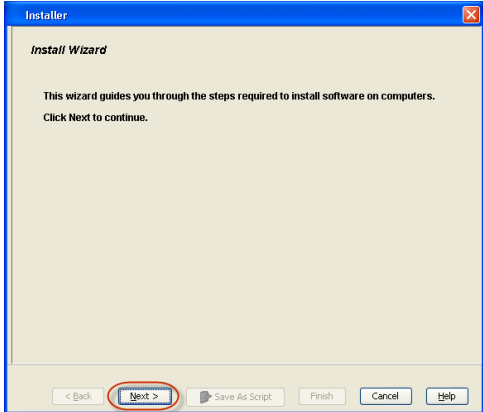
- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location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

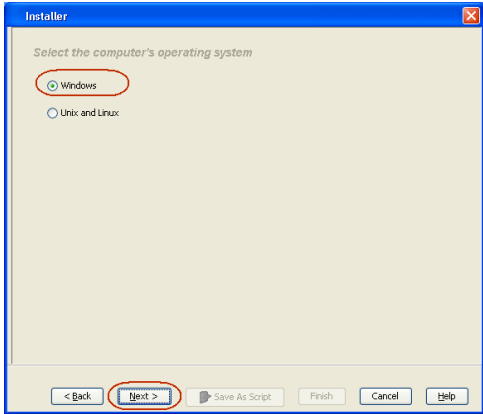
1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.



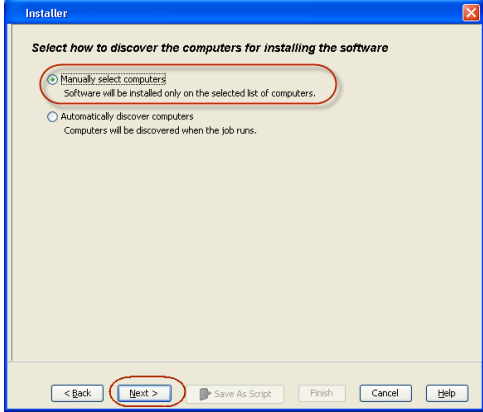
2. Click **Next**.



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



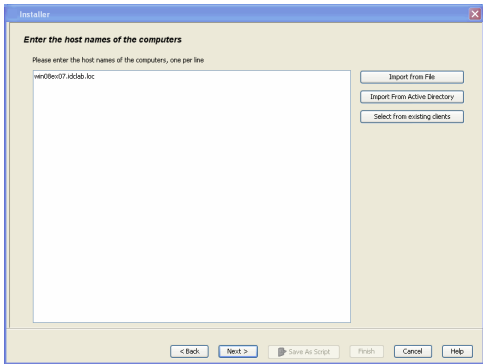
4. Select **Manually Select Computers**.
Click **Next**.



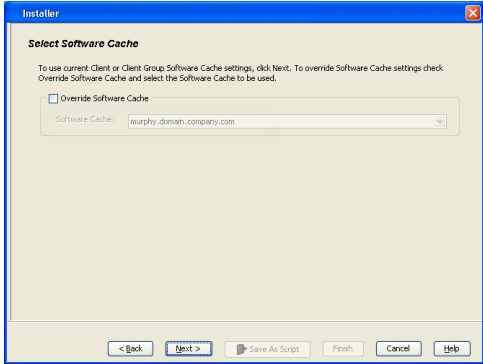
5. Enter the fully qualified domain name of the computer on which you have Exchange Server.

For example: win08ex07.idclab.loc

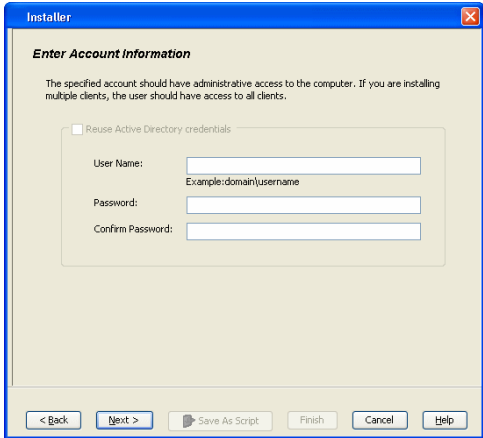
Click **Next**.



6. Click **Next**.



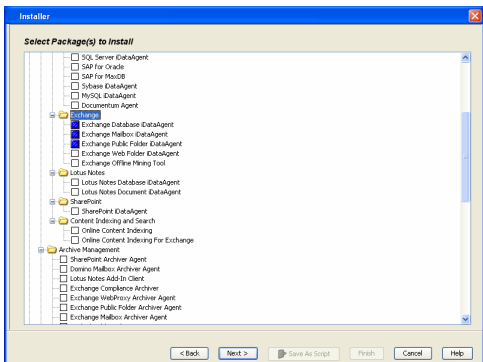
7. Specify **User Name** and **Password** that must be used to access the computer. Click **Next**.



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**.

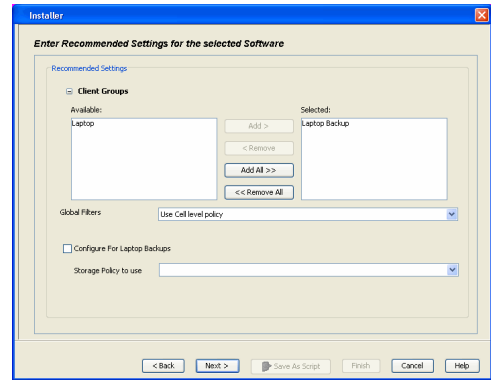


- 9.
- Select **Client Group** from **Available** and click **Add**.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.

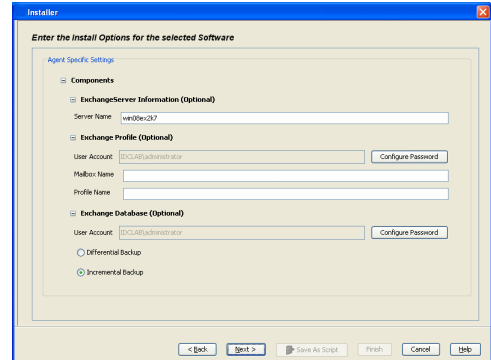
NOTES:

- 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.

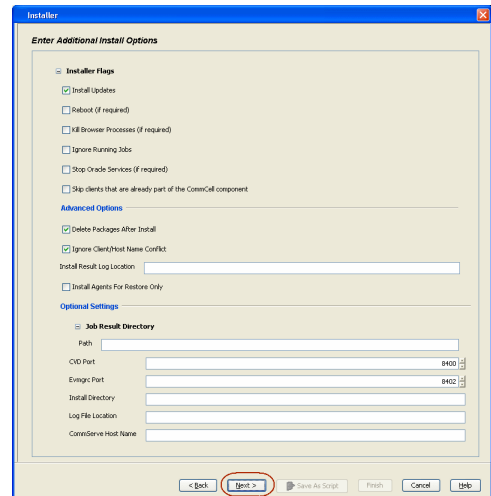
10. Type the Agent Specific Settings information.
Click **Next**.



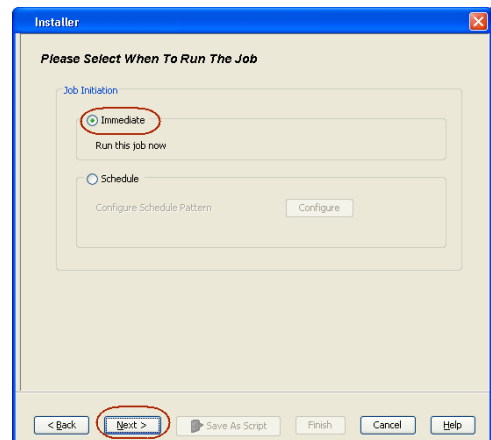
11. Click **Next**.



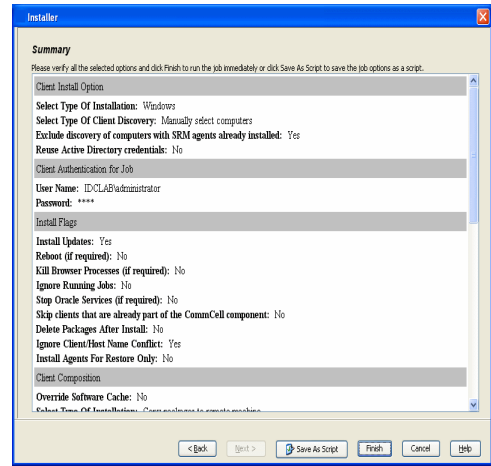
12. Select **Immediate**.
Click **Next**.



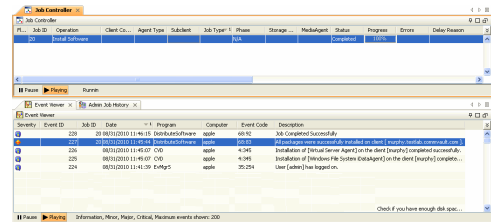
13. Click **Finish**.



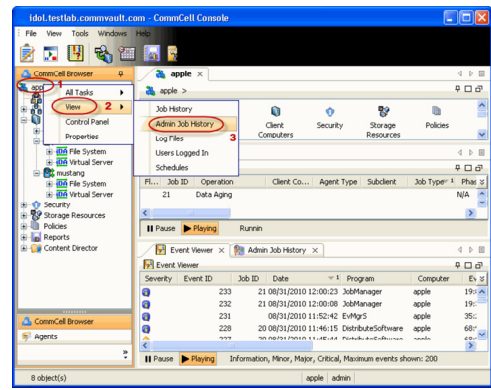
14. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

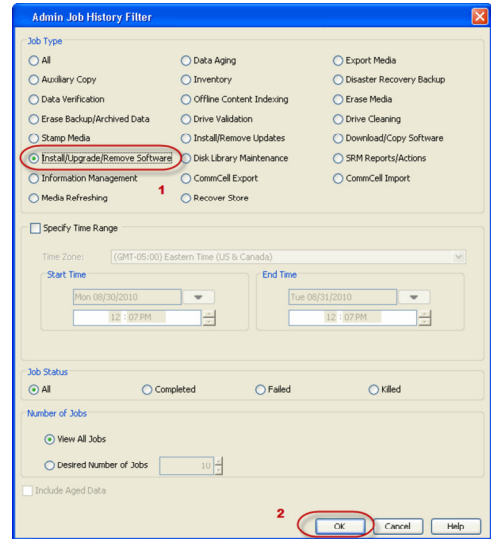


16. Select **Install/Upgrade/Remove Software**.
Click **OK**.

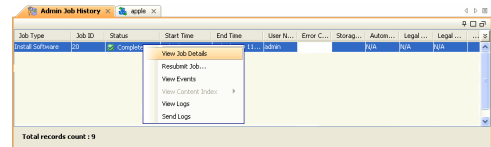


17. You can view the following details about the job by right-clicking the job:

- 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

◀ Previous Next ▶

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.

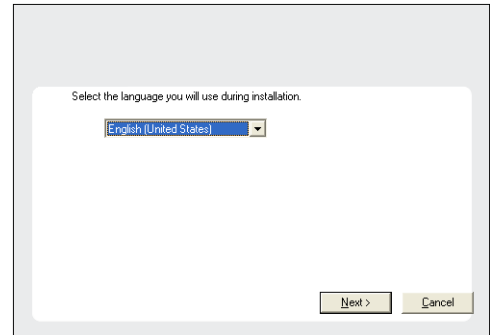
To create the registry key, see the following steps:

1. Start the Registry Editor (Regedit.exe or Regedt32.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.

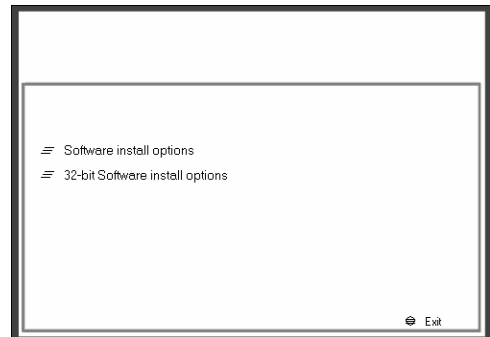
Click **Next**.



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**.

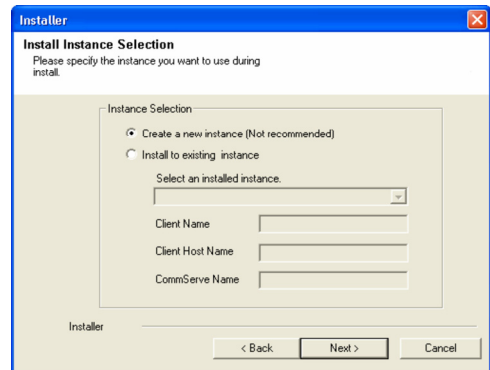
Click **Next**.



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:

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

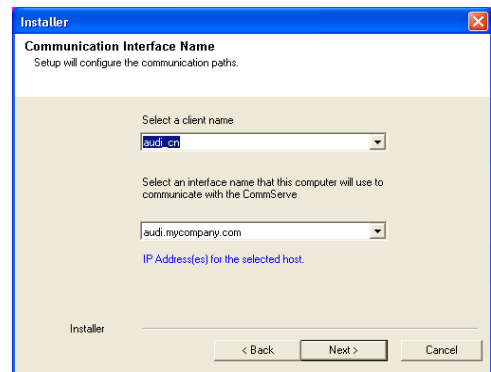
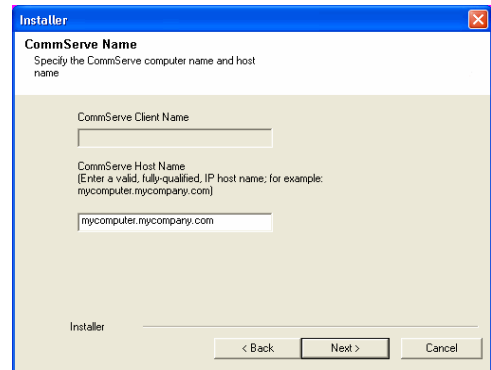
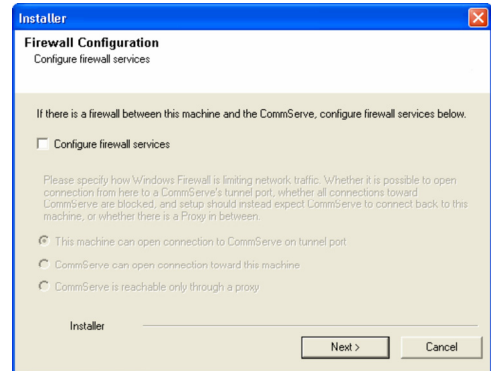
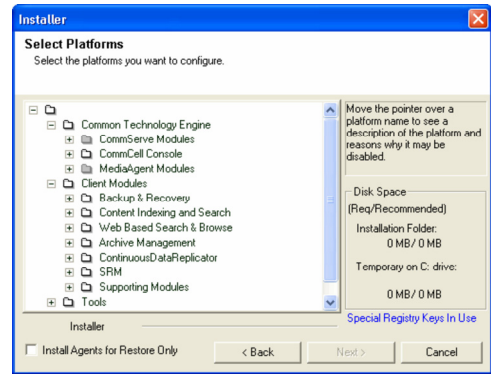
- Click **Next**.

- 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.

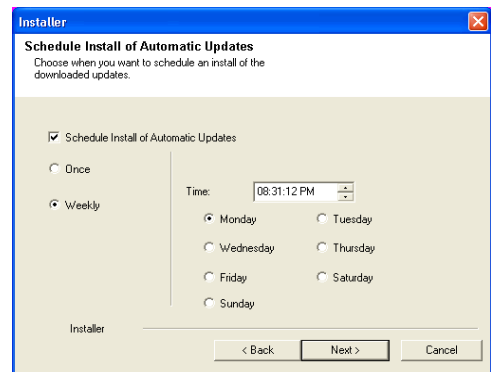
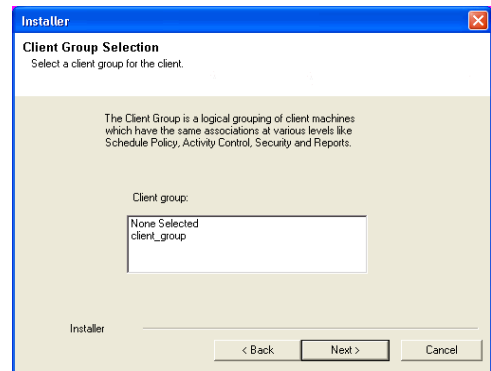
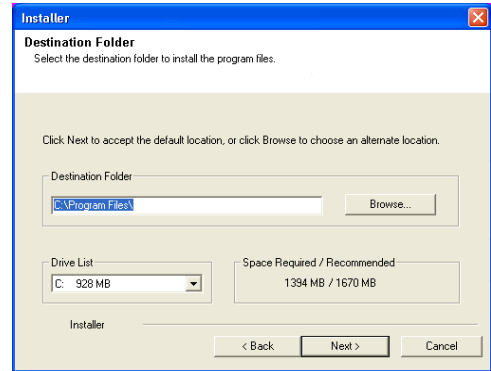
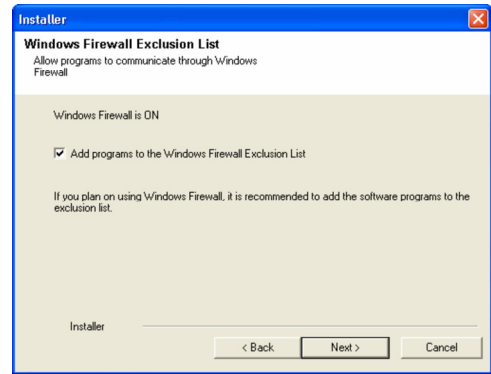
16. Click **Next**.

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**.

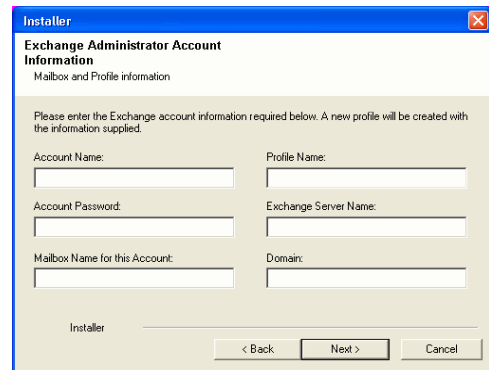
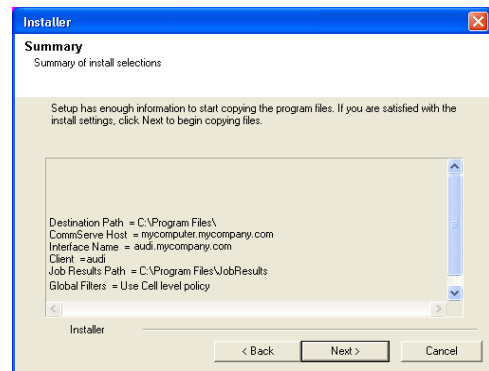
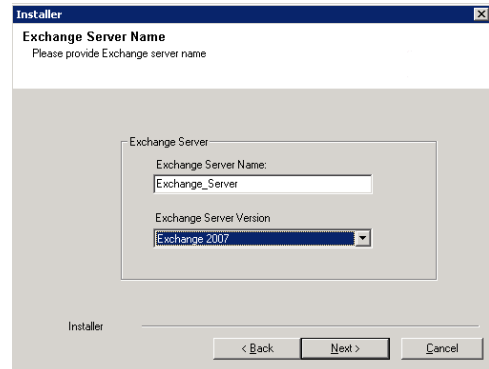
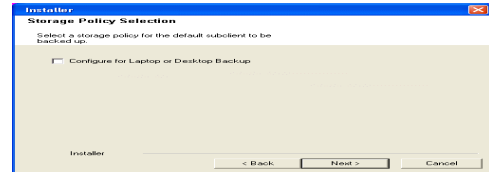
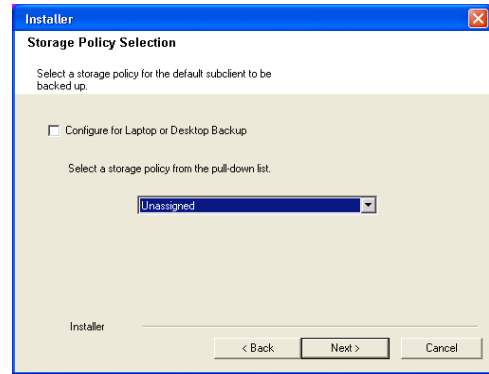
19. Click **Next**.

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.

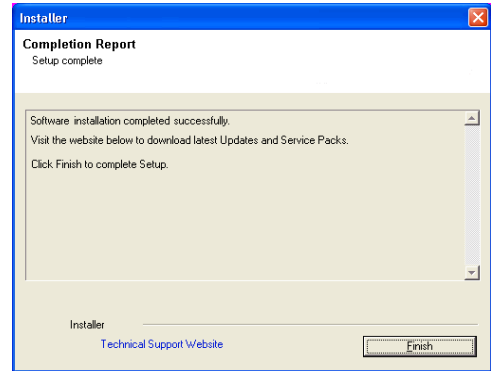
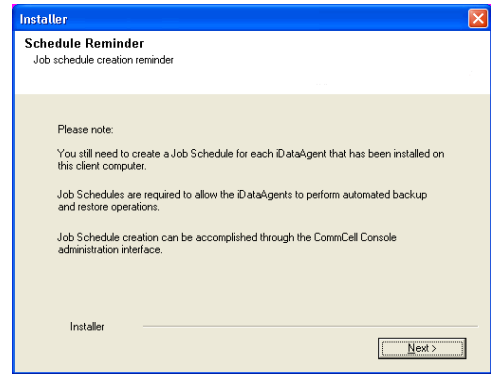
For Exchange Server 2010, enter the Client Access Role. After installation configure the roles as described in Configure Mailboxes in Database Availability Group (DAG) Servers.

- **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:

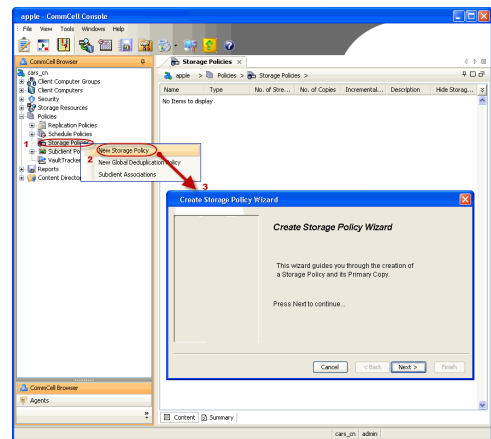
1. From the CommCell Browser, navigate to **Policies**.
2. Right-click the **Storage Policies** and then click **New Storage Policy**.
3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as **Data Protection and Archiving**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

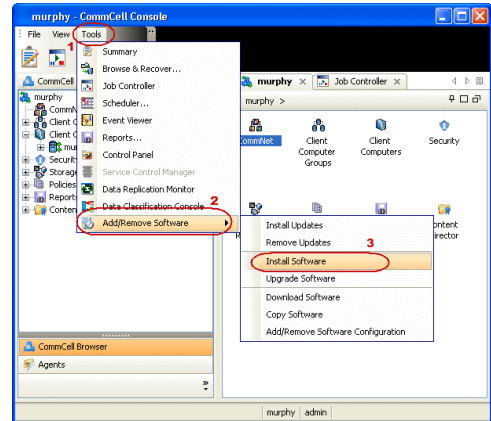
- From the CommCell Browser, navigate to Client Computers.
- Right-click the <Client> in which you want to add the registry key, and then click Properties.
- Click the Registry Key Settings tab.
- Click Add.
- Enter CreateProcessSpecificProfile in the Name field.
- Enter MExchangeMBAgent in the Location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

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

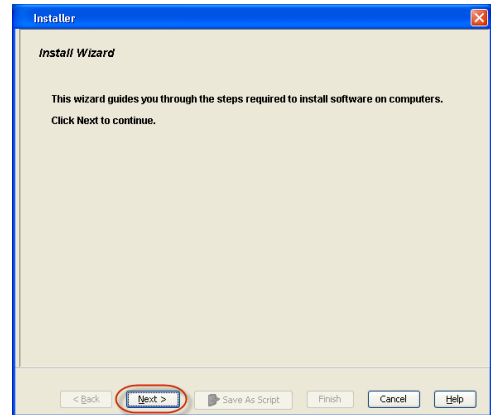
- Enter REG_DWORD in the Type field.
- Enter 1 to enable and 0 to disable the key in the Value field.
- Click OK.

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

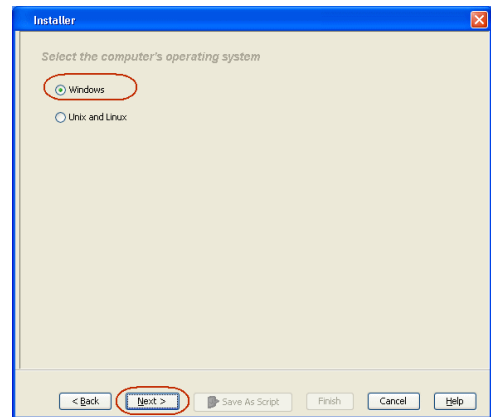
1. From the CommCell Browser, select **Tools**, point to **Add/Remove Software**, and then click **Install Software**.



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**.

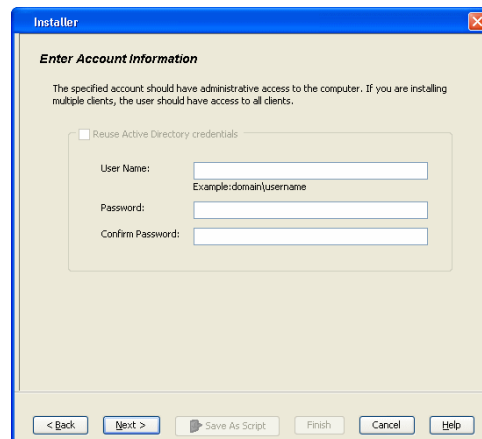
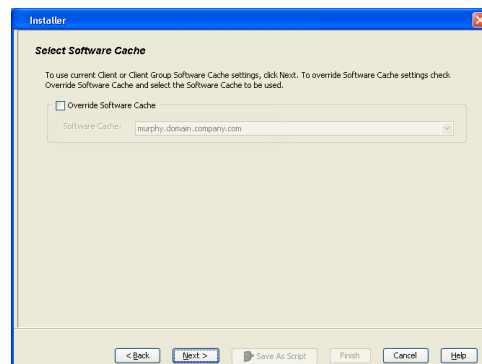
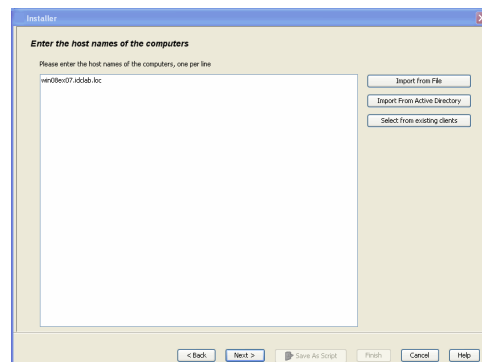
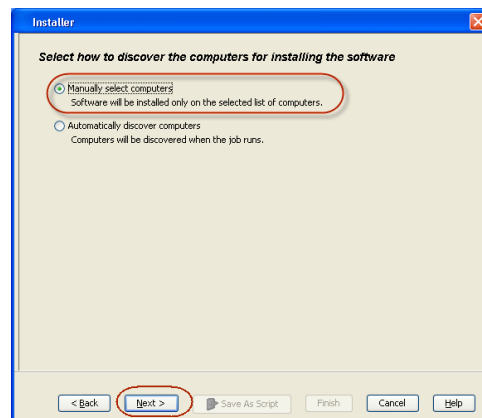
6. Click **Next**.

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

Click **Next**.

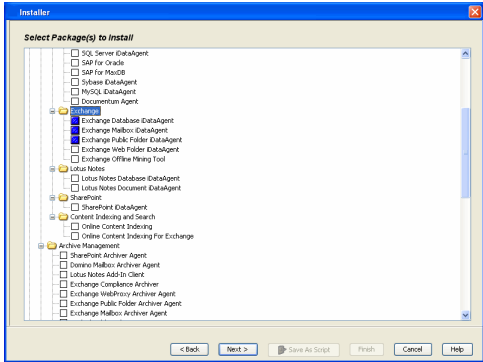
8. To install the **Exchange iDataAgents** expand **Client Modules | Backup & Recovery | Exchange**, and select one or more of the following:

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



Click **Next**.

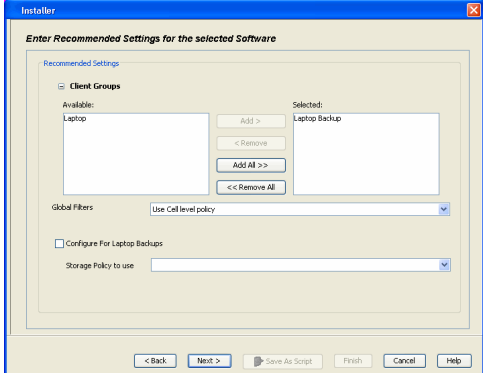
For Non-Exchange Server, Exchange Database iDataAgent will not be applicable.



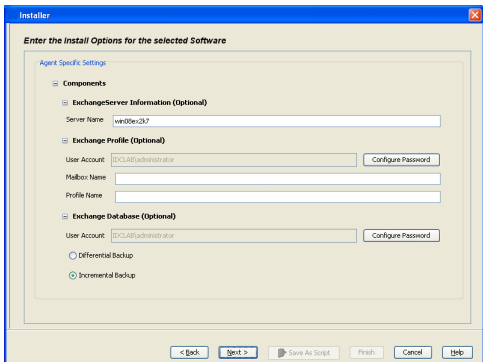
9.
 - Select **Client Group** from **Available** and click **Add**.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.

NOTES:

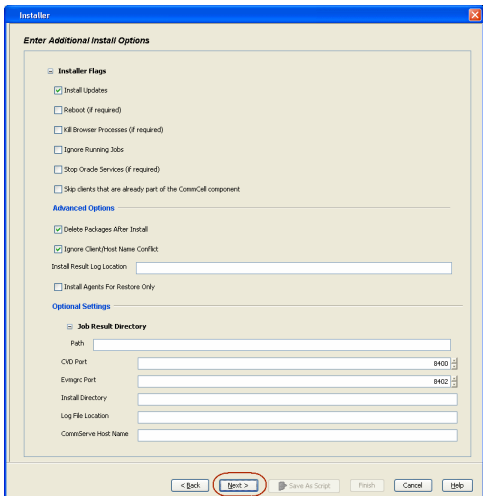
- Select the **Configure for Laptop or Desktop Backup** option to install **Backup Monitor** utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.



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

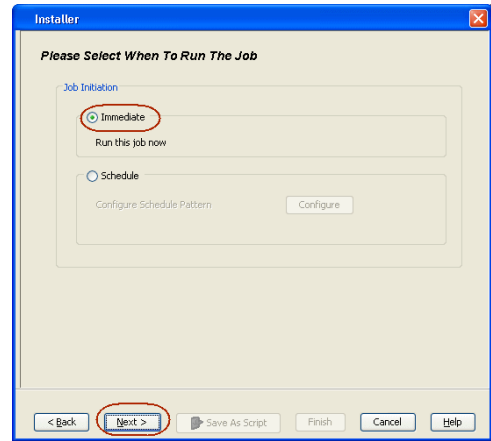


11. Click **Next**.

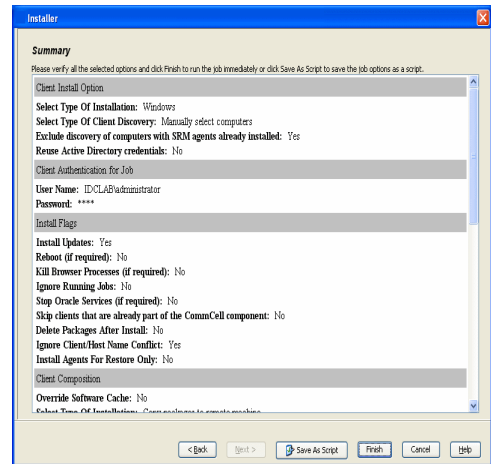


12. Select **Immediate**.
Click **Next**.

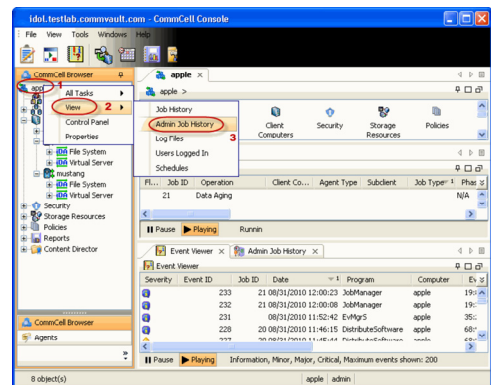
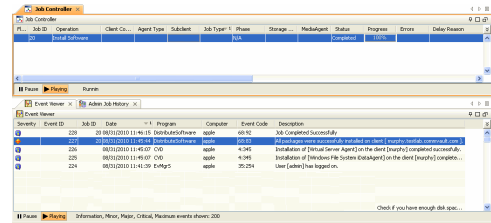
13. Click **Finish**.



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**.



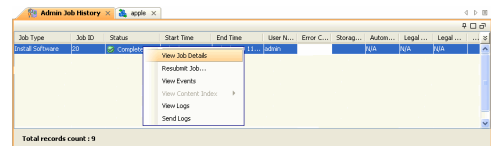
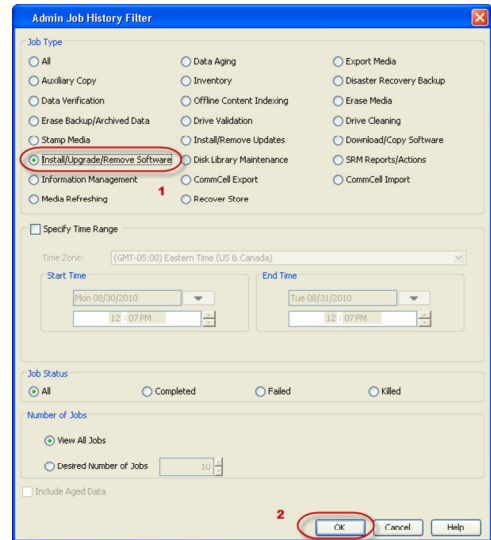
16. Select **Install/Upgrade/Remove Software**.
Click **OK**.

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.

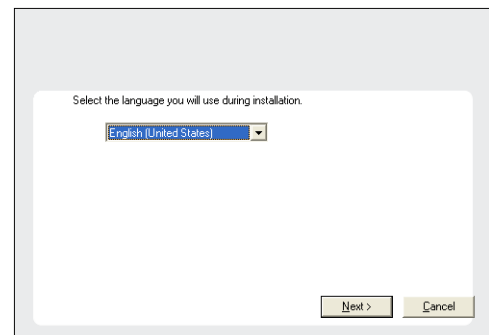
PREREQUISITES

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

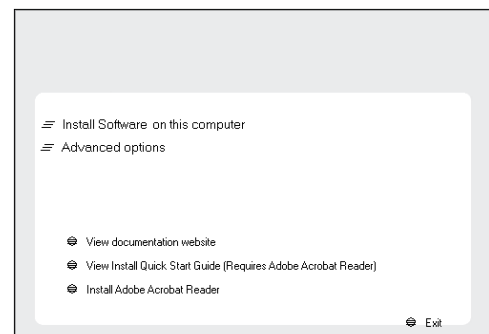
- The mail-enabled user is a member of the Local Administrator Group and have rights to all mailboxes on the server.
- Using the Exchange System Manager snap-in, right-click the organization object and delegate control.
- Using the Wizard, assign the MailboxAdmin user Exchange Full Administrator privileges.
- 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**

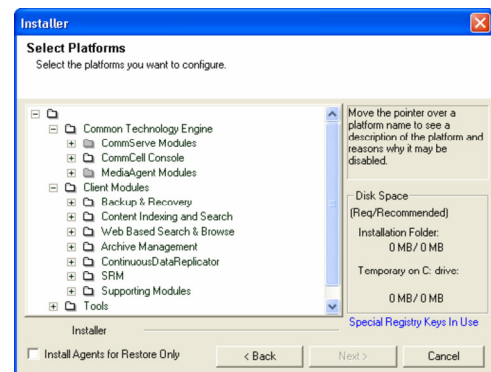
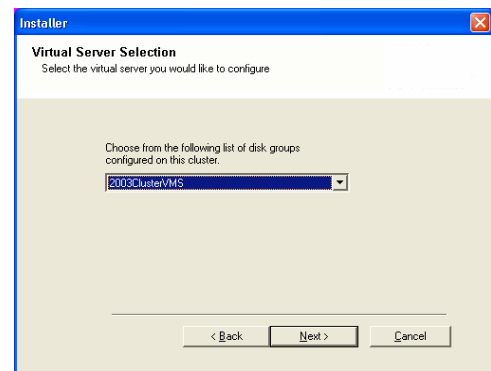
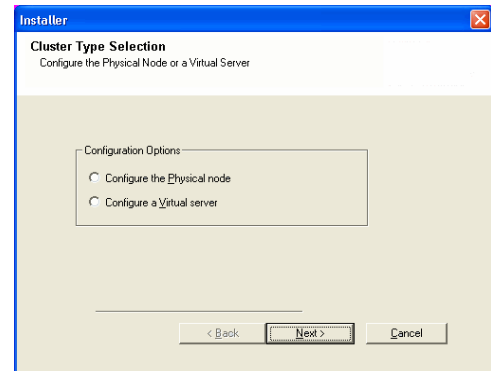
Click **Next**.

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.

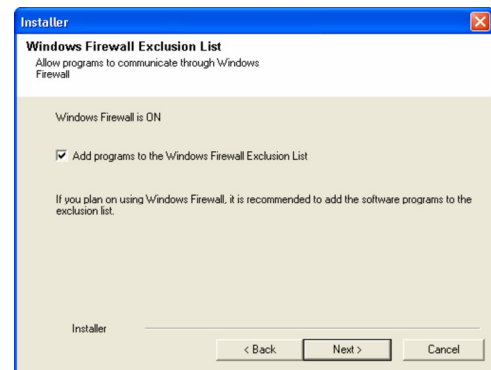
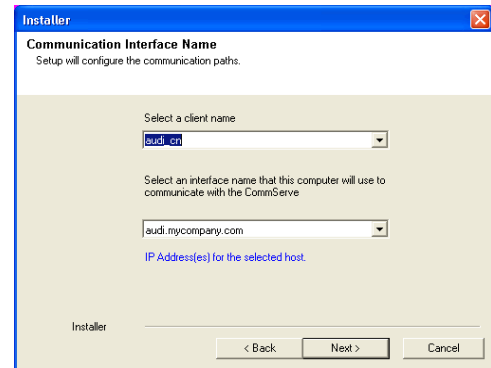
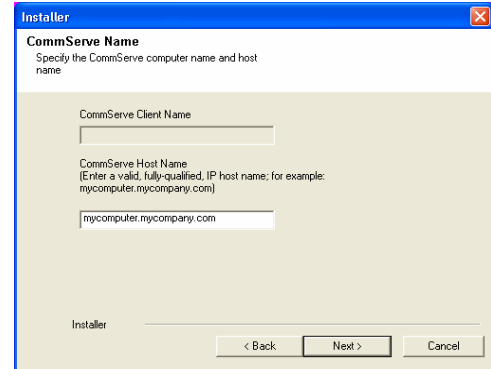
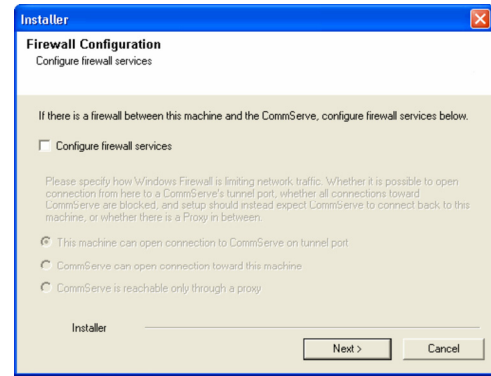
13. Verify the default location for software installation.

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**.

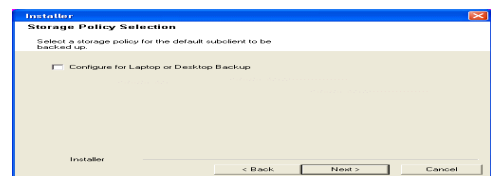
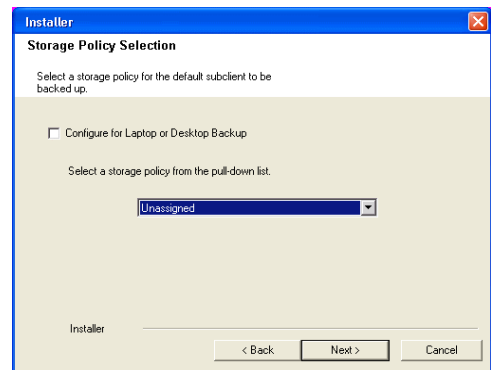
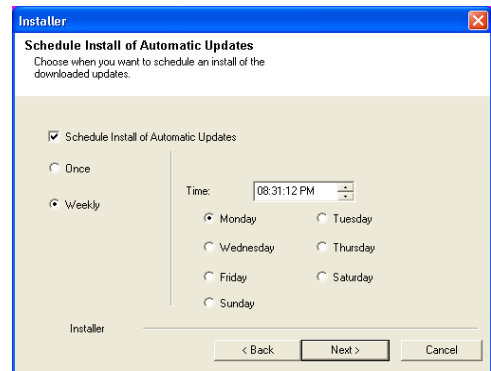
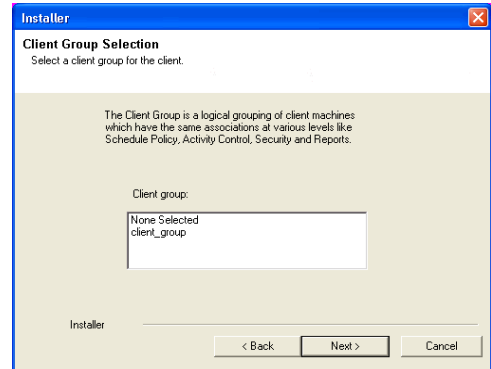
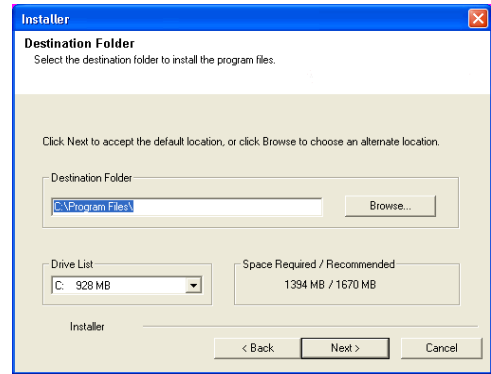
This screen will be displayed if Client Groups are configured in the CommCell Console.

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.

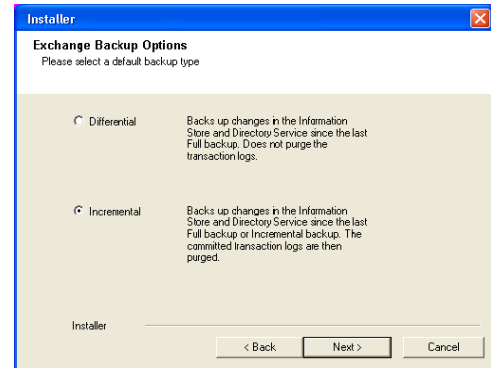


- If you are installing the Exchange Database iDataAgent on the Exchange Server, click Configure Exchange Database Specific Information.

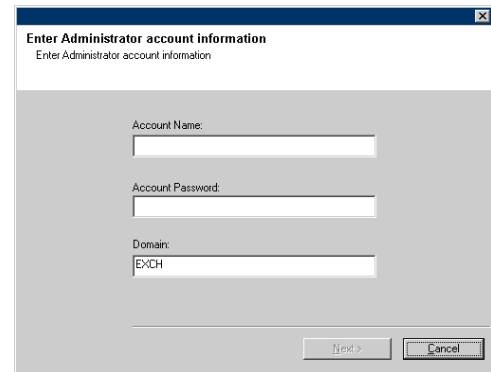
- If you are installing the Exchange Agents on the Non-Exchange Server, skip to Configure Exchange Agents Specific Information.

CONFIGURE EXCHANGE DATABASE SPECIFIC INFORMATION

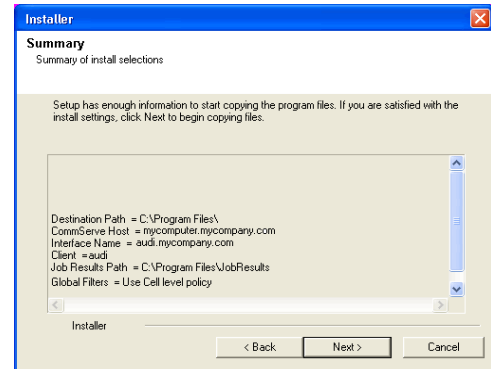
17. Select the backup type for Exchange Database backups. Choose either of the following options, then click **Next**.
- **Differential** - Specifies that each non-full Exchange Database backup secures all data that has changed since the last full backup. Transaction logs are not purged.
 - **Incremental**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

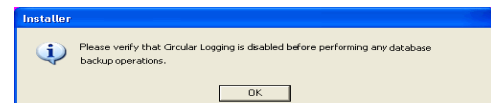


19. Click **Next**.



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**.



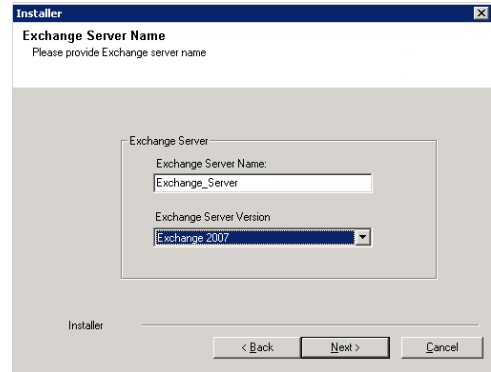
- If you are installing the Exchange Agents, then click Configure Exchange Agents Specific Information.
- If you are installing the Exchange Database iDataAgent, skip to Install Remaining Cluster Nodes.

CONFIGURE EXCHANGE AGENTS SPECIFIC INFORMATION

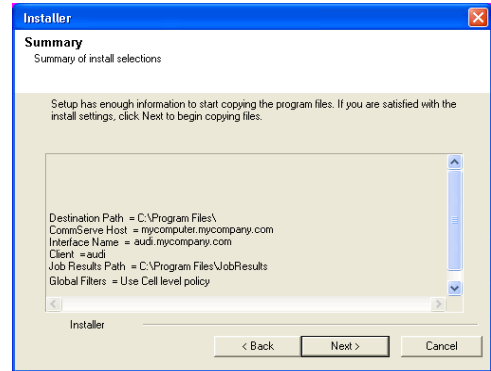
21. Select **Exchange Server Name** and **Exchange Server Version** from drop-down list.

Click **Next**.

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



22. Click **Next**.

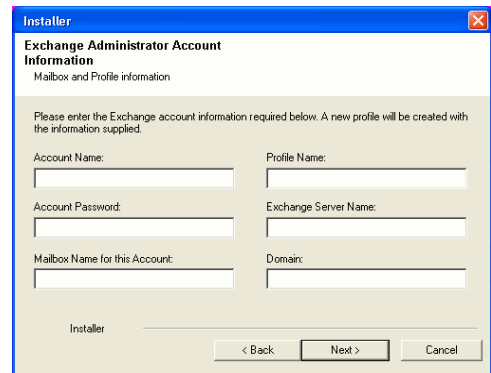


23. Enter the following Exchange Administrator information then click **Next**.

- **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.

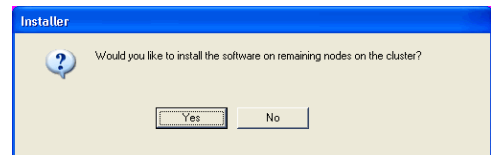
- **Domain** - The installation detects and enters a domain name. If necessary, modify the domain name by specifying Windows domain that the Exchange Server resides in.



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**.



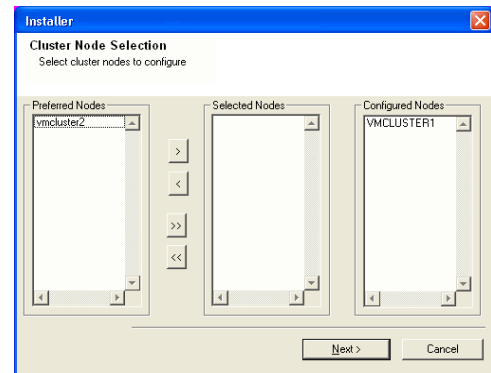
25. Select cluster nodes from the **Preferred Nodes** list and click the arrow button to move them to the **Selected Nodes** list.

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**.



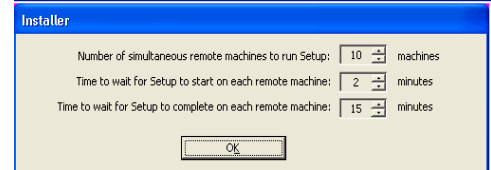
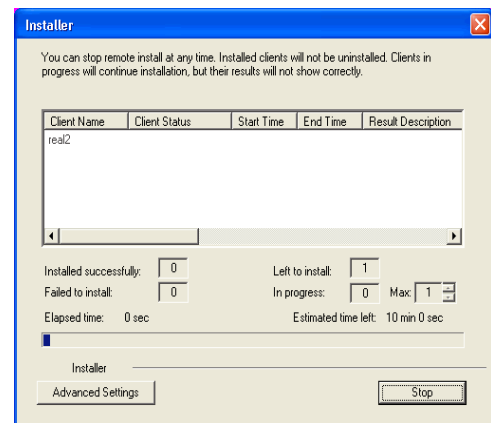
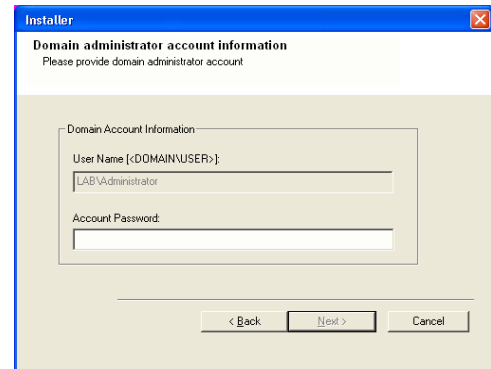
27. The progress of the remote install for the cluster nodes is displayed; the install can be interrupted if necessary.

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.

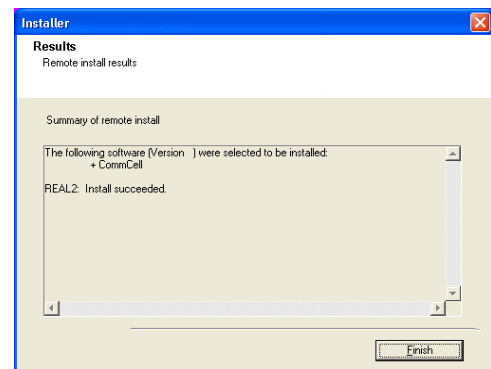
If, during the remote install of a cluster node, setup fails to complete or is interrupted, you must perform a local install on that node. When you do, the install begins from where it left off, or from the beginning if necessary. For procedures, see *Manually Installing the Software on a Passive Node*.



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

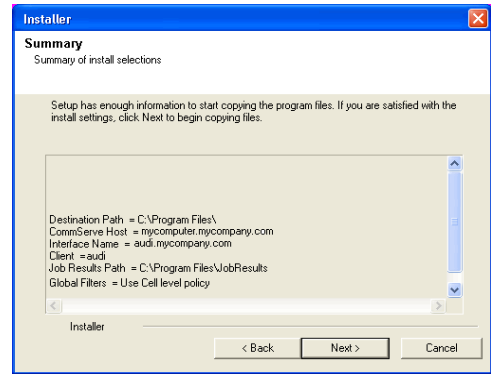
Click **Next**.

- 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.

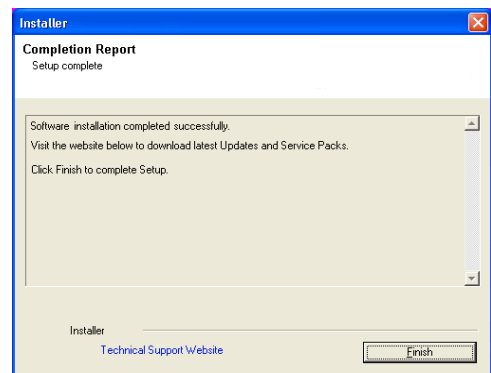
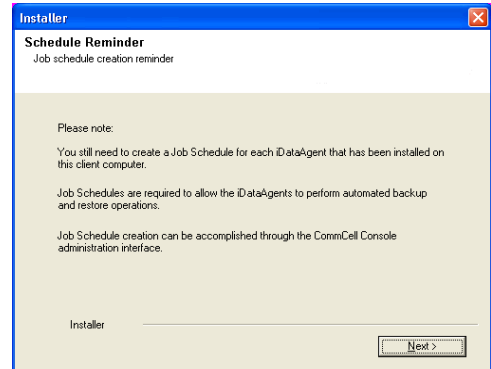


29. Click **Next**.

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.

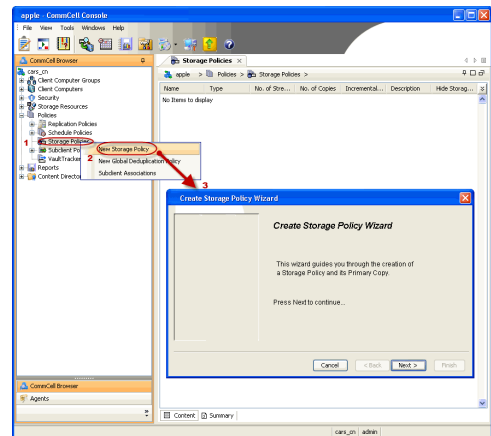
If you do not have Storage Policy created, continue with the following step.

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.



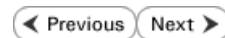
Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to select the folder and then click **Next**.

- 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.

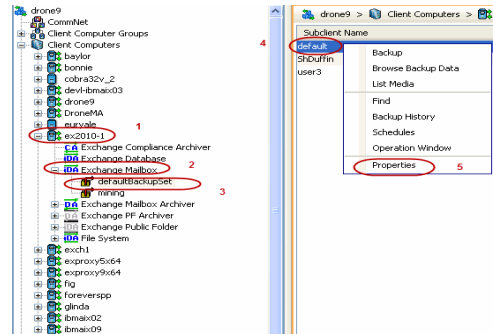


Getting Started - Exchange Mailbox iDataAgent Configuration

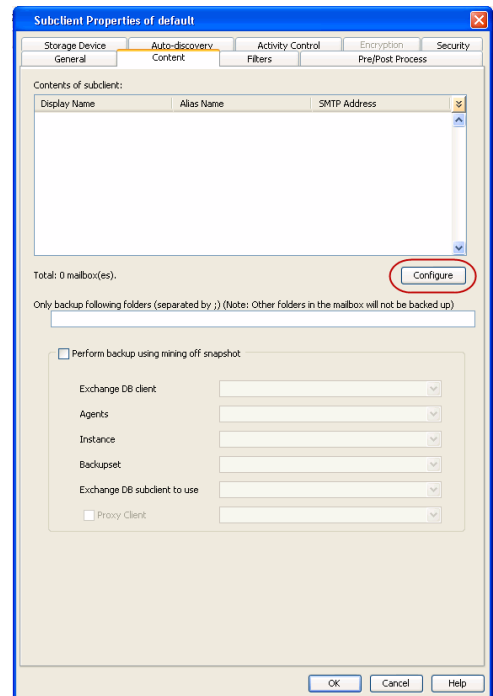


Once installed, configure a backup set and subclient as follows.

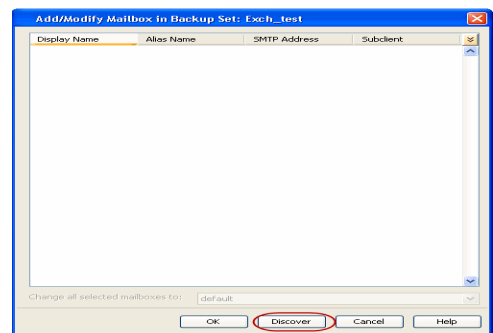
- From the CommCell Console, navigate to **Client Computers** | **<Client>** | **Exchange Mailbox** | **defaultBackupSet**.
 - Right-click the default subclient and then click **Properties**.



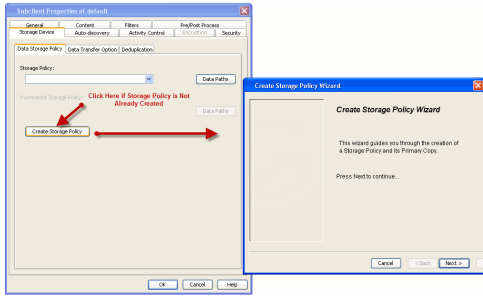
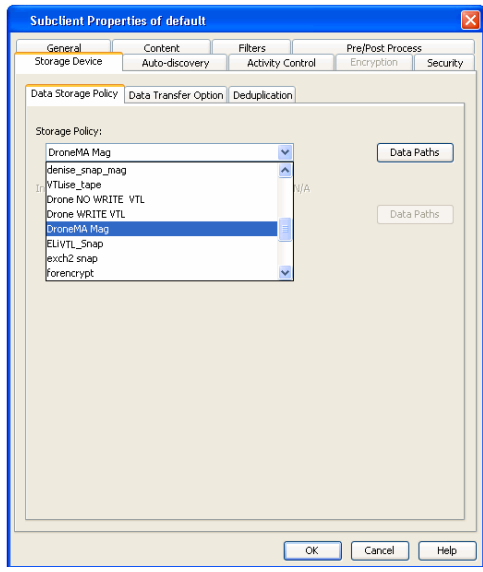
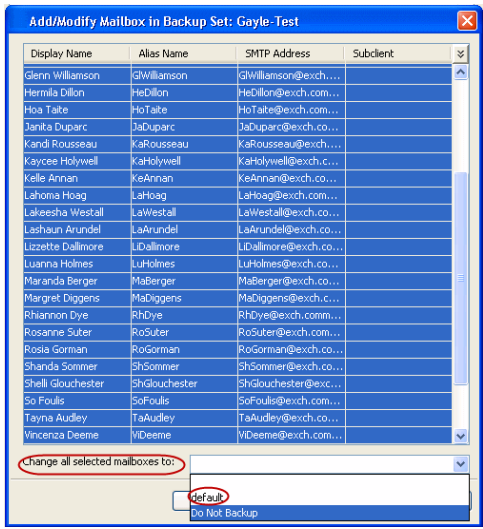
- Click the **Content** tab.
 - Click the **Configure** button.



- Click **Discover**.



- Hold down CTRL and click each mailbox listed in the **Mailbox Name** list.
 - In the **Change all selected mailboxes to** list, click **default**.
 - Click **OK**.



5.
 - 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.

6.
 1. Click **Create Storage Policy**.
 2. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
 - Enter the name in the **Storage Policy Name** box and click **Next**.
 - From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

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

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

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

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

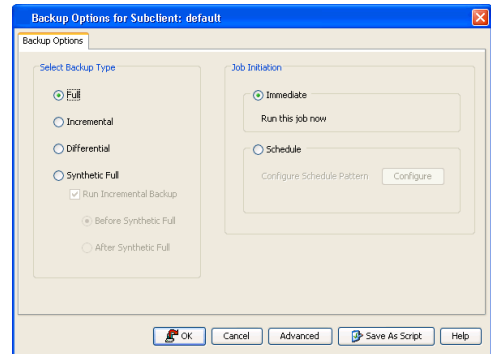
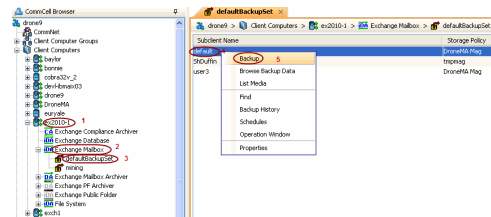
Getting Started - Exchange Mailbox iDataAgent Backup

◀ Previous Next ▶

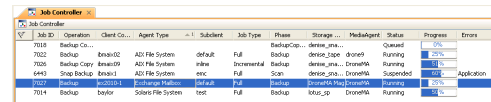
WHAT GETS BACKED UP	WHAT DOES NOT GET BACKED UP
Mailboxes	Exchange Server Properties
E-mail messages	Archive Mailboxes
Appointments	Mailboxes of disabled Active Directory user accounts are not backed up by default; refer to Configuring Backups of Disabled Mailboxes.
Contacts	Discovery Search Mailboxes are not backed up by default; refer to Configuring Backups for Discovery Search Mailboxes.
Tasks	Deleted Item Retention Folders are not backed up by default; refer to Configuring Backups for Deleted Item Retention Folders.
Journal Entries	
Notes	
Attachments	

PERFORM A BACKUP

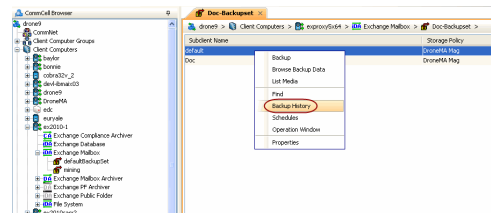
- From the CommCell Console, navigate to **Client Computers** | **<Client>** | **Exchange Mailbox** | **defaultBackupSet**.
 - Right-click the default subclient and click **Backup**.
- Under **Select Backup Type**, click **Full**.
 - Under **Job Initiation**, click **Immediate**.
 - Click **OK**.



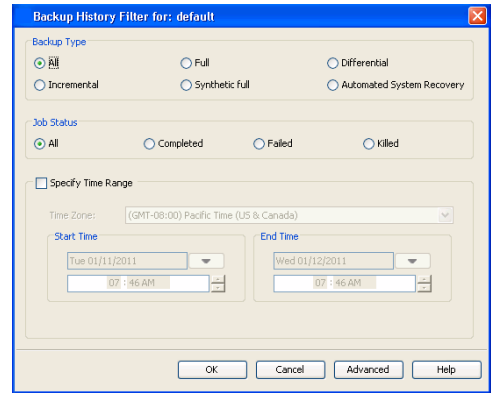
- You can track the progress of the job from the **Job Controller**.



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

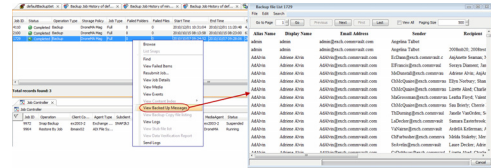


- Click **OK**.



6. Right-click the job to:

- Browse the mailboxes that were backed up.
- Find messages in the backup.
- View items that failed, if any, during the job.
- Resubmit the job.
- View job details, such as the number of mailboxes backed up.
- View media associated with the job.
- View events associated with the job.
- View messages that were backed up.
- Send the log file that is associated with the job.



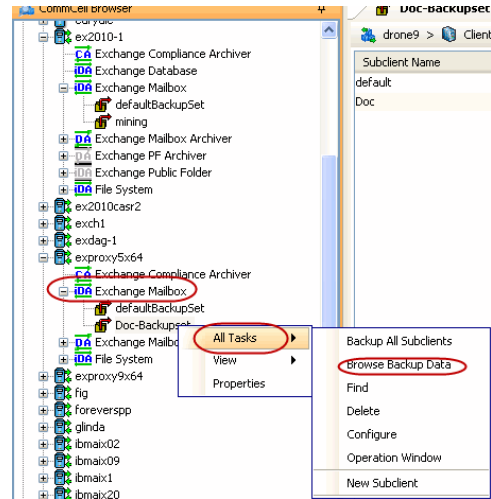
Getting Started - Exchange Mailbox iDataAgent Restore

[← Previous](#) [Next →](#)

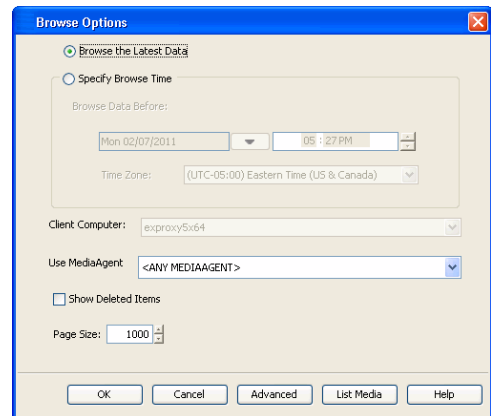
PERFORM A RESTORE

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 single mailbox to a Personal Storage (PST) file that can be imported into Outlook.

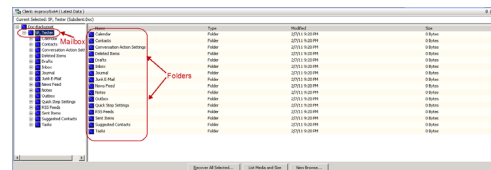
- From the CommCell Console, navigate to **Client Computers | <Client> | Exchange Mailbox**.
 - Right-click the default backup set and then click **All Tasks | Browse Backup Data**.



- Click **OK**.

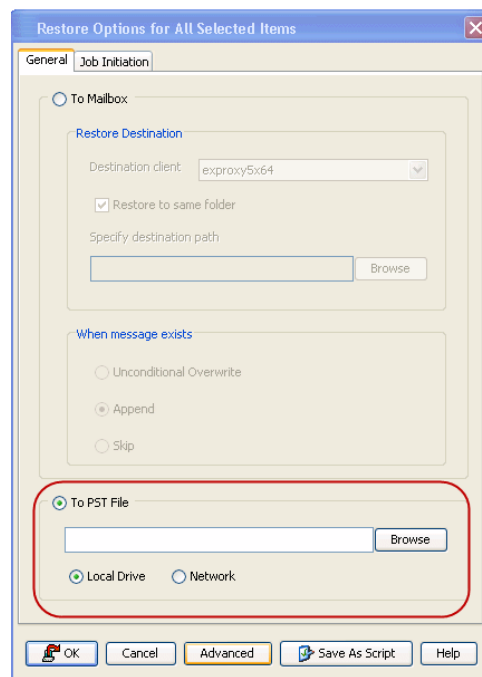


- Expand the **defaultBackupset** and select the mailbox that you want to restore.
 - Click **Recover All Selected**.

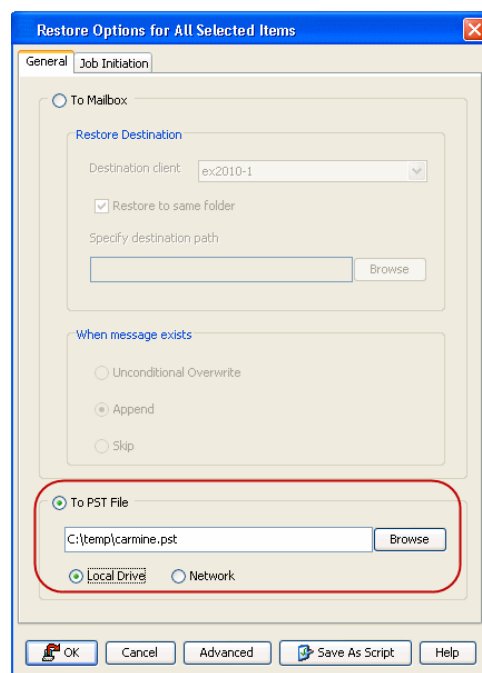
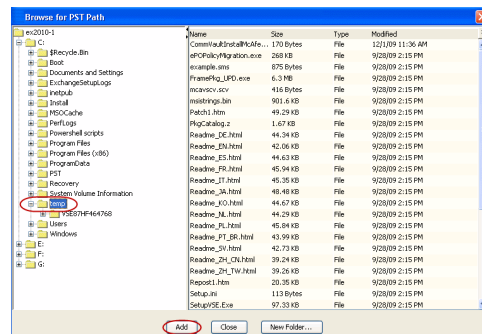


- Click **To PST File**.
 - Select **Local Drive**.
 - Click **Browse** to locate the path.

5.
 - Select the path and click **Add**.
 - Close the window.

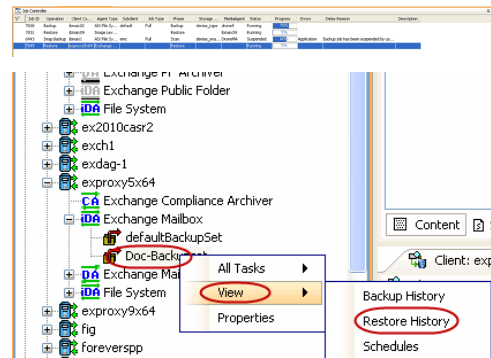
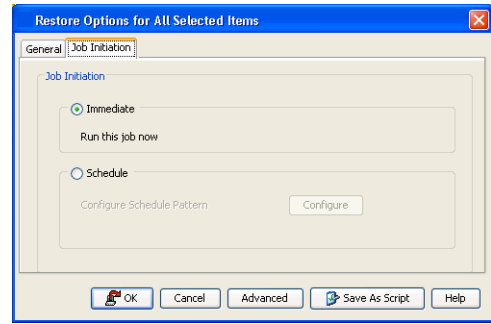


6. Append the path with the PST file name. Ensure to include the .pst file extension.

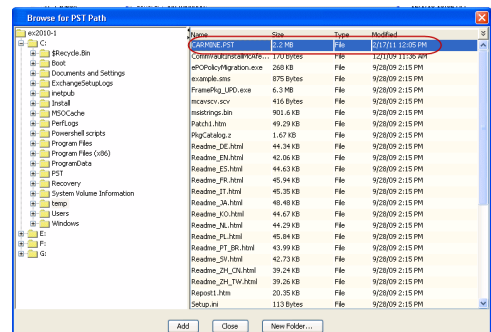
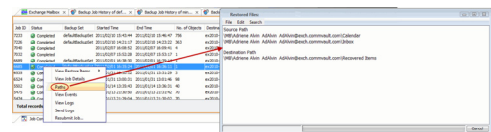
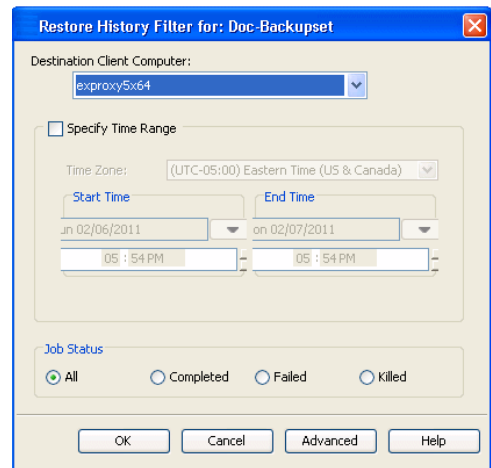


7.
 - Click the **Job Initiation** tab and select **Immediate**.
 - Click **OK**.

8. You can monitor the progress of the restore job from the **Job Controller**.
9. Once the restore job has completed, right-click the agent and click **View | Restore History**.
10. Click **OK**.



11. Right-click the job and do one of the following:
 - 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 or send log files of the restore job.
 - Resubmit the job if the job is not too old.
12. In Windows Explorer, confirm the PST file was created.



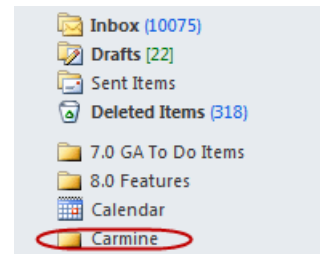
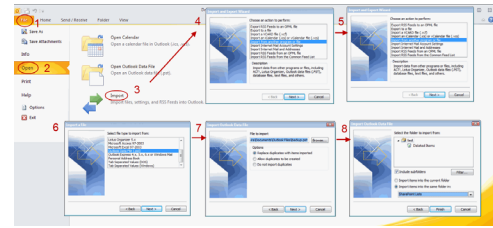
13. Import the PST file into Outlook.

This step is based on Outlook 2010. The steps and screen may be different if you are using another version of Outlook.

- Click **File** and then click **Open**.
- Click **Import**.
- Select **Import from another program or file** option and click **Next**.
- Under **File Type**, select **Outlook Data File (.pst)** and click **Next**.
- Click **Browse** and choose the .pst that was restored and click **Next**.
- Choose to import the file to the current folder or choose another folder and click **Finish**.

When **Import items into the same folder** is selected, the data from the imported file will be added to the same folder in Outlook if the folder matches. If the folder doesn't match in Outlook, it will be created.

14. View the imported folder in Outlook.



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 Mailbox iDataAgent Configuration

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Grouping Mailboxes Into User-Defined Subclients

- By Active Directory User Groups
- By Databases
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- Disabling Automatic Discovery
- Automatically Manage Mailbox Groupings

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UNDERSTANDING THE COMMCELL CONSOLE

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

AGENT

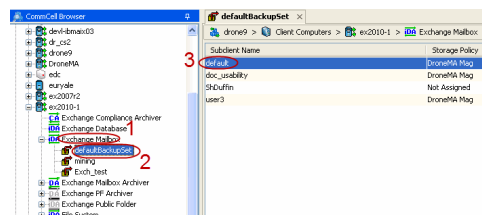
Defines the Exchange Server to be backed up.

BACKUP SET

Facilitates automatic discovery of mailboxes.

SUBCLIENT

Defines the mailboxes to be backed up as.



GROUPING MAILBOXES INTO USER-DEFINED SUBCLIENTS

You can create user-defined subclients to divide mailbox backups into groups based on specific criteria. For example, you may want to back up mailboxes in the **Administrator** Active Directory User group on a nightly basis, whereas mailboxes in the **Accounting** Active Directory User group may only need to be backed up once a week. Creating a user-defined subclient for each user group allows you to perform backups of them at different intervals based on your resources and backup needs.

By default, the content of the Default Subclient contains all mailboxes on the Exchange server.

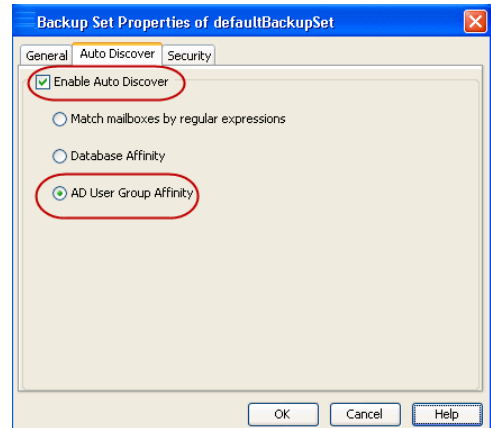
When you create a user-defined Subclient, the contents of the user-defined Subclient will be excluded from the Default Subclient.

BY ACTIVE DIRECTORY USER GROUPS

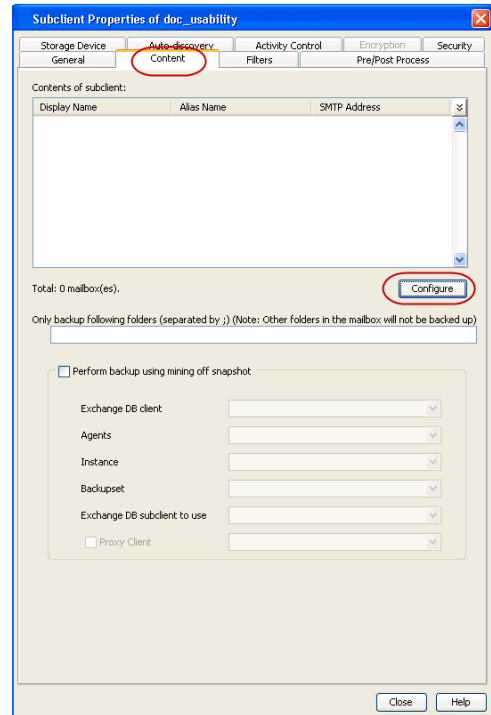
You can choose to discover mailboxes based on the mailboxes' Active Directory User Group. Any mailbox that resides in the specified Active Directory User Group will be discovered and automatically assigned to the user-defined subclient.

1. In cases where the CommServe and the Active Directory Server are across a firewall, ensure that port 389 is opened.
2.
 - From the CommCell Browser, right-click the backup set for which you want to discover mailboxes and click **Properties**.
 - Click **Auto Discover** tab.
 - Click **Enable Auto Discover** and select **AD User Group**.

- Click **OK**.



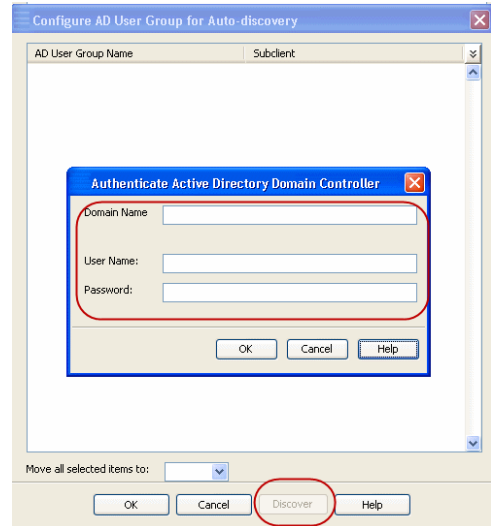
- From the CommCell Browser, navigate to **Client Computers | <Client> | Backup Set**.
 - Right-click the **Backup Set**, point to **All Tasks** and then click **New Subclient**.
 - In the **Subclient Name** box, type a name.
 - Select a Storage Policy for the new subclient and click **OK**.
 - Specify if a backup schedule should be associated to the new subclient and click **OK**.



- Right-click the subclient and select **Properties**.
 - Click **Auto-discovery**.
 - Click **Configuration**.

5.
 - Click **Discover** and specify a user account to authenticate against the Active Directory domain user groups whose mailboxes you want to discover.
 - Type the Active Directory **Domain Name** for the user or mailbox.
 - Type the **User Name** that will be used to access the Active Directory domain.
 - Type the **Password** for the User Name.
 - Click **OK**. The Active Directory User Group will be displayed.
 - Assign the Active Directory User Group to a subclient by clicking the **Subclient** column and selecting one from the drop-down list.

Alternatively, you can assign Active Directory User Groups to one subclient in the **Move all selected items to** field.
 - Click **OK** to return the subclient **Properties** dialog box.
 - Click **OK**.

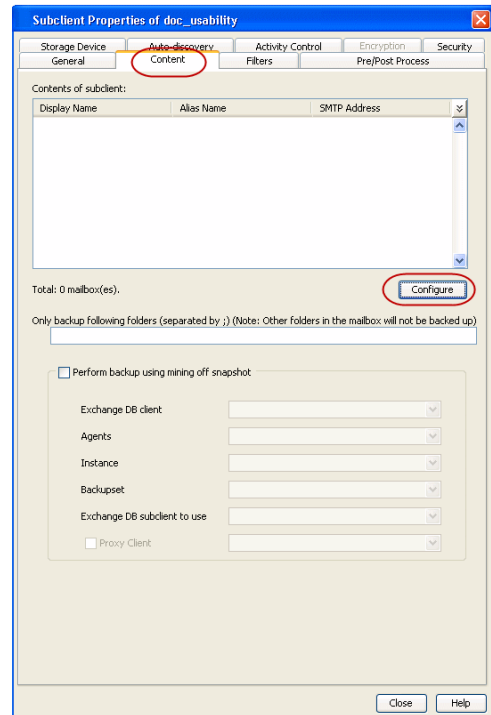
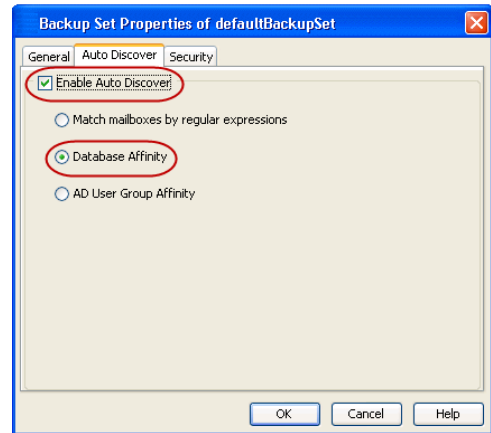


BY DATABASE

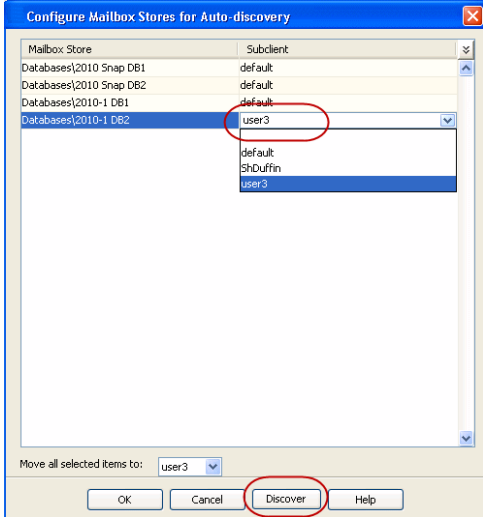
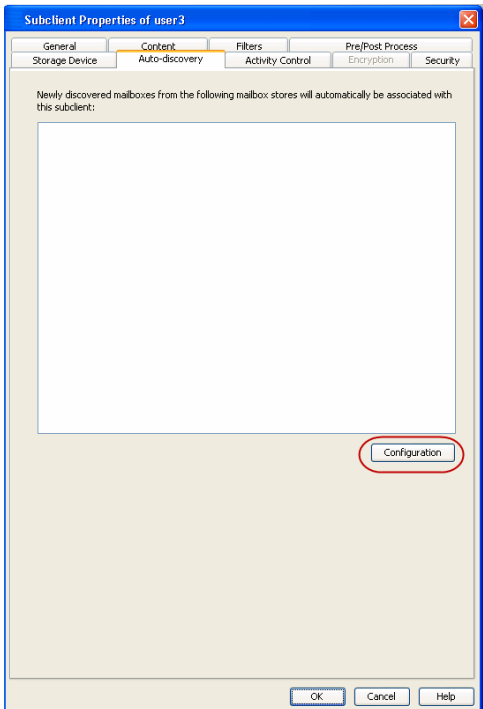
You can configure a user-defined subclient to automatically discover mailboxes created within a particular database. This is especially useful in cases where a number of databases exist and backups between them need to be staggered for resource leveling.

1.
 - From the CommCell Browser, right-click the backup set for which you want to discover mailboxes and click **Properties**.
 - Click **Auto Discover** tab.
 - Click **Enable Auto Discover** and select **Database Affinity**.
 - Click **OK**.

2.
 - From the CommCell Browser, navigate to **Client Computers | <Client> | Backup Set**.
 - Right-click the **Backup Set**, point to **All Tasks** and then click **New Subclient**.
 - In the **Subclient Name** box, type a name.
 - Select a Storage Policy for the new subclient and click **OK**.
 - Specify if a backup schedule should be associated to the new subclient and click **OK**.



3.
 - Right-click the subclient and select **Properties**.
 - Click **Auto-discovery**.
 - Click **Configuration**.



4.
 - Click **Discover**. The mailbox stores will be displayed.
 - Assign the mailbox store to a subclient by clicking the **Subclient** column and selecting one from the drop-down list.
Alternatively, you can assign all databases to one subclient in the **Move all selected items to** field.
 - Click **OK** to return the subclient **Properties** dialog box.
 - Click **OK**.

USING REGULAR EXPRESSIONS

Regular expressions can be used to discover mailboxes based on unique patterns. For example, regular expressions can be used to discover all mailboxes containing a particular department name within its display name.

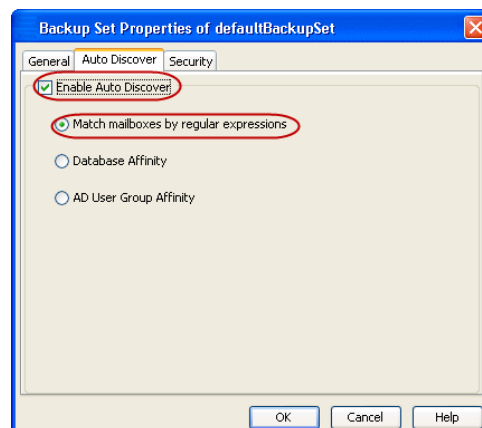
When mailboxes are discovered using regular expressions, any mailbox that matches the wildcard expressions are automatically assigned to the associated user-defined subclient. If a mailbox does not match the expressions, it is automatically assigned to the default subclient.

The following table provides some examples of useful regular expressions:

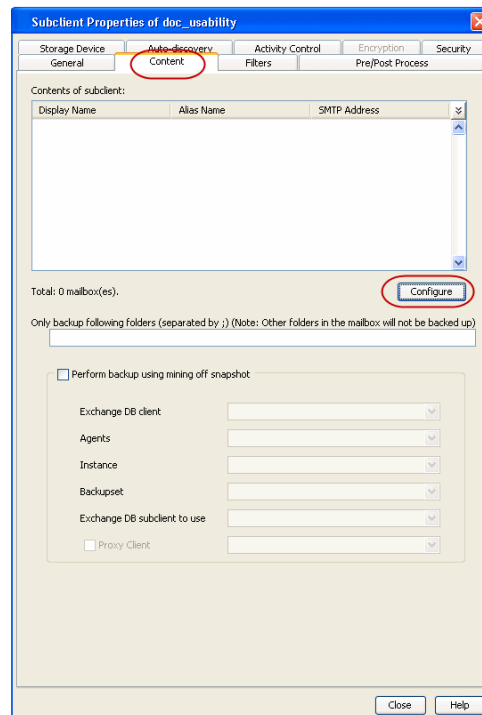
EXAMPLE	DESCRIPTION
Accounting*	Auto-discovers any mailbox display name that begins with Accounting followed by any number of any characters (e.g., Accounting Mailbox, Accounting Manager, etc.).
user_group?	Auto-discovers any mailbox display name that begins with user_group followed by any one character (e.g., user_groupA, user_group1, etc.).
[JT]im	Auto-discovers any mailbox display name that begins with J or T and ends with im (e.g., Jim, Tim).
[a-k]Lee	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.)
[!ei]nsure	Auto-discovers any mailbox display name that ends with nsure but does not begin with e or i (e.g., unsure).

[!a-k]Lee	Auto-discovers any mailbox display name that does not begin with a through k and that ends with Lee (e.g., xLee, yLee, etc.).
[A-K]*	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.

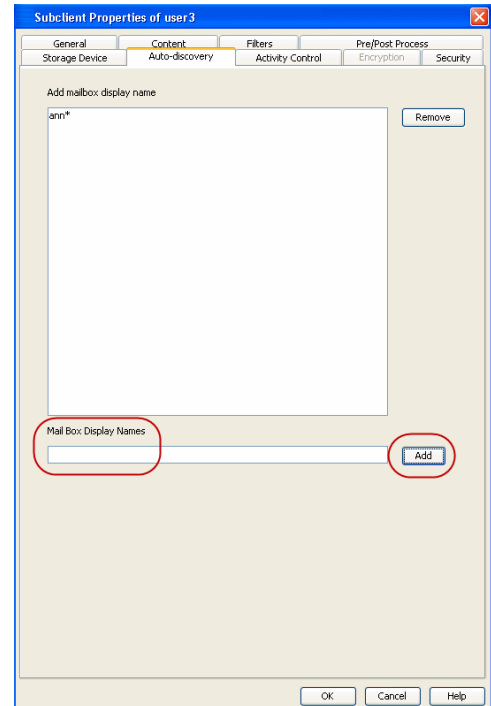
- From the CommCell Browser, right-click the backup set for which you want to discover mailboxes and click **Properties**.
 - Click **Auto Discover** tab.
 - Click **Enable Auto Discover** and select **Match mailboxes by regular expressions**.
 - Click **OK**.



- From the CommCell Browser, navigate to **Client Computers | <Client> | Backup Set**.
 - Right-click the **Backup Set**, point to **All Tasks** and then click **New Subclient**.
 - In the **Subclient Name** box, type a name.
 - Select a Storage Policy for the new subclient and click **OK**.
 - Specify if a backup schedule should be associated to the new subclient and click **OK**.



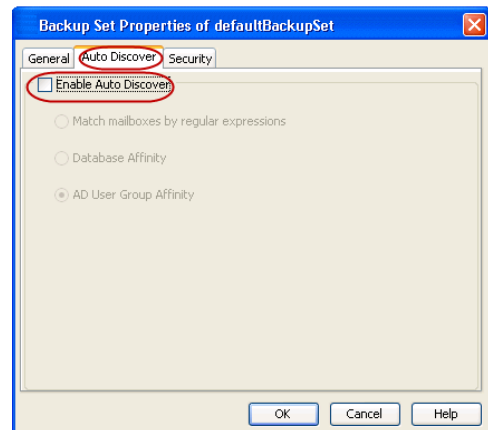
- Right-click the subclient and select **Properties**.
 - Click **Auto-discovery**.
 - Enter a regular expression or wildcard pattern in the **Mail Box Display Names** field to specify that newly discovered mailbox display names matching that pattern during auto-discovery will be assigned to this subclient. For a comprehensive wildcard list, see Wildcards.
 - Click **Add**. Repeat this step to enter additional wildcard patterns.
 - Click **OK**.
 - Click **OK** to return the subclient **Properties** dialog box.
 - Click **OK**.



DISABLING AUTOMATIC DISCOVERY

Automatic discovery of mailboxes can be disabled in scenarios where it is no longer desired for mailboxes to automatically be included in routine backups. When automatic discovery is disabled, all mailboxes must subsequently be manually assigned to a subclient.

1. From the CommCell Browser, right-click the backup set for which you want to disable auto-discovery of mailboxes and click **Properties**.
2. Click **Auto Discover** tab.
3. Clear the **Enable Auto Discover** option.
4. Click **OK**.



AUTOMATICALLY MANAGE MAILBOX GROUPINGS

By default, if a change is made to an automatically discovered mailbox that alters the association criteria it was discovered with, the next backup will automatically reassign the mailbox to the appropriate subclient that satisfies the new criteria. For example, if a mailbox was assigned to a subclient based on its parent database and the mailbox is later moved to a different database, the next backup will automatically move the mailbox to the subclient associated with the new database.

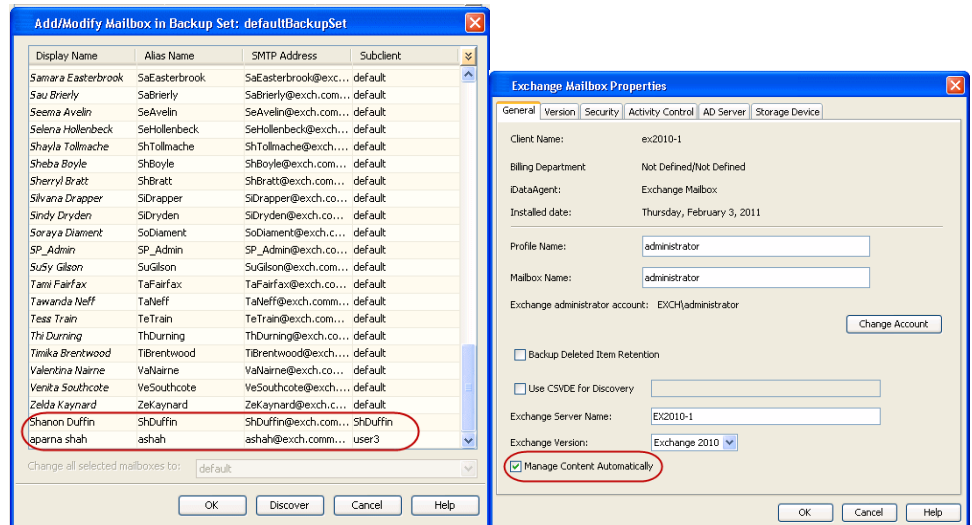
If a mailbox is manually assigned to a subclient, it is not rendered available for automatic grouping. However you can manually assign this mailbox to the blank subclient and during the subsequent data protection operation this mailbox gets automatically discovered and assigned to a relevant subclient.

In some cases, it may not be desirable for backups to manage mailboxes in this manner. You can disable this functionality - or enable it again later if it has already been disabled - as follows:

1. From the CommCell Browser, right-click the Exchange Mailbox agent on the source client, and click **Properties**.
2. Clear or check the **Manage Content**

Automatically option.

3. Click **OK**.
4. From the CommCell Browser, right-click the backup set for which you want to discover mailboxes and click **Properties**.
5. Click **Auto Discover** tab.
6. Ensure that the **Enable Auto Discover** check box is selected together with either one of the following:
 - Active Directory User Group Affinity
 - Database Affinity
 - Match Mailbox by Regular Expressions



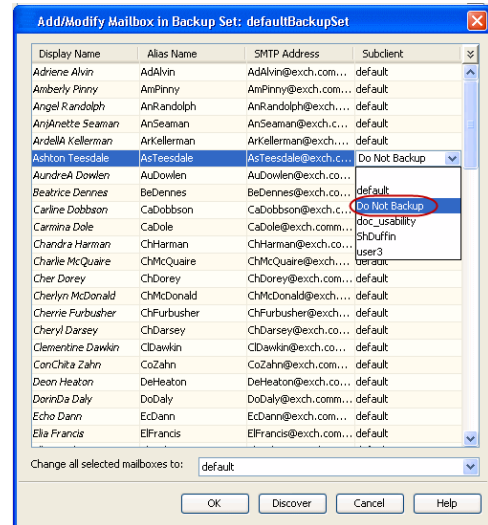
FILTERING SUBCLIENTS

Use one of the methods below to filter data from being backed up. Filters assist in minimizing usage of protected storage and prevents unnecessary folders (Junk, Spam) from being backed up.

EXCLUDE MAILBOXES FROM BACKUPS

By default, the system creates a **Do Not Backup** subclient. You can assign mailboxes to this subclient so that they will not be backed up.

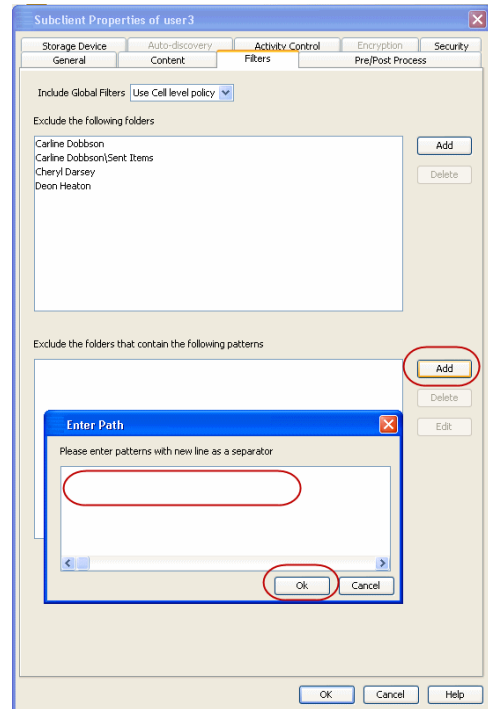
1. From the CommCell Browser, right-click the subclient and click **Properties**.
2. Click the **Content** tab, then click **Configure**.
3. If necessary, click **Discover** to reveal all mailboxes, and select a mailbox to exclude.
4. Under the **Subclient** column, select **Do Not Backup**.
5. Click **OK**.



FILTER MAILBOXES USING REGULAR EXPRESSIONS

You can also apply regular expressions or wildcard patterns to filter folders in mailboxes from data protection. For example, you may want to exclude all Sent Items folders that are not essential for recovery. The pattern you enter will be applied to all content defined for the subclient.

1. From the CommCell Browser, right-click a subclient and click **Properties**.
2. Click the **Filters** tab, then click **Add** next to **Exclude the folders that contain the following patterns**.
3. Enter regular expressions or wildcard patterns, each on a separate line. For a comprehensive wildcard list, see Wildcards.
4. Click **OK**.



WILDCARD EXAMPLES

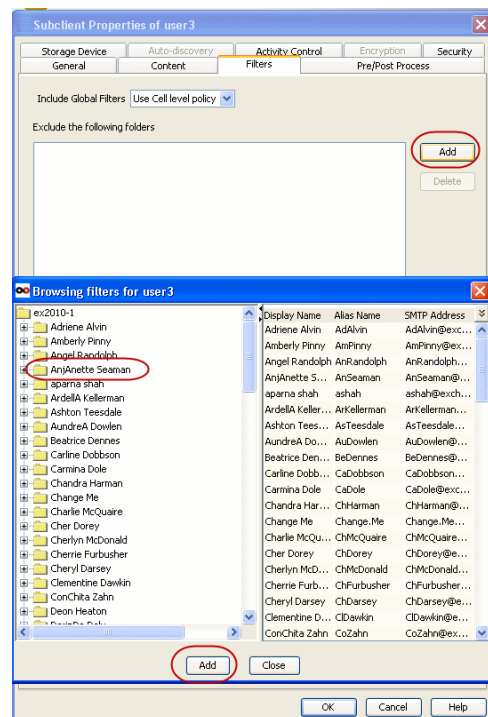
EXAMPLE	DESCRIPTION
Sent*	To filter out a folder which begins with Sent , specify the name of the folder and the asterisk * wildcard with no delimiters.
Sent Items\test*	To filter out a subfolder called test , specify the full path including the leader \ backslash.
\test	To filter out any path that ends in a folder name, use the full path including the leader \ backslash and the asterisk * wildcard for the first level.

FILTERING SPECIFIC FOLDERS FROM BACKUPS

Filters are available to exclude a specific folder of a selected mailbox. For example, you can filter out the Sent Items folder of a mailbox, so that messages within this folder do not get backed up.

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 mailbox or mailbox item to exclude.
4. Click **Add**.
5. When finished selecting the items, click **Close**.
6. Click **OK**.

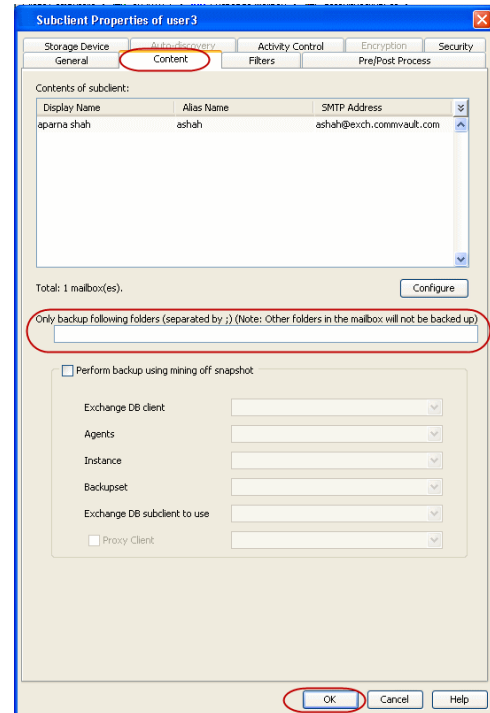
The next time a data protection operation is run, the filter will be used to exclude the mailboxes and mailbox items.



INCLUDE SPECIFIC FOLDERS IN BACKUPS

You can configure the Exchange Mailbox iDataAgent to backup messages that reside in a specific mailbox folder (e.g., Sent Items). Messages residing in any subfolders that exist within the specified mailbox folder will also be backed up.

1. From the CommCell Browser, right-click the subclient and then click **Properties**.
2. Click the **Content** tab.
3. In the **Only backup following folders (separated by ;)** (Note: Other folders in the mailbox will not be backed up) field, enter one more root mailbox folders to include the data protection operation, such as Inbox, Sent Items, etc. Separate multiple mailbox folders by separating each entry with a semi-colon (;).
4. Click **OK**.



MANAGING THE DEFAULT SUBCLIENT

By default, all mailboxes are automatically assigned to the default subclient. This default behavior is designed to ensure all mailboxes are backed up.

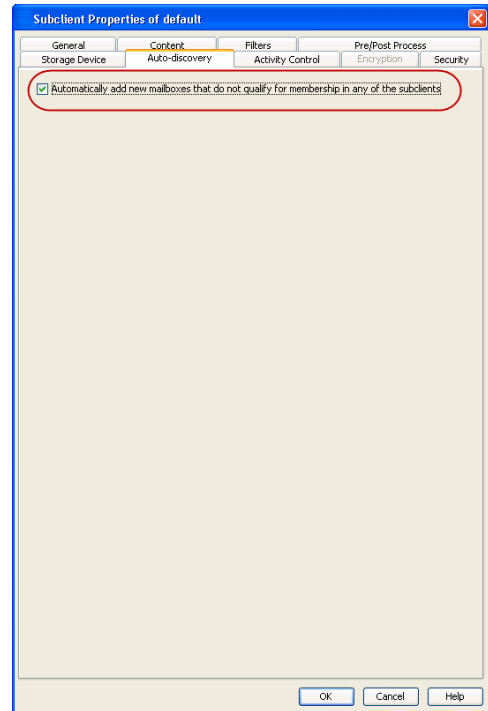
If you do not want all mailboxes to automatically be included in the default subclient, you can do so as described in the following sections.

We recommend that you do not modify these settings. Doing so would disable the default subclient's capability to serve as a catch-all entity for mailbox data. As a result, some data may not get backed up.

ADD UNASSOCIATED MAILBOXES TO THE DEFAULT SUBCLIENT

By default, all mailboxes that are not associated with a user-defined subclient are included in the default subclient. If you do not want the default subclient to include such mailboxes, you can disable this behavior as follows:

1. From the CommCell Browser, right-click the default subclient and select **Properties**.
2. Click **Auto-discovery** tab.
3. Clear **Automatically add new mailboxes that do not qualify for membership in any of the subclients**.
4. Click **OK**.

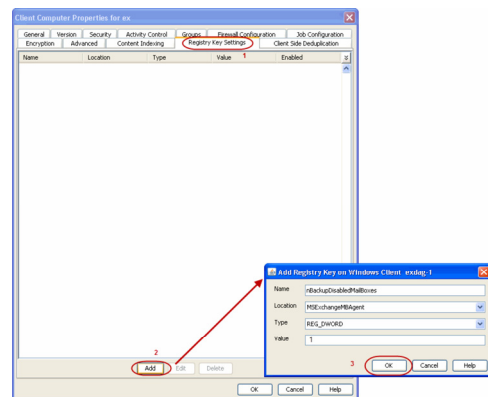


CONFIGURING BACKUPS OF DISABLED MAILBOXES

By default, the Mailboxes whose user accounts are disabled from the Active Directory are not backed up. To include them in the backup operation, follow the steps given below:

1. From the CommCell Browser, navigate to **Client Computers**.
2. Right-click the **<Client>** in which you want to add the registry key, and then click **Properties**.
3. Click the **Registry Key Settings** tab.
4. Click **Add**.
5. Enter `nBackupDisabledMailBoxes` in the **Name** field.
6. Enter `MSEExchangeMBAgent` in the **Location** field.
7. Enter `REG_DWORD` in the **Type** field.
8. Enter `1` in the **Value** field.
9. Click **OK**.
10. From the CommCell Console, navigate to **<Client> | Exchange Mailbox | defaultBackupSet**.
11. Right click the subclient and click **Backup**.
12. Select **Full** as backup type and **Immediate** to run the job immediately.
13. Click **OK**.

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



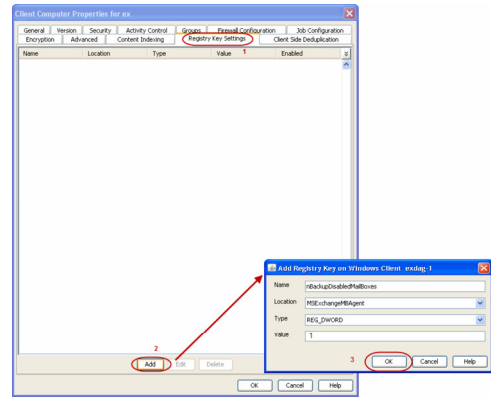
CONFIGURING BACKUPS FOR DISCOVERY SEARCH MAILBOXES

The Discovery Search Mailbox, which is used as the target mailbox for all discovery searches of the Exchange Control Panel, can be backed up using a user-defined subclient as described below.

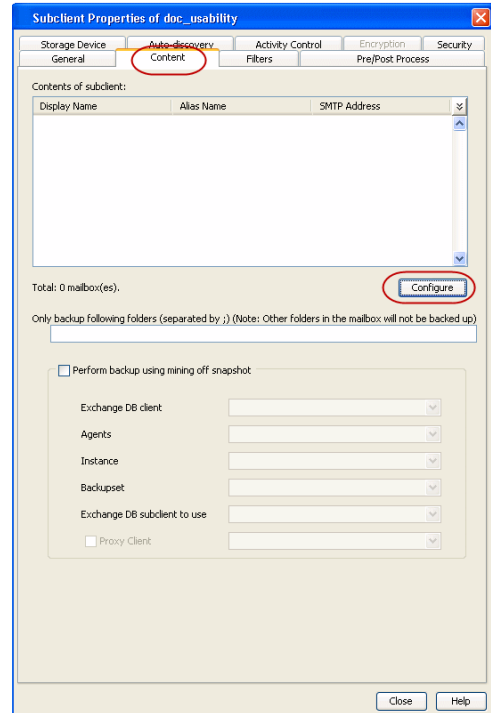
1.
 - From the CommCell Browser, navigate to **Client Computers**.
 - Right-click the **<Client>** in which you want to add the registry key, and then click **Properties**.
 - Click the **Registry Key Settings** tab.
 - Click **Add**.
 - Enter `MSEExchangeMBAgent` in the **Name** field.

- Enter HKEY_LOCAL_MACHINE\SOFTWARE\CommVault Systems\Galaxy\Instance<xxx>\ in the **Location** field.
- Enter REG_DWORD in the **Type** field.
- Enter nBackupDisabledMailBoxes in the **Value** field.
- Click **OK**.
- From the CommCell Console, navigate to <Client> | Exchange Mailbox | defaultBackupSet.
- Right click the 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**.



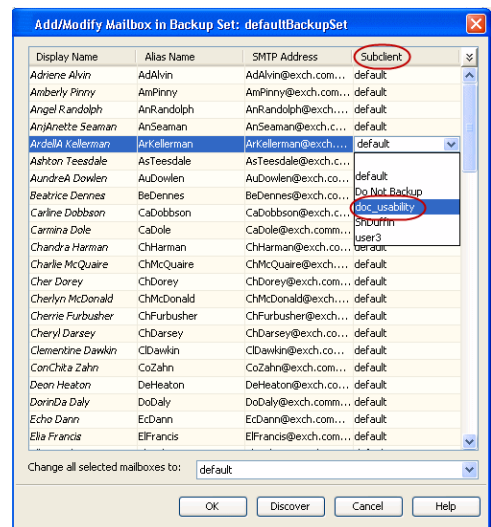
- From the CommCell Browser, navigate to **Client Computers** | <Client> | **Backup Set**.
 - Right-click the **Backup Set**, point to **All Tasks** and then click **New Subclient**.
 - In the **Subclient Name** box, type a name.
 - Select a Storage Policy for the new subclient and click **OK**.
 - Specify if a backup schedule should be associated to the new subclient and click **OK**.
 - Right-click the subclient and select **Properties**.
 - Click the **Contents** tab and then click **Configure**.



- From the **Add/Modify Mailbox** window, click the subclient entry for the mailbox that you want to add to the new subclient.

Alternatively, you can select and assign a range of mailboxes to the new or existing subclient using the **Change all selected mailboxes to list**.

 - Click **OK**.



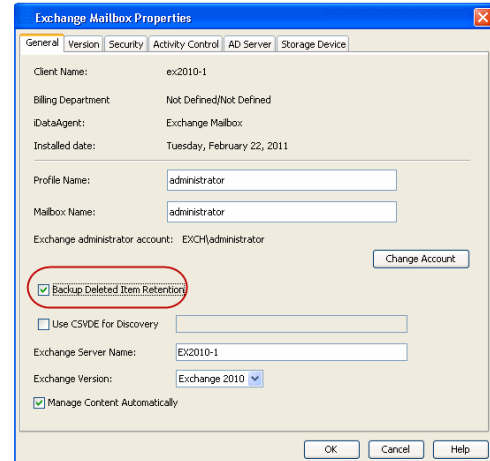
CONFIGURING BACKUPS FOR DELETED ITEM RETENTION FOLDERS

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 Console, navigate to **Client Computers | <Client>**
2. Right-click the Exchange Mailbox Agent and click **Properties**.
3. From the **General** tab, select the **Backup Deleted Item Retention** option.
4. Click **OK**.

In case a folder is hard deleted, the emails within that folder will not be backed up when Deleted Item Retention folders are backed up. They will be displayed as failed items in the backup job history.



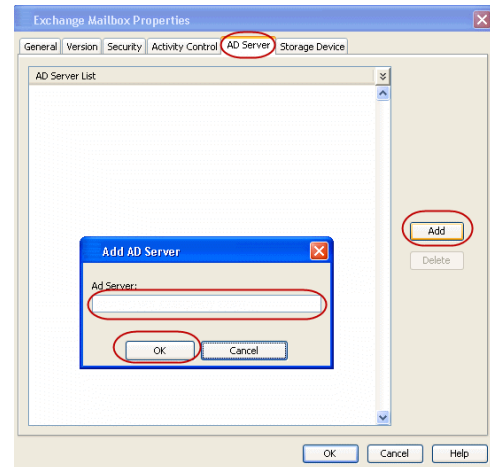
SPECIFYING DOMAIN INFORMATION FOR BACKUPS

It may be necessary to specify additional domain names for backups in the following circumstances:

- The Exchange Server is installed in a different domain from the schema master.
- Multiple domain controllers exist that may not replicate to each other.

To ensure complete protection in these circumstances, perform the following.

1. From the CommCell Browser, right-click the Exchange Mailbox Agent and then click **Properties**.
2. Click the **AD Server** tab.
3. To include a domain name, click **Add**.
4. Type the domain name in the **AD Server** field. You can enter an IP address or the fully-qualified domain name of the Active Directory Server. Depending on the circumstances discussed above, the domains to include should be:
 - o The schema master, or
 - o Each domain controller in your environment
5. Click **OK**. The domain name will appear in the **AD Server List**.
6. Repeat the previous step for each domain name that you wish to include.
7. Click **OK**.



ENHANCING MAILBOX DISCOVERY USING CSVDE FILTER

A Comma Separated Value Directory Exchange (CSVDE) filtering option is provided to increase performance for auto-discovery operations in cases where the discovery process may take a long time to complete.

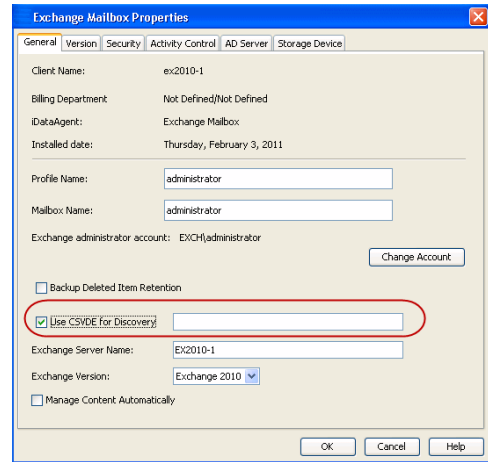
A CSVDE filtering example is provided below, which will filter out system mailboxes residing on the *SERVERNAME* server from discovery operations for these agents:

```
" (& (msExchHomeServerName=*/cn=SERVERNAME) (! (CN=SystemMailbox{*})) )"
```

Use of this option requires expert-level knowledge of CSVDE, which is a Microsoft tool used for extracting and filtering information from Active Directory. Familiarity with constructing LDAP queries is beneficial for successful filtering. Incorrect use of the CSVDE filtering option can result in failed discovery and data protection operations. For more information on CSVDE, refer to documentation from Microsoft Corporation.

1. From the CommCell Browser, right-click the Exchange Mailbox agent on the source client, and click **Properties**.
2. Click the **Use CSVDE For Discovery** option, then specify the desired CSVDE filter in the corresponding entry space.
3. Click **OK**.

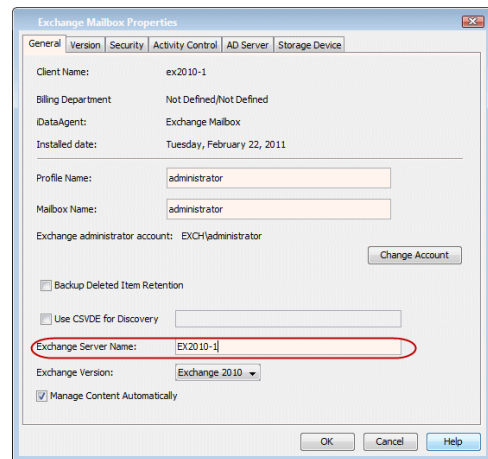
The next time a discovery operation is run, the user-specified CSVDE filter will be used.



CONFIGURING MAILBOXES IN DATABASE AVAILABILITY GROUP (DAG) SERVERS

When backing up Exchange 2010 Database Availability Group (DAG) servers, you need to configure the Mailbox and Client Access Server (CAS) roles as described below.

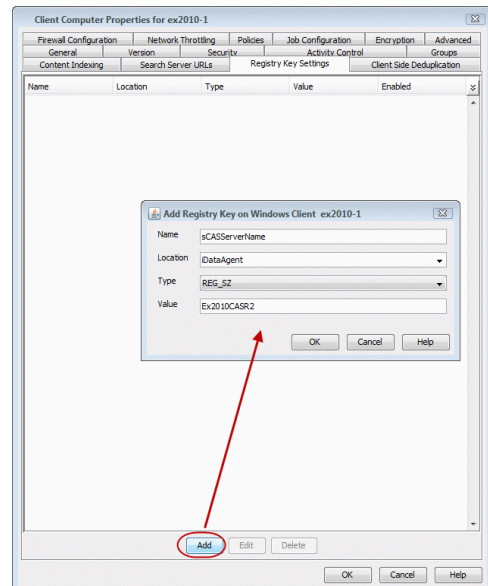
1. From the CommCell Browser, right-click the Exchange Mailbox Agent and click **Properties**.
2. In **Exchange Server Name**, enter the Mailbox server role. This role is used when performing backup and restore operations. If more than one role is entered, separate them with semi-colons.
To ensure complete protection, enter each Member Server configured in your environment.
3. Click **OK**.



CONFIGURING MAILBOXES WHEN THE CAS ROLE IS NOT INSTALLED ON THE MAILBOX ROLE SERVER

In addition to the steps above, the following steps are required if the CAS Role is not installed on the Mailbox Role Server.

4. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
5. Click **Properties**.
6. Select **Registry Key Settings**.
7. Click **Add**.
8. Enter `sCASServerName` in the **Name** field.
9. From the **Location** list, select `iDataAgent`.
10. From the **Type** list, select `REG_SZ`.
11. Enter a CAS server name (e.g., `EX2010CASR2`) in the **Value** field. The CAS server is used to create the profile.
12. Click **OK**.



MODIFYING AN AGENT, BACKUP SET, 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 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
Change the Profile Name	<p>You can modify the profile that is associated with the appropriate Administrator Mailbox.</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent. 2. Right-click the iDataAgent and click Properties. 3. Select General tab. 4. Type the Profile Name. 5. Click OK. 	
Change the Mailbox Name	<p>You can modify the name of the mailbox that is associated with the appropriate Administrator profile.</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent. 2. Right-click the iDataAgent and click Properties. 3. Select General tab. 4. Type the Mailbox Name. 5. Click OK. 	
Change the Exchange Server Name	<p>You can modify the name of the Exchange Server that is installed on the client computer.</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent. 2. Right-click the iDataAgent and click Properties. 3. Select General tab. 4. Type the Exchange Server Name. 5. Click OK. 	
Change the Exchange Version	<p>You can select and modify the version of the Exchange Server from the list.</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent. 2. Right-click the iDataAgent and Click Properties. 3. Select a version from the Exchange Version list. 4. Click OK. 	
Change User Account Details	<p>You must have Exchange administrator privileges to access the Exchange Server and perform backup and restore operations.</p> <p>In the case of backup and restore operations from the CommCell Console, the user credentials to access the Exchange Server are provided initially when you installed the Agent. You can modify the user credentials from CommCell Console.</p> <p>On Windows clients, use <domain>\<administrator_name></p> <p>To change the Exchange administrator account information associated with this agent:</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent. 2. Right-click the iDataAgent and Click Properties. 3. Select General tab. 4. Click Change Account. 5. Type the Account name in Exchange Administrator Account box. 6. Type the Password in Password box. 7. Type the password again in Confirm Password box. 8. Click OK. 	
Rename Backup Set and Subclient	<p>You can rename a backup set and subclient:</p>	

	<p>Renaming backup sets:</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the backup set and then click Properties. 3. Type the new name in the Backup Set field. 4. Click OK. <p>Renaming subclients:</p> <ol style="list-style-type: none"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent Backup Set <user-defined Subclient>. 2. Right-click the subclient and then click Properties. 3. Type the new name in the Subclient name field. 4. Click OK. 	
Change Storage Policies	<p>You can modify the storage policies in any of the following situations:</p> <ul style="list-style-type: none"> • To include a different media for the backup operation. • To use a storage policy with a different retention criteria. <p>You can change the storage policies from the subclient level.</p> <ol style="list-style-type: none"> 1. From the CommCell Browser, right-click the subclient. 2. Click Properties. 3. Click Storage Device. 4. Select the Storage policy from the drop-down menu. 5. Click OK. 	Refer to Storage Policies.
Data Transfer Options	<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"> • Enable or disable Data Compression either on the client or the MediaAgent. • Configure the transfer of data in the network using the options for Network Bandwidth Throttling and Network Agents. <p>You can configure the data transfer options.</p> <ol style="list-style-type: none"> 1. From the CommCell Browser, right-click the subclient. 2. Click Properties. 3. Click Storage Device. 4. Click Data Transfer Option tab. 5. Choose the appropriate software compression option for this subclient. 6. Select Throttle Network Bandwidth and set the required bandwidth. 7. Click OK. 	Refer to Data Compression and Network Bandwidth Throttling.
View Data Paths	<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"> 1. From the CommCell browser, right-click the subclient. 2. Click Properties. 3. Click Storage Device. 4. Select Storage Policy from the drop-down menu. 5. Click Data Paths. 	
Configure a Subclient for Pre/Post Processing of Data Protection	<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"> 1. From the CommCell browser, navigate to Client Computers <Client> iDataAgent. 2. Right-click the iDataAgent and Click Properties. 3. Click Properties. 4. Click Pre/Post Process. 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 Browse to locate the process (applicable only for paths that do not contain any spaces). <ul style="list-style-type: none"> ○ PreBackup Process ○ PostBackup Process 6. Click OK. 	Refer to Pre/Post Processes.

	<ol style="list-style-type: none"> 7. Select Run Post Backup Process for all attempts to run a post backup process for all attempts. 8. For subclients on Windows platforms, Run As displays Not Selected. If you want to change the account that has permission to run these commands, click Change. <ol style="list-style-type: none"> a. In the User Account dialog box, select Use Local System Account, or select Impersonate User and enter the user name and password. Click OK. b. If you selected Local System Account, click OK to the message advising you that commands using this account have rights to access all data on the client computer. 	
Configure Activity Control	<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"> 1. From the CommCell browser, right-click the subclient. 2. Click Properties. 3. Click Activity Control, select or clear option(s) as desired. 4. Click OK. 	Refer to Activity Control.
Configure User Security	<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"> • 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. <ol style="list-style-type: none"> 1. From the CommCell browser, right-click the subclient. 2. Click Properties. 3. Click Security. 4. Select the appropriate user groups to which you want to associate to the CommCell object from the Available Groups pane, and then move the user group to the Associated Groups pane. 5. Click OK. 	Refer to User Administration and Security.
Enable/Disable Data Encryption	<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"> 1. From the CommCell browser, right-click the subclient. 2. Click Properties. 3. Click Encryption. 4. Select the desired encryption. 5. Click OK. 	Refer to Data Encryption.
View Software Version	<p>The Version tab, at the Agent level displays the software version of the component.</p> <ol style="list-style-type: none"> 1. From the CommCell browser, right-click the agent. 2. Click Properties. 3. Click Version. 4. Click OK. 	
CommCell Configuration Report	<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"> 1. From the CommCell browser, click Reports icon. 2. Select CommCell Configuration. 3. Click Run. 	Refer to CommCell Configuration.

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.

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.

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 – Exchange Mailbox iDataAgent Backup

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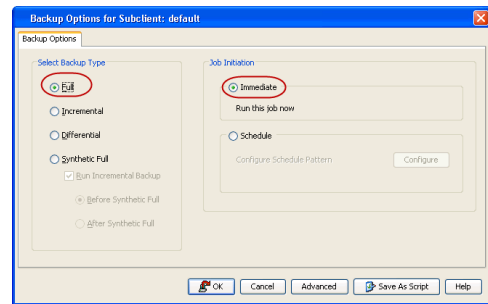
Additional Options

FULL BACKUPS

Full backups provide the most comprehensive protection of data.

1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox | 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

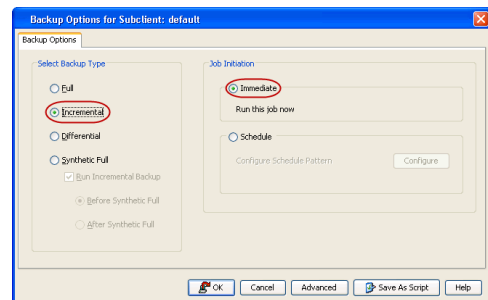
An incremental backup contains only data that is new or has changed since the last backup, regardless of the type. On average, incremental backups consume less media and use less resources than full backups.

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 Mailbox | 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

RELATED TOPICS

Scheduling

Provides comprehensive information on scheduling jobs.

Job Management

Provides comprehensive information on managing jobs.

in the figure.

1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox | defaultBackupSet**.
2. Right click the subclient and click **Backup**.
3. From the **Backup Options** dialog box, select from the following options:

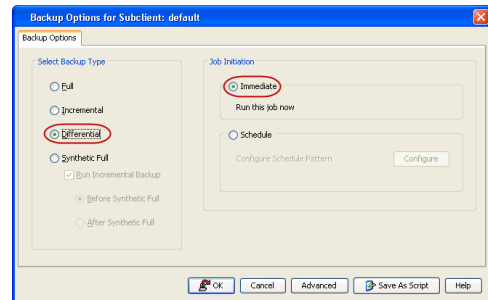
Backup Type:

- 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**.



SYNTHETIC FULL BACKUPS

A synthetic full backup is a synthesized backup, created from the most recent full backup and subsequent incremental and/or differential backups. The resulting synthetic full backup is identical to a full backup for the subclient.

Unlike full, incremental, and differential backups, a synthetic full backup does not actually transfer data from a client computer to the backup media. Therefore, they do not use any resources on the client computer.

Synthetic full backups are media-based; they read backup data from one media and simultaneously write (restore) the result to the new active media within the same media group. As a result, synthetic full backups require that at least two media drives for the same storage policy be available at the time the job is started. Synthetic full backups cannot be performed on subclients where the storage policy is associated with a stand-alone drive.

RUNNING SYNTHETIC FULL BACKUPS

Synthetic full backups can either be started manually or scheduled to occur at regular intervals. Do not concurrently run more than one synthetic full backup, especially synthetic full backups with multiple streams.

1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox**.
2. Right click the **<Subclient>** and click **Backup**.
3. From the **Backup Options** window, select **Synthetic Full** for **Backup Type**.
4. Select **Immediate** for **Job Initiation**.
5. Click **OK**.

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

RUNNING AN INCREMENTAL BACKUP BEFORE OR AFTER A SYNTHETIC FULL BACKUP

An incremental backup can be run either before or after a synthetic full backup.

- Running an incremental backup before the synthetic full ensures that any new or recently changed data is included in the synthetic full.
- Running an incremental backup after the synthetic full ensures that any new or recently changed data since the backup that occurred prior to the synthetic full, but was not included in the synthetic full, is backed up by the incremental.

The sections below describe the steps to run an incremental backup before or after a synthetic full backup:

1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox**.
2. Right click the **<Subclient>** and click **Backup**.
3. From the **Backup Options** window, select **Synthetic Full** for **Backup Type**.
4. Select **Run Incremental Backup** and then select **Before Synthetic Full** or **After Synthetic Full** options.
5. Select **Immediate** for **Job Initiation**.
6. Click **OK**.

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

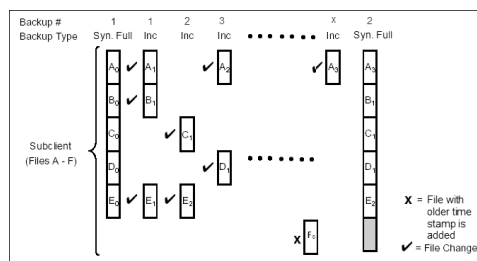
VERIFYING SYNTHETIC FULL BACKUPS

This option ensures that files that have not backed up by incremental jobs since the last full backup are backed up by the next incremental.

For example: If you perform the conventional full backup only once for a given subclient and then perform incremental (or differential) backups and periodic synthetic full backups. After the conventional full backup, a file is added to the subclient and the file has a time stamp older than the time of full backup. In such scenario, the file will never get backed up. Eventually, such files may be pruned and no backup of such files will be available.

The illustration on the right explains the necessity of verifying synthetic full backups.

In order to overcome this problem, it is recommended to verify the synthetic full backups job periodically as follows:



1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox**.
2. Right click the **<Subclient>** and click **Backup**.
3. From the **Backup Options** dialog box, select **Synthetic Full**.
4. Click **Advanced**.
5. In the **Advanced Backup Options** dialog box, click the **Data** tab.
6. Select **Verify Synthetic Full**. Click **OK** to continue.
7. Click **OK**.

IGNORING ERRORS IN SYNTHETIC FULL BACKUPS

Errors encountered in synthetic full backups can be ignored, even if backup media is partially corrupted. Errors such as inability to read data (bad tape, files missing on disk media, etc.) will be ignored when this option is enabled.

1. From the CommCell Console, navigate to **<Client> | Exchange Mailbox**.
2. Right click the subclient and click **Backup**.
3. From the **Backup Options** dialog box, select **Synthetic Full**.
4. Click **Advanced**.
5. In the **Advanced Backup Options** dialog box, click the **Data** tab.
6. Select **Verify Synthetic Full** and then select **Ignore Error in Synthetic Full**.
7. Click **OK** to close the **Advanced Backup Options** dialog box.
8. Click **OK**.

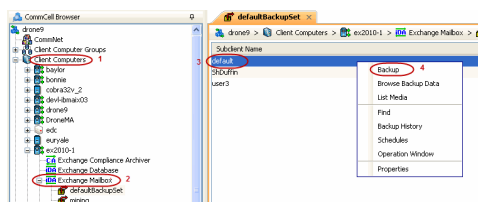
ACCELERATED SYNTHETIC FULL BACKUPS (DASH FULL)

When a storage policy copy is deduplicated, synthetic full backups can be created in an accelerated mode to significantly reduce the copy duration. This is done by identifying and transferring the data signatures (instead of the data itself) to the target wherever possible.

Learn more...

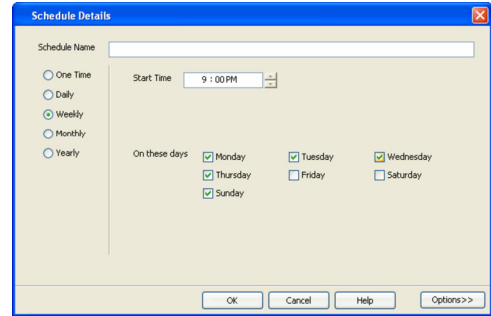
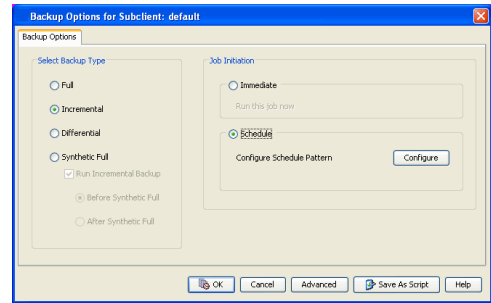
SCHEDULING A BACKUP

1.
 - From the CommCell Console, navigate to **<Client> | Exchange Mailbox**
 - 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

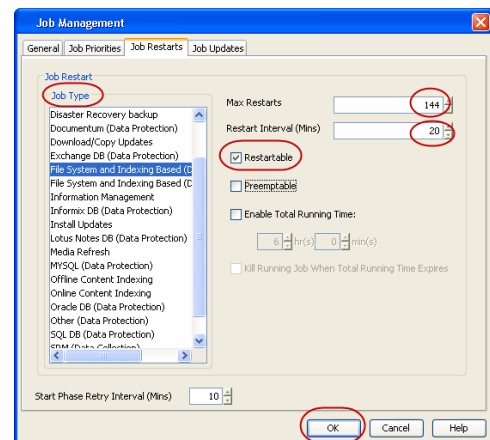
Jobs that fail to complete successfully are automatically restarted based on the job restartability configuration set in the Control Panel. Keep in mind that changes made to this configuration will affect all jobs in the entire CommCell.

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

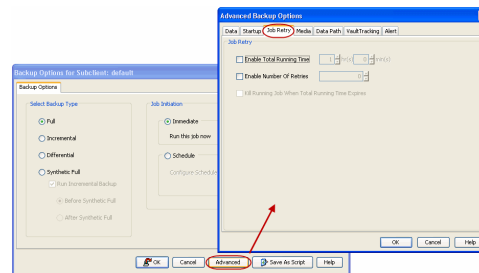
1. From the CommCell Browser, click **Control Panel** icon.
2. Select **Job Management**.
3. Click **Job Restarts** tab and select a **Job Type**.
 - o Select **Restartable** to make the job restartable.
 - o Change the value for **Max Restarts** to change the maximum number of times the Job Manager 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:

SUSPEND	Temporarily stops a job. A suspended job is not terminated; it can be restarted at a later time.
RESUME	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.
KILL	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.

OPTION	DESCRIPTION	RELATED TOPICS
Catalog	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 4. Select Data and choose one of the following: <ul style="list-style-type: none"> o Use shared profile if present with transaction logging 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. o Use shared profile if present without transaction logging 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. o Use transaction logging to use transaction logging feature to provide granular job restartability (without using shared profile for index cache sharing). o None to use neither shared profile nor transaction logging. 5. Click OK. 	
Startup Options	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	Refer to Job Priority and Priority Precedence.

	<p>moved to a lower priority.</p> <ol style="list-style-type: none"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Startup. 6. Select Default Priority. You can select Change Priority for a job, between 0 (highest priority) and 999 (lowest priority). 7. Select Start up in suspended State to specify the selected job to start in the Job Controller in a suspended state. 8. Click OK. 	
Job Retry Options	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Job Retry. 6. Select Enable Total Running Time and specify the maximum elapsed time in hours and minutes. 7. Select Number Of Retries and specify the number of retries. Based on this number, the Job Manager attempts to restart the job. 8. Select Kill Running Jobs When Total Running Time Expires. The job will be killed when the job is still in running status even after reaching the maximum elapsed time. 9. Click OK. 	Refer to Job Management.
Start New Media	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Media. 6. Select Start New Media. 7. Click OK. 	Refer to Start New Media.
Mark Media Full	<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> <ol style="list-style-type: none"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Media. 6. Select Mark Media Full on Success. 7. Click OK. 	Refer to Export Media.
Allow other Schedules to use Media Set	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Media. 6. Select Allow Other Schedules To Use Media Set. 7. Click OK. 	Refer to Creating an Exportable Media Set.
Extend Job Retention	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Media. 6. Select any of the following Extend Job Retention period options: Infinite/Number of days/Storage Policy default. 7. Click OK. 	
Data Path Options	<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"> • When the preferred MediaAgent, library or drive pool is not available during the backup • When you need to use a different MediaAgent, library or drive pool for load balancing purposes. • When you need to direct that backup to a particular location for compliance purposes. <ol style="list-style-type: none"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Data Path. 6. Select the MediaAgent and Library. 7. Select the Drive Pool and Drive for optical and tape libraries. 8. Click OK. 	Refer Change Data Path.
Vault Tracker	<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"> • Identifies media that must be sent off-site for storage or brought back from off site locations. • Automatically moves the media in sequence in the library and provides a pick-up list for the operators. • Identifies and tracks the media during transit. • Records and tracks the movement of media not used by all MediaAgents or Foreign Media. <ol style="list-style-type: none"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select VaultTracking. 6. Select the necessary options. 7. Click OK. 	Refer to VaultTracker or VaultTracker Enterprise.
Alerts	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent Backup Set. 2. Right-click the Subclient and click Backup. 3. From the Backup Options window, click Advanced. 5. Select Alert. 6. Click Add Alert. 7. From the Add Alert Wizard window, select the Threshold and Notification Criteria. Click Next. 8. Select the Notification Types. Click Next. 9. Select the Users and User Groups. Click Next. 10. Verify the Summary. 11. Click Finish. 12. Click OK. 	Refer to Alerts.
Command Line Backups	Command Line Interface enables you to perform backups from the command line. The	Refer to Command Line

	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 Save As Script option. These scripts can later be executed using the commands from the command line interface.	Interface.
CommCell Readiness Report	The CommCell Readiness Report provides you with vital information about the condition of your CommCell.	Refer to CommCell Readiness Report.
Backup Job Summary Report	The Backup Job Summary Report provides the details of all the backup jobs of clients.	Refer to Backup Job Summary Report.

Browse Data - Exchange Mailbox iDataAgent

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Understanding the Browse Window

Browse Data

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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.

BROWSE 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.

LATEST DATA

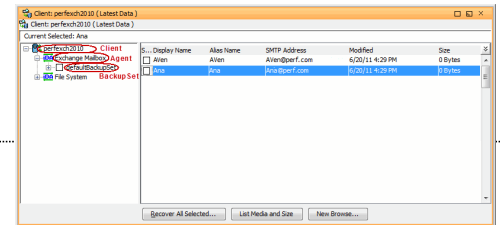
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.

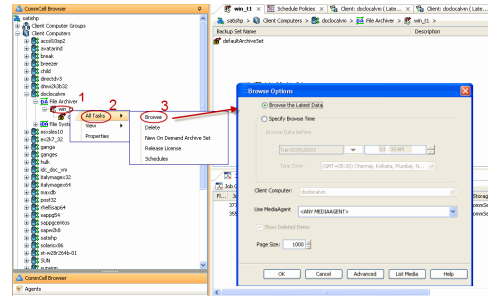
The browse option can also be invoked from the client, agent, backup set, or subclient level.

RELATED TOPICS

List Media

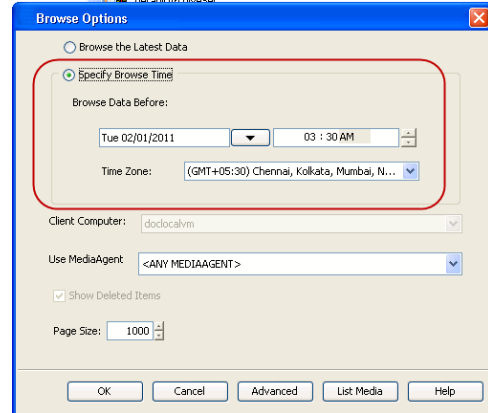
Provides comprehensive information on media management and prediction.





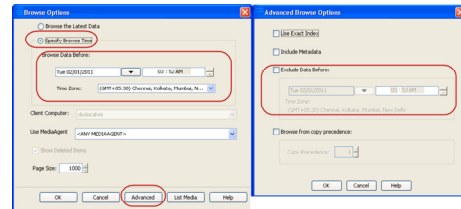
BEFORE A SPECIFIED TIME

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. Select **Specify Browse Time** and the **Time Zone**.
4. Click **OK**.



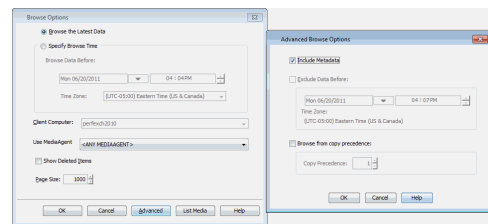
BETWEEN A SPECIFIED TIME

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. 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

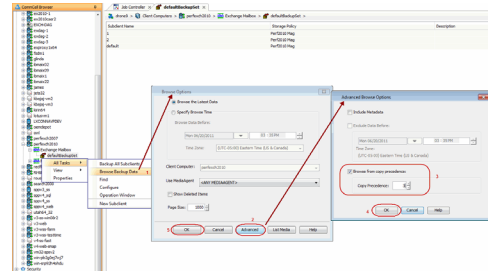
By default, when a browse operation is requested, the software attempts to browse from the storage policy copy with the lowest copy precedence. If the data that you want to browse was already pruned from the primary copy, the software searches the other copies of the storage policy, starting from the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

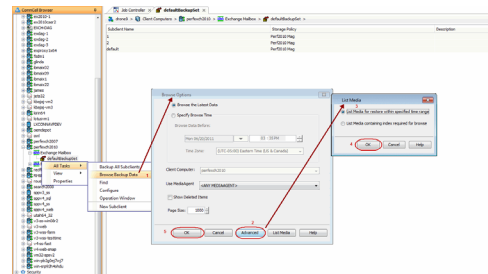
LIST MEDIA

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 Mailbox**.
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**.

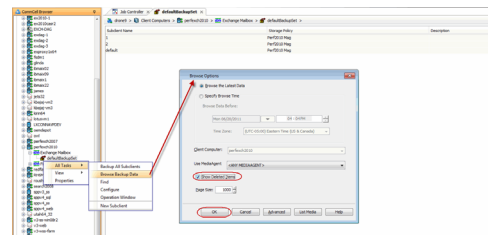
The appropriate media is listed in the **Media** dialog box.

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.

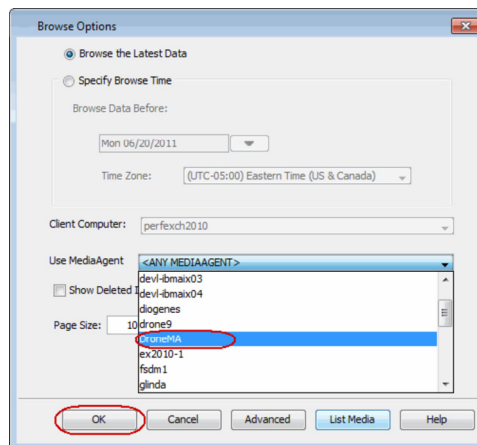
1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Mailbox**.
2. Right-click the Backupset and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, select one of the following options:
 - o Click and select the **Show Deleted Items** option 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.

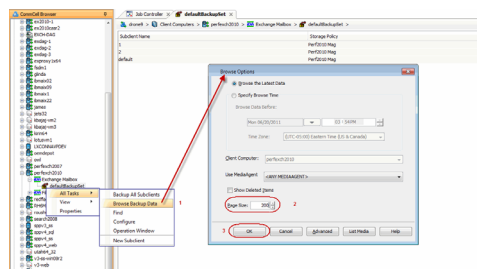
1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Mailbox**.
2. Right-click the Backupset and click **All Tasks | Browse Backup Data**.
3. From the **Browse Options** dialog box, choose the **MediaAgent** that must be used to perform the browse.
4. Click **OK**.



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 Mailbox**.
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 Mailbox iDataAgent Restore

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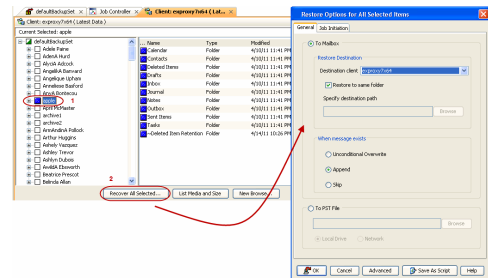
- Restarting Jobs
- Controlling Jobs

Additional Restore Options

RESTORING A MAILBOX

Follow the steps given below to browse a backup set and restore a mailbox:

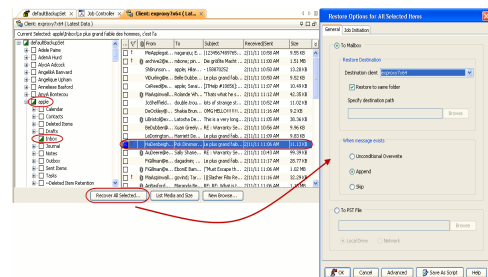
- From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
- Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
- Click **OK**.
- Expand the **defaultBackupSet** and select a mailbox in the left pane of the **Client Browse** window..
- Click **Recover All Selected**.
- Click **To Mailbox**.
- In the **Destination Client** list, select the name of client computer.
- Click **OK**.



RESTORING A MESSAGE OR A MAILBOX ITEM

Follow the steps given below to browse a backup set and restore a message or a mailbox item, such as a folder, a contact, a calendar entry:

- From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
- Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
- Click **OK**.
- Navigate to **defaultBackupSet | <Mailbox> | <Folder>** in the left pane of the **Client Browse** window.
- Select a message or a mailbox item from the right pane.
- Click **Recover All Selected**.
- Click **To Mailbox**.



RELATED TOPICS

Scheduling

Provides comprehensive information on scheduling jobs.

Job Management

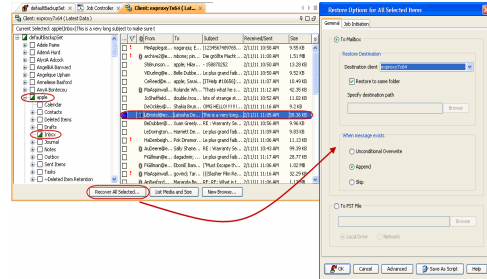
Provides comprehensive information on managing jobs.

7. In the **Destination Client** list, select the name of client computer.
8. Click **OK**.

RESTORING AN ATTACHMENT

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

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Navigate to **defaultBackupSet | <Mailbox> | <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**.
6. Click **To Mailbox**.
7. In the **Destination Client** list, select the name of client computer.
8. 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 mailbox or message from a Browse and Restore operation.

When entering criteria, note that the first 24 characters of Sender and Recipient entries are supported. Similarly, the first 42 characters of the Subject line are supported.

FINDING A MESSAGE WITH A SPECIFIC SUBJECT

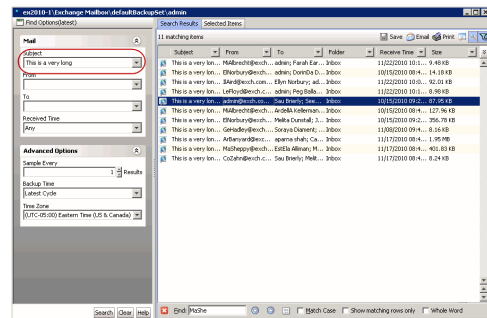
1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Type the **Subject** name of the message to narrow the search by a specific subject line containing the specified text string or 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**.

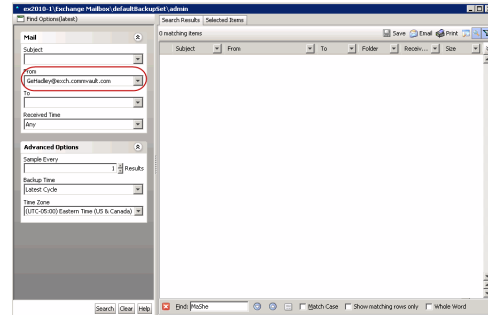
The messages that match the criteria are displayed in Search Results.



FINDING A MESSAGE FROM A SPECIFIC USER

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

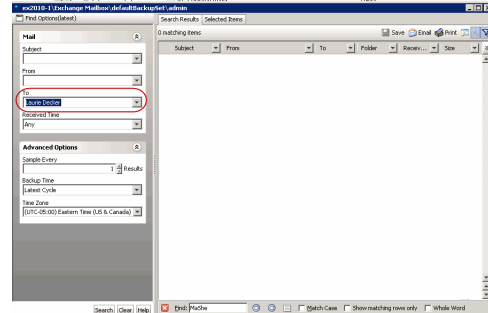
The messages that match the criteria are displayed in Search Results.



FINDING A MESSAGE SENT TO A SPECIFIC USER

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

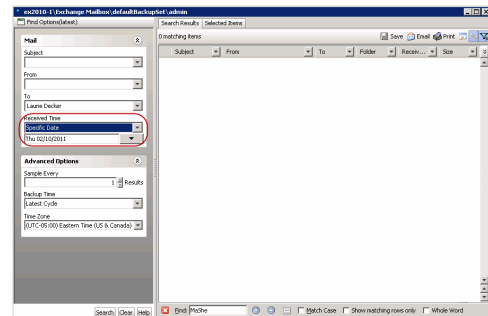
The messages that match the criteria are displayed in Search Results.



FINDING A MESSAGE RECEIVED IN A SPECIFIC TIME RANGE

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

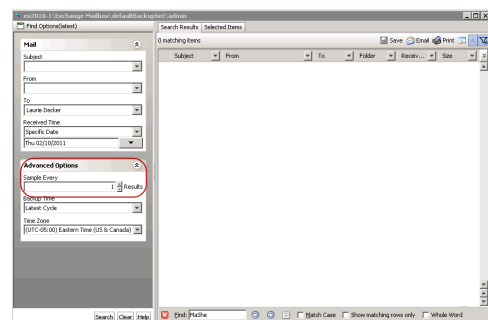
The messages that match the criteria are displayed in Search Results.



QUICK SEARCH USING SAMPLING

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



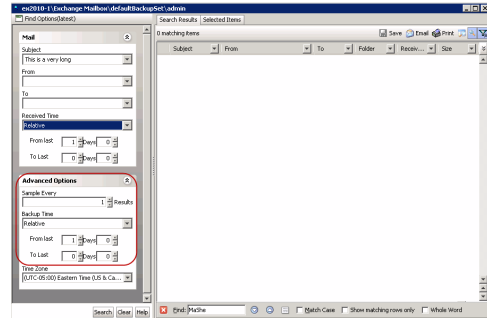
FINDING A MESSAGE BACKED UP AT A SPECIFIC TIME

1. From the CommCell Browser, navigate to **Client Computers <Client> | Exchange Mailbox**.
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 Mailbox**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.

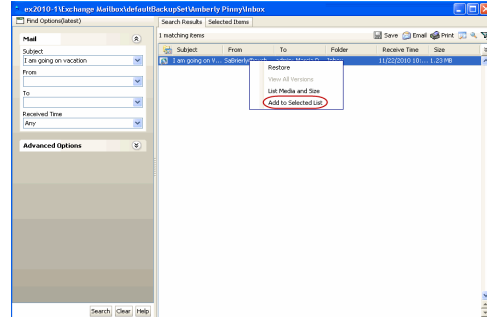
3. Enter search criteria (e.g., Subject, From, To, etc.) as explained in the previous sections.

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

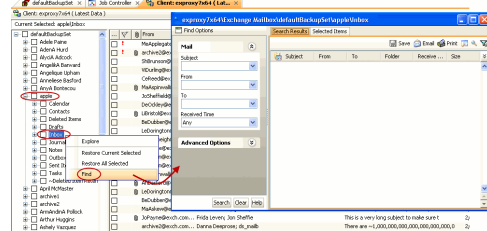
When you access Find as part of a Browse operation, keep in mind that the time range values are not pre-populated by any previously selected time range settings entered on the Browse Options or Advanced Browse Options dialog.

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

4. Right-click a mailbox or mailbox 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.

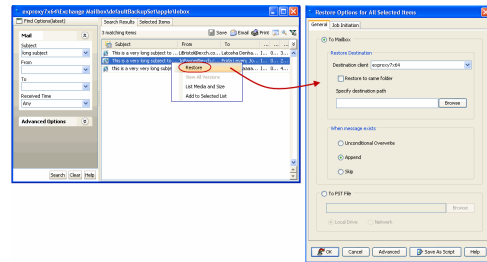
6. Click **Search**.

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 Mailbox**.
2. Right-click **Backup Set** or **Subclient**, click **All Tasks | Find**.
3. Enter search criteria and click **Search**.
4. Right-click a message or a mailbox item from the search results and then select **Restore**.
6. Click **To Mailbox**.
7. In the **Destination Client** list, select the name of client computer.

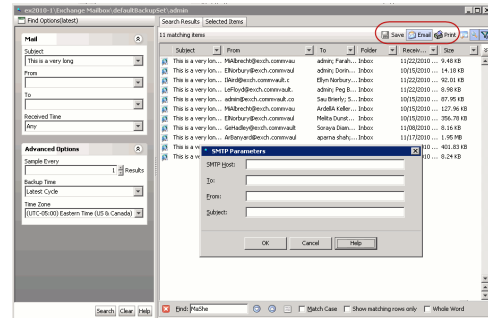


In cases where the mailbox alias name has changed, it is strongly recommended to restore messages out-of-place to the current mailbox alias name. Otherwise, attempting to restore the data in-place to a mailbox alias that no longer exists will cause the restore operation to fail.

- Click **OK**.

SAVE, EMAIL, OR PRINT SEARCH RESULTS

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



PERFORMING AN OUT-OF PLACE RESTORE

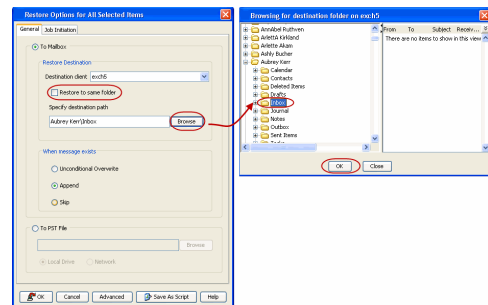
By default, the Exchange Mailbox iDataAgent restores data to the client computer from which it originated; this is referred to as an in-place restore. You can also restore the data to another client computer or another folder on the same client.

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

RESTORING TO A DIFFERENT FOLDER ON THE SAME CLIENT

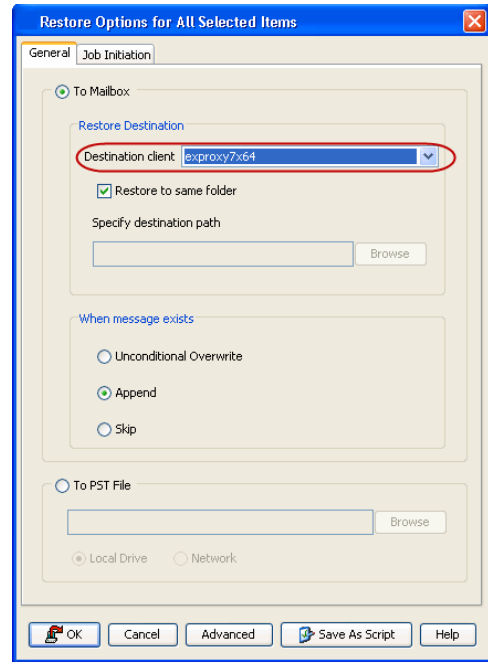
Follow the steps given below to restore data to a different folder on the same client from which data is backed up:

- From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
- Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
- Click **OK**.
- Select a mailbox or a message from a mailbox or a mailbox item from the **Client Browse** window and click **Recover All Selected**.
- Click **To Mailbox** and clear the **Restore to Same Folder** check box.
- Click **Browse** and select a folder on the Destination client.
- Click **OK**.
- Click **OK** to start the restore.



RESTORING TO A DIFFERENT CLIENT

- From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
- Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
- Click **OK**.
- Select a mailbox or a message from a mailbox or a mailbox item from the **Client Browse** window and click **Recover All Selected**.
- Click **To Mailbox**.
- 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.
- Click **OK** to start the restore.



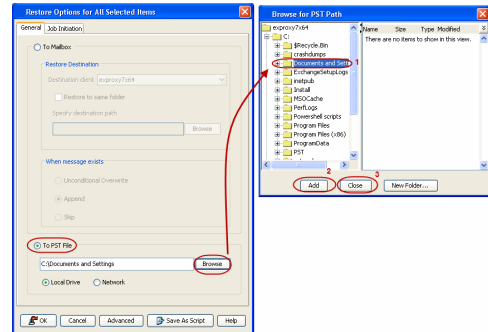
RESTORING TO A PST FILE

Follow the steps given below to restore a mailbox or a message or a mailbox item to a PST file:

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Select a mailbox or a message from a mailbox or a mailbox item from the **Client Browse** window and click **Recover All Selected**.
5. Click **To PST File**.
6. Click **Browse** and select the a folder on the client computer to save the PST file.

You can also save the PST in a network location. Click **Network** and browse to select a folder on any other client in the domain.

7. Click **OK** to start the restore.



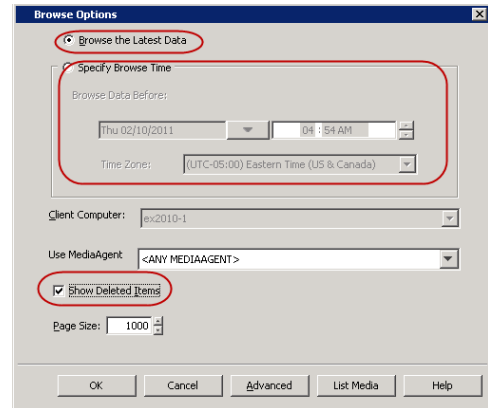
RESTORING MESSAGES FROM DELETED MAILBOXES OR FOLDERS

Follow the steps given below to restore messages from deleted mailboxes or folders:

1. From the CommCell Browser, navigate to **Client Computers | <Client> | Exchange Mailbox**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse/Browse Backup Data**.
3. Click **Show Deleted Item**.

If you want to browse the data backed up before a specific time, select the **Specify Browse Time** option and enter date and time.

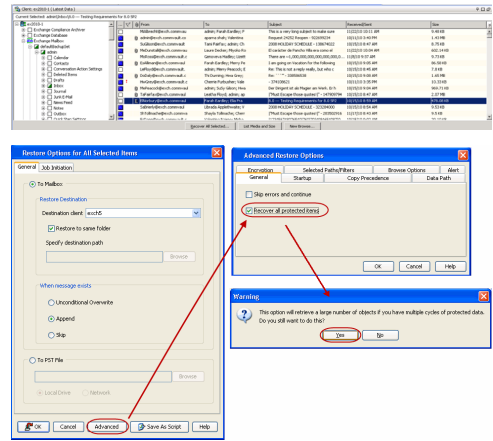
4. Click **OK**.



5. Select a mailbox folder in the left pane and select one or more messages in the right-pane.

6. Click **Recover All Selected**.

8. Click **To Mailbox**.
9. In the **Destination client** list, select the client.
10. Click **Advanced**.
12. Click **Recover all protected items**.
13. Click **Yes**. To reduce the time in retrieving the messages, you may want to narrow the time frame while specifying the browse time.
14. Click **OK**.
15. Click **OK** to start the restore.



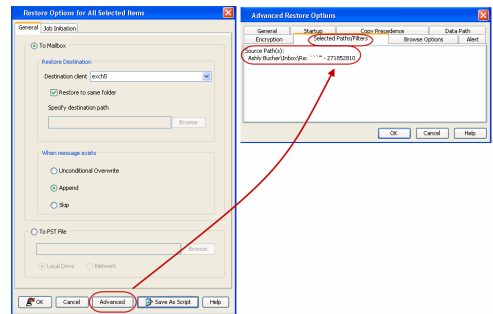
REVIEWING DATA SELECTED FOR RESTORE

When you select multiple mailboxes, messages and mailbox items from multiple locations, you can review all the data and locations before starting data 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 Mailbox**.
2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
3. Click **OK**.
4. Select a mailbox, a message, or a mailbox item from the **Client Browse** window and click **Recover All Selected**.
5. Click **To Mailbox**.
6. 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.

If you want to restore to a different folder, clear the **Restore to Same Folder** check box and specify the destination path.

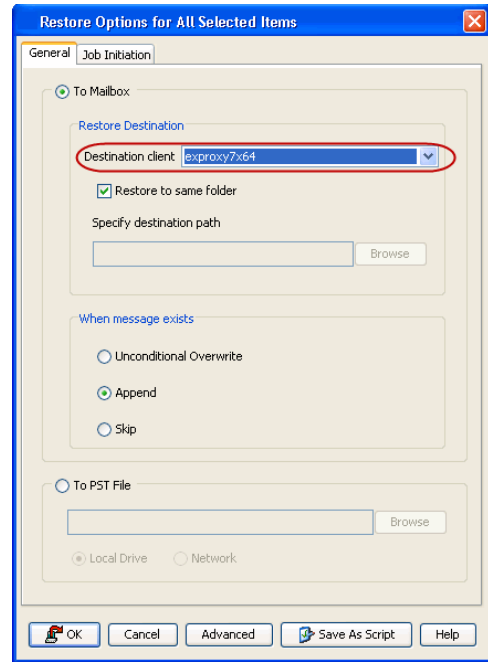
7. Click **Advanced**.
8. Select the **Selected Paths/Filters** tab.
9. Click **OK**.
10. Click **OK** to start the restore.



RESTORING TO A DIFFERENT EXCHANGE VERSION

When performing a cross-application restore of Exchange mailboxes 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 Mailbox**.
 2. Right-click the **defaultBackupSet** and click **All Tasks | Browse Backup Data**.
 3. Click **OK**.
 4. Select a mailbox or a message from a mailbox or a mailbox item from the **Client Browse** window and click **Recover All Selected**.
 5. Click **To Mailbox**.
 6. 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.
- If you want to restore to a different folder, clear the **Restore to Same Folder** check box and specify the destination path.
7. Click **OK** to start the restore.



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:

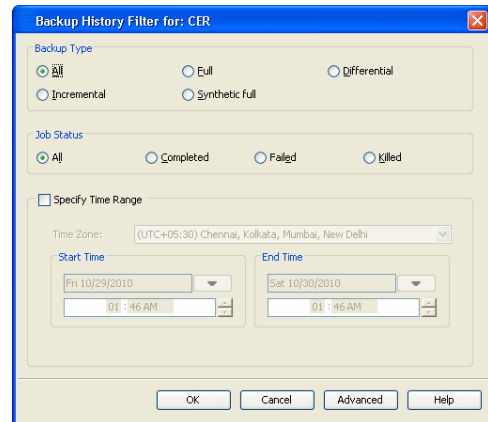
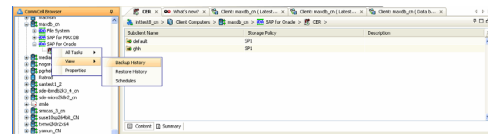
- To restore point-in-time data associated with a specific backup job, such as full, incremental, differential, etc.
- To restore CommServe DR data for the disaster recovery or for creating a hot-site purposes.
- To restore multiplexed data from the same client.

Consider the following when restoring by jobs:

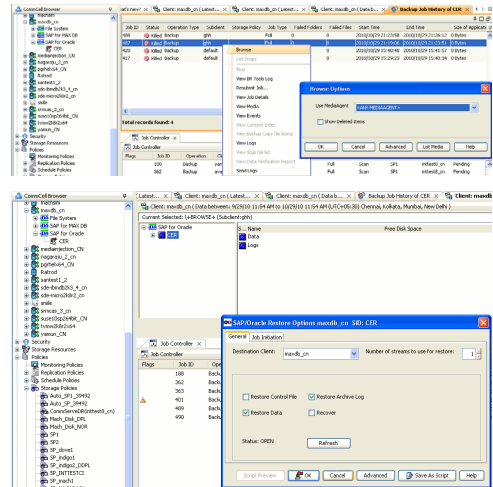
- Run a restore by jobs whenever you want to restore the entire contents of the job.
- Avoid running restores by jobs for jobs associated with the default subclient. If you do this, the entire contents of the machine will be restored. As such, this may cause problems (e.g., the machine might run out 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**.

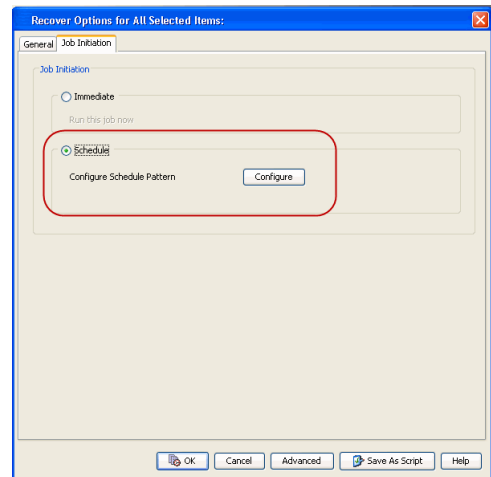
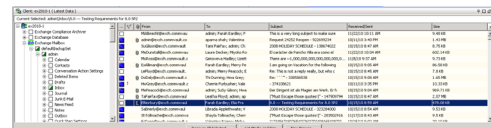
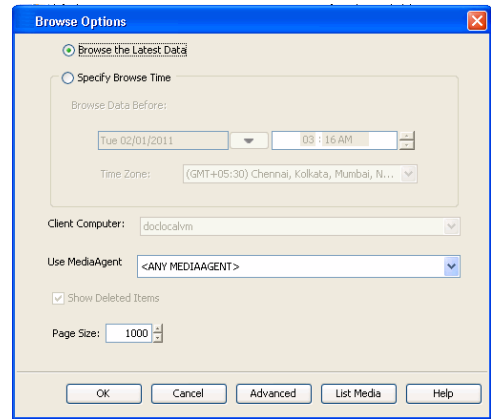


3. From the Backup Job History window, right-click the backup job that need to be restored and select **Browse**.
4. From the **Browse Options** dialog box, click **OK** to execute the browse using the **Browse the Latest Data** option.
5. From the **Browse** window, select the instance node in the left 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**.



SCHEDULING A RESTORE

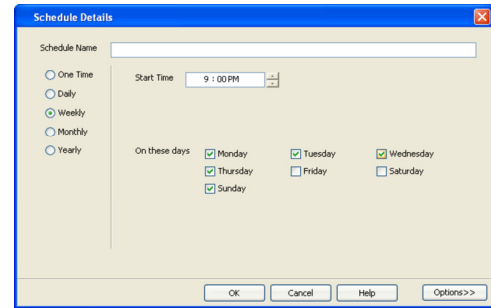
1.
 - From the CommCell Console, navigate to **Client Computers | Exchange Mailbox**.
 - Right-click a backup set and click **All Tasks | Browse Backup Data**.
 - Click **OK**.
2.
 - Select one or more mailboxes in the left pane. The mailbox items (e.g., calendars, journals, etc.) will be selected in the right pane.
 - Click **Recover All Selected**.
3.
 - Click **Job Initiation** tab and click **Schedule**.
 - Click **Configure**.



4. 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.



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

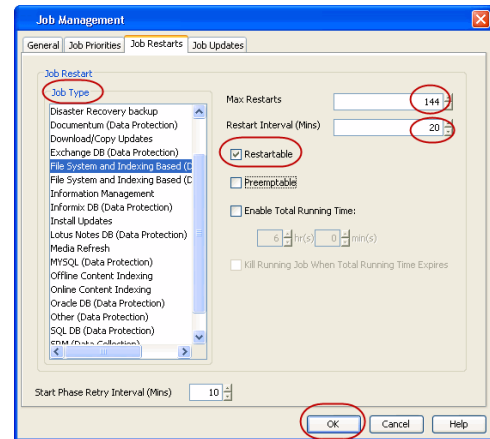
Jobs that fail to complete successfully are automatically restarted based on the job restartability configuration set in the Control Panel. Keep in mind that changes made to this configuration will affect all jobs in the entire CommCell.

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.

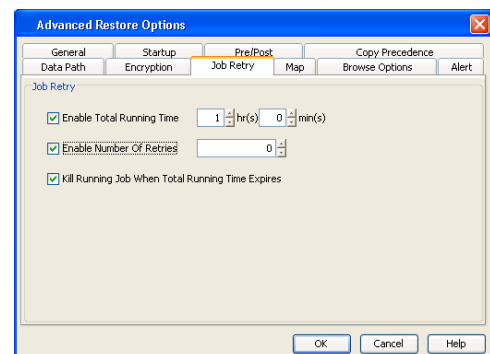
CONFIGURE JOB RESTARTABILITY AT THE COMMSERVE LEVEL

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 Mailbox | <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:

SUSPEND	Temporarily stops a job. A suspended job is not terminated; it can be restarted at a later time.
RESUME	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.
KILL	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
Skip Errors and Continue	<p>This option enables you 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"> 1. From the CommCell Browser, click Client Computers <Client> Exchange Mailbox. 2. Right-click the <Backup set> that contains the data you want to restore and select All Tasks Browse Backup Data. 3. In the Browse Options dialog box, click OK. 4. In the Client Browse tab, select the data to be restored and click Recover all Selected. 5. In the Restore Options for All Selected Items dialog box, click Advanced. 6. In the Advanced Restore Options dialog box, click General. 7. On the General tab, select the Skip errors and continue check box. 8. Click OK. 	
Startup Options	<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"> 1. From the CommCell Browser, click Client Computers <Client> Exchange Mailbox. 2. Right-click the <Backup set> that contains the data you want to restore and select All Tasks Browse Backup Data. 3. In the Browse Options dialog box, click OK. 4. In the Client Browse tab, select the data to be restored and click Recover all Selected. 5. In the Restore Options for All Selected Items dialog box, click Advanced. 6. In the Advanced Restore Options dialog box, click Startup. 7. On the Startup tab, select Change Priority. 8. Enter a priority number - 0 is the highest priority and 999 is the lowest priority. 9. Select the Start up in suspended State check box to start the job in a suspended state. 	Refer to Job Priority and Priority Precedence.

	10. Click OK .	
Copy Precedence	<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"> 1. From the CommCell Browser, click Client Computers <Client> Exchange Mailbox. 2. Right-click the <Backup set> that contains the data you want to restore and select All Tasks Browse Backup Data. 3. In the Browse Options dialog box, click OK. 4. In the Client Browse tab, select the data to be restored and click Recover all Selected. 5. In the Restore Options for All Selected Items dialog box, click Advanced. 6. In the Advanced Restore Options dialog box, click Copy Precedence. 7. On the Copy Precedence tab, select the Restore from copy precedence check box. 8. Enter the copy precedence number. 9. Click OK. 	Refer to Recovering Data From Copies.
Data Path Options	<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"> 1. From the CommCell Browser, click Client Computers <Client> Exchange Mailbox. 2. Right-click the <Backup set> that contains the data you want to restore and select All Tasks Browse Backup Data. 3. In the Browse Options dialog box, click OK. 4. In the Client Browse tab, select the data to be restored and click Recover all Selected. 5. In the Restore Options for All Selected Items dialog box, click Advanced. 6. In the Advanced Restore Options dialog box, click Data Path. 7. On the Data Path tab, select the MediaAgent and Library. 8. Select the Drive Pool and Drive for optical and tape libraries. 9. Select the name of the Proxy server if you wish to restore using a proxy server. You can select the Proxy server only when you are restoring from a snapshot. This option is not available for a regular restore. 10. Click OK. 	Refer to Change Data Path.
Encryption	<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"> 1. From the CommCell Browser, click Client Computers <Client> Exchange Mailbox. 2. Right-click the <Backup set> that contains the data you want to restore and select All Tasks Browse Backup Data. 3. In the Browse Options dialog box, click OK. 4. In the Client Browse tab, select the data to be restored and click Recover all Selected. 5. In the Restore Options for All Selected Items dialog box, click Advanced. 6. In the Advanced Restore Options dialog box, click Encryption. 7. Enter the Pass Phrase. 8. Click OK. 	Refer to Data Encryption.
Browse Options	<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"> 1. From the CommCell Browser, navigate to Client Computers <Client> iDataAgent. The default backup set and subclient are displayed on the right-hand window pane. 2. Right-click the Backup Set, click All Tasks and then click Browse. 3. From the Browse Options window, click OK. 4. Select the data to be restored and click Recover all Selected. 	Refer to Job Management.

	<ol style="list-style-type: none"> 5. From the Restore Options for All Selected Items dialog box, click Advanced. 6. From the Browse Options tab, select Restore deleted items option. 7. Select Specify Time Range option to specify the time zone, start time and end time for the deleted items to be restored. 8. Click OK. 	
Alerts	<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"> 1. From the CommCell Browser, click Client Computers <Client> Exchange Mailbox. 2. Right-click the <Backup set> that contains the data you want to restore and select All Tasks Browse Backup Data. 3. In the Browse Options dialog box, click OK. 4. In the Client Browse tab, select the data to be restored and click Recover all Selected. 5. In the Restore Options for All Selected Items dialog box, click Advanced. 6. In the Advanced Restore Options dialog box, click Alerts. 7. Click Add Alert. 8. From the Add Alert Wizard dialog box, select the required threshold and notification criteria and click Next. 9. Select the required notification types and click Next. 10. Select the recipients and click Next. 11. Click Finish. 12. Click OK. 	Refer to Alert.
Command Line Restores	<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 Save As Script option.</p>	Refer to Command Line Interface.
CommCell Readiness Report	<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"> 1. From the Tools menu in the CommCell Console, click Reports. 2. Navigate to Reports CommServe CommCell Readiness. 3. Click the Client tab and click the Modify button. 4. In the Select Computers dialog box, clear the Include All Client Computers and All Client Groups check box. 5. Select the client from the Exclude list. 6. Click the Include > button. 7. Click OK. 8. Click the MediaAgent tab. 9. Clear the Include All MediaAgents checkbox. 10. Select the MediaAgent from the Exclude list. 11. Click Include >. 12. Click Run. <p>The generated report is displayed.</p>	Refer to CommCell Readiness Report.
Restore Job Summary Report	<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"> 1. From the Tools menu in the CommCell Console, click Reports. 2. Navigate to Reports Jobs Job Summary. 3. Click Data Recovery on the General tab in the right pane. 4. On the Computers tab, select the client and the agent for which you want to run the report. 5. Click Run. 	Refer to Restore Job Summary Report.

Data Aging - Exchange Mailbox iDataAgent

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Getting Started

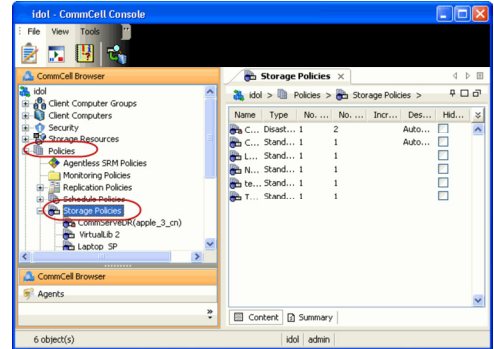
Extended Retention Rules

GETTING STARTED

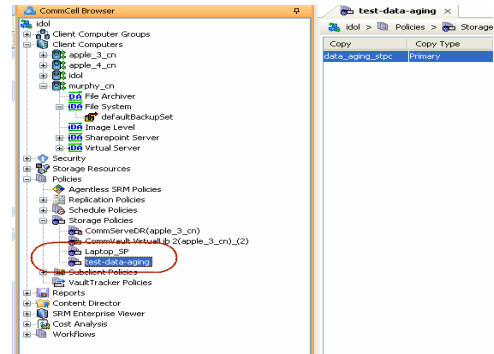
Data Aging is the process of removing old data from secondary storage to allow the associated media to be reused for future backups.

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.

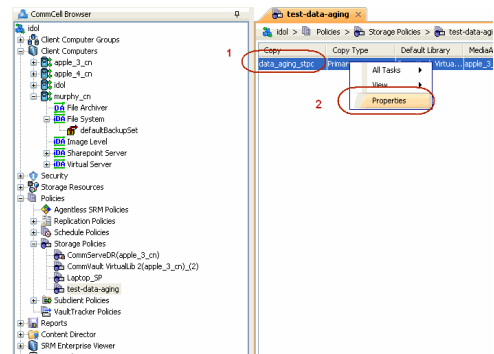
1. From the CommCell Browser, navigate to **Policies | Storage Policies**.



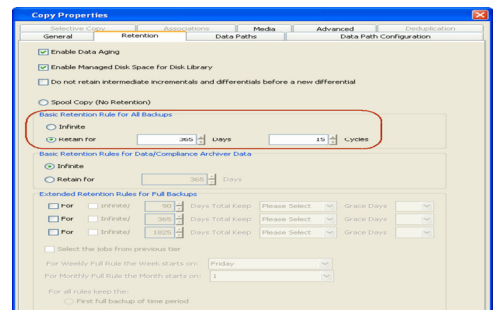
2. Highlight the **Storage Policy**.



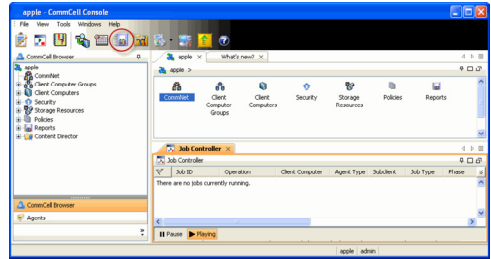
3. From the right pane, right-click the **Storage Policy Copy** and click the **Properties**.



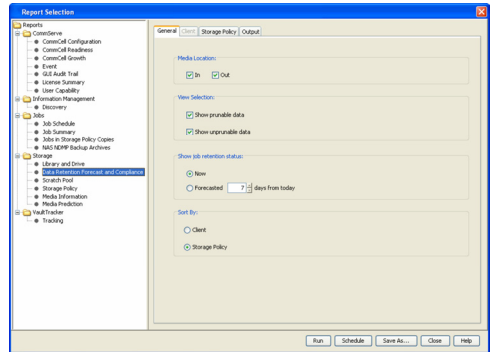
4.
 - Click the **Retention** tab.
 - Click the **Retain For** in the **Basic Retention Rules for All Backups** area.
 - Enter number of days to retain the data.
 - Enter number of cycles to retain the data.
 - Click **OK**.



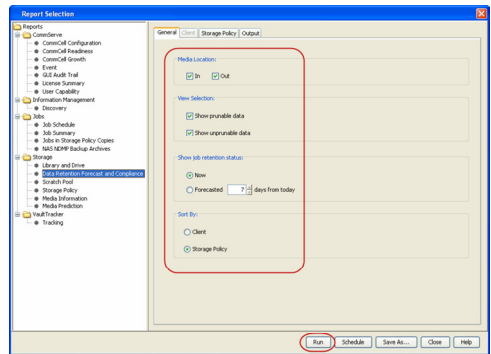
5. From the CommCell Browser, click the **Reports** icon.



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



7. Click **Run**.

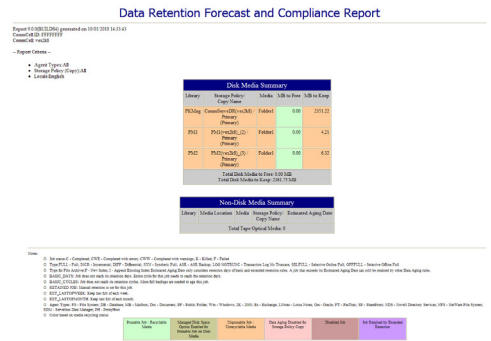


8. The report will display the data to be pruned when a data aging job is run.

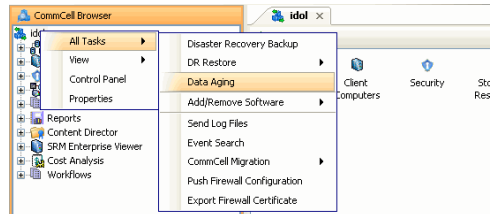
To ensure only data intended for aging is actually aged, it is important to identify the data that will be aged based on the retention rules you have configured. Hence, ensure this report includes only the data you intend to age.

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

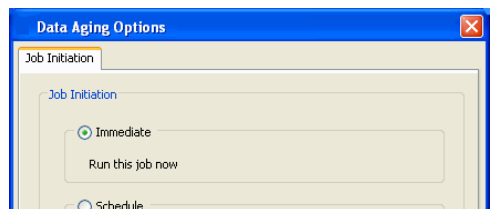
Once you run a data aging job, the data will be lost.



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

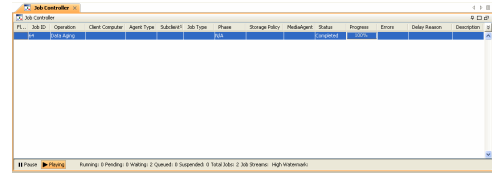


10. Select **Immediate** in the Job Initiation section and click **OK**.



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:

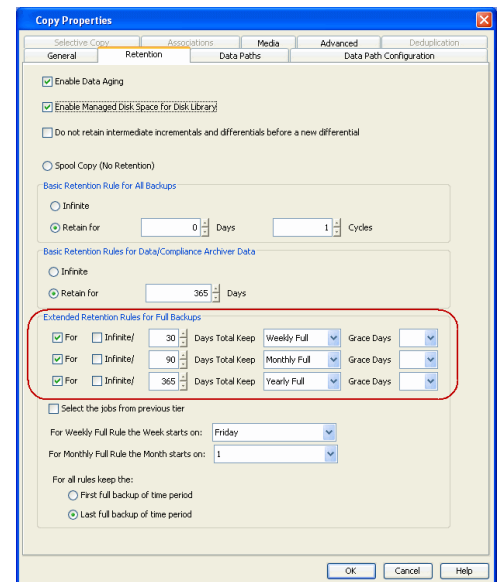
- You may want to retain your weekly full backups for 30 days.
- You may want to retain your monthly full backup for 90 days.
- You may want to retain your yearly full backup for 365 days.

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 - Exchange Mailbox iDataAgent

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- 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 mailboxes, folders in a mailbox, 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. You can apply regular expressions or wildcards patterns to filter data.

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. From the **Global Filter Category** list, select **Exchange Mailbox Filters**.
4. Click the **Add** button to add the folder pattern in the **Folder Name** field to be excluded from data protection operations.
5. 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.
 - o **Use Cell Level Policy** to enables or disables Global Filters for this subclient.

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.

4. Click **OK**.

LICENSE ADMINISTRATION

REQUIRED LICENSES

The Exchange Mailbox iDataAgent requires the **iDataAgent for Exchange Mailbox** 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
CONFIGURATION	Agent	Exchange Mailbox Properties (General) Exchange Mailbox Properties (Version) Exchange Mailbox Properties (Security) Exchange Mailbox Properties (Activity Control) Exchange Mailbox Properties (AD Server) Exchange Mailbox Properties (Storage Device)	Change User Account
	Backup Set	Backup Set Properties of: <Backup Set> (General) Backup Set Properties of: <Backup Set> (Auto Discover) Backup Set Properties of: <Backup Set> (Security)	
	Subclient	Subclient Properties of: <Subclient Name> (General) Subclient Properties of: <Subclient Name> (Content) Subclient Properties of: <Subclient Name> (Filters) Subclient Properties of: <Subclient Name> (Pre/Post Process) Subclient Properties of: <Subclient Name> (Storage Device) Subclient Properties of: <Subclient Name> (Auto-discovery) Subclient Properties of: <Subclient Name> (Activity Control) Subclient Properties of: <Subclient Name> (Encryption) Subclient Properties of: <Subclient Name> (Security)	Add/Modify Mailbox User Account (Pre/Post) Data Paths for <Storage Policy Name> Configure AD User Group for Auto-discovery Authenticate Active Directory Domain Controller Change Mailbox Stores for Auto-discovery
BACKUP	Backup Options	Backup Options for Subclient: <Subclient Name>	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)	Alert Wizard

		Advanced Backup Options (Alert)	
RESTORE	Restore Options	Restore Options for All Selected Items (General)	Save As Script
		Restore Options for All Selected Items (Job Initiation)	Command Line XML Options
	Advanced Restore Options	Advanced Restore Options (General)	Alert Wizard
		Advanced Restore Options (Startup)	
		Advanced Restore Options (Copy Precedence)	
		Advanced Restore Options (Data Path)	
		Advanced Restore Options (Encryption)	
		Advanced Restore Options (Selected Path/Filters)	
		Advanced Restore Options (Browse Options)	
		Advanced Restore Options (Alert)	

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 Mailbox iDataAgent

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Viewing Job History

OVERVIEW

The Erase Data feature allows you to permanently erase any data that can be 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 mailboxes, folders in a mailbox, messages within a folder, 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.

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

NOTES

- Your screen may look different from the example shown.

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

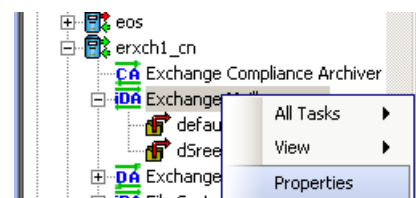
RELATED TOPICS

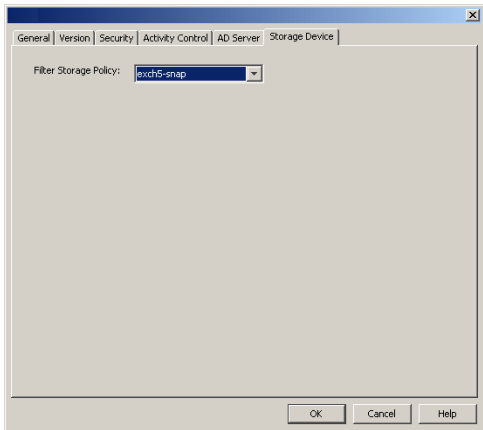
Support

The list of Agents that support erasing data.

How Do I

The most common procedures for erasing data.



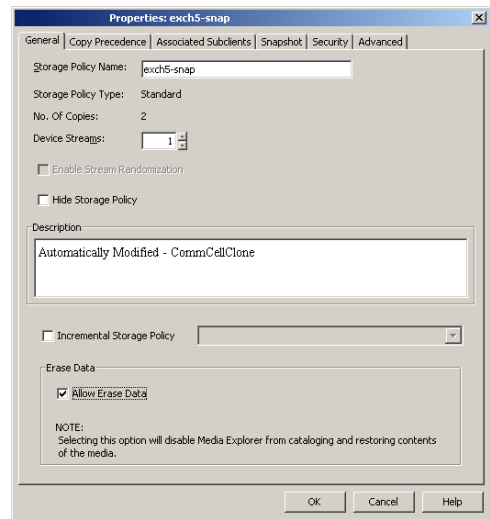
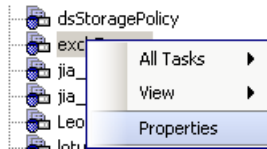


3. Click **OK**.

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

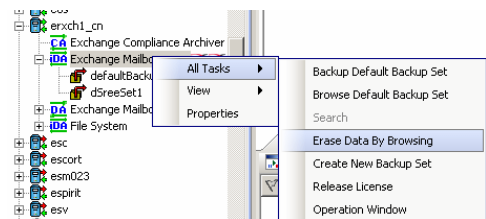
After the configuration has been completed, you can now browse and erase data.

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.



2. 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.

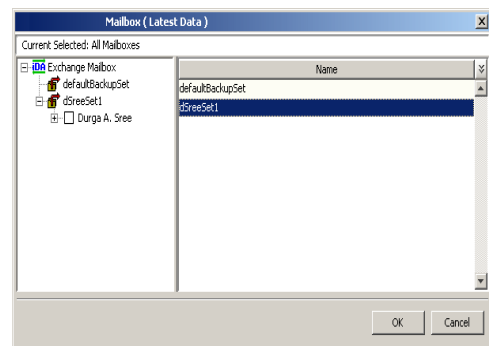
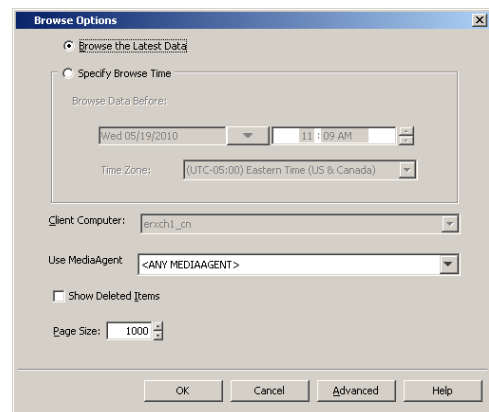
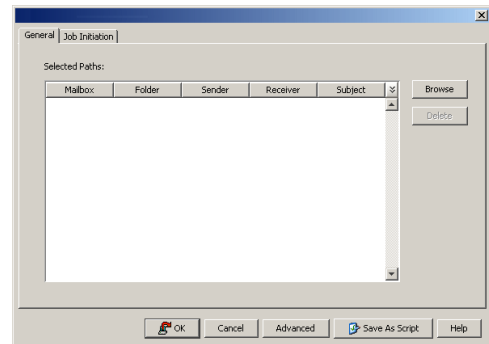
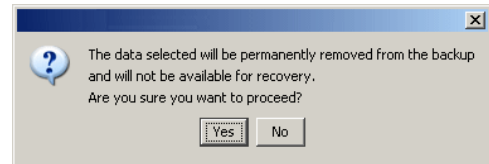
- Optionally, you can click **Advanced** to configure an alert for this job.
- Click **Job Initiation** if you would like to run this job immediately or schedule it.
 - Click **Immediate** and then **OK** to run the job now. When the job is done, Job Controller displays Completed.
 - If **Schedule** 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

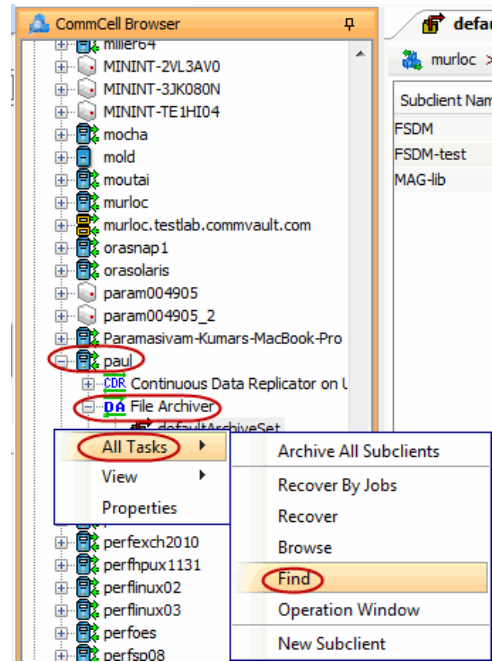
The Find feature allows you to search and locate data such as files, directories, and messages in a backup. Once located, this data can be erased. After erasing the data, it can no longer be browsed or restored. However, the data will remain on the media and take up space until it is aged off according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

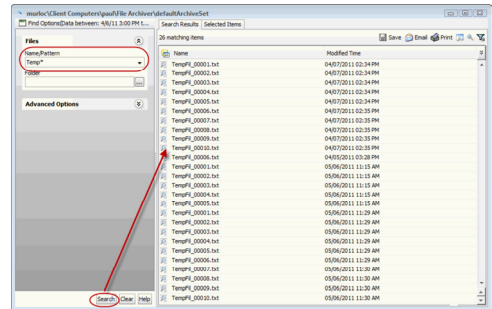


- Enter search criteria. For example, you can type a file name in **Name/Pattern** to narrow the search. You can search for partial words without the need for wildcard characters at the beginning and/or end of the search string.

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.

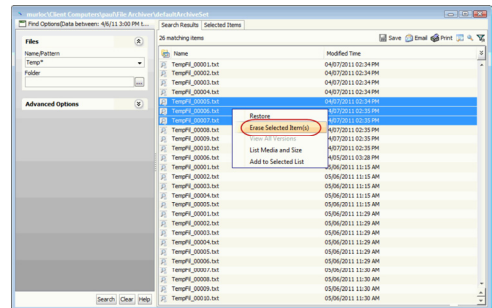
Click **Search**. The data that matches the criteria are displayed in Search Results.



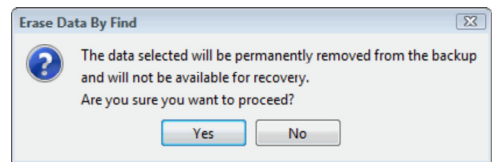
- Select one or more items.

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

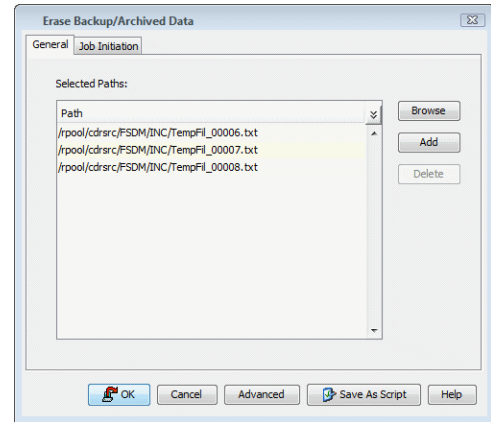
You can also erase data when it has been moved to Selected Items.



- Click **Yes**.



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



ERASING MESSAGES FROM OUTLOOK

Two alternate methods are available to erase data from Outlook. They are:

- Browsing and Erasing Data from Outlook
- Finding and Erasing Data from Outlook

BROWSING AND ERASING DATA FROM OUTLOOK

This functionality provides a convenient alternative to the CommCell Console for authorized users to browse and erase data from the Outlook Add-In. Keep in mind that Administrative Management capabilities are required in the CommCell for the ID of the logged in mailbox user.

▶ To browse and erase messages from Outlook Add-In:

1. Log on to your mailbox in Outlook.
2. Select **Tools -> Mailbox Archiver -> Find and Recover Messages**.
3. Depending on your configuration, an authentication window may display. If applicable, enter the user name and password authorized to access the CommCell, then click **OK**. Single sign-on users will not receive this prompt and can skip to the next step.
4. From the **Find/Browse and Recover Messages** dialog, click the **Browse and Recover Messages** tab. The **Browse Options** dialog will display.
5. From the **Browse Options** dialog, choose either **Browse the latest data** or **Specify Browse Time**. If you selected **Specify Browse Time** then you will need to enter the **Browse Data Before** date, time and time zone in the corresponding fields. Optionally, you can click **Advanced** to access the **Advanced Browse Options** and enter the **Exclude Data Before** date, time and time zone. After specifying the browse time and any advanced options, click **OK**. The Exchange Server Selection dialog will display.
6. From the Exchange Server Selection dialog, specify which Exchange Server you want to browse then click **OK**.
7. If no messages were located within the specified time range, a pop-up window will indicate that no data was found. Otherwise, the messages that were found within the specified time range will appear in the display pane.
8. To erase data from the browse results, right-click on the desired messages in the display pane of the **Browse and Recover Messages** tab, then click **Erase All Selected**.
9. A confirmation dialog will indicate that all the selected messages will be permanently deleted. Click **OK** to continue.
10. A confirmation dialog will indicate that the erase data request has been submitted. Click **OK**. To monitor the progress of the erase data job, check the Job Controller in the CommCell Console.

FINDING AND ERASING DATA FROM OUTLOOK

This functionality provides a convenient alternative to the CommCell Console for authorized users to find and erase data which matches specified search criteria from the Outlook Add-In. Keep in mind that Administrative Management capabilities are required in the CommCell for the ID of the logged in mailbox user.

The advanced search fields are only available for backwards compatibility support of searching legacy content indexes created by prior releases of this product.

□ To find and erase messages in Outlook Add-In::

1. Log on to your mailbox in Outlook.
2. Select **Tools -> Mailbox Archiver -> Find and Recover Messages**.
3. Depending on your configuration, an authentication window may display. If applicable, enter the user name and password authorized to access the

CommCell, then click **OK**. Single sign-on users will not receive this prompt and can skip to the next step.

4. From the Find and Recover Messages (Search) dialog box select one of the following options, then enter the desired search criteria.
 - o To search data archived by the Exchange Mailbox Archiver Agent, select the **Exchange Archiver** option.
 - o To search data backed up by the Exchange Mailbox iDataAgent, select the **Exchange Mailbox** option.
5. Optionally, you can click the Time Range tab to specify a time range in which to search. To set the browse time range, select a **Start Time** and **End Time** in the **Search Time Range** group box. If you want to narrow the search to include only messages received within a specified time range, click the **Specify Time Range** checkbox then enter the **Start Time** and **End Time** in the **Receive Time Range** group box.
6. Optionally, if you are searching a legacy content index, you can click the Advanced Search tab and enter advanced search criteria.
7. Once all search criteria has been entered, click **Find Now**.
8. If there is more than one Exchange Server and/or archive set that may be searched, an Exchange Server Selection pop-up dialog will display. Select the appropriate options and click **OK** to continue.
9. If no messages matched the specified search criteria, a pop-up will indicate that no data was found. Otherwise, the messages that matched the search criteria will appear in the display pane.
10. If you would like to save the search results to a delimited text file, then right-click on the desired messages in the display pane and select **Export Results View**. Enter the path and file name and click **Save**.
11. To erase data from the search results, click on the desired messages in the display pane then click **Erase All Selected**.
12. A confirmation dialog will indicate that all the selected messages will be permanently deleted. Click **OK** to continue.
13. A confirmation dialog will indicate that the erase data request has been submitted. Click **OK**. To monitor the progress of the erase data job, check the Job Controller in the CommCell Console.

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 `SelDelete.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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Outlook Add-In provides end users with the ability to restore messages that were backed up from their mailboxes.

WHERE TO INSTALL

Use the following procedure to mass deploy Outlook Add-in to end users.

Outlook 2007/2010 must be installed on the client computers on which Outlook Add-In will be installed.

DOWNLOAD SOFTWARE

To download the necessary installation files:

1. Log on to the Active Directory Server using an account with Domain Administrator privileges.
2. Click the **Download Now** button located on the right for the version of Outlook used in your environment.

If your environment contains both 32-bit and 64-bit editions of Outlook, you must download both packages and repeat the installation procedure separately for each edition of Outlook.

3. Select a location to save the .zip file.
4. Navigate to the location of the .zip file and double-click the file.
5. Select a location to extract the files.

A folder named **Outlook_Addin32bit** or **Outlook_AddinX64** will be created in the specified location.

INSTALLATION

1. Log on to the Active Directory Server using an account with Domain Administrator privileges.
2. Navigate to **Start | Group Policy Management**.

3. Right-click the OU container to which you want to link the Group Policy Object (GPO) and select **Create a GPO in this domain, and Link it here...**

BEFORE YOU BEGIN

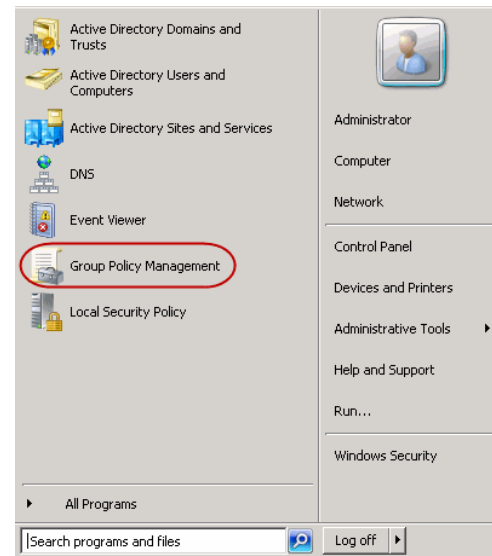
Verify System Requirements

Make sure that the computers in which you wish to install the software satisfy the System Requirements.

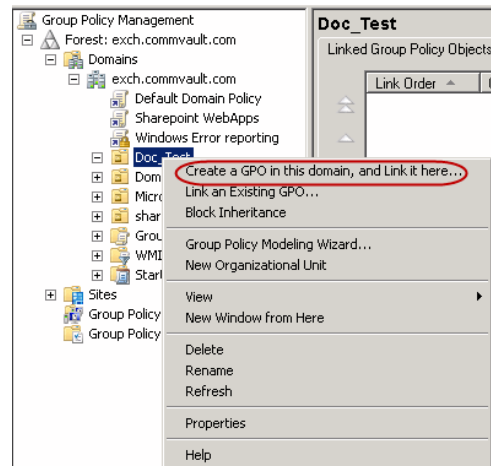
FOR OUTLOOK 32-BIT EDITIONS:



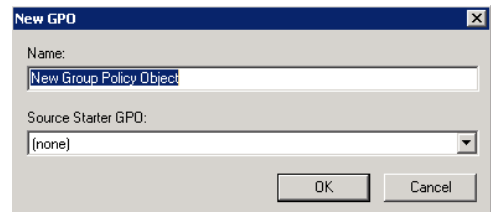
FOR OUTLOOK 64-BIT EDITIONS:



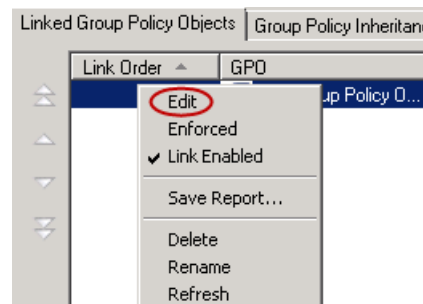
4.
 - Create a new GPO for installing your MSI package. Give this GPO a descriptive name.
 - Click **OK**.



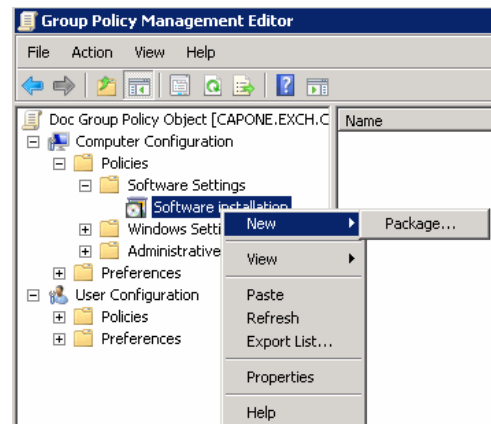
5. Right-click the new GPO and select **Edit**.



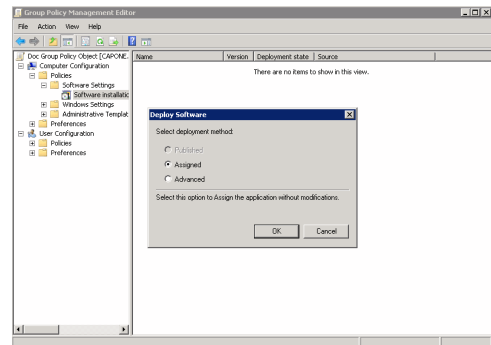
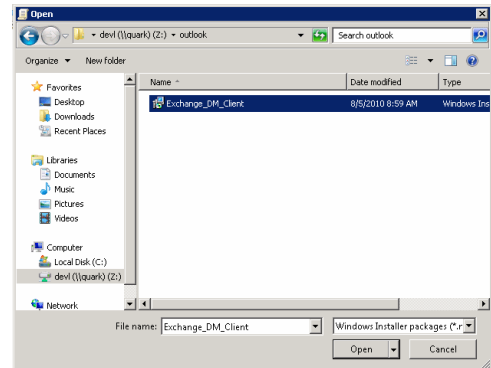
6.
 - Navigate to **Computer Configuration | Policies | Software Settings**.
 - Right-click **Software Installation**.
 - Click **New | Package**.



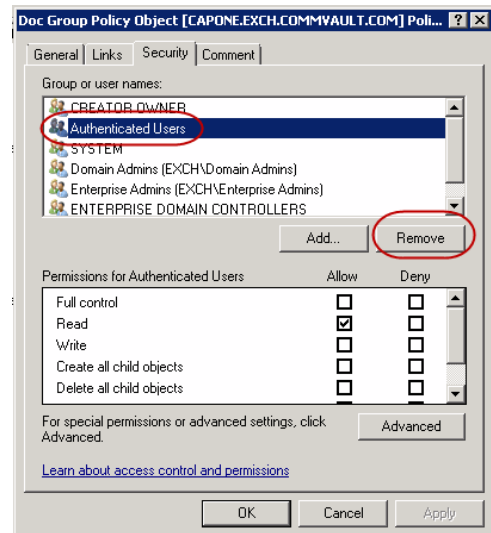
7.
 - Navigate to the **Outlook_Addin32bit/Outlook_AddinX64** folder.
 - Select the `Exchange_DM_Client.msi` file.
 - Click **Open**.



- 8.
- Click **Assigned**.
 - Click **OK**.



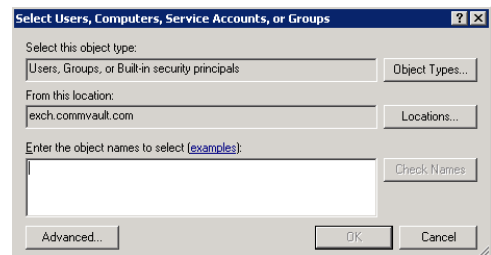
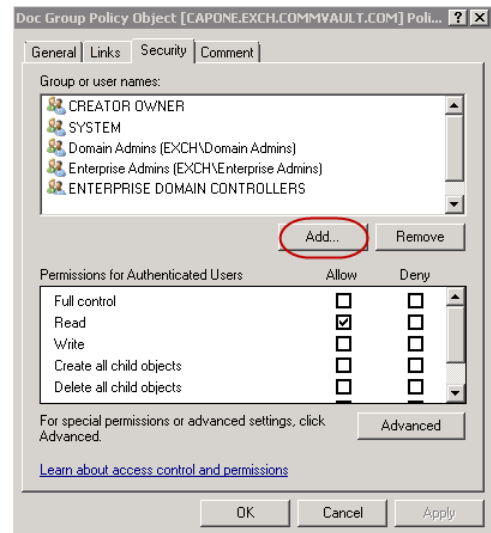
- 9.
- Right-click the GPO, click **Properties**, and then click the **Security** tab.
 - Remove **Authenticated Users** from the list.



10. Click **Add**.

11.
 - Select the security group to which you plan to have this policy applied.
 - Give the group **READ** and **Apply Group Policy** permissions.
 - Click **OK**.

12. Instruct all users to reboot their computers.
The Outlook Add-In installation will be complete upon reboot of the computers.



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SKIP THIS PAGE IF YOU INSTALLED OUTLOOK ADD-IN USING AD GROUP POLICIES.

Click **Next** > to continue.

WHERE TO INSTALL

The following procedure provides the steps to install Outlook Add-In on a single computer.

Outlook 2007/2010 must be installed on the client computer on which Outlook Add-In will be installed.

INSTALLATION

1. Log on to the client computer as Administrator or as a member of the Administrator group on that computer.
2. Run **Setup.exe** from the **Software Installation Disc**.
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. Read the license agreement, then select **I accept the terms in the license agreement**.

Click **Next** to continue.

6.
 - Expand **Client Modules** | **Archive Management** | and select **Outlook Add-In Client**.

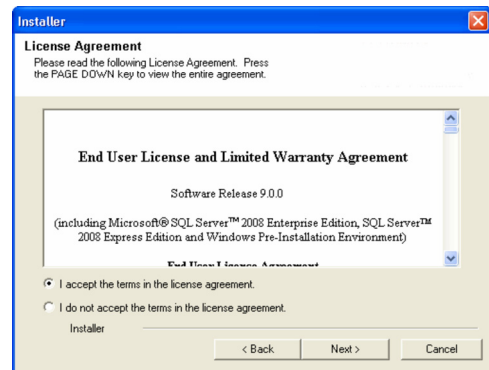
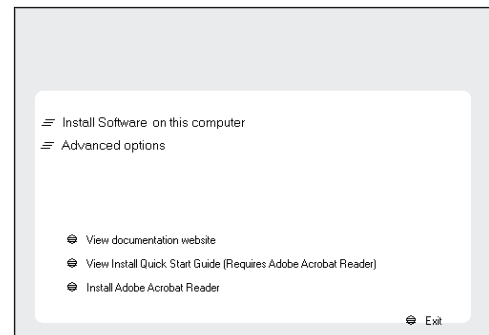
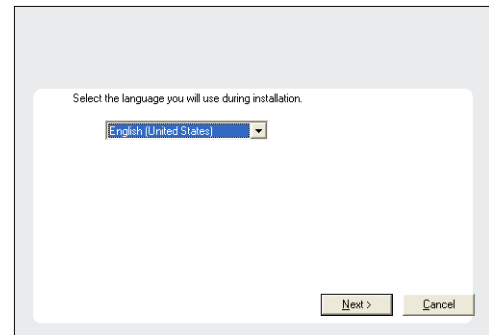
BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

Verify System Requirements

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



- Click **Next**.

7. 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.

8. Verify the default location for software installation.

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

Click **Next**.

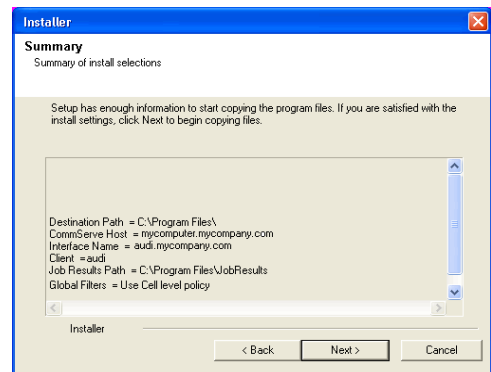
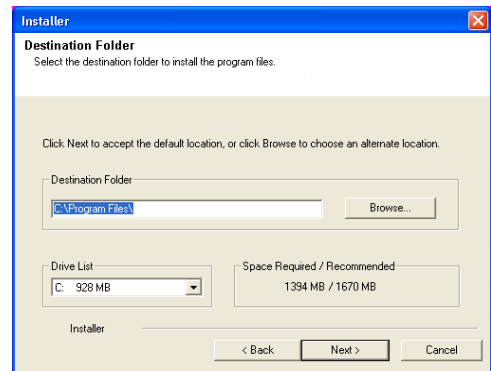
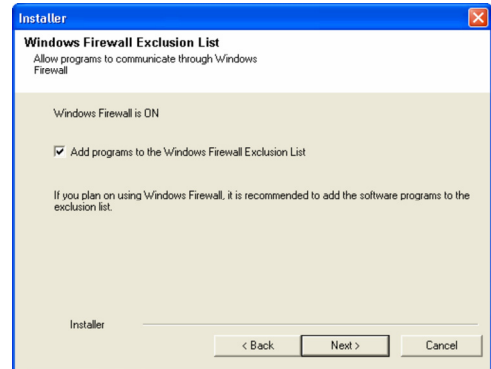
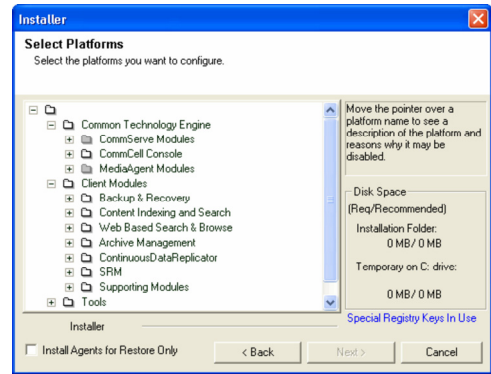
- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:

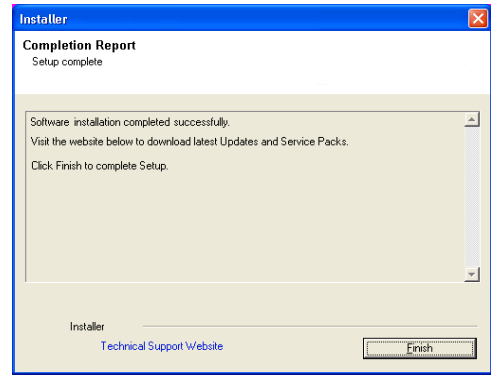
/ : * ? " < > | #

It is recommended that you use alphanumeric characters only.

9. Click **Next**.

10. Click **Finish**.





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SKIP THIS PAGE IF THE EXCHANGE MAILBOX IDATAAGENT IS INSTALLED ON THE EXCHANGE SERVER.

Click **Next** > to continue.

If the Exchange Mailbox iDataAgent is installed on a computer other than the Exchange Server, you must install the OWA Proxy Enabler on the Exchange Server to facilitate communication between the Exchange Server and the Exchange Mailbox iDataAgent. The following section provides the steps necessary to install the OWA Proxy Enabler.

WHERE TO INSTALL

Depending on your Exchange version, install the OWA Proxy Enabler on the following:

EXCHANGE SERVER 2003

- Install directly on the Exchange Server.

EXCHANGE SERVER 2007

- Install on the Mailbox Role Server.

EXCHANGE SERVER 2010

- Install on the Client Access Role server to which the Active Directory User Profiles point.

INSTALLATION

1. Log on to the Exchange Server using the Exchange Administrator credentials.
2. Run **Setup.exe** from the **Software Installation Disc**.
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. Read the Welcome screen.
Click **Next** to continue, if no other applications are running.

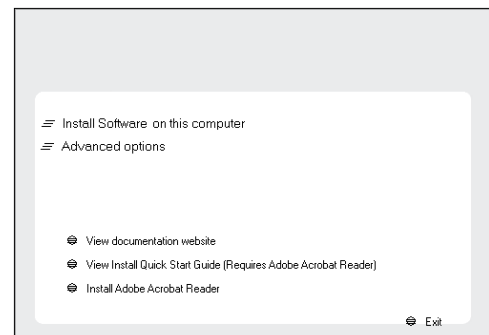
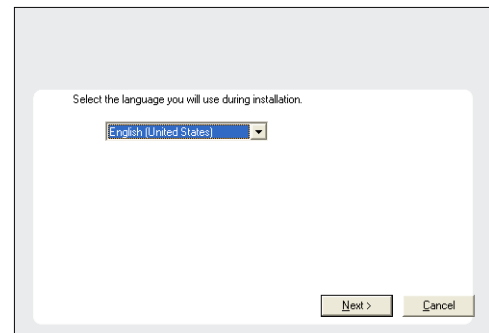
BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

Verify System Requirements

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



6. Read the virus scanning software warning.
Click **OK** to continue, if virus scanning software is disabled.
7. Read the license agreement, then select **I accept the terms in the license agreement**.
Click **Next** to continue.

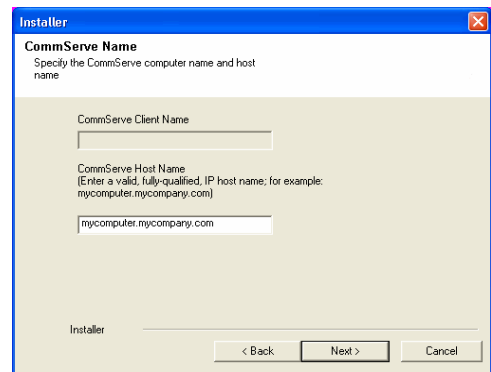
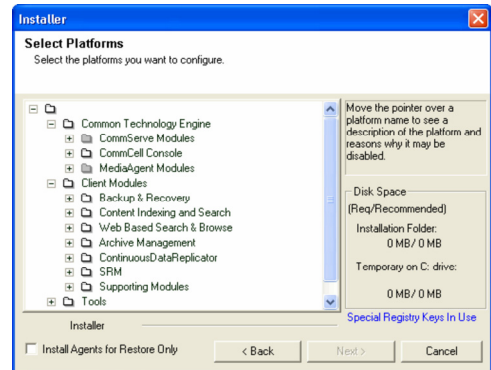
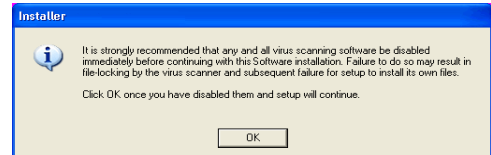
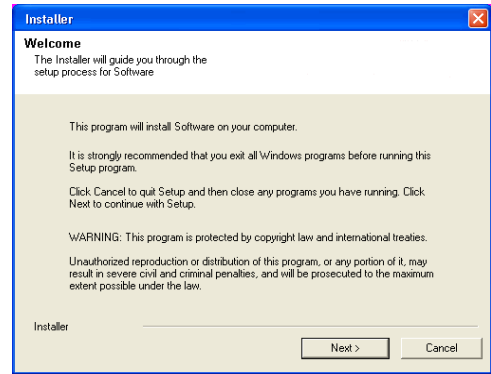
8.
 - Expand **Client Modules | Archive Management | OWA Proxy Enabler**.
 - Click **Next**.

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:

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

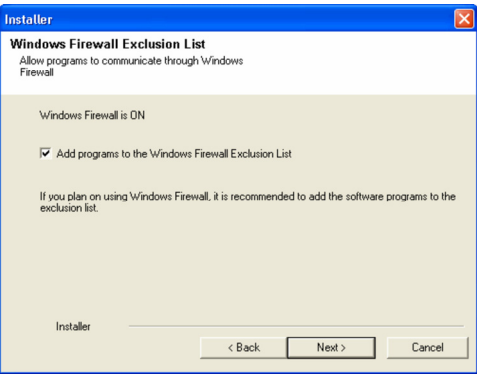
10. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.



Click **Next**.

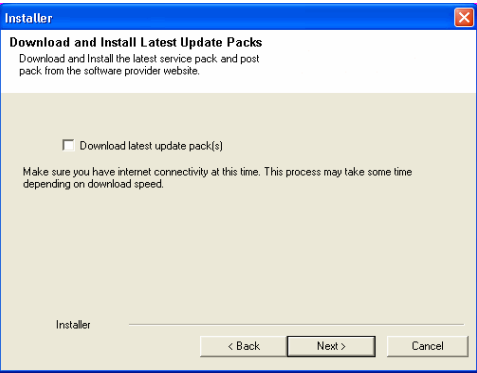
This option enables CommCell operations across Windows firewall by adding CommCell programs and services to Windows firewall exclusion list.

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



11. Click **Next**.

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



12. Verify the default location for software installation.

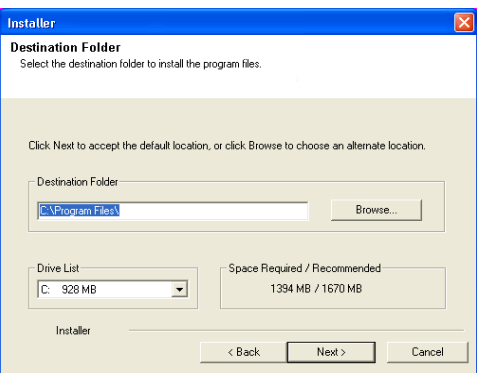
Click **Browse** to change the default location.

Click **Next**.

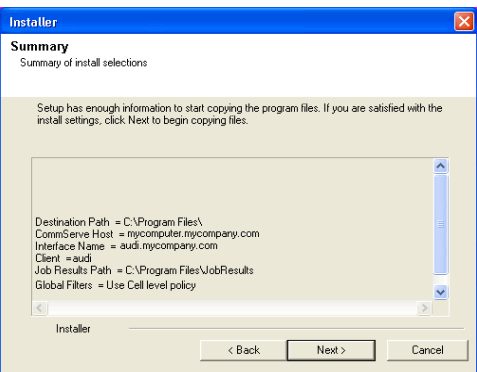
- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:

/ : * ? " < > | #

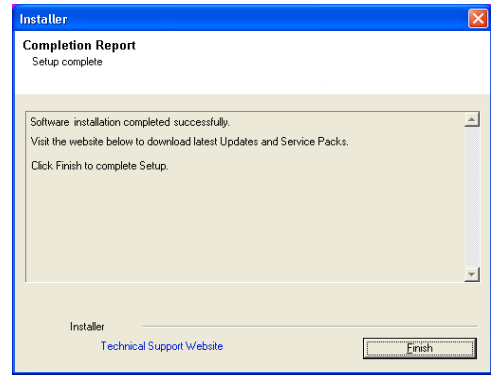
It is recommended that you use alphanumeric characters only.



13. Click **Next**.

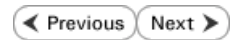
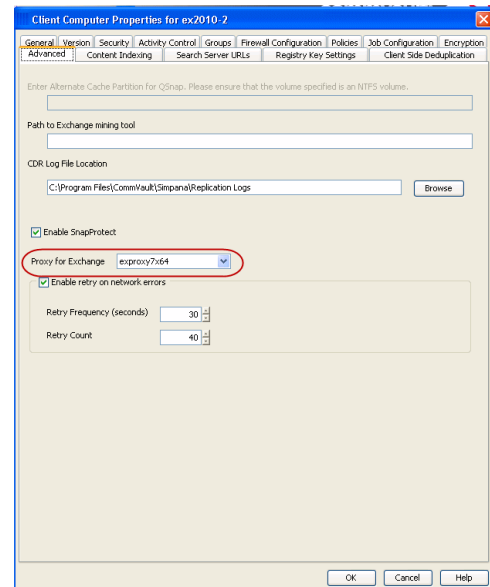


14. Click **Finish**.



CONFIGURATION

1. From the CommCell Browser, navigate to **<Client>**.
2. Right-click the client and click **Properties**.
3. From the **Advanced** tab, select the name of the proxy client with the Exchange Mailbox iDataAgent installed from the **Proxy for Exchange** list as follows:
4. Click **OK**.



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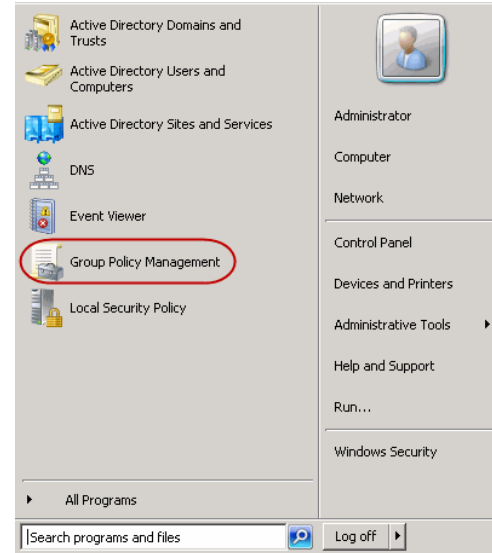
CONFIGURE THE ACTIVE DIRECTORY SERVER

1. Log on to the Active Directory Server using the Domain Administrator credentials.
2. Install the Resource Pack on the Active Directory Server
3. Navigate to the <software_installation_path>\Base folder and copy the following file:

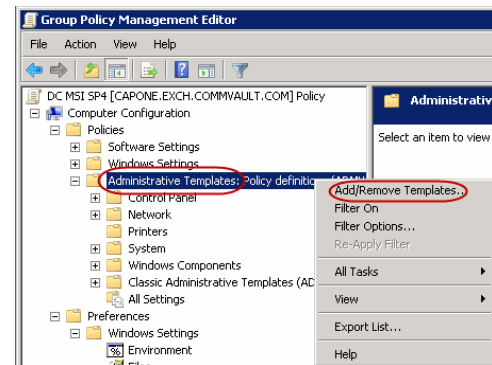
CVOutlookAddin.adm

4.
 - Start **Group Policy Management**.
 - Right-click the GPO you want to edit and click **Edit**.

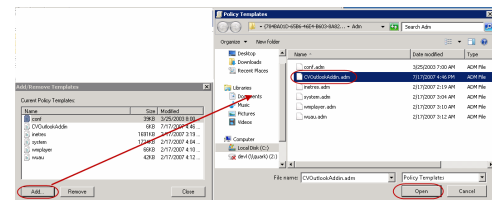
Refer to Resource Pack - Install on Windows for step-by-step instructions on installing the Resource Pack.



5. Right-click **Administrative Templates** and select **Add/Remove Templates**.



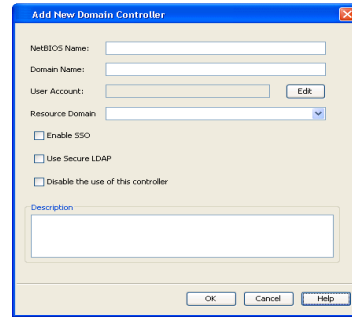
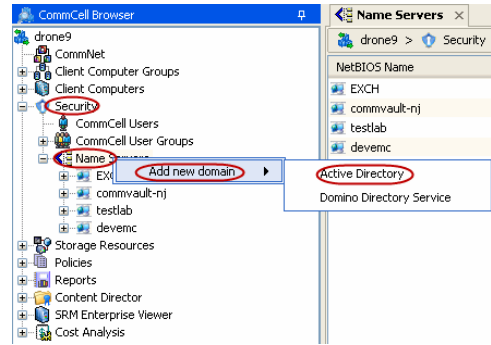
6.
 - You will see a list of currently installed policy templates. Click **Add**.
 - Select the CVOutlookAddin.adm template and click **Open**. The template will be added and appear in the list.
 - Click **OK**.



CONFIGURE DOMAIN INFORMATION IN THE COMMCELL CONSOLE

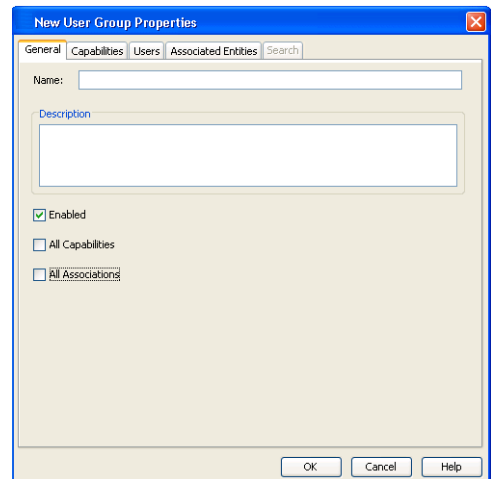
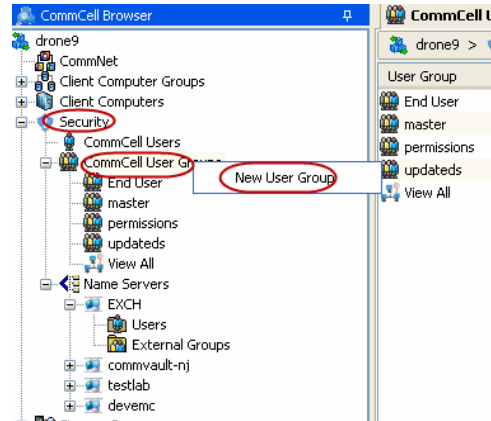
7.
 - From the CommCell Browser, click **Security**.
 - Right-click **Name Servers** and select **Add New Domain | Active Directory**.

8.
 - Enter the **NetBios Name** (IP address) of the external domain.
 - Enter the fully qualified **Domain Name**, e.g., `company.com`.
 - Click **Edit** to enter a **User Account** for the external domain.
 - Click **Enable SSO**.
 - Click **OK**.



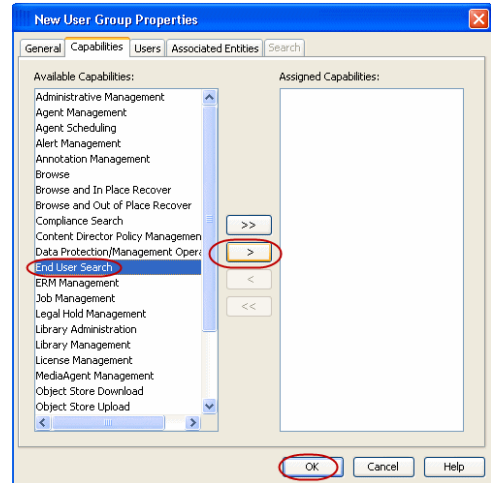
CONFIGURE USER GROUPS IN THE COMMCELL CONSOLE

9.
 - From the CommCell Browser, click **Security**.
 - Right-click **CommCell User Groups** | **New User Group**.
10.
 - Type the name you want to assign to the user group (up to 32 characters; do not include trailing spaces) and some descriptive information that characterizes the user group.
 - Click **Enabled**.

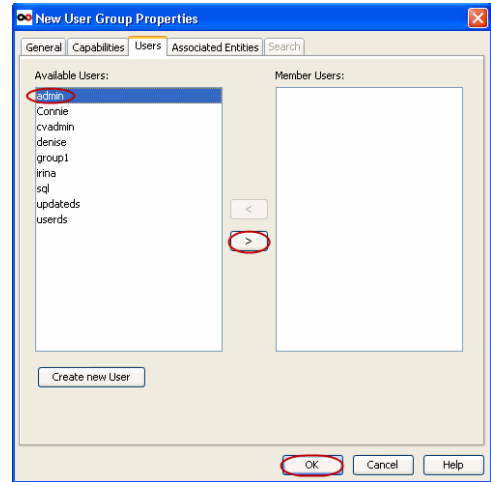


11.
 - Click the **Capabilities** tab.
 - From the **Available Capabilities** pane, select **End User Search** and click > to move it under the **Assigned Capabilities** pane.

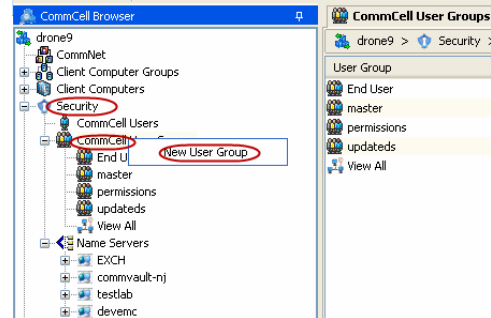
- Click **OK**.



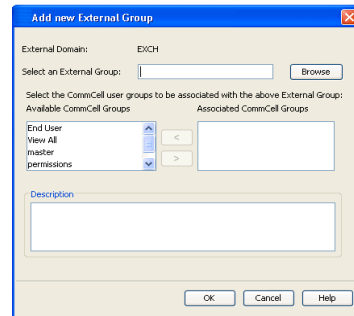
- 12.
- Click **Users**
 - Assign users to the group as necessary. You can click **Create New User** to create a user to be associated with this user group.
 - Click **OK**.



- 13.
- From the CommCell Browser, click **Security**.
 - Click on the external domain controller for which you want to add a user group.
 - Right-click on the **External Groups** and select **Add New Group**.



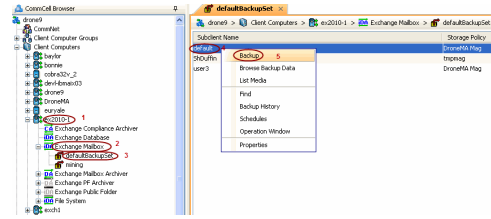
- 14.
- Click **Browse**.
 - Select the user group you want to add.
 - Click **OK**.



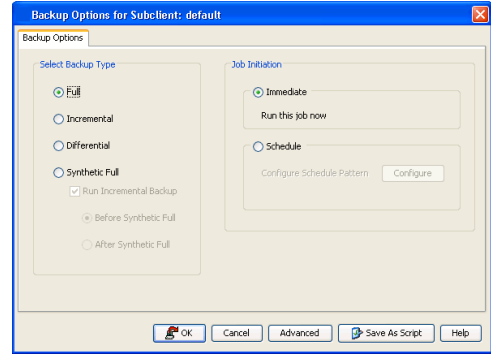
PERFORM A MAILBOX BACKUP

- 15.
- From the CommCell Console, navigate to **Client Computers** | **<Client>** | **Exchange Mailbox** | **defaultBackupSet**.

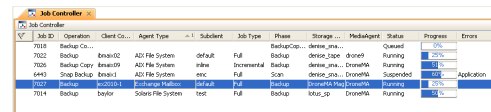
- Right-click the default subclient and click **Backup**.



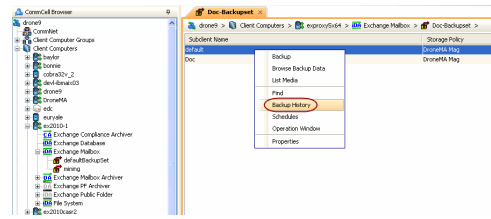
- 16.
- Under **Select Backup Type**, click **Full**.
 - Under **Job Initiation**, click **Immediate**.
 - Click **OK**.



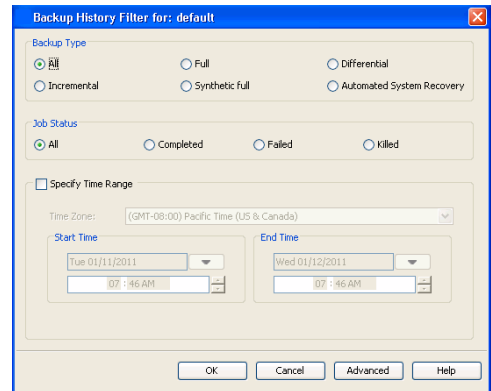
17. You can track the progress of the job from the **Job Controller**.



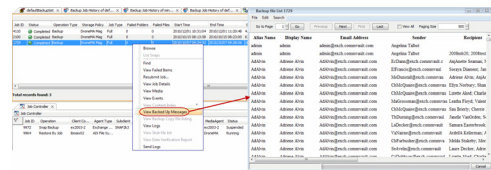
18. Once the job is complete, view the details of job from the **Backup History**. Right-click the **Subclient** and select **Backup History**.



19. Click **OK**.



20. Right-click the job to:
- Browse the mailboxes that were backed up.
 - Find messages in the backup.
 - View items that failed, if any, during the job.
 - Resubmit the job.
 - View job details, such as the number of mailboxes backed up.
 - View media associated with the job.
 - View events associated with the job.
 - View messages that were backed up.
 - Send the log file that is associated with the job.



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It is recommended that you perform a restore using Outlook Add-In.

RESTORE A MESSAGE

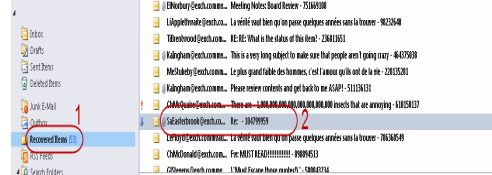
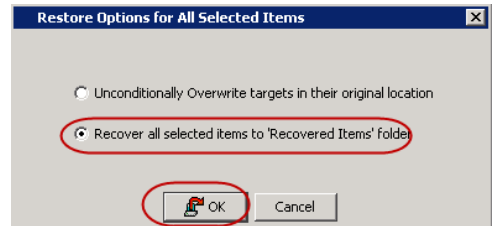
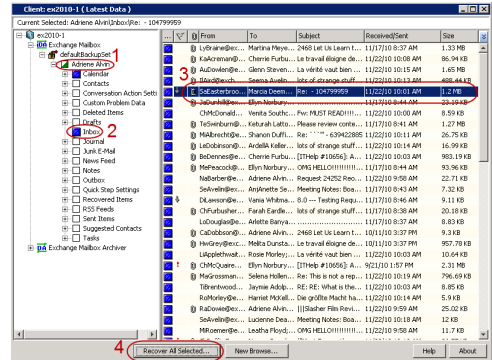
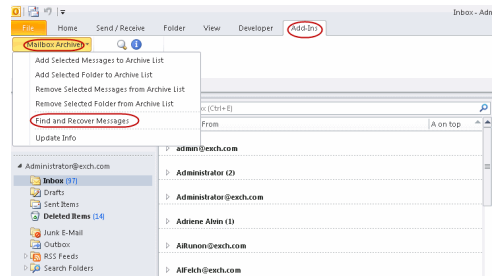
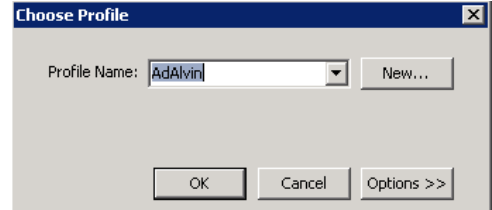
1.
 - Start Outlook
 - Enter your **Profile Name**.
 - Click **OK**.

2.
 - Click **Add-Ins** tab.
 - Click **Mailbox Archiver**.
 - From the list, select **Find and Recover Messages**.

4.
 - Expand your mailbox and select a message to restore.
 - Click **Recover All Selected...**

5.
 - Select **Recover all selected items to 'Recovered Items' folder**.
 - Click **OK**.

6.
 - Click the **Recovered Items** folder in Outlook.
 - View the recovered message.



CONGRATULATIONS - YOU HAVE SUCCESSFULLY CONFIGURED OUTLOOK ADD-IN.

End users can now restore messages from their mailboxes that have been backed up.

Be sure to provide users with the following information before they begin using Outlook Add-In:

- Profile Name
- CommCell Name
- Web URL for Restores from a Web Browser

- End User Documentation:

- Restore from Outlook
- Restore from a Web Browser
- Advanced Options

If you would like to learn more about additional configurable features for Outlook Add-In, refer to the Advanced Options - Administrator documentation.



Advanced Options - Administrator - Outlook Add-In

TABLE OF CONTENTS

Configure the Active Directory Template

Configure Restores from a Web Browser

Specify a New Location for the Recovered Items Folder

Configure the OWA Proxy Enabler

Configure Automatic Java Update Downloads

Download Java Updates Overnight

Download Java Updates at a Specific Time

Use an Alternate Computer for Obtaining Java Updates

Configure Language Options

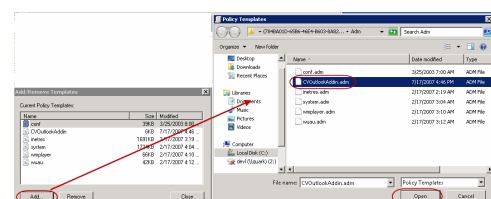
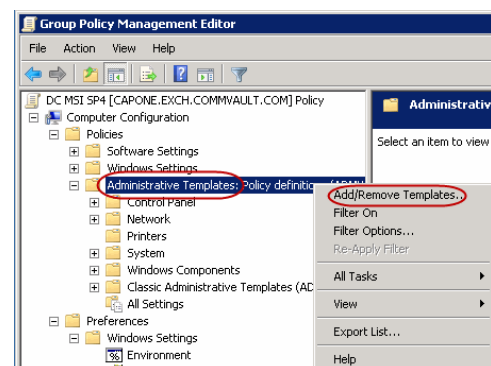
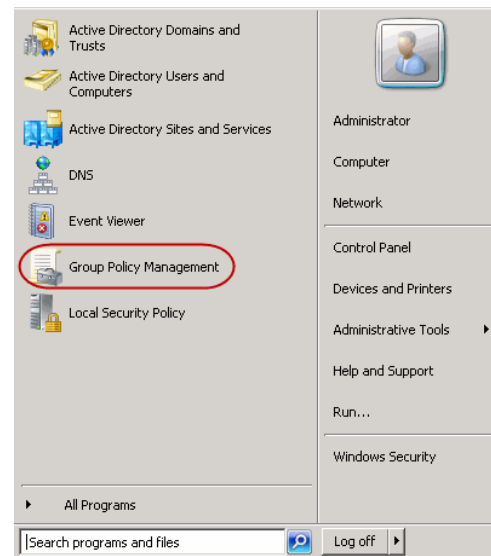
Configure Unique User Settings for Citrix Environments

Configure the Client for Java Updates During Installation

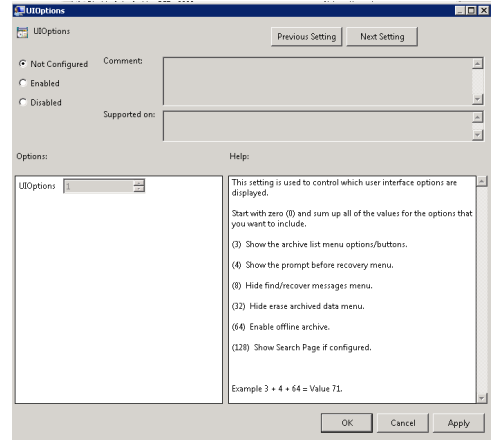
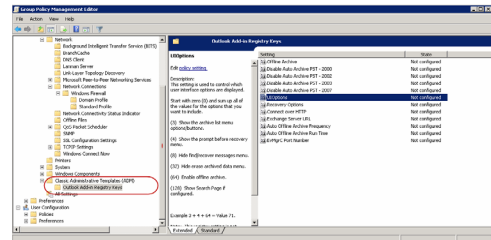
CONFIGURE THE ACTIVE DIRECTORY TEMPLATE

If you want to change settings to the Active Directory template, you can do so as follows:

- Start **Group Policy Management**.
 - Right-click the GPO you want to edit and click **Edit**.
- Right-click **Administrative Templates** and select **Add/Remove Templates**.
- Click **Add**.
 - Select the `CVOutlookAddin.adm` template and click **Open**.



4. Click the **Outlook Add-In Registry Keys** template under **Classic Administrative Templates (ADM)**.
5.
 - In the **Setting** column, double-click a registry key and change the values.
 - Click **OK**.



CONFIGURE WEB BROWSE AND RESTORE

In cases where Outlook is not installed on a client computer, users can be given the ability to use the Outlook Add-In Find and Recover capability from a web browser. To provide this ability, you need to:

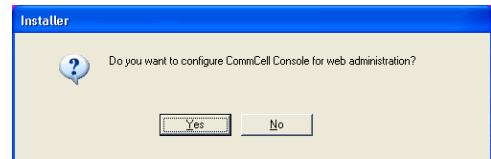
- Configure a CommCell Console for web-based administration.
- Grant the `End User Search` capability to users.

Once this is configured, users can access the Find and Recover functionality by typing the web URL of the CommCell Console into a supported web browser. For example, a user can access the Find and Recover functionality by typing the following URL into a web browser:

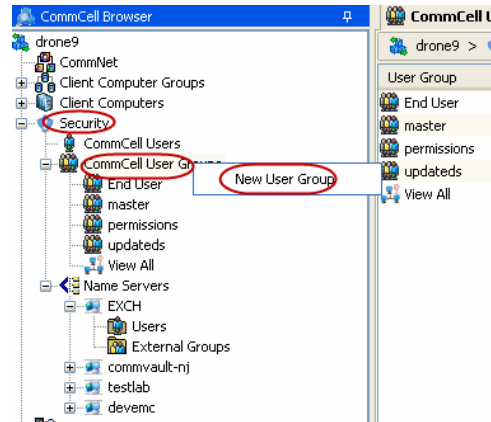
`http://<commserve_name>/<commcell_console_alias>`.

1. When installing the CommCell Console, ensure that **Yes** was selected when prompted for web administration.

To support web administration, the Internet Information Server (IIS) must be installed on the computer.

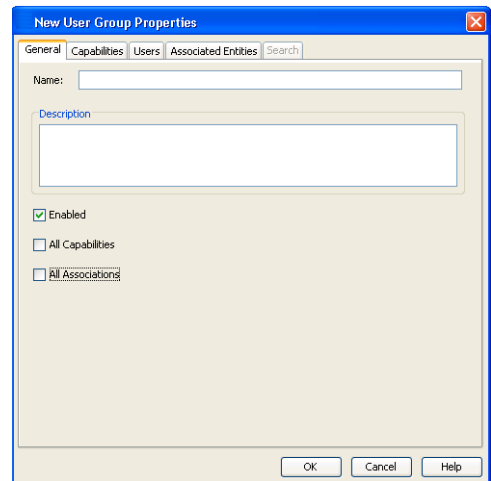


2. Grant `End User Search` capability as follows:
 - From the CommCell Browser, click **Security**.
 - Right-click **CommCell User Groups | New User Group**.

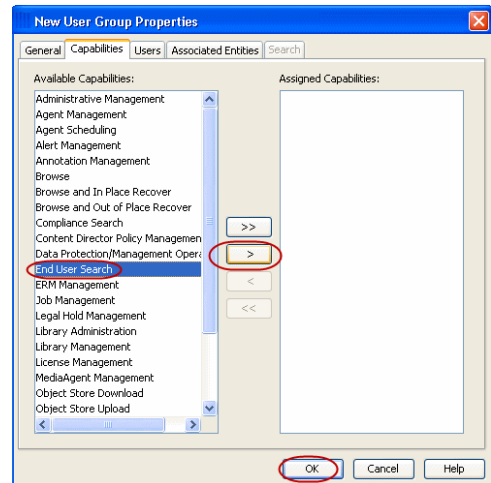


3.
 - Type the name you want to assign to the user group (up to 32 characters; do not include trailing spaces) and some descriptive information that characterizes the user group.
 - Click **Enabled**.

4.
 - Click the **Capabilities** tab.
 - From the **Available Capabilities** pane, select **End User Search** and click > to move it under the **Assigned Capabilities** pane.
 - Click **OK**.

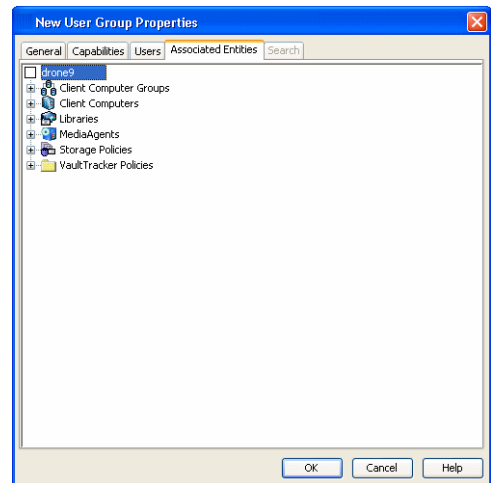


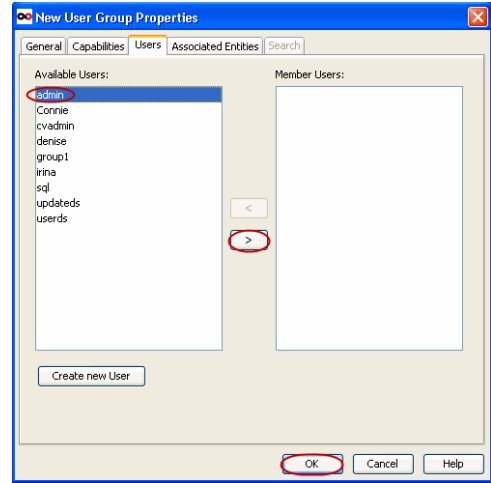
5. If you want the user group to be associated with specific objects (e.g., client computer group, client computers, libraries, MediaAgents, Storage Policies), click **Associated Entities**.



6. To assign users to a users group, click **Users**, and then assign users to the group, as necessary. You can click **Create New User** to create a user to be associated with this user group.

Click **OK**.

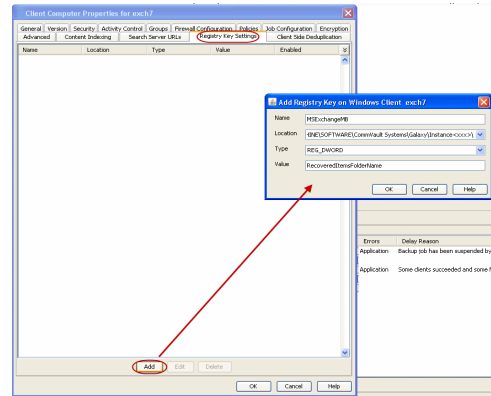




SPECIFY NEW LOCATION FOR THE RECOVERED ITEMS FOLDER

You can specify a new folder name for Recovered Items as follows:

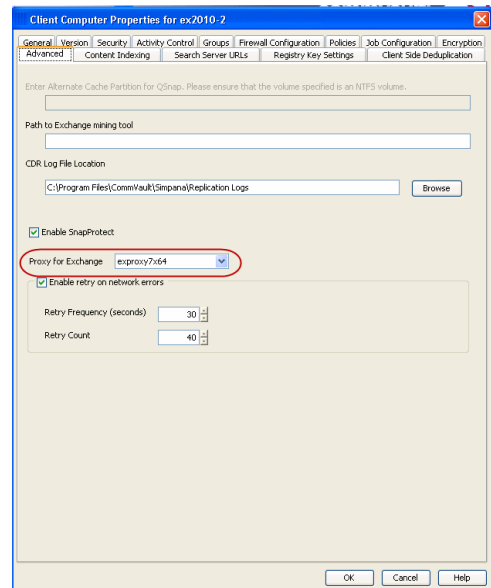
1. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
2. Click **Properties**.
3. Select **Registry Key Settings**.
4. Click **Add**.
5. Enter MExchangeMB in the **Name** field.
6. Enter HKEY_LOCAL_MACHINE\SOFTWARE\CommVault Systems\Galaxy\Instance<xxx> in the **Location** field.
7. Enter REG_DWORD in the **Type** field.
8. Enter RecoveredItemsFolderName in the **Value** field.
9. Click **OK**.



CONFIGURE OWA PROXY ENABLER

If you did not configure the OWA Proxy Enabler after installation, you can do so as follows:

1. From the CommCell Browser, right-click the client computer hosting the Exchange Server.
2. Click **Properties**.
3. From the **Advanced** tab, select the name of the proxy client from the **Proxy for Exchange** list.
4. Click **OK**.



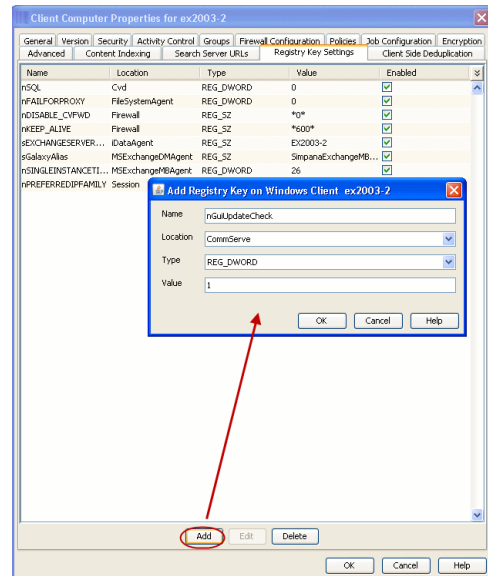
CONFIGURE AUTOMATIC JAVA UPDATE DOWNLOADS

There are several ways to keep Outlook Add-In clients up-to-date with Java software updates as described in the following sections.

DOWNLOAD JAVA UPDATES OVERNIGHT

Java updates can be downloaded from the CommServe computer between 12:00AM and 6:00AM as follows:

1. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
2. Click **Properties**.
3. Select **Registry Key Settings**.
4. Click **Add**.
5. Enter `nGuiUpdateCheck` in the **Name** field.
6. Enter `HKEY_LOCAL_MACHINE\SOFTWARE\CommVault Systems\Galaxy\Instance<xxx>` in the **Location** field.
7. Enter `REG_DWORD` in the **Type** field.
8. Enter `1` in the **Value** field.
9. Click **OK**.



DOWNLOAD JAVA UPDATES AT A SPECIFIC TIME

Java updates can be downloaded from the CommServe computer at a specific hour and minute of the hour each day. Note, however, that if you have configured Java updates to download overnight as described above, these configurations will automatically override that setting.

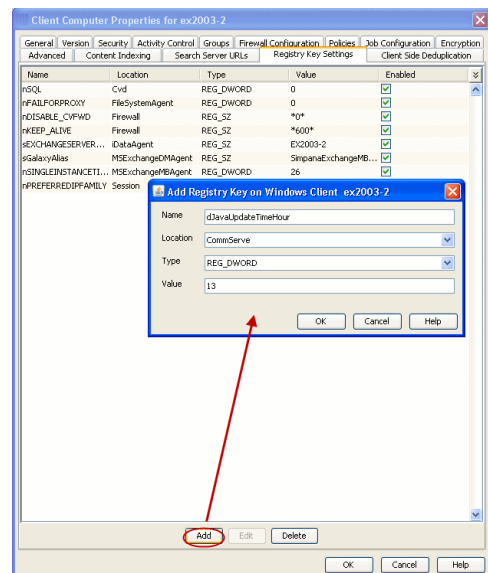
SPECIFY THE HOUR OF THE DAY

1. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
2. Click **Properties**.
3. Select **Registry Key Settings**.
4. Click **Add**.
5. Enter `dJavaUpdateTimeHour` in the **Name** field.
6. Enter `HKEY_LOCAL_MACHINE\SOFTWARE\CommVault Systems\Galaxy\Instance<xxx>` in the **Location** field.
7. Enter `REG_DWORD` in the **Type** field.
8. Enter a number between 0 and 23 in the **Value** field.

For example:

- o Enter 0 to download Java updates at 12:00AM every morning.
- o Enter 13 to download Java updates at 1:00PM every afternoon.
- o Enter 23 to download Java updates at 11:00PM every evening.

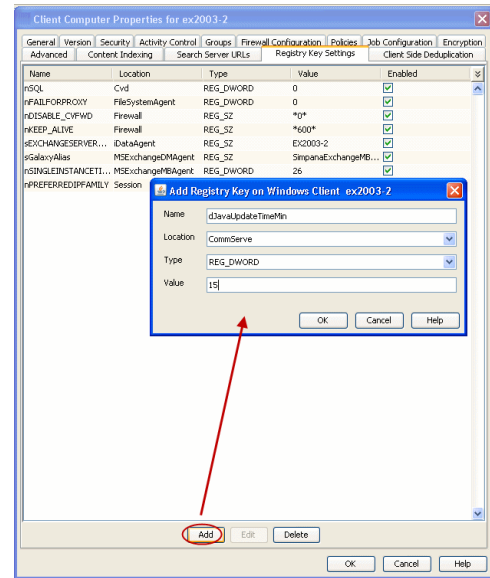
9. Click **OK**.



SPECIFY THE MINUTE OF THE HOUR

1. Ensure the `dJavaUpdateTimeHour` registry key has been configured.
2. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
3. Click **Properties**.
4. Select **Registry Key Settings**.

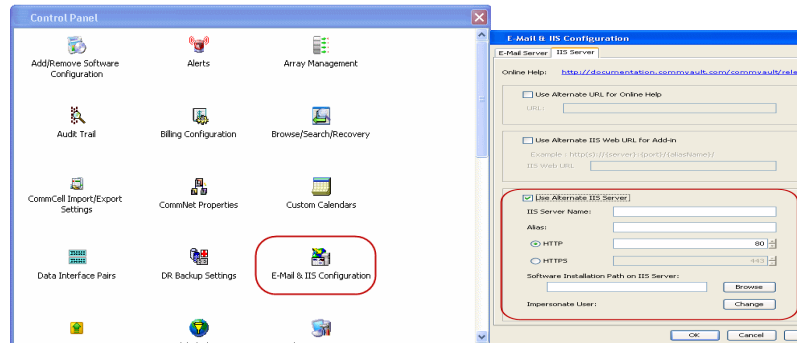
5. Click **Add**.
6. Enter `dJavaUpdateTimeMin` in the **Name** field.
7. Enter `HKEY_LOCAL_MACHINE\SOFTWARE\CommVault Systems\Galaxy\Instance<xxx>\` in the **Location** field.
8. Enter `REG_DWORD` in the **Type** field.
9. Enter a number between 0 and 59 in the **Value** field.
For example:
 - o Enter 0 to download Java updates on the hour (such as 12:00AM)
 - o Enter 15 to download Java updates at 15 minutes past the hour (such as 1:15PM)
 - o Enter 45 to download Java updates at 45 minutes past the hour (such as 11:45PM)
10. Click **OK**.



USE AN ALTERNATE COMPUTER FOR DOWNLOADING JAVA UPDATES

If it is not desirable to obtain Java updates directly from the CommServe computer, you can configure an alternate computer to facilitate these downloads. Doing so offsets the network traffic and resources required of the CommServe to obtain the updates.

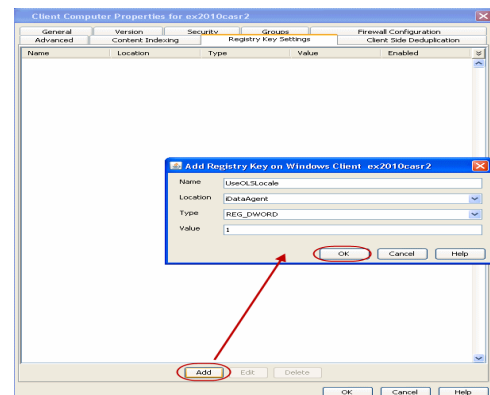
1. Ensure the alternate computer contains the following:
 - o The CommCell Console software installed and configured for web administration.
 - o Internet Information Services (IIS) installed and enabled.
2. From the **Tools** menu in the CommServe's CommCell Console, click **Control Panel**.
3. From the **Control Panel** window, click **E-Mail & IIS Configuration**.
4. Click the **IIS Server** tab.
5. Click the **Use Alternate IIS Web URL for Add-in** checkbox.
6. Type the path to the alternate computer's web alias. The path should be entered as follows:
`http://<alternate_computer_iis_server_name>/<web_alias>`
7. Click **OK** to save the information.



CONFIGURE LANGUAGE OPTIONS

By default, Outlook Add-In uses the language setting of Outlook. This can be changed by configuring a registry key as follows:

1. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
2. Click **Properties**.
3. Select **Registry Key Settings**.
4. Click **Add**.
5. Enter `UseOSLocale` in the **Name** field.
6. Enter `iDataAgent` in the **Location** field.
7. Enter `REG_DWORD` in the **Type** field.
8. Enter 0 or 1 in the **Value** field as explained below:



VALUE	USE OS LANGUAGE SETTING	USE OUTLOOK LANGUAGE SETTING
none	No	Yes

0	No	Yes
1	Yes	No

9. Click **OK**.

CONFIGURE UNIQUE USER SETTINGS FOR CITRIX ENVIRONMENTS

You can configure unique settings for users in Citrix environments as described in the following sections.

ENABLE USER SETTINGS ON THE CITRIX SERVER

The `AllowPerUserSettings` registry key is configured first to enable the overall functionality. Once this key is created, additional keys can then be created to provide individualized settings. All keys are created under:

```
[Registry_Key_Area]\SOFTWARE\Microsoft\Office\Outlook\Addins\Galaxy.Ex2KMEDM.CVEAAAddin
```

CONFIGURE SETTINGS FOR ALL USERS

The following settings can be configured for all users on the Citrix Server. These keys are configured in the `HKEY_LOCAL_MACHINE` area and apply to all users logged in to the Citrix Server.

REGISTRY KEY	DESCRIPTION
<code>nSearchRangeDays</code>	Specifies the default number of days to search for protected messages.

CONFIGURE SETTINGS FOR INDIVIDUAL USERS

You can create customized settings for individual users logged in to the Citrix Server. These settings are configured in one of the following areas:

- `HKEY_USERS`, which contains unique registry key configurations for each user distinguished by the user's security ID.
- `HKEY_CURRENT_USER`, which contains a replica of the registry keys configured in `HKEY_USERS` for the currently logged-in user.

By default, users logged into the Citrix sever with the `AllowPerUserSettings` configured are assigned the registry key values that exist in `HKEY_CURRENT_USER`.

- If a key exists in `HKEY_LOCAL_MACHINE` but does not exist in `HKEY_CURRENT_USER`, the respective key will be created and its value copied into `HKEY_CURRENT_USER`.
- If a registry key exists in both locations with different values, then the value of the key in `HKEY_CURRENT_USER` will be used.

The following settings can be configured for individual users logged on to the Citrix Server.

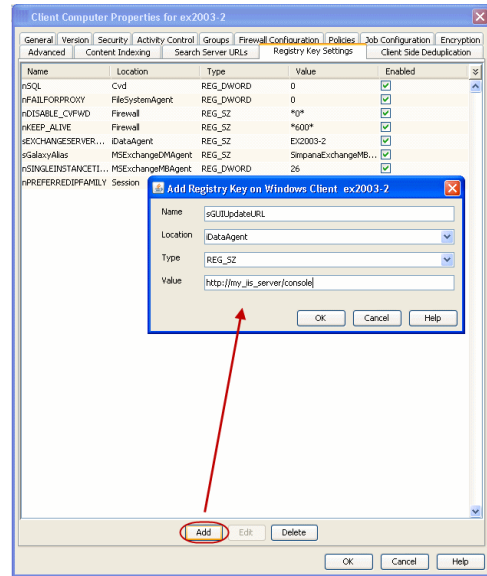
REGISTRY KEY	DESCRIPTION
<code>UIOptions</code>	Allows changes to the current settings for the Outlook Add-In user interface options.
<code>AutoOpenMail</code>	Allows a restored message to be opened automatically in Outlook after a restore operation.
<code>nEvMgrCPortNumber</code>	Specifies the network port to be used during restore operations.

CONFIGURE THE CLIENT FOR JAVA UPDATES DURING INSTALLATION

The client computer can be configured to automatically download Java updates from the CommCell Console during the software installation.

1. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
2. Click **Properties**.
3. Select **Registry Key Settings**.
4. Click **Add**.
5. Enter `sGUIUpdateURL` in the **Name** field.
6. Enter `HKEY_LOCAL_MACHINE\SOFTWARE\CommVault Systems\Galaxy\Instance<xxx>` in the **Location** field.
7. Enter `REG_SZ` in the **Type** field.
8. Type the path to the alternate computer's web alias. The path should be entered as follows:

```
http://<alternate_computer_iis_server_name>/<web_alias>
```
9. Click **OK**.



Restore from Outlook - End Users - Outlook Add-In

- Restore from Outlook
- Restore from a Web Browser
- Advanced Options

1.
 - Start Outlook
 - Enter your **Profile Name**.
 - Click **OK**.

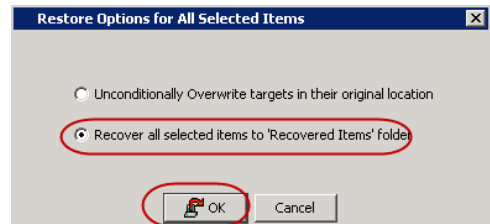
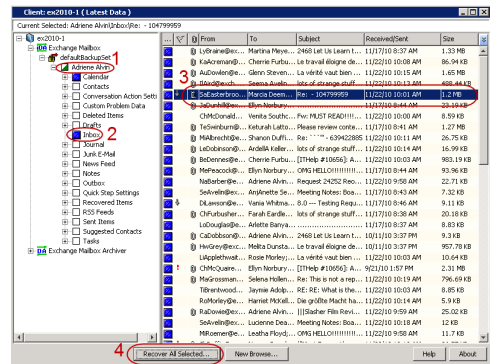
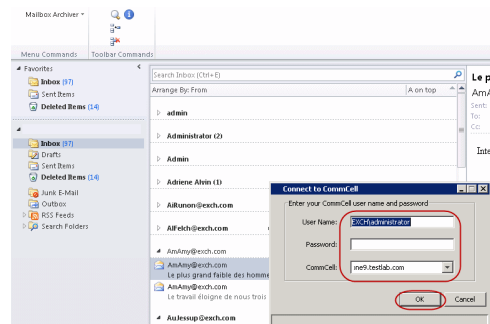
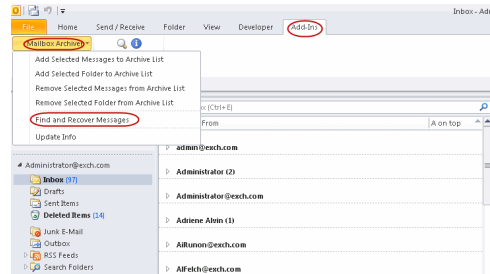
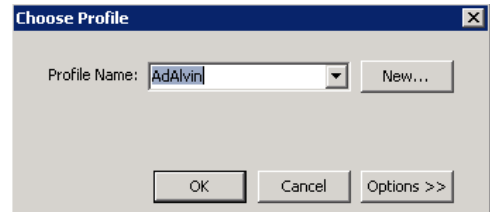
2.
 - Click **Add-Ins** tab.
 - Click **Mailbox Archiver**.
 - From the list, select **Find and Recover Messages**.

3. If prompted, enter the user name and password provided by your administrator and click **OK**.

4.
 - Expand your mailbox and select a message to restore.
 - Click **Recover All Selected...**

5.
 - Select **Recover all selected items to 'Recovered Items' folder**.
 - Click **OK**.

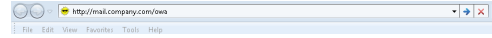
6.
 - Click the **Recovered Items** folder in Outlook.
 - View the recovered message.



Restore from a Web Browser - End Users - Outlook Add-In

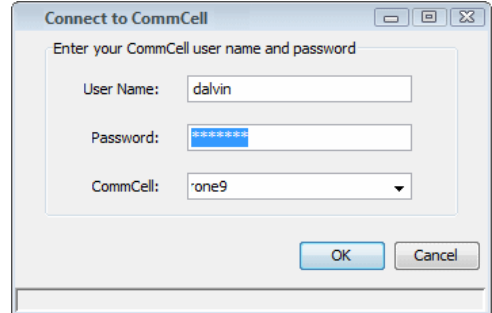
- Restore from Outlook
- Restore from a Web Browser
- Advanced Options

1. Type the URL provided by your administrator in the address line of your web browser.

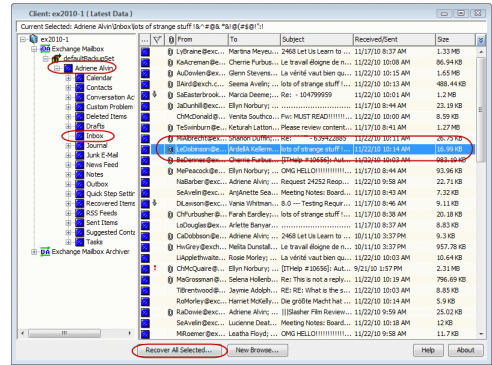


For example: `http://company/console`

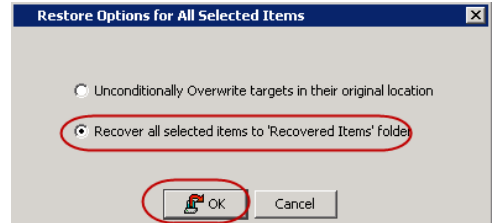
- 2.
- Type your Outlook user name and password.
 - Click **OK**.



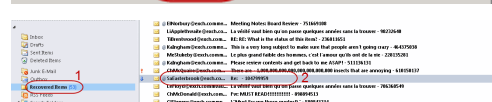
- 3.
- Expand your mailbox and select a message to restore.
 - Click **Recover All Selected...**



- 4.
- Select **Recover all selected items to 'Recovered Items' folder**.
 - Click **OK**.
- The message will be restored to the **Recovered Items** folder in Outlook.



- 5.
- Click the **Recovered Items** folder in Outlook.
 - View the recovered message.



Advanced Options - End Users - Outlook Add-In

Restore from Outlook | Restore from a Web Browser | **Advanced Options**

TABLE OF CONTENTS

Browse Messages in a Specific Time Period

Narrowing Your Searches

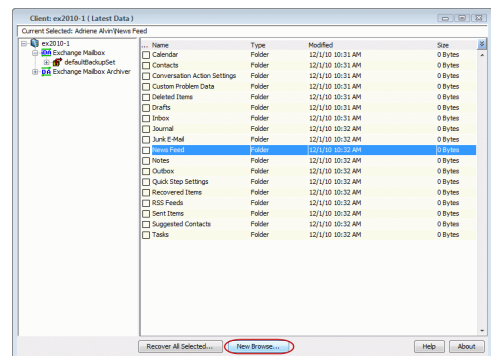
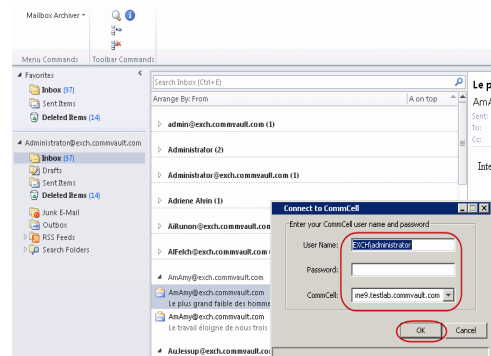
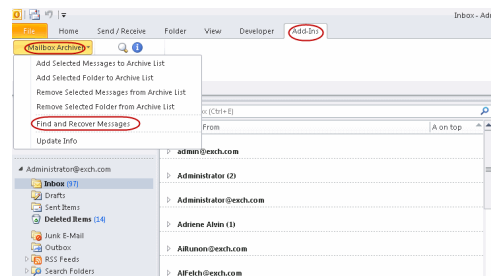
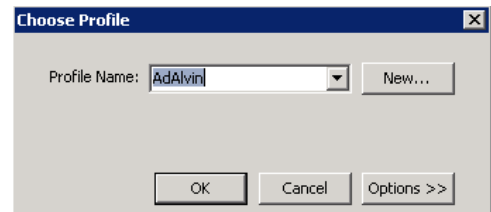
Overwrite Restored Messages

Preventing Messages from Being Restored

BROWSE MESSAGES IN A SPECIFIC TIME PERIOD

You can restore a message sent within a specific time period as follows:

- Start Outlook
 - Enter your **Profile Name**.
 - Click **OK**.
- Click **Add-Ins** tab.
 - Click **Mailbox Archiver**.
 - From the list, select **Find and Recover Messages**.
- If prompted, enter the user name and password provided by your administrator and click **OK**.
- Click **New Browse**.
- Click **Specify Browse Time**.
 - Enter a new date and time.

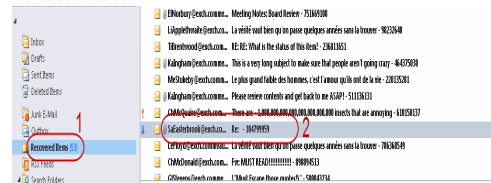
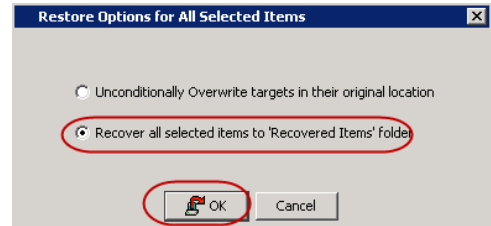
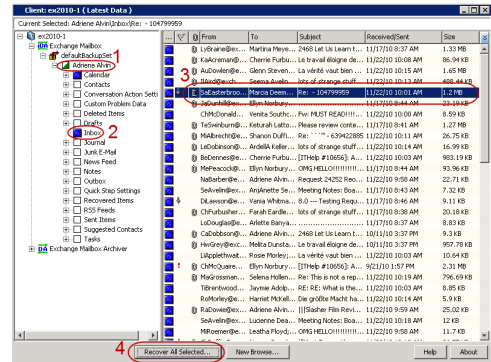
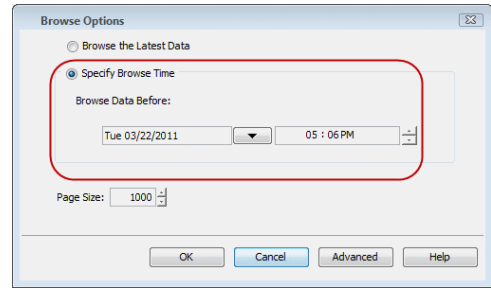


- Click **OK**.

- Expand your mailbox and select a message to restore.
 - Click **Recover All Selected...**

- Select **Recover all selected items to 'Recovered Items' folder**.
 - Click **OK**.

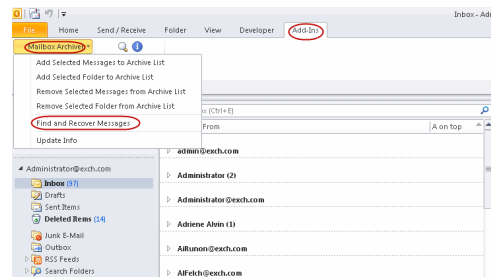
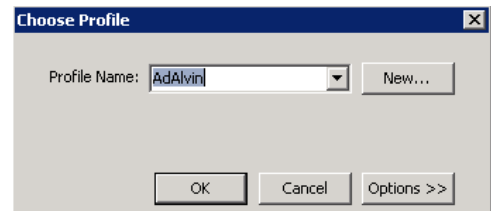
- Click the **Recovered Items** folder in Outlook.
 - View the recovered message.



NARROWING YOUR SEARCHES

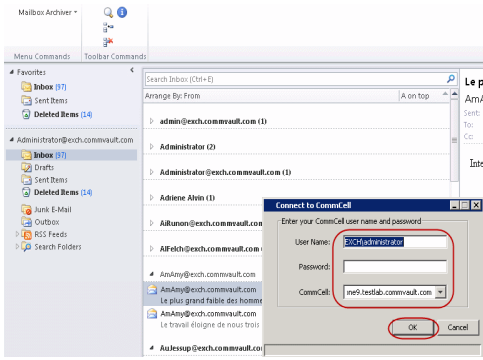
You can narrow your searches by viewing only those messages created after a specific time as follows:

- Start Outlook
 - Enter your **Profile Name**.
 - Click **OK**.
- Click **Add-Ins** tab.
 - Click **Mailbox Archiver**.
 - From the list, select **Find and Recover Messages**.

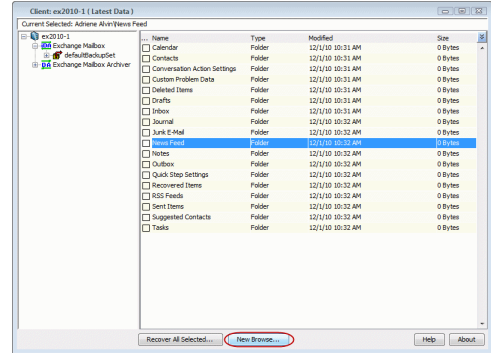


- If prompted, enter the user name and password provided by your administrator and

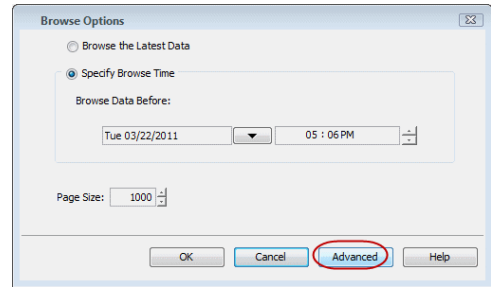
click **OK**.



4. Click **New Browse**.

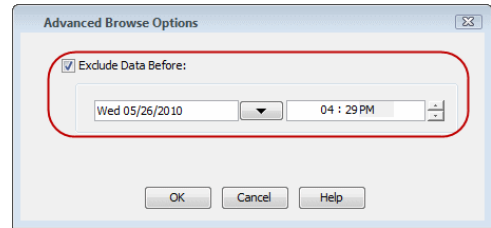


5. Click **Advanced**.



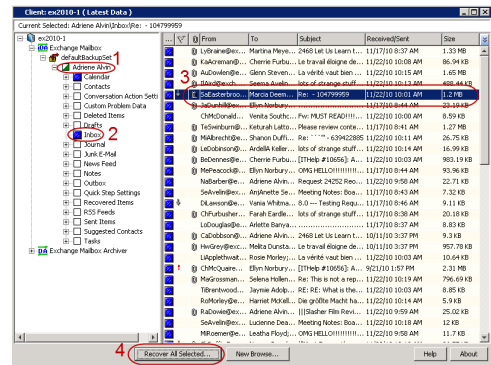
6.

- Click **Exclude Data Before**.
- Enter a new data and time.
- Click **OK**.



7.

- Expand your mailbox and select a message to restore.
- Click **Recover All Selected...**



8.

- Select **Recover all selected items to 'Recovered Items' folder**.
- Click **OK**.

- Click the **Recovered Items** folder in Outlook.
 - View the recovered message.

OVERWRITE EXISTING MESSAGES

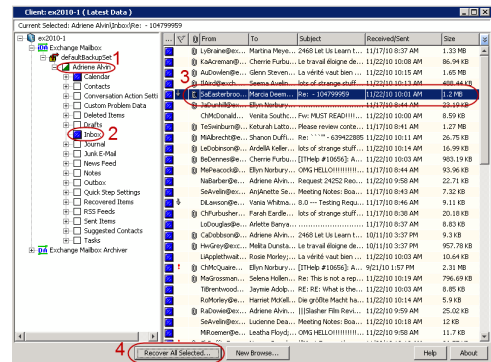
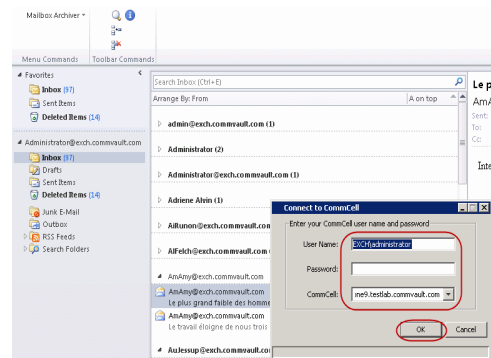
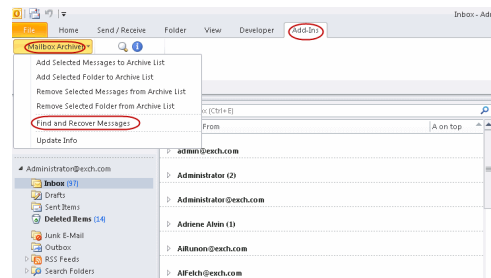
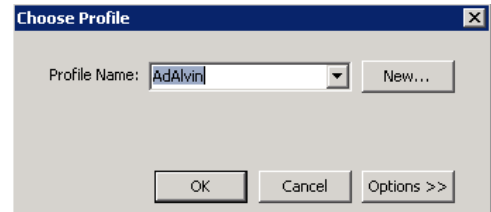
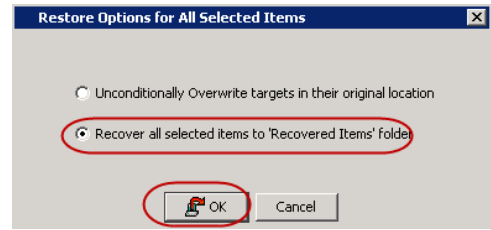
You can overwrite an existing message with the restored copy as follows:

- Start Outlook
 - Enter your **Profile Name**.
 - Click **OK**.
- Click **Add-Ins** tab.
 - Click **Mailbox Archiver**.
 - From the list, select **Find and Recover Messages**.

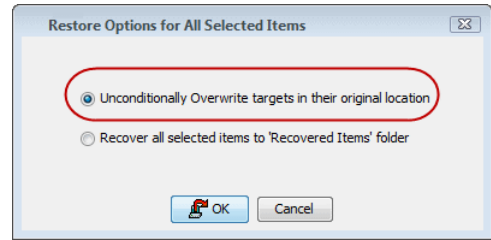
- If prompted, enter the user name and password provided by your administrator and click **OK**.

- Expand your mailbox and select a message to restore.
 - Click **Recover All Selected...**

- Select **Unconditionally Overwrite targets in their original location**.
 - Click **OK**.



6.
 - Click the original folder in Outlook.
 - View the recovered message.



PREVENTING MESSAGES FROM BEING RESTORED

Ensure your administrator has configured this capability.

If you have messages that you do not want to restore, you can prevent them from being restored as follows:

1.
 - Start Outlook
 - Enter your **Profile Name**.
 - Click **OK**.

2.
 - Click **Add-Ins** tab.
 - Click **Mailbox Archiver**.
 - From the list, select **Find and Recover Messages**.

3.

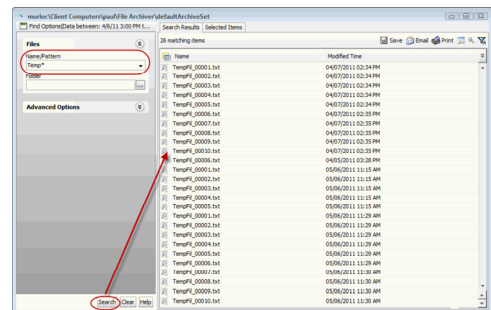
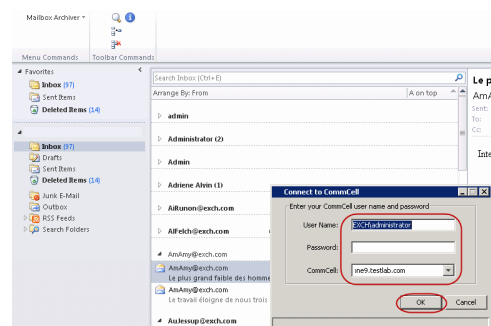
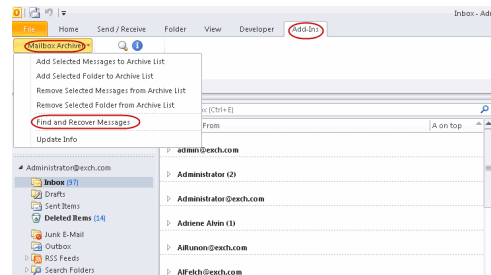
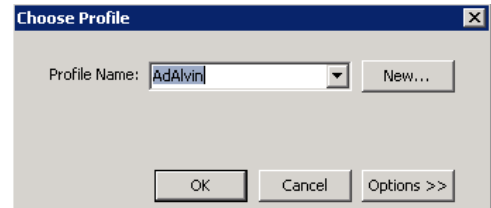
If prompted, enter the user name and password provided by your administrator and click **OK**.

4.
 - 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.

5.
 - Select one or more items.

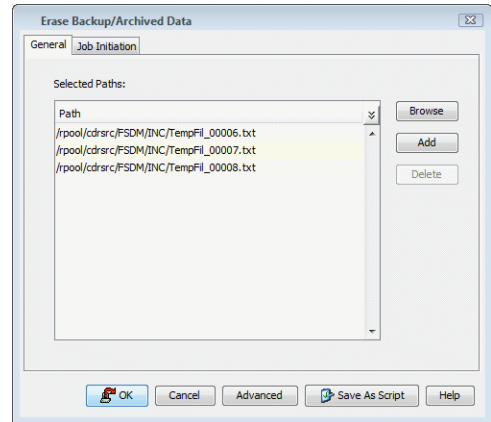
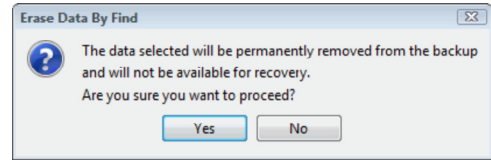
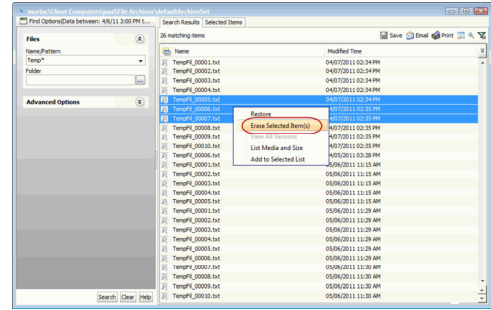


- Right-click the items and select **Erase Selected Item(s)**.

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

6. • Click **Yes**.

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



Desktop Browse - Exchange Mailbox (Administrator)

Install Setup

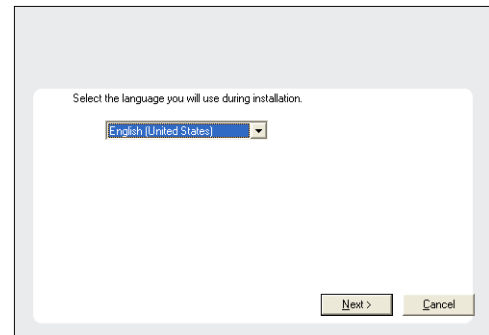
Previous Next

Desktop Browse enables users to browse data from an user-friendly Web interface from any remote location. To enable Desktop Browse operations, you need to first install the Web Search Server and the Web Search Client. The Web Search Server and Web Search Client can be installed on the same computer or on different computers.

Ensure that Service Pack 2 has been installed on the Client computer and Web Search Server prior to using this feature.

INSTALLING THE WEB SEARCH SERVER AND WEB SEARCH CLIENT

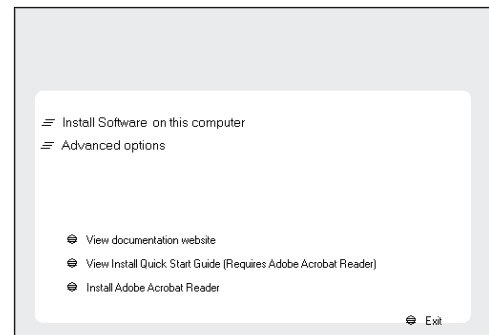
1. Ensure that the IIS is installed on the CommServe computer before installing the Web Search Server and Web Search Client.
2. Run **Setup.exe** from Software Installation Discs on the **CommServe** computer.
3. Select the required language.
Click **Next**.



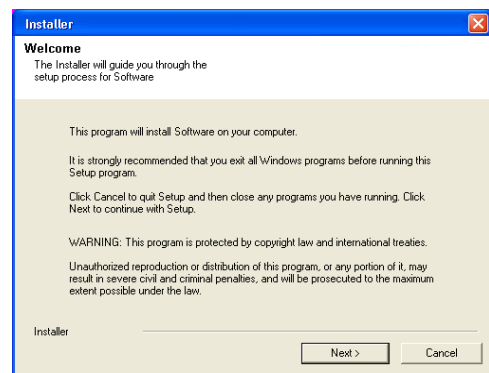
4. Select the option to install software on this computer.

NOTES

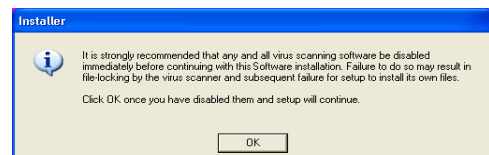
- The options that appear on this screen depend on the computer in which the software is being installed.



5. Click **Next**.



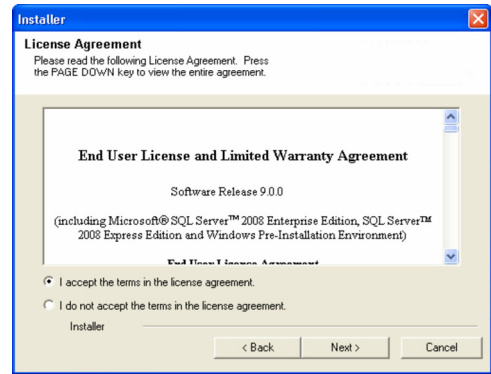
6. Click **OK**.



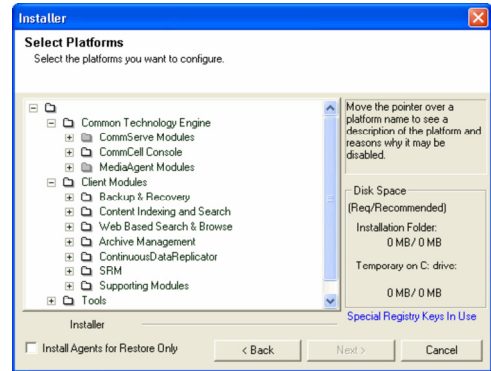
7. Select **I accept the terms in the license agreement**.
Click **Next**.

8. Expand **Client Modules | Web Search Server & Browse** and select **Web Search Server** and **Web Search Client**.

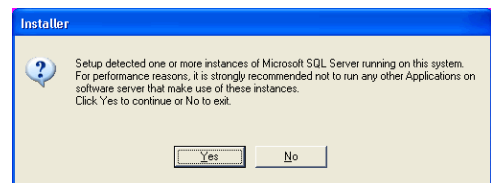
Click **Next**.



9. Click **Yes**.



10. Click **Yes**.

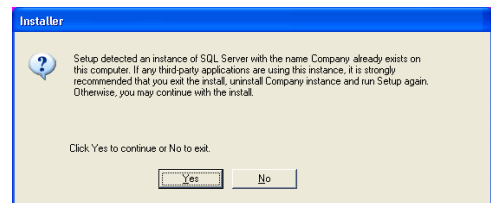


11. Specify the SQL Server System Administrator password.

NOTES

- This is the password for the administrator's account created by SQL during the installation.

Click **Next**.

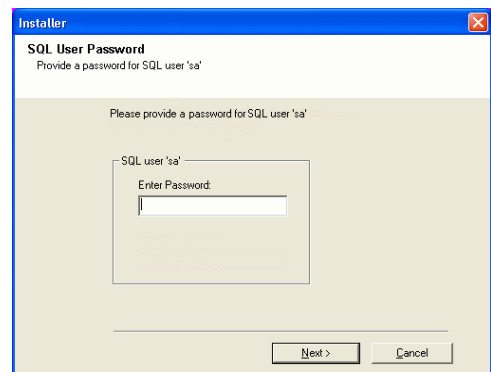


12. Modify **Apache Tomcat Server port number** to **82**.

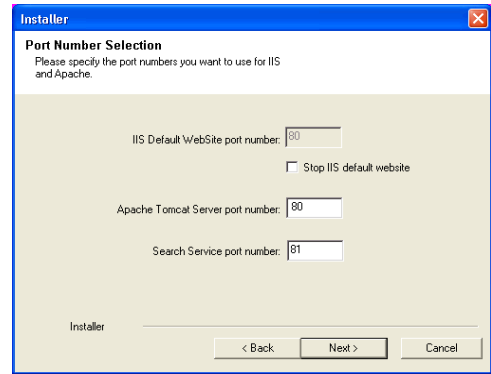
Click **Next**.

NOTES:

- Ensure that these port numbers are different and are not already used by any other services or application.



- Click **Next**.

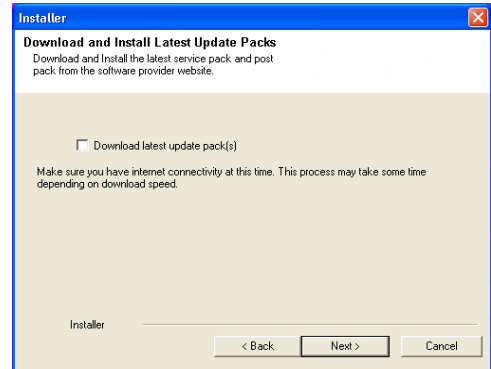


- Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.

Click **Next**.

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

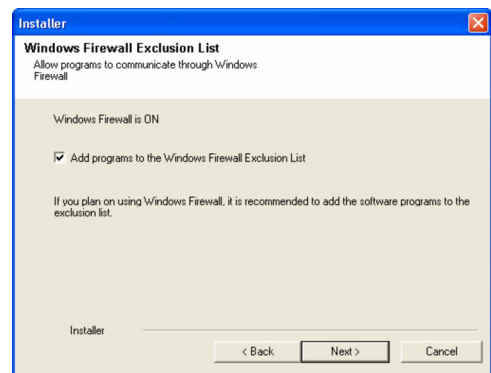
It is recommended to select this option even if Windows firewall is disabled. This will allow the CommCell programs and services to function if the Windows firewall is enabled at a later time.



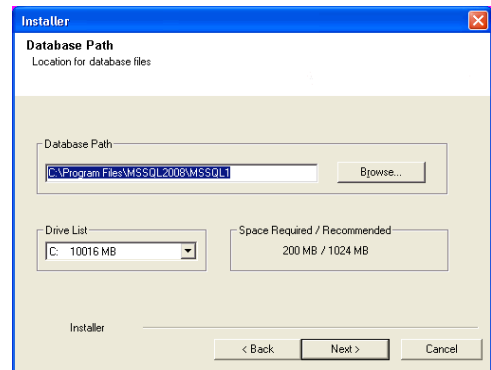
- Enter the Web Search Server database installation path.

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

Click **Next**.



- Click **Next**.



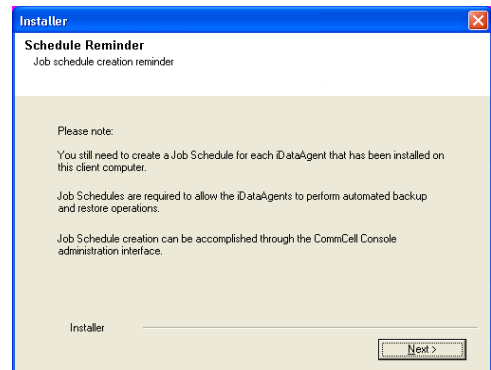
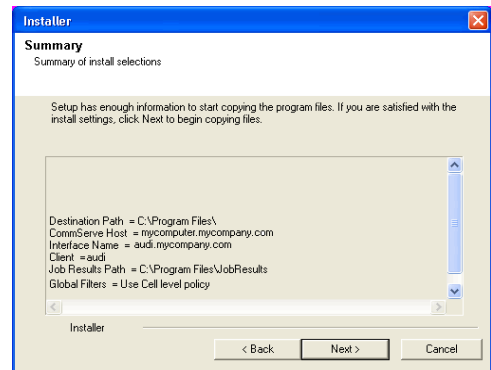
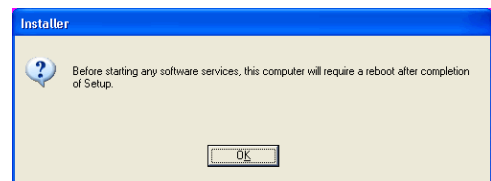
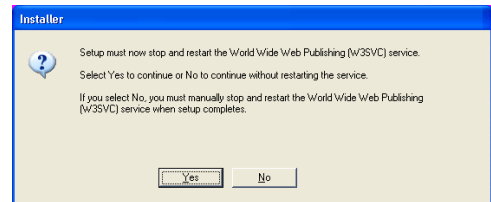
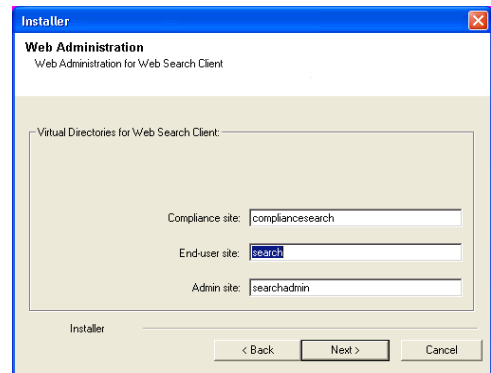
17. Click **Yes**.

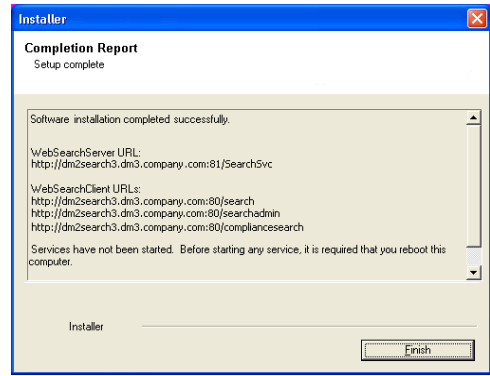
18. Click **OK**.

19. Click **Next**.

20. Click **Next**.

21. Click **Reboot** to finish the installation.





Desktop Browse - Exchange Mailbox (Administrator)

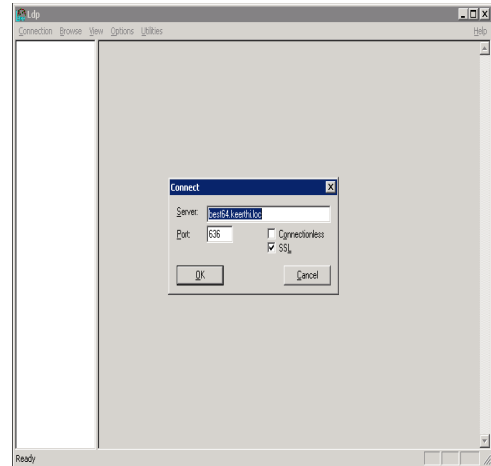
Install Setup

◀ Previous Next ▶

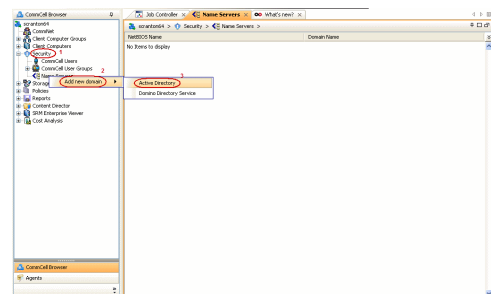
Once the Web Search Server and Web Search Client are installed, perform the following configurations:

SETTING UP PERMISSIONS FOR END USERS

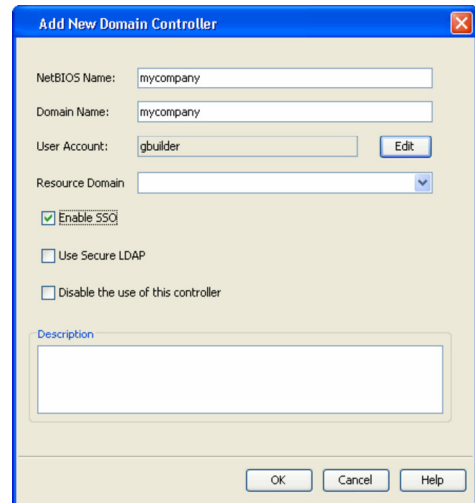
- Obtain the domain name and fully qualified domain name of the Active Directory server.
- Ensure that LDAP is configured on the AD server:
 - From the Active Directory Server, select **Start | Run**.
 - Type **ldp** on the **Run** dialog box and click **OK**.
 - Click the **Connections** menu option, and select **Connect**.
 - From the **Connect** dialog box, enter the following information:
 - Server:** Enter the name of the external domain server, e.g., `computer.domain.com`.
 - Port:** Enter 636 as the port number for the external domain server.
 - SSL:** Mark this checkbox to check for the proper certificate.
 - Click **OK**. If properly configured for LDAP, the external domain server details will be displayed in the LDP windowpane. If not configured for use with LDAP, an error message will appear indicating that a connection cannot be made using this feature.



- From the CommCell Browser, expand the **Security** node, right-click **Name Servers | Add New Domain** and click **Active Directory**.

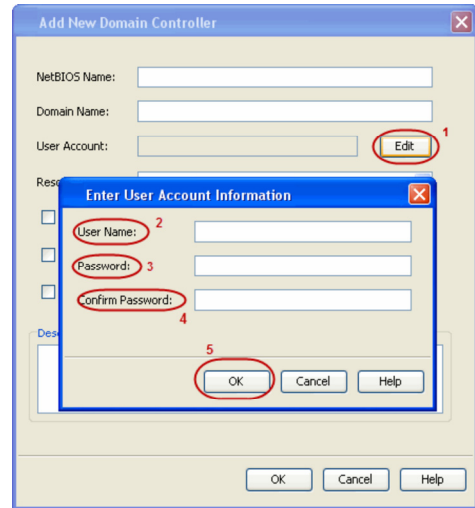


- Enter the domain name in **NetBIOS Name** text box, e.g., `mydomain`.
 - Enter the Fully Qualified Domain Name (FQDN), e.g., `mydomain.mycompany.com` in the **Domain Name** text box.

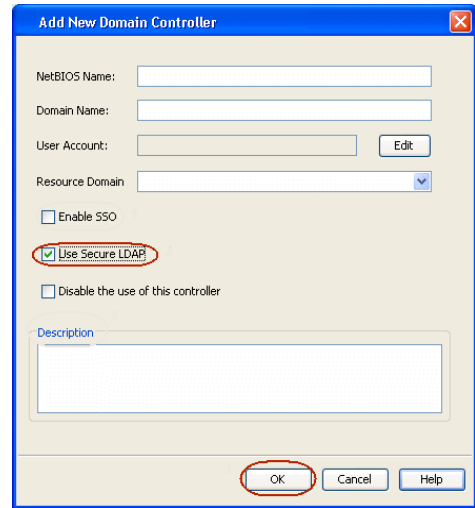


- Click **Edit** to enter the user account information for the domain.
 - Type **Username** and **Password** in **Enter User Account Information**.
 - Click **OK**.

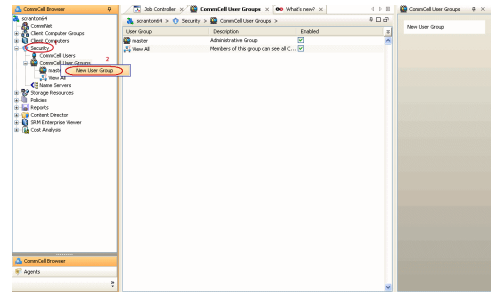
6.
 - Select **Use Secure LDAP** to enable the secure Lightweight Directory Access Protocol (LDAP) with the external domain.
 - Click **OK**.



7. Once you have registered the Domain Controller, restart the IIS services on the Web Search Server.
 - From your **CommServe** computer, click the **Start** button on the Windows task bar and then click **Administrative Tools**.
 - Click **Services**.
 - In the **Services** window, select and right-click **IIS Admin Service** and click **Restart**.
 - **Restart Other Services** dialog will be displayed, click **Yes**.

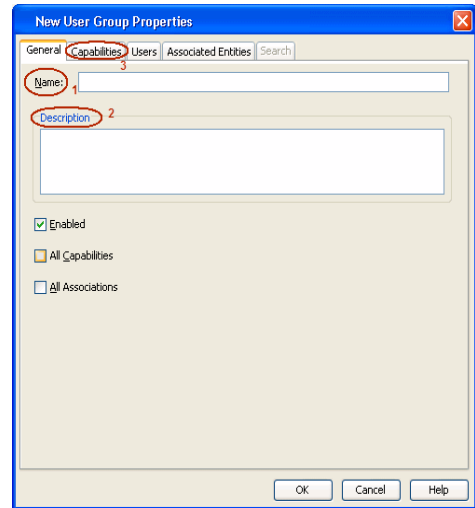


8. From the CommCell Browser, expand the **Security** node, right-click **CommCell User Groups** and select **New User Group**.

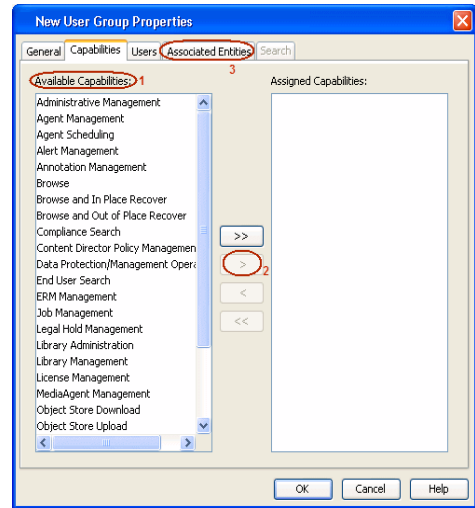


9.
 - Type the user group name in **Name** text box.
 - Type a description on the user group in **Description** box.
 - Click **Capabilities** tab.

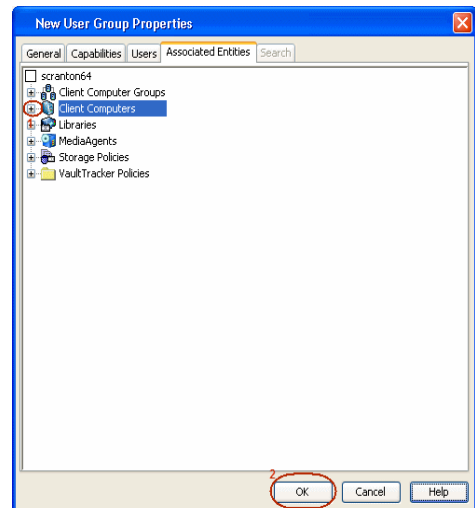
- 10.
- Press **Ctrl** key and select the following capabilities:
 - Browse
 - End user search
 - Click > to move the selected capabilities to the **Assigned Capabilities** list box.
 - Click **Associated Entities** tab.



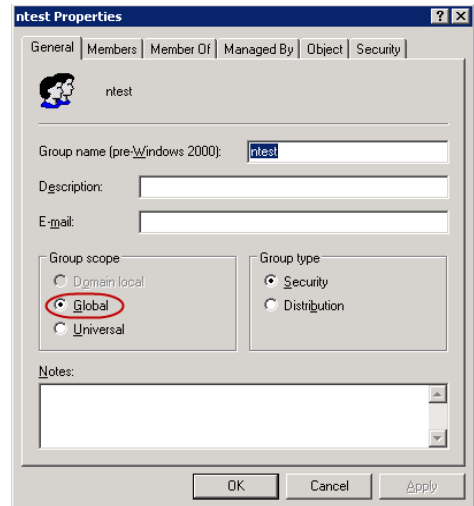
- 11.
- Expand **Client Computers** node and select the client computers to be browsed.
 - Click **OK**.



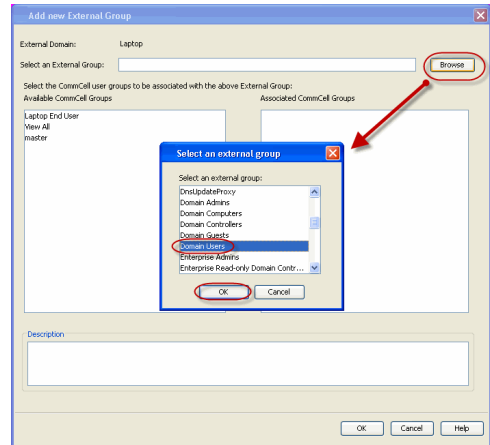
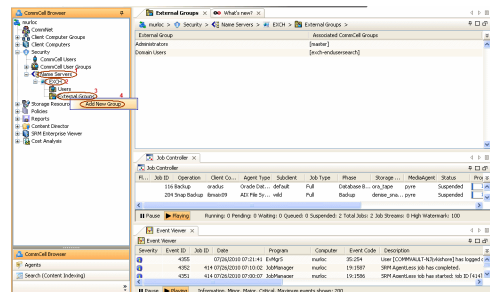
- 12.
- Ensure that the specific external user group in which the user belongs has Group Scope defined as `Global` on the Active Directory Domain:
 - Navigate to **Start | Administrative Tools | Active Directory Users and Computers**.
 - Right-click the external group and select **Properties**.
 - Select **Group** from **Group Scope** and click **OK**.



13. From the CommCell Browser, navigate to **Security | Name Server | <Domain Name>**, right-click **External Groups** and select **Add New Group**.

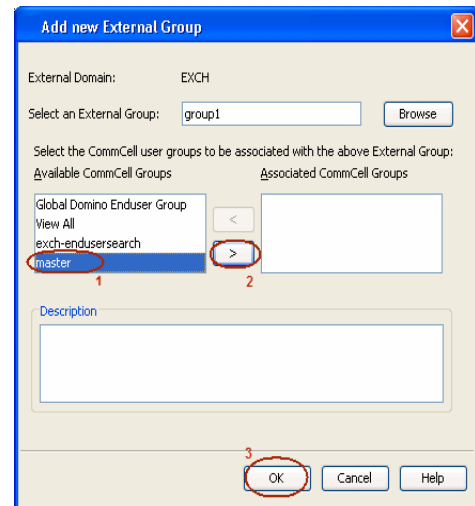


14.
 - Click **Browse**.
 - Select the **<external user group name>** in which the user belongs.



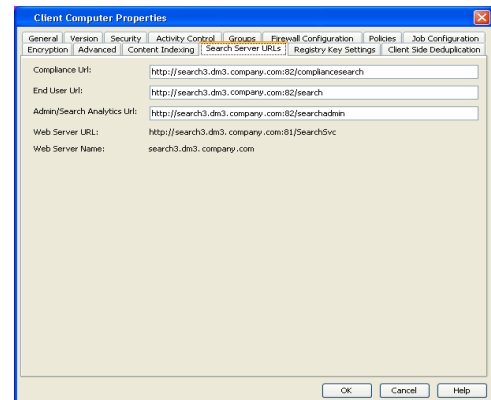
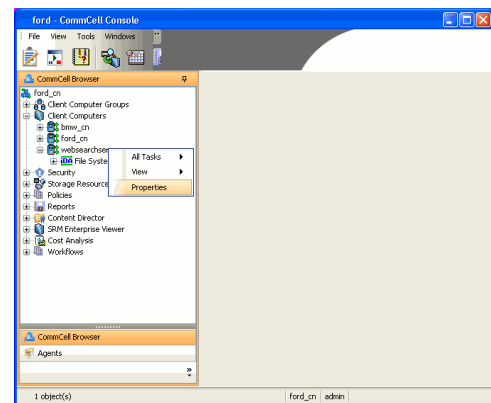
15.
 - Select the **CommCell User Group** to associate with the specified external user group.
 - Click **OK**.

16. From the CommCell Browser, right-click to **<Client Computer>** on which Web Search Server is installed and click **Properties**.



17. Click **Search Server URLs** tab.

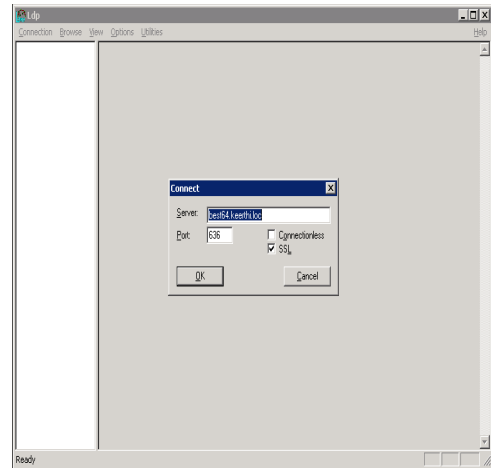
Make a note of **End User Url** to provide the URL to the user to browse and recover the data.



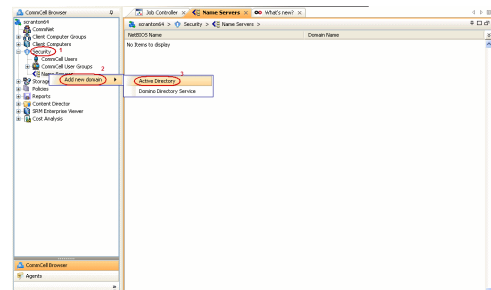
SETTING UP PERMISSIONS FOR COMPLIANCE USERS

- Obtain the domain name and fully qualified domain name of the Active Directory server.
- Ensure that LDAP is configured on the AD server:
 - From the Active Directory Server, select **Start | Run**.
 - Type **ldp** on the **Run** dialog box and click **OK**.
 - Click the **Connections** menu option, and select **Connect**.
 - From the **Connect** dialog box, enter the following information:
 - Server:** Enter the name of the external domain server, e.g., `computer.domain.com`.
 - Port:** Enter 636 as the port number for the external domain server.
 - SSL:** Mark this checkbox to check for the proper certificate.
 - Click **OK**. If properly configured for LDAP, the external domain server details will be displayed in the LDP windowpane. If not configured for use with LDAP, an error

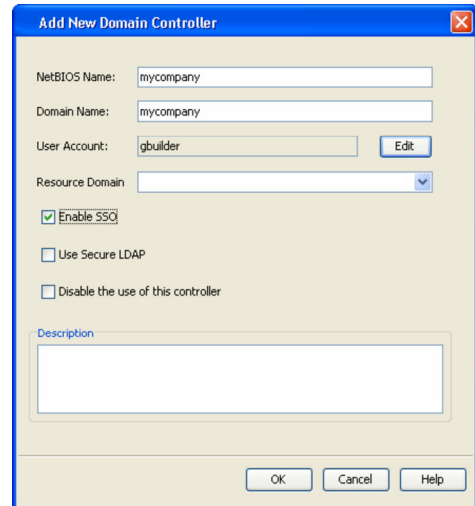
message will appear indicating that a connection cannot be made using this feature.



3. From the CommCell Browser, expand the **Security** node, right-click **Name Servers** | **Add New Domain** and click **Active Directory**.

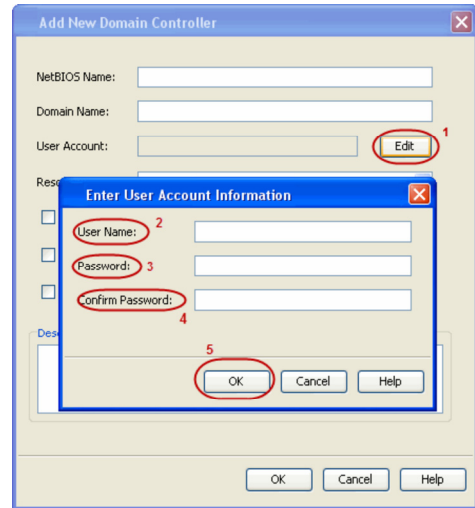


4.
 - Enter the domain name in **NetBIOS Name** text box, e.g., mydomain.
 - Enter the Fully Qualified Domain Name (FQDN), e.g., mydomain.mycompany.com in the **Domain Name** text box.

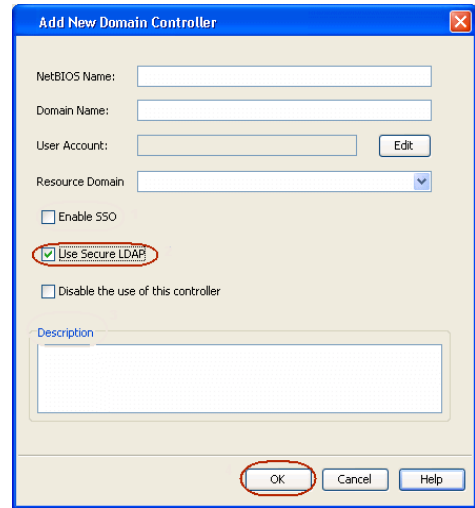


5.
 - Click **Edit** to enter the user account information for the domain.
 - Type **Username** and **Password** in **Enter User Account Information**.
 - Click **OK**.

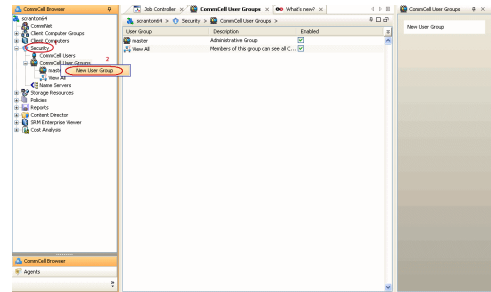
6.
 - Select **Use Secure LDAP** to enable the secure Lightweight Directory Access Protocol (LDAP) with the external domain.
 - Click **OK**.



7. Once you have registered the Domain Controller, restart the IIS services on the Web Search Server.
 - From your **CommServe** computer, click the **Start** button on the Windows task bar and then click **Administrative Tools**.
 - Click **Services**.
 - In the **Services** window, select and right-click **IIS Admin Service** and click **Restart**.
 - **Restart Other Services** dialog will be displayed, click **Yes**.

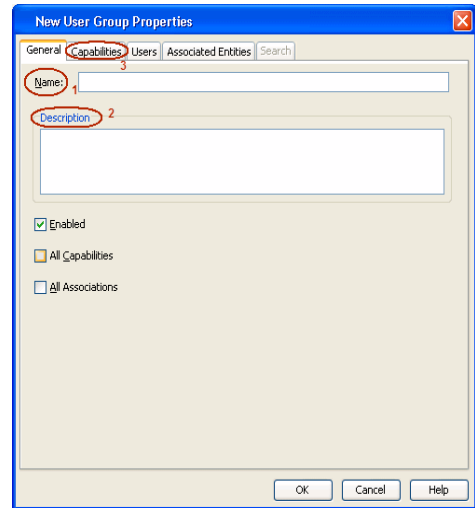


8. From the CommCell Browser, expand the **Security** node, right-click **CommCell User Groups** and select **New User Group**.

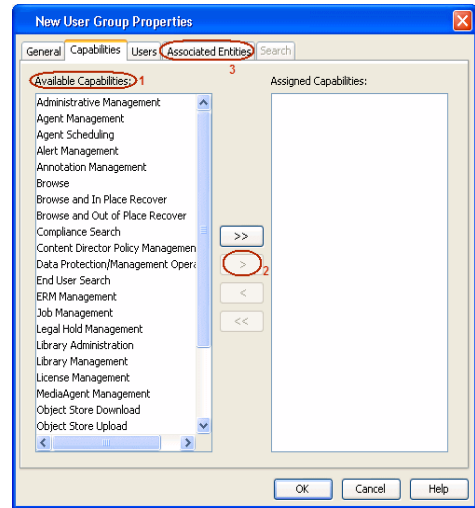


9.
 - Type the user group name in **Name** text box.
 - Type a description on the user group in **Description** box.
 - Click **Capabilities** tab.

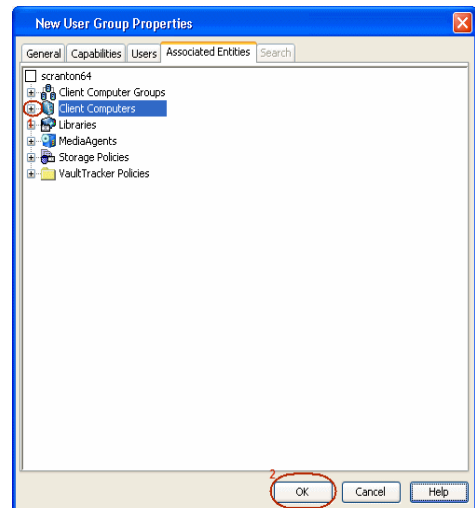
- 10.
- Press **Ctrl** key and select the following capabilities:
 - Browse
 - Compliance Search
 - Legal Hold Management
 - Annotation Management
 - Tag Management
 - ERM Management
 - Click **>** to move the selected capabilities to the **Assigned Capabilities** list box.
 - Click **Associated Entities** tab.



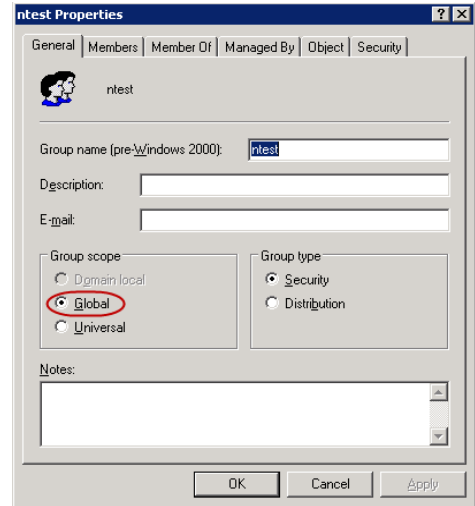
- 11.
- Expand **Client Computers** node and select the client computers to be browsed.
 - Click **OK**.



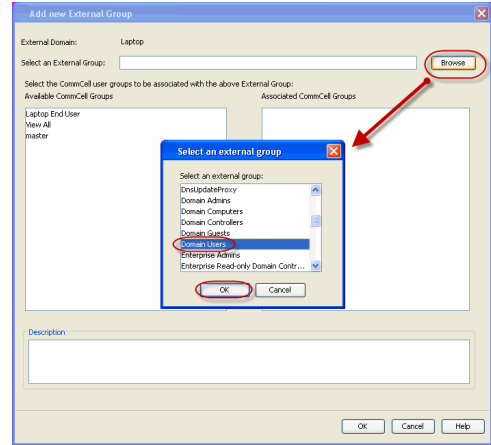
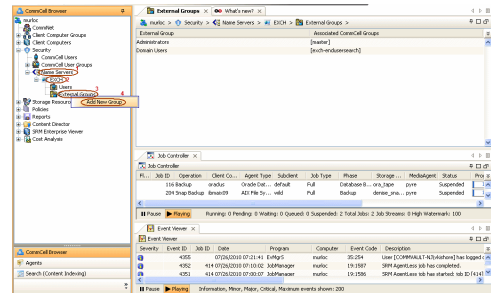
- 12.
- Ensure that the specific external user group in which the user belongs has Group Scope defined as `Global` on the Active Directory Domain:
- Navigate to **Start | Administrative Tools | Active Directory Users and Computers**.
 - Right-click the external group and select **Properties**.
 - Select **Group** from **Group Scope** and click **OK**.



13. From the CommCell Browser, navigate to **Security | Name Server | <Domain Name>**, right-click **External Groups** and select **Add New Group**.

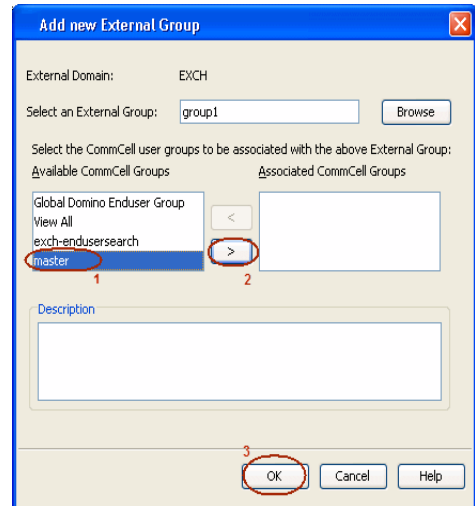


14.
 - Click **Browse**.
 - Select the **<external user group name>** in which the user belongs.



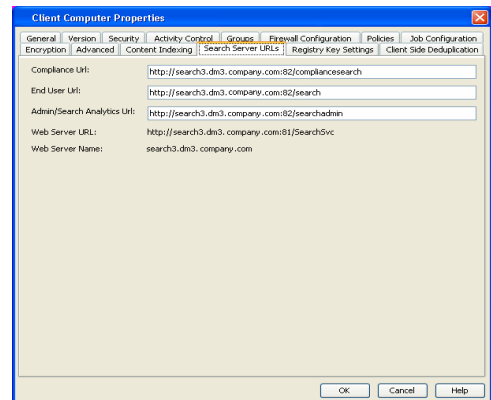
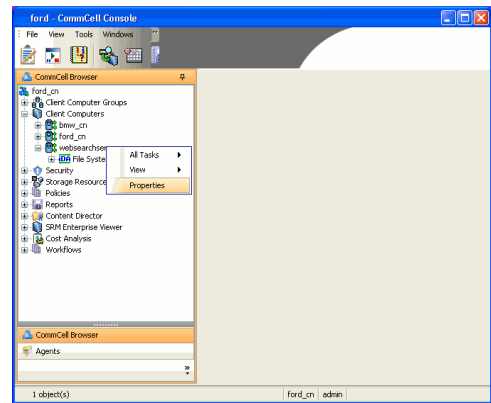
15.
 - Select the **CommCell User Group** to associate with the specified external user group.
 - Click **OK**.

- From the CommCell Browser, right-click to **<Client Computer>** on which Web Search Server is installed and click **Properties**.



- Click **Search Server URLs** tab.

Make a note of **End User Uri** to provide the URL to the user to browse and recover the data.



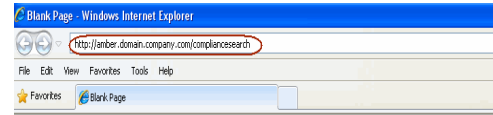
Desktop Browse - Exchange Mailbox (User)

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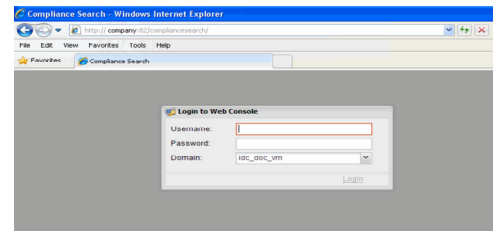
Desktop Browse enables users to browse and restore data using a web browser from any remote location without the need for installing the software.

LOGGING TO WEB CONSOLE

1. Open the supported Web Browser and type the Web Console URL in the address line.
For example, `http://amber.domain.company.com/<web_alias_name>`

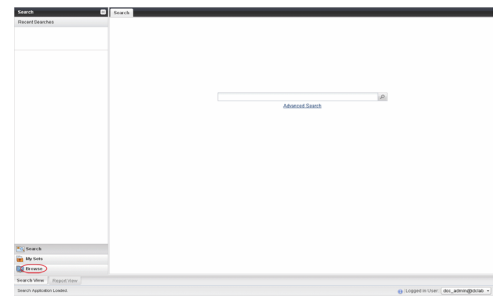


2.
 - Type the login credentials to access the Web Console.
 - Click **Login**.

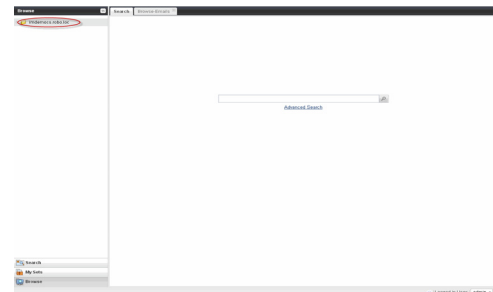


BROWSING AND RESTORING DATA

1. From the Web Console, click **Browse** on the left pane.



2. Double-click the **<CommServe computer name>**.



3. Double-click **<MailBoxes>**

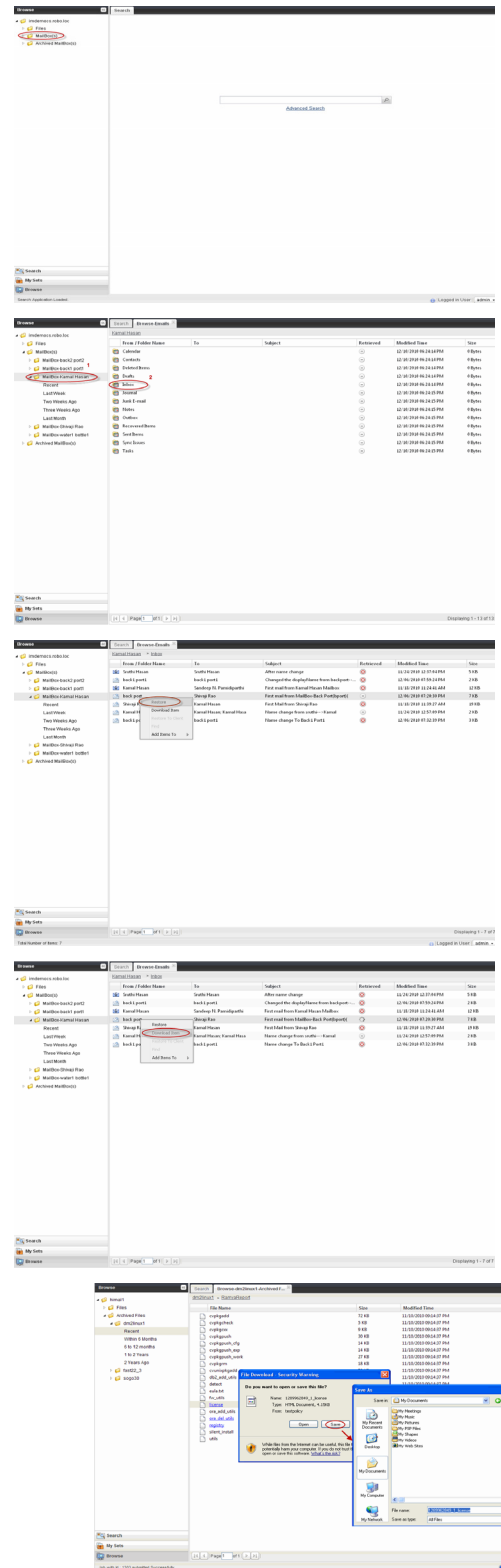
4.
 - Click the **<Mailbox name>**.
 - Double-click the Mailbox item from which you want to restore from the right pane.

5. Right-click the item to be restored, and select **Restore**.

The item is copied to the **MyReviewSet** folder under **MySets | ReviewSet** node in the Web Console.

7. Right-click the item and select **Download Item**.

8.
 - Click **Save** from the **File Download** dialog.
 - Specify the location where the file needs to be downloaded in the Web Browser's download dialog box.
 - Click **Save**.



Desktop Browse - Exchange Mailbox(User)

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Finding Emails with a Specific Subject name

Finding Emails From a Specific User

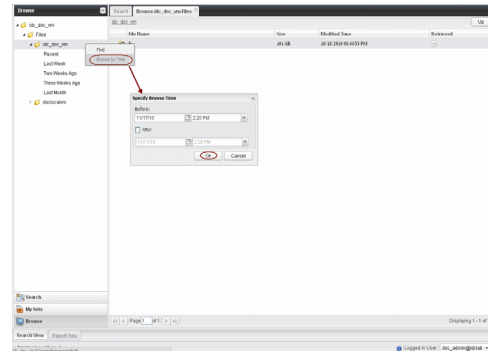
Finding Emails To a Specific User

Finding Emails with the Received Time Range

RESTORING DATA FROM A SPECIFIC TIME RANGE

You can also browse and restore data that was backed up some time earlier or within a specific time range.

1. From the Web Console, click **Browse** on the left pane.
2. Double-click the **<CommServe computer name>**.
3. Double-click **MailBoxes**.
4. Double-click the specific **<mailbox name>** and select one of the following options:
 - o **Recent**
 - o **Last Week**
 - o **Two Weeks Ago**
 - o **Three Weeks Ago**
 - o **Last Month**
5. Right-click the **<mailbox>** and select **Browse By Time**.
6. Select the time range in the **Before** drop down boxes.
7. Click **After** and specify the time range.
8. Click **OK**.
9. Navigate to the mailbox item to be restored on the right pane.
10. Right-click the item and select **Restore**. The mailbox item is copied to the **MyReviewSet** folder under **MySets | ReviewSet** node in the Web Console.
11. Right-click the item and select **Download Item**.
12. Click **Save** from the **File Download** dialog.
13. Specify the location where the mailbox item needs to be downloaded in the Web Browser's download dialog box and click **Save**.

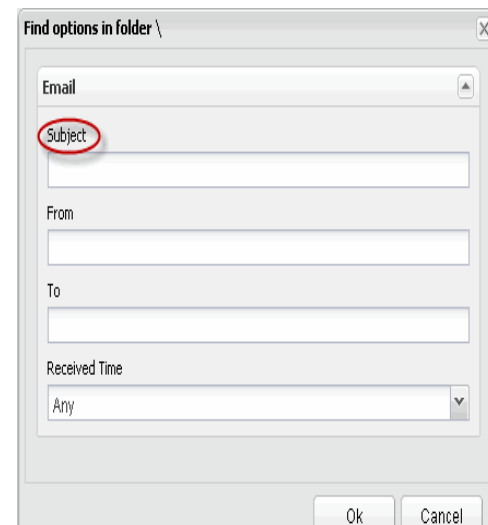


FINDING EMAILS WITH A SPECIFIC SUBJECT NAME

You can use **Find** option to search and locate emails with a specific **Subject** name

Follow the steps given below to find and locate Mailbox items with a specific **Subject** name.

1. From the Web Console, click **Browse** on the left pane.
2. Double-click the **<CommServe computer name>**.
3. Double-click **MailBoxes**.
4. Right-click the **<Mailbox name>** and select **Find**.
5. Type the **Subject** name of the Mailbox item.
6. Click **OK**.



FINDING EMAILS FROM A SPECIFIC USER

You can use **Find** option to search and locate emails from a specific user.

Follow the steps given below to find emails from a specific user.

1. From the Web Console, click **Browse** on the left pane.
2. Double-click the **<CommServe computer name>**.
3. Double-click **MailBoxes**.
4. Right-click the **<Mailbox name>** and select **Find**.
5. Type the **From** details of the email.
6. Click **OK**.

The screenshot shows a dialog box titled "Find options in folder \". It contains several input fields: "Email" (with an up arrow), "Subject", "From" (highlighted with a red circle), "To", and "Received Time" (with a dropdown menu showing "Any"). At the bottom right, there are "Ok" and "Cancel" buttons.

FINDING EMAILS TO A SPECIFIC USER

You can use **Find** option to search and locate emails to a specific user.

Follow the steps given below to find emails to a specific user.

1. From the Web Console, click **Browse** on the left pane.
2. Double-click the **<CommServe computer name>**.
3. Double-click **MailBoxes**.
4. Right-click the **<Mailbox name>** and select **Find**.
5. Type the **To** details of the email.
6. Click **OK**.

The screenshot shows a dialog box titled "Find options in folder \". It contains several input fields: "Email" (with an up arrow), "Subject", "From", "To" (highlighted with a red circle), and "Received Time" (with a dropdown menu showing "Any"). At the bottom right, there are "Ok" and "Cancel" buttons.

FINDING EMAILS WITH THE RECEIVED TIME RANGE

You can find and locate an email based on the received time range (such as Any, Today, Yesterday, etc).

Follow the steps given below to find and locate Mailbox items based on the **Received Time..**

1. From the Web Console, click **Browse** on the left pane.
2. Double-click the **<CommServe computer name>**.
3. Double-click **MailBoxes**.
4. Right-click the **<Mailbox name>** and select **Find**.
5. Select **Received Time** from drop-down menu.
6. Click **OK**.

The screenshot shows a dialog box titled "Find options in folder \". It contains several input fields: "Email" (with an up arrow), "Subject", "From", "To", and "Received Time" (with a dropdown menu highlighted by a red circle). At the bottom right, there are "Ok" and "Cancel" buttons.

Desktop Browse - Exchange Mailbox (User)

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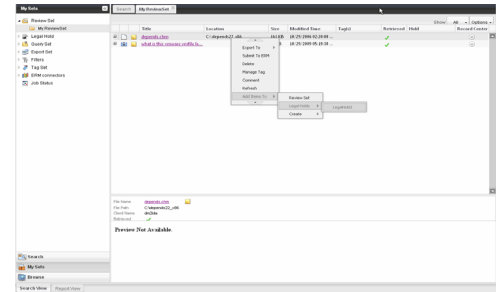
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- Adding Review Tags to an Email**
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- Downloading an Email**
- Downloading Multiple Emails**
- Saving an Email Properties**
- Sharing Emails to Other Users**
- Sharing Browse Results to Other Users**

RETAINING AN EMAIL FOR LONG TERM

Compliance users can retain a specific mail for a longer term by moving them to a Legal Hold container.

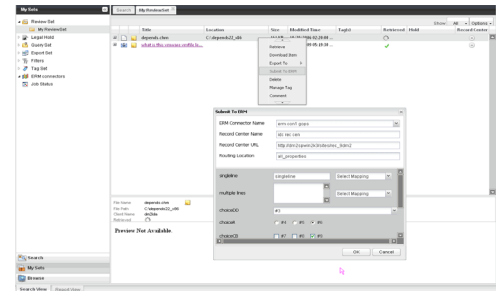
1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the <**Review Set Name**>.
3. Right-click the mail, navigate to **Add Item To | Legal Holds** and select <**Legal Hold Name**>.



MOVING AN EMAIL TO A RECORDS MANAGEMENT SITE

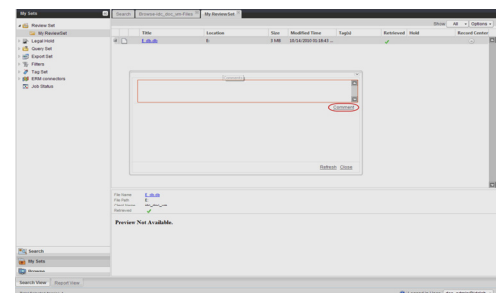
Compliance users can move mails to a Records Management Site (eg., Microsoft SharePoint Site) using an ERM Connector.

1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the <**Review Set Name**>.
3. Right-click the mail, and select **Submit To ERM**.
4. Click **ERM Connector Name** drop-down box and select the <**ERM Connector name**>.
5. Click **OK**.



ADDING COMMENTS TO AN EMAIL

1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the <**Review Set Name**>.
3. Right-click the mail and select **Comment**.
4. Type the statement for comments and click **Comment**.
5. Click **Close** to exit the Comment window.



ADDING REVIEW TAGS TO AN EMAIL

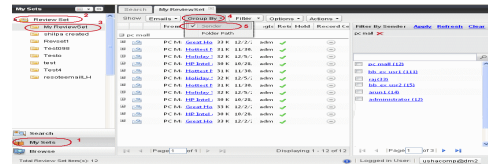


Compliance users can apply review tags to a mail to facilitate easy search based on tags at a later point of time.

1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the **<Review Set Name>**.
3. Right-click the mail and select **Manage Tag**.
4. On the **Manage Tag(s)** window, select the tag to apply.
5. Click **Apply Tags**.

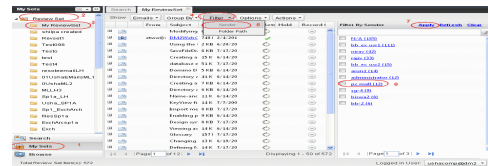
GROUPING EMAILS BY SENDER

1. From the Web Browser, click **My Sets** on the left pane.
2. Double-click **Review Set**, and then click the desired **<Review Set Name>/<Legal Hold Set Name>**.
3. On the **Group By** menu, click **Sender**.



FILTERING EMAILS BY SENDER

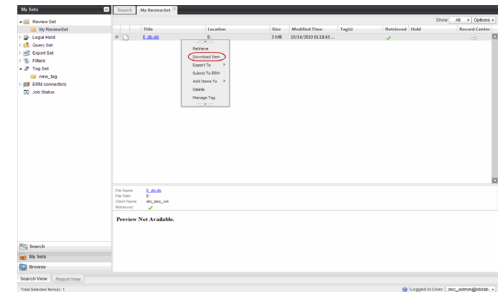
1. From the Web Browser, click **My Sets** on the left pane.
2. Double-click **Review Set**, and then click the desired **<Review Set Name>/<Legal Hold Set Name>**.
3. On the **Filter** menu, click **Sender**.
4. On the right pane, select the name of the sender.
5. Click **Apply**.



You can click the **Clear** button on the right pane to clear all the selected senders. To clear a specific selected sender, click the cross-mark symbol corresponding to the selected sender on the right pane.

DOWNLOADING AN EMAIL

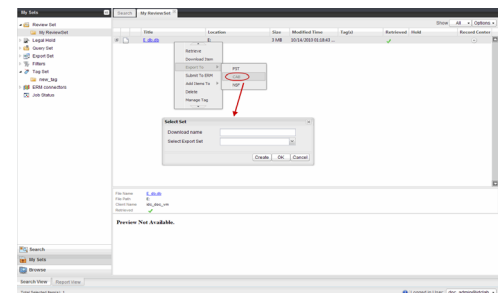
1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the **<Review Set Name>**.
3. Right-click the mail and select **Download Item**.
4. Specify the location where the mail needs to be downloaded in the Web Browser's download dialog box.



DOWNLOADING MULTIPLE EMAILS

In order to download multiple mails, you can export the selected mails/folder to a compressed file format (CAB format) and then download the CAB file to your computer.

1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the **<Review Set Name>**.
3. Right-click the mail and select **Export To | CAB**.
4. Specify the **Download Name**.
5. Select the **Select Export Set**.
6. Click **OK**. The selected mail(s) are moved to the selected **Export Set** with the given name.
7. Click **MySets | Export Set**.
8. Click the Export Set which contains the CAB file.
9. Right-click the CAB file and select **Download**.
10. Click **Save** from the **File Download** dialog box.

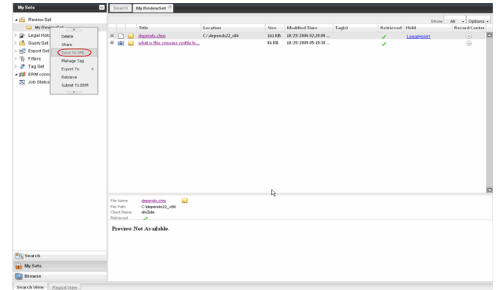


11. Navigate to the location where you want to download the file.
12. Click **OK**.

SAVING AN EMAIL PROPERTIES

You can save the properties of all the mails in a review set as an XML file to your local computer.

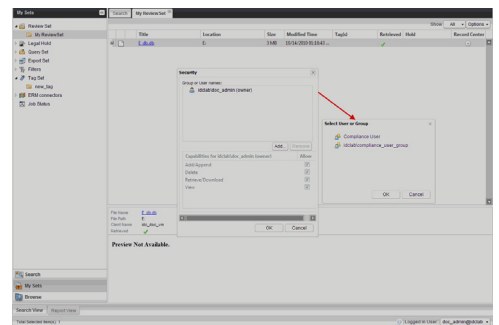
1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set**.
3. Right-click the **<Review Set Name>** and select **Save to XML**.
4. Click **Save** from the File Download dialog.
5. Navigate to the location where you want to save the file.
6. Click **OK**.



SHARING EMAILS TO OTHER USERS

You can share and assign access permissions to all the mails in your Review Set folder to selected users.

1. From the Web Console, click **MySets** on the left pane.
2. Double-click **Review Set** and click the **<Review Set Name>**.
3. Right-click the review set and select **Share**.
4. Click **Add**.
5. Select the user/user groups from the **Select User or Group** window.
6. Click **OK**.
7. Select **Allow** check box to assign the respective privileges.
8. Click **OK**.

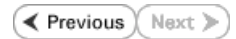


SHARING BROWSE RESULTS TO OTHER USERS

When browsing data, you can share the browse results with other users.

1. From the Web Console, click **Browse**.
2. Navigate to the Mailbox to be browsed.
3. Copy the URL of the browse result page from the browser's address bar and email to other users.

When the recipient users open the URL, they can directly view the browse result page as soon as they login to the Web Console.



Best Practices - Exchange Mailbox iDataAgent

DISTRIBUTING MAILBOX BACKUPS ACROSS SUBCLIENTS

Once mailboxes have been auto-discovered and assigned to subclients, the subclient content for this iDataAgent is displayed similar to the following example:

DISPLAY NAME	ALIAS NAME	SMTP ADDRESS
Aliyah Saadi	ASaadi	ASaadi@exch.company.com
Deepak Subrama	DSubrama	DSubrama@exch.company.com
Jacques Eiffel	JEiffel	JEiffel@exch.company.com
Kurt Merzbaum	KMerzbaum	KMerzbaum@exch.company.com
Viktor Valles	VValles	VValles@exch.company.com
Zhou Xu	ZXu	ZXu@exch.company.com

Two useful ways to distribute content of an Exchange Mailbox client are by User Group or by letter of the alphabet. In the example below, mailboxes are assigned to different subclients based on which letter of the alphabet their corresponding Display Names begin with. Distributing the client data using subclients in this way can help improve backup performance by organizing the workload on the Exchange Server into logical groupings.

DEFAULT SUBCLIENT: MAILBOXESA-G

The content of the default subclient would contain these mailboxes:

Aliyah Saadi	ASaadi	ASaadi@exch.company.com
Deepak Subrama	DSubrama	DSubrama@exch.company.com

USER-DEFINED SUBCLIENT: MAILBOXESH-R

The content of this user-defined subclient would contain these mailboxes:

Jacques Eiffel	JEiffel	JEiffel@exch.company.com
Kurt Merzbaum	KMerzbaum	KMerzbaum@exch.company.com

USER-DEFINED SUBCLIENT: MAILBOXESS-Z

The content of this user-defined subclient would contain these mailboxes:

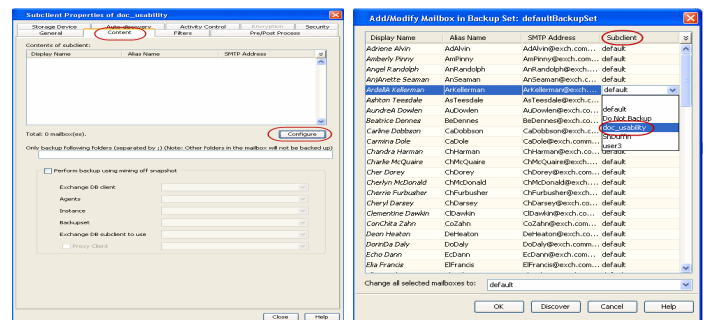
Viktor Valles	VValles	VValles@exch.company.com
Zhou Xu	ZXu	ZXu@exch.company.com

Follow the steps below to create a user-defined subclient.

- From the CommCell Browser, right-click the backup set on the source client, and click **All Tasks | New Subclient**.
- Enter a new subclient name in the **General** tab.
- Select a Storage Policy for the new subclient and click **OK**.
- Specify if a backup schedule should be associated to the new subclient and click **OK**.
- Right-click the subclient and select **Properties**.
- Click the **Contents** tab and then click **Configure**.
- From the **Add/Modify Mailbox** window, click the subclient entry for the mailbox that you want to add to the new subclient.
- Alternatively, you can select and assign a range of mailboxes to the new or existing subclient using the **Change all selected mailboxes to** list.

At least one mailbox must be assigned to the selected subclient in order to save the configuration.

- Click **OK**.



Frequently Asked Questions - Exchange Mailbox iDataAgent

FOR WHAT PURPOSE DO I USE THE EXCHANGE MAILBOX IDATAAGENT AS OPPOSED TO THE EXCHANGE DATABASE IDATAAGENT?

Primarily, you can use the Exchange Mailbox iDataAgent as a system administrator tool to:

- Perform small restore operations in the course of day-to-day database use (e.g., retrieve data accidentally deleted by a user).
- Restore part of a server (i.e., a subset of the mailboxes). This can be especially useful when you need to bring part of a storage group or store online as quickly as possible after a system failure.

HOW CAN I USE THE EXCHANGE MAILBOX AGENT WITH OTHER EXCHANGE AGENTS?

If you have all Exchange Server iDataAgents installed, you can back up Exchange data using all of them. For example, you may want to run daily backups of your private information store using the Exchange Mailbox iDataAgent. This way, you can restore any individual mailbox on the server to within one day of failure. You can use the Public Folder iDataAgent to restore Public Folders or Exchange data contained in the Public Folders. At the same time, you may want to schedule monthly backups of your Exchange Server using the Exchange Database iDataAgent, with daily incremental backups in between. This way you can recover efficiently in the event of a server crash. Although your private information store is backed up by Exchange Database iDataAgent, the backups are created differently and serve different purposes.

CAN I USE THE EXCHANGE MAILBOX AGENT TO BACKUP ACTIVE DIRECTORY INFORMATION USED BY EXCHANGE?

No, you would use the File System iDataAgent to backup this type of data. Other types of data that are backed up by the File System iDataAgent include:

Exchange Entity	Associated Files
Personal Information Store	*.pst
Personal Address Book	*.pab
Offline Folders	*.ost

DO I NEED TO REMOVE MAPI32.DLL PRIOR TO PERFORMING A NON-PST RESTORE?

If you previously added the MAPI32.dll file to the <Software Installation Path>/Base installation directory on the client to support PST recoveries to PST, then you will need to remove that file prior to performing a non-PST restore, recover, or retrieve operation for Exchange. Otherwise, such jobs may go into a pending state.

MUST I DISABLE CIRCULAR LOGGING FOR MAILBOX BACKUPS AS I DO WITH DATABASE BACKUPS?

No. Since Exchange Mailbox iDataAgent does not use transaction logs, circular logging can remain enabled providing no database backups are scheduled at the same time as a mailbox backup.

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.

HOW DO I FIX MAPI ISSUES?

If you experience MAPI issues, you should first do the following:

- Check the following:
 - The Exchange Services are running.
 - The databases are mounted.
 - Check the Windows Application Event logs on the Exchange Server for any errors.
 - For Exchange 2010, check the logs located in <Exchange Install Path>\v14\Logging\RPC Client Access) for any errors.
 - For Exchange 2010, the throttling policy is set:

Click **Start, All Programs**, and then click **Microsoft Exchange Server 2010**.

Click **Exchange Management Shell**.

Type the following commands:

1. `New-ThrottlingPolicy -name "cvthrottlingpolicy"`
2. `Set-ThrottlingPolicy -identity <throttling policy> -RCAMaxConcurrency $null`
3. `Set-Mailbox -Identity <service account> -ThrottlingPolicy "cvthrottlingpolicy"`

Where:

`<service account>` is the Exchange Administrator Service Account

`<throttling policy>` is the name of the throttling policy object in Active Directory, which was created in Step 1.

- If you are unable to open an existing Outlook profile, create a new profile.
- If you get a **MAPI_E_FAIL_ON_PROVIDER (8004011d)** error while running a backup, check if the Outlook profile is in the Cache Mode.
See [Troubleshoot - Exchange Mailbox iDataAgent Backup - MAPI_E_FAIL_ON_PROVIDER \(8004011d\)](#) for more details.
- If Multiple backup jobs running in parallel are failing with profile errors, create **CreateProcessSpecificProfile** key.
See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Multiple Jobs Failing with Profile Errors](#) for more details.
- To fix Service Account permission issues use ADSIEDIT for Exchange 2007 and set extended rights to **Receive As** for Exchange 2010.
See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Service Account Permission Issues](#) for more details.
- For Outlook, if automatic profile creation is failing, make the service account name unique for the auto discovery process.
See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Automatic Profile Creation is Failing](#) for more details.
- If you get **MAPI_E_NETWORK_ERROR**, for Exchange 2010 ensure there is connectivity to the Client Access Role Server. In case of Exchange 2007, ensure connectivity to Mailbox Role Server.
- In case you get the **Cannot Open Folder for Mailbox "username" Error:MAPI_E_NOT_FOUND (0x8004010f)** error message, verify that the extended rights on the service account have **Receive As** set on all database on the Exchange Server.
See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Error:MAPI_E_NOT_FOUND\(0x8004010f\)](#) for more details.
- In case you get the **Could Not Open the Exchange Private Message Store with Profile ExchAdm (E_FAIL (0x80004005))** error message, verify that the extended rights on the service account have **Receive As** set on all database on the Exchange Server.
See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Could Not Open the Exchange Private Message Store with Profile ExchAdm \(E_FAIL \(0x80004005\)\)](#) for more details.
- In case you get the **ERROR CODE [28:153]: The Mailbox Profile Used by this Product is Invalid** error message, verify that the extended rights on the service account have **Receive As** set on all database on the Exchange Server.

See [Troubleshoot - Exchange Mailbox iDataAgent Backup - ERROR CODE \[28:153\]](#) for more details.

- You may get a MAPI CDO error during installation because MAPI CDO is not compatible with any version of Microsoft Outlook or Microsoft Exchange Server 2003 or earlier. It is recommended to uninstall MAPI CDO and install MAPI.

See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Error During Installation of MAPI CDO on Exchange 2003](#) for more details.

- If the backup process hangs during enabling/disabling of MAPI, create a new profile with **Enable Referral** option selected.

See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Process Hangs While Enabling/Disabling MAPI](#) for more details.

- The process of profile creation may fail if the service account name is not unique. Also in case of Exchange Server 2010, verify that the Exchange Server name specified in agent properties has the Client Access Role installed.

See [Troubleshoot - Exchange Mailbox iDataAgent Backup - Unable to Log on to Microsoft Information Store/Profile Creation is Failing](#) for more details.

- If the backup process hangs up with **extask.cpp:HrInitialize(1342) Initializing MAPI subsystem** error message, uninstall MAPI CDO and install MAPI.

See [Troubleshoot - Exchange Mailbox iDataAgent Backup - extask.cpp:HrInitialize\(1342\) Initializing MAPI subsystem error](#) for more details.

Troubleshoot - Exchange Mailbox iDataAgent Backup

Backup | Restore

BACKUP FAILURES

Backup fails	<ol style="list-style-type: none"> The mailbox may not have a SMTP address assigned to it. Ensure that each mailbox has a valid SMTP address. Verify that the Outlook profile is in the Cache mode if <i>MAPI_E_FAIL_ON_PROVIDER (8004011d)</i> error message is displayed. Follow the steps given below to verify the profile mode: <ul style="list-style-type: none"> On the client computer, open the Control Panel and click the Mail icon. Open the <Profile>, click the email account and select the related <Account>. Click Change. Verify that the Use Cached Exchange Mode box is unchecked.
Full Logs	<p>Backup jobs may fail due to full log files that cannot accept messages.</p> <p>Configure the Windows Event Log Settings to set the log to overwrite existing events as follows:</p> <ol style="list-style-type: none"> In Windows 7, click the Start button. In the Search box, type Event Viewer. In the list of results, double-click Event Viewer. Click Properties. Select Overwrite events as needed (oldest events first). Click OK.

FILTER DATA THAT CONSISTENTLY FAILS

PROBLEM

Some items such as files or folders e.t.c., fail because they are locked by the operating system or application and cannot be opened at the time of the data protection operation. This items will be displayed in the "Items That Failed" list when Job History Report is run.

SOLUTION

Filter the files that consistently appear in the "Items That Failed" list on the data protection Job History Report and exclude those files or folders during backup to avoid backup failure.

TROUBLESHOOTING MAPI ISSUES

BACKUP PROCESS HANGS IN A PENDING STATE

PROBLEM

The backup processes may hang up in pending state because of incorrect permissions set at the service account level.

SOLUTION

To fix service account permission issues ensure the following:

- Service account is the local administrator on the client where the backups are run.
- Service account should be a member of Exchange Organization Administrators group for Exchange 2007 or Organization management group for Exchange 2010.

Follow the steps given below for fixing permission issues on Exchange 2010:

- Using ADSIEDIT navigate to Configuration | Services | Microsoft Exchange.
- Right-click your organization name, click Properties | Securities and click the Advanced tab.
- Ensure that Organization Management group does not have "Receive As" or "Send As" access set to Deny.

Follow the steps given below for fixing permission issues on Exchange 2010 server:

- On the Exchange 2010 server, open the command prompt.

2. Type `get-mailboxDatabase | add-adpermission -user <service account> -ExtendedRights Receive-As`.

MULTIPLE JOBS ARE FAILING WITH PROFILE ERRORS

PROBLEM

Multiple jobs will fail with profile errors when there is one profile for more than one job.

SOLUTION

Enable the following registry key to create job specific profiles:

1. From the CommCell Browser, navigate to **Client Computers**.
2. Right-click the **<Client>** in which you want to add the registry key, and then click **Properties**.
3. Click the **Registry Key Settings** tab.
4. Click **Add**.
5. Enter `CreateProcessSpecificProfile` in the **Name** field.
6. Enter `MSExchangeMBAgent` in the **Location** field.
7. Enter `REG_DWORD` in the **Type** field.
8. Enter 1 to enable and 0 to disable the key in the **Value** field.
9. Click **OK**.
10. From the CommCell Console, navigate to **<Client> | Exchange Mailbox | defaultBackupSet**.
11. Right click the subclient and click **Backup**.
12. Select **Full** as backup type and **Immediate** to run the job immediately.
13. Click **OK**.

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

AUTOMATIC PROFILE CREATION IS FAILING

PROBLEM

Automatic profile creation process is failing as the service account name is not unique and have similar starting series.

SOLUTION

It is recommended to make the service account name unique for the process of auto discovery. It should not have similar starting series as any other account. Follow the steps given below to verify this manually:

1. Use Manual Profile Creation to create a new profile.
2. Enter the service account name and click **Check Name**.
3. If many names are displayed, it is recommended to change the service account name.

UNABLE TO LOG ON TO MICROSOFT INFORMATION STORE/PROFILE CREATION IS FAILING

PROBLEM

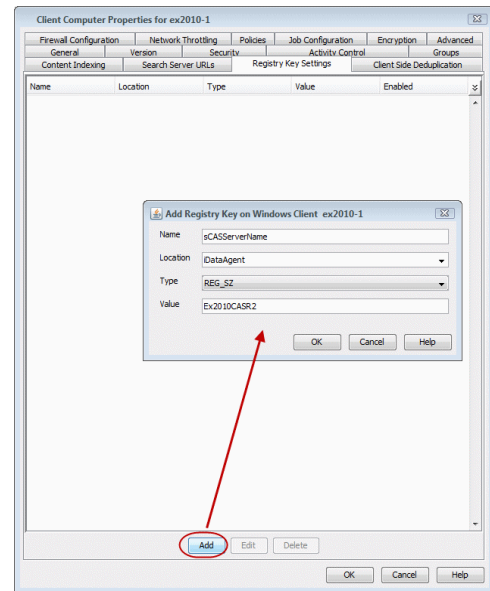
For Exchange Server 2010 you will not be able to log on to Microsoft Information Store and profile creation may also fail, if there is a mismatch in the Exchange Server name and the Exchange Server name specified in the agent properties that has the Client Access Role installed.

SOLUTION

For Exchange Server 2010 verify that the Exchange Server name specified in agent properties has the Client Access Role installed. In case the Exchange Server does not have the Client Access Role specified follow the steps given below to point to another server with client access role installed on it:

1. From the CommCell Browser, right-click the client computer that has Exchange Mailbox iDataAgent installed.
2. Click **Properties**.
3. Select **Registry Key Settings** tab.

4. Click **Add**.
5. Enter `sCASServerName` in the **Name** field.
6. From the **Location** list, select `iDataAgent`.
7. From the **Type** list, select `REG_SZ`.
8. Enter a CAS server name (e.g., `Ex2010CASR2`) in the **Value** field. The CAS server is used to create the profile.
9. Click **OK**.



PROCESS HANGS WHILE ENABLING/DISABLING MAPI

PROBLEM

Process hangs while enabling/disabling MAPI because the Exchange client is unable to connect Twith the Global catalogue.

SOLUTION 1.

Create a new profile using Enable Referral Option by following one of the options mentioned below:

Open the command prompt.

Type `C:\>gcreconnect.`

Usage: `GCRconnect [-?] -m mailbox -s server [-e] [-x] [-n name] [-l] [-r] [-w]`

Options:

- m mailbox Specifies the mailbox to log on to.
- s server Specifies the Exchange server where the mailbox resides.
- e Enable referral and reconnect If referral and reconnect are not enabled, MAPI will connect directly to the Exchange server for name lookup
- x Enable additional referral and reconnect settings for Exchange 2007 Implies-e
- n name Specifies a name to resolve with ResolveName If not specified, QueryIdentity will be used instead
- l Loop over MAPILogonEx. Will log on and off repeatedly until key is hit
- r Loop over ResolveName. Will log on once and do name lookup repeatedly until key is hit Requires -n, not valid with -l
- w Wait for keyboard input before and after creating and configuring profile
- ? Displays this usage information.

SOLUTION 2

Delete the existing profile and follow the steps given below:

1. From the CommCell Browser, navigate to **Client Computers**.
2. Right-click the **<Client>** in which you want to add the registry key, and then click **Properties**.
3. Click the **Registry Key Settings** tab.
4. Click **Add**.
5. Enter `enableReferral` in the **Name** field.
6. Enter `MSExchangeMBAgent` in the **Location** field.
7. Enter `REG_DWORD` in the **Type** field.

8. Enter 1 in the **Value** field.
9. Click **OK**.

ERROR DURING THE INSTALLATION OF MAPI CDO ON EXCHANGE 2003

PROBLEM

If you try to install MAPI CDO on Exchange 2003, you may encounter error messages during installation. This is due to lack of compatibility between MAPI CDO and Microsoft Exchange Server 2003.

SOLUTION

It is recommended to uninstall MAPI CDO and install MAPI by following the steps given below:

On Exchange Server:

1. Navigate to the **system32** folder.
2. Run **FixMapi**.
3. Uninstall old **mapicdo**.
4. Reboot the computer.
5. Verify the presence of **mapi32.dll** and **msmapi32.dll** and rename them.

PROBLEM

On the Proxy Computer that has Outlook installed, in case there are any MAPI issues, follow the steps given below:

1. Uninstall old **mapicdo** if any.
2. Reboot the computer.
3. Install Outlook.
4. Navigate to the **system32** or the **syswow64** folder.
5. Run **FixMapi**.
6. Reboot the computer.

MICROSOFT MAPI VERSION ERROR

PROBLEM

During Outlook installation, you might encounter a MAPI version error. This is because two MAPI versions cannot coexist.

SOLUTION

The MAPI version error may occur if you have a 32-Bit Outlook version and you are trying to install a 64-Bit Outlook version. This is because the 64-Bit MAPI and 32-bit MAPI cannot coexist on the same computer. It is recommended to uninstall one of the outlook versions.

ERROR MESSAGE: MAPI_E_FAIL_ON_PROVIDER (8004011D)

PROBLEM

You will get this error message if the Outlook profile is in the **Cache** mode.

SOLUTION

1. On the client computer, open the **Control Panel** and click the **Mail** icon.
2. Open the **<Profile>**, click the email account and select the related **<Account>**.
3. Click **Change**.
4. Verify that the **Use Cached Exchange Mode** box is unchecked.

ERROR MESSAGE: EXTASK.CPP:HRINITIALIZE(1342) INITIALIZING MAPI SUBSYSTEM

PROBLEM

You will get this error message when a backup process hangs due to the MAPI CDO conflict.

SOLUTION 1.

1. On the client computer navigate to the following files:
 - Mapi32.dll
 - msmapi32.dll
 - emsmb32.dll
2. Right-click the above mentioned files, click **Properties** and click the **Details** tab.
3. Click the **Version** tab and verify that all the files point to Outlook.

SOLUTION 2.

On the Proxy Computer:

1. Uninstall old **mapicdo**.
2. Reboot the computer.
3. Install Outlook.
4. Navigate to the **system32** or the **syswow64 folder**.
5. Run **FixMapi**.
6. Reboot the computer.

Note that running **FixMapi** will solve the above mentioned error on the proxy computer.

On Exchange Server:

1. Uninstall old **mapicdo**.
2. Reboot the computer.
3. Verify the presence of mapi32.dll and msmapi32.dll and rename them.
4. Install Outlook.

ERROR MESSAGE: MAPI_E_NETWORK_ERROR

PROBLEM

You will get this error message when there is no connectivity with Client Access Role server for Exchange 2010 and for Mailbox Role Server for Exchange 2007.

SOLUTION

Ensure for Exchange 2010 there is connectivity to the Client Access Role Server. In case of Exchange 2007, ensure connectivity to Mailbox Role Server.

ERROR MESSAGE: CANNOT OPEN FOLDER FOR MAILBOX "USERNAME" ERROR:MAPI_E_NOT_FOUND (0x8004010F)

PROBLEM

You will get this error message when the backup processes hangs in a pending state and the extended right on your service account is not set to **Receive As** on all databases on the Exchange Server.

SOLUTION 1

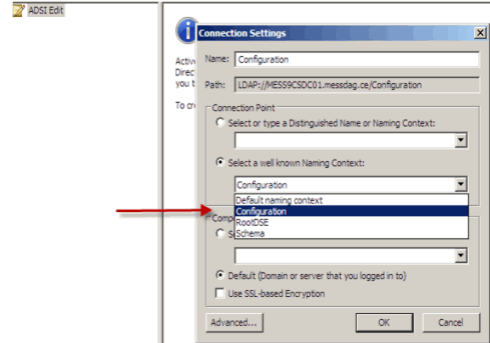
1. Open the profile in Outlook, it should open successfully.
2. Use **MFCMapi** utility to open the service account profile.
3. Click **Session | Logon** and click **Display Stores**.
4. Select the service account profile.
5. Click the **MDB** menu and click **Open Other Users Mailbox**.

6. Click the <Mailbox> and select the default flags to open it.
7. Navigate to the tree level for **Top of Information Store**, browse mailbox folders.

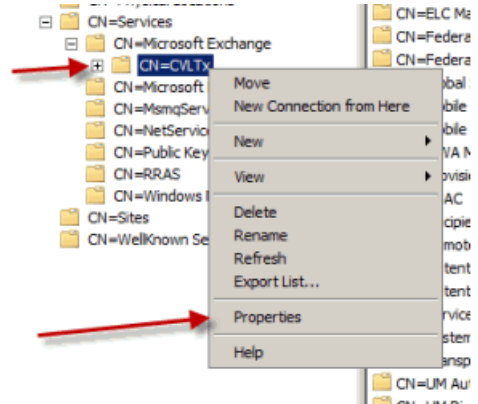
If there are no permission errors through the above mentioned process, then the service account should have the extended right set to **Receive-As** on all databases on the Exchange Server as follows:

SOLUTION 2

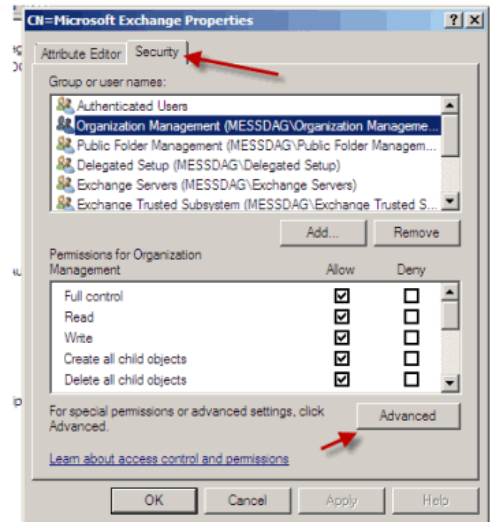
1. Using ADSIEDIT navigate to Configuration | Services | Microsoft Exchange.



2. Right-click your organization name, click Properties | Security and click the Advanced tab.



3. Click Edit to modify the permissions set for Organization Management group.



4. Click to select Full Control, Receive As and Send As permissions and wait for replication.
5. Click the Effective Permission tab and Select the name of the backup account.

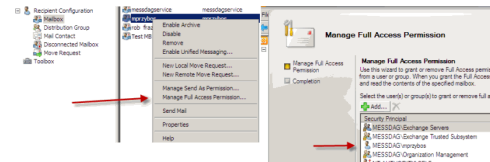
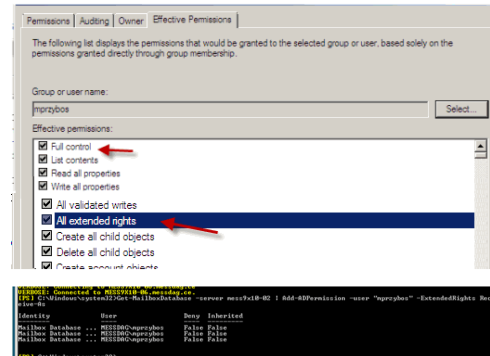
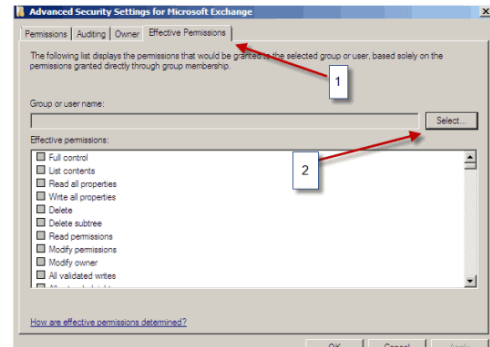
6. The backup account should display the following as selected:

- Full Control
- All Extended Rights
- Send As
- Receive As

7. 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
```

8. 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.



SOLUTION 3

For Exchange 2010 and 2007 verify that the **Cache** mode is disabled on the Service Account. For more details, on Microsoft permission settings, see Allow Mailbox Access.

ERROR MESSAGE: COULD NOT OPEN THE EXCHANGE PRIVATE MESSAGE STORE WITH PROFILE EXCHADM (E_FAIL (0x80004005))

PROBLEM

You will get this error message when the extended right on your service account is not set to **Receive As** on all databases on the Exchange Server.

SOLUTION

1. Open the profile in Outlook, it should open successfully.
2. Use **MFCMapi** utility to open the service account profile.
3. Click **Session | Logon** and click **Display Stores**.
4. Select the service account profile.
5. Click the **MDB** menu and click **Open Other Users Mailbox**.
6. Click the <Mailbox> and select the default flags to open it.
7. Navigate to the tree level for **Top of Information Store**, browse mailbox folders.
8. If there are no permission errors through this process, the service account should have the extended right set to **Receive-As** on all databases on the Exchange Server.

ERROR MESSAGE: ERROR CODE [28:153]: THE MAILBOX PROFILE USED BY THIS PRODUCT IS INVALID. PLEASE TRY USING MDBVU, OUTLOOK OR ANY OTHER EXCHANGE CLIENT TO CHECK IF THE

PROFILE WORKS CORRECTLY

PROBLEM

You will get this error message when the extended right on your service account is not set to **Receive As** on all databases on the Exchange Server.

SOLUTION

1. Open the profile in Outlook, it should open successfully.
2. Use **MFCMapi** utility to open the service account profile.
3. Click **Session | Logon** and click **Display Stores**.
4. Select the service account profile.
5. Click the **MDB** menu and click **Open Other Users Mailbox**.
6. Click the **<Mailbox>** and select the default flags to open it.
7. Navigate to the tree level for **Top of Information Store**, browse mailbox folders.
8. If there are no permission errors through this process, the service account should have the extended right set to **Receive-As** on all databases on the Exchange Server.

Troubleshoot - Exchange Mailbox iDataAgent Restore

Backup | Restore

RESTORE JOB WITH PENDING STATE

Restore jobs may go into a pending state if the MAPI32.dll file is not removed from the <Software Installation Path>/Base directory prior to performing a non-PST restore. The MAPI32.dll file allows the client computer to support restores to PST. To resolve this issue, remove the MAPI32.dll file prior to performing a non-PST restore.

STORAGE LIMIT PREVENTS THE ENTIRE LIST OF ITEMS FROM BEING RESTORED

Before performing a mailbox, mailbox folder or mailbox message restore, ensure that the storage limits are disabled. Follow the steps below to remove or disable any storage limit:

1. From the Exchange Server software hierarchy view, under the Exchange Server computer, select **Private Information Store**.
2. Select the **Private Information Store Properties** box.
3. Remove or disable any storage limits.

Storage limits can be set from an individual mailbox, or to use the value taken from the **Private Information Store Properties** box. If any individual mailboxes have set storage limits, disable them as well.

RESTORE OPERATION TIME MAY EXCEED IN CASE OF RESTORING LARGE AMOUNT OF DATA

If you restore a large amount of data, the restore operation time may exceed the time allowed in the operation window for the client. Perform the restore either breaking up the restore into many smaller restores, or perform an Exchange Server Database restore.

SPECIAL CHARACTERS MAY RESULT IN INCONSISTENT RESTORE

The use of the characters "/", "\", and "" in the message subject line, mailbox name, alias, or SMTP address may be rendered inconsistently when performing a restore browse operation.

For example, a slash or backslash in the subject header may be displayed as a pipe character. Also, when the slash or backslash is used in the mailbox or display name, the entry may appear blank in the restore browse screen, and may not be a valid backup.

To resolve this issue, avoid using the characters "/", "\", and "" in the mailbox name, display name and subject header, where possible.

UNABLE TO SEE ALL ALIAS NAME CHANGES

If you perform an incremental backup after an alias name change, and then if you perform an image browse of the data, then you will only see the latest alias displayed in the Browse window. You may not be able to see all alias names. To resolve this issue, perform a non-image browse to see all alias names in the Browse window for the current index.

Follow the steps below to perform non-image browse operation:

1. From the CommCell Browser, navigate to <Client>.
2. Right-click <Client Computer> or **Exchange Mailbox**, click **All Tasks | Browse&Recover/Browse Default Backup Set**.
3. From the **Browse Options** dialog box, select **Show Deleted Items** checkbox.
4. Click **OK**.

ALIAS NAME SEARCH

When performing searches on **TO** or **FROM** fields, alias name changes are not taken into account regardless of where the search is being conducted from.

Note the alias names into consideration when searching at the mailbox level and narrow the search only by **SUBJECT**, if necessary, leave the **TO** and **FROM** fields empty.

"OVERWRITE" AND "SKIP" RESTORE OPTIONS ARE IGNORED

While performing an Out-of-Place restore to \recovered items folder the **Overwrite** and **Skip** restore options will be ignored and the messages will be appended. To resolve this issue, specify another folder name during Out-of-Place restore.

RECOVERING DATA ASSOCIATED WITH DELETED CLIENTS AND STORAGE POLICIES

The following procedure describes the steps involved in recovering data associated with the following entities:

- Deleted Storage Policy
- Deleted Client, Agent, Backup Set or Instance

BEFORE YOU BEGIN

This procedure can be performed when the following are available:

- You have a Disaster Recovery Backup which contains information on the entity that you are trying to restore. For example, if you wish to recover a storage policy (and the data associated with the storage policy) that was accidentally deleted, you must have a copy of the disaster recovery backup which was performed before deleting the storage policy.
- Media containing the data you wish to recover is available and not overwritten.
- If a CommCell Migration license was available in the CommServe when the disaster recovery backup was performed, no additional licenses are required. If not, obtain the following licenses:
 - IP Address Change license
 - CommCell Migration license
 See License Administration for more details.
- A standby computer, which will be used temporarily to build a CommServe.

RECOVERING DELETED DATA

1. Locate the latest Disaster Recovery Backup which contains the information on the entity (Storage Policy, Client, Agent, Backup Set or Instance) that you are trying to restore.
 - You can check the Phase 1 destination for the DR Set or use Restore by Jobs for CommServe DR Data to restore the data.
 - If the job was pruned and you know the media containing the Disaster Recovery Backup, you can move the media in the **Overwrite Protect Media** Pool. See Accessing Aged Data for more information. You can then restore the appropriate DR Set associated with the job as described in Restore by Jobs for CommServe DR Data.
 - If the job is pruned and you do not know the media containing the Disaster Recovery Backup, you can do one of the following:
 - If you regularly run and have copies of the Data on Media and Aging Forecast report you can check them to see if the appropriate media is available.
2. On a standby computer, install the CommServe software. For more information on installing the CommServe, see CommServe Deployment.
3. Restore the CommServe database using the CommServe Disaster Recovery Tool from the Disaster Recovery Backup described in Step 1. (See Restore a Disaster Recovery Backup for step-by-step instructions.)
4. Verify and ensure that the **Bull Calypso Client Event Manager Bull Calypso Communications Service (EvMgrS)** is running.
5. If you did not have a CommCell Migration license available in the CommServe when the disaster recovery backup was performed, apply the IP Address Change license and the CommCell Migration license on the standby CommServe. See Activate Licenses for step-by-step instructions.
6. Export the data associated with the affected clients from the standby CommServe as described in Export Data from the Source CommCell.

When you start the Command Line Interface to capture data, use the name of the standby CommServe in the -
`commcell` argument.

7. Import the exported data to the main CommServe as described in Import Data on the Destination CommCell.

This will bring back the entity in the CommServe database and the entity will now be visible in the CommCell Browser. (Press F5 to refresh the CommCell Browser if the entity is not displayed after a successful merge.)
8. If you have additional data that was backed up after the disaster recovery backup and before the deletion of the entity, use the procedure described in Import Metadata from a Tape or Optical Media to obtain the necessary information.
9. You can now browse and restore the data from the appropriate entity.

As a precaution, mark media (tape and optical media) associated with the source CommCell as READ ONLY before performing a data recovery operation in the destination CommCell.

Agent Properties (General)

Use this dialog box to obtain or provide general and/or user account information for the agent.

Client Name

Displays the name of the client computer on which this Agent is installed.

Billing Department

Displays the name of the billing department, when the Agent is associated with a billing department.

iDataAgent

Displays the identity of the Agent that is installed on the client computer.

Installed date

Displays the date on which the Agent was installed or upgraded on the client computer.

Profile Name

Displays the name of the profile that is associated with the appropriate Administrator Mailbox. Use this space to modify this name.

Mailbox Name

Displays the name of the mailbox that is associated with the appropriate Administrator profile. Use this space to modify this name.

Exchange Administrator Account

Displays the Exchange Administrator Account for the site in which this Exchange Server resides. Click **Change Account** to modify the account credentials.

Change Account

Click to change the Exchange Administrator Account associated with this agent. These credentials are initially provided during agent installation. Populate the resulting dialog box only if you changed the Exchange Administrator Account and it now differs from the one displayed in the **Exchange Administrator Account** field.

Backup Deleted Item Retention

Specifies whether to enable backups for Deleted Item Retention. By default, the Deleted Item Retention folder is not included in backups.

When cleared, backups of the Deleted Item Retention folder are disabled.

Use CSVDE For Discovery

Specifies whether to use CSVDE filtering for discovery operations. When selected, a CSVDE filter must be entered into the corresponding entry space.

Use of this option requires expert-level knowledge of CSVDE, which is a Microsoft tool used for extracting and filtering information from Active Directory. Incorrect use of the CSVDE filtering option can result in failed discovery and data protection operations.

The following example filters out system mailboxes residing on the SERVERNAME server from discovery operations:

```
"(&(msExchHomeServerName=*/cn=SERVERNAME) (!(CN=SystemMailbox{*})))"
```

When cleared, user-specified CSVDE filtering will not be used for discovery operations.

Exchange Server Name

Displays the hostname of the Exchange Server that is installed on the client computer. Use this space to modify the hostname if the name displayed is incorrect. If more than one hostname is entered, separate the hostnames with the semi-colon delimiter.

When backing up Exchange 2010 Database Availability Group (DAG) servers, enter the Mailbox server role that is used by backup and restore operations and configure the `sCASServerName` registry key to specify a CAS server for creating the profile.

Exchange Version

Lists the version of the Exchange Server that is installed on the client computer. To modify the version, select one from the list.

Manage Content Automatically

Specifies to automatically assign auto discovered content to the subclients.

By default, if a change is made to an automatically discovered mailbox that alters the association criteria it was discovered with, the next backup will automatically reassign the mailbox to the appropriate subclient that satisfies the new criteria.

Clear this option to disable this functionality.

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Version

Use this dialog box to view the iDataAgent version.

Activity Control

Use this dialog box to enable or disable data management and data recovery operations on a selected client or client computer group.

Enable Backup

Specifies whether data management 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 management operations will begin on the selected agent.
- Data management operations from this agent cannot be started and are skipped.
- Running and waiting data management operations for this agent run to completion.
- Stopped data management operations for this agent cannot be resumed until this option is enabled.
- Pending data management operations for this agent do not run until this option is enabled.

(Job states are indicated in the Job Controller.)

Enable Restore

Specifies whether data recovery 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 recovery operations will begin on the selected agent.
- Data recovery operations for this agent cannot be started and are skipped.
- Running data recovery operations for this agent run to completion.
- Pending data recovery operations for this agent do not run until data recovery operations are enabled.

(Job states are indicated in the Job Controller.)

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.

Agent Properties (AD Server)

Use this dialog box to specify one or more Active Directory (AD) servers (i.e., domain controllers) that host an Exchange Server. Specifying additional AD Servers provides complete backup coverage of all Exchange mailboxes.

AD Server List

Displays the domain name of one or more Active Directory (AD) servers. You can use this space along with the **Add** and **Delete** buttons to include or remove Active Directory (AD) servers. For example, you may need to add an AD server in these scenarios:

- In cases where an Exchange Server is installed in a child domain and the schema master is in the parent domain, add the Active Directory (AD) server name of the schema master in the parent domain.
- In cases where a domain or forest has multiple domain controllers which may not fully replicate to each other, multiple domain controllers can be added to

ensure a complete list of mailboxes are backed up.

Add

Click to include an Active Directory (AD) server. Enter either a hostname, a fully-qualified domain name, or IP address.

Delete

Click to remove an Active Directory (AD) server.

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.

Change User Account

Use this dialog box to view or change the Exchange Administrator account information that was set during installation.

Exchange Administrator Account

Displays the Exchange Administrator Account for the site in which this Exchange Server resides. Use this space to modify the account if it has changed and now differs from the one displayed here or if the account was incorrectly entered during installation.

Password

Use this space to specify or modify the Administrator Account password.

Confirm Password

Use this space to retype the password for confirmation.

Backup Set Properties (General)

Use this dialog box to change the configuration of the selected backup set.

Client Name

Displays the name of the client computer on which this backup set is found.

iDataAgent

Displays the name of the iDataAgent to which this backup set belongs.

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*.

Backup Set

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.)

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.

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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Auto Discover

Use this dialog box to view, establish, or change the assignment method that will be used to automatically discover mailboxes.

Enable Auto-Discover

Specifies whether to enable auto-discovery of new mailboxes in all user-defined subclients of this backup set. Selecting this option will cause the system to discover and assign any new mailboxes at the beginning of each backup, according to the method specified below.

Clearing this option will disable the auto-discovery capability for all user-defined subclients of this backup set.

- **Match mailboxes by regular expressions**

Specifies that you want to assign auto-discovered mailboxes that match a specified pattern. Configure the expression in Subclient Properties (Auto-discovery) of a user-defined subclient within this backup set.

- **Database Affinity**

Specifies that you want to assign auto-discovered mailboxes found within a specific database. Specify one or more databases in Subclient Properties (Auto-discovery) of a user-defined subclient within this backup set.

- **AD User Group Affinity**

Specifies that you want to assign auto-discovered mailboxes found within an Active Directory User Group. Specify one or more Active Directory User Groups in Subclient Properties (Auto-discovery) of a user-defined subclient within this backup set.

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.

Backup Options

Use this dialog box to schedule or immediately run a backup job.

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.

- **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.

- **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.

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 Microsoft Exchange Mailbox iDataAgent

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Save as Script

Use this dialog box to choose a name and path for the script file and the mode of execution.

Client

Enter or select the name of the client computer where the script will be created.

Path

Enter the path for the script that will be created.

Browse

Click this button to browse to a path for the command line script.

- Scripts are not supported on the Windows NT platform.
- It is recommended not to use any reserved device names (e.g., `LPT1`) as the name of the file.
- The file names are not case-sensitive.
- Do not end the file name with a trailing space or a period. Although the underlying file system may support such names, the operating system does not support them.

Mode

- **Synchronous**

Specifies that the script execute in synchronous mode. A synchronous operation exits only when the operation has completed. This option is only available when scripting a single job.

- **Asynchronous**

Specifies that the script execute in asynchronous mode. An asynchronous operation submits the job to the CommServe and exits immediately, returning control to the calling program or script.

Specify User Account to Run the Script

Specifies to use the given user account to save the operation as a script.

- **Use the Currently Logged in User Account**

Click to use the same user account used for logging into the CommCell Console.

- **User Name**

Type the user name that was used for logging into the CommCell Console.

- **Password**

Type the password for the user account used for logging into the CommCell Console.

- **Confirm Password**

Type to re-confirm the password.

- **Use a Different User Account**

Click to specify a different user account to save the operation as a script.

- **User Name**

Enter the different user name to be used for saving the operation as a script.

- **Password**

Enter the password for the user account to be used for saving the operation as a script.

- **Confirm Password**

Type to re-confirm the password.

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Command Line XML Backup Options - Exchange Mailbox iDataAgent

Options

Task Request Information			
Description	Field Name	Data Type	Commandline Parameter
Task			task
Policy Type	policyType	enum	policyType
Type	taskType	enum	taskType
Initiated From	initiatedFrom	enum	initiatedFrom
Task Flags			taskFlags
Disabled	disabled	boolean	disabled
Common Job Options			
Description	Field Name	Data Type	Commandline Parameter
StartUp Options			startUpOpts
Startup in suspended state	startInSuspendedState	boolean	startInSuspendedState
Priority	priority	integer	priority
Use Default Priority	useDefaultPriority	boolean	useDefaultPriority
Job Retry Options			jobRetryOpts
Kill Running Job When Total Running Time Expires	killRunningJobWhenTotalRunningTimeExpires	boolean	killRunningJobWhenTotalRunningTimeExpires
Enable Number Of Retries	enableNumberOfRetries	boolean	enableNumberOfRetries
Number Of Retries	numberOfRetries	integer	numberOfRetries
Running Time			runningTime
Enable Total Running Time	enableTotalRunningTime	boolean	enableTotalRunningTime
Total Running Time	totalRunningTime	integer	totalRunningTime
Backup Job Options			
Description	Field Name	Data Type	Commandline Parameter
Backup Type	backupLevel	enum	backupLevel (t)
Run Incremental Backup	runIncrementalBackup	boolean	runIncrementalBackup
Inc Level	incLevel	enum	incLevel
Do Not Truncate Log	doNotTruncateLog	boolean	doNotTruncateLog
Sybase Skip Full after Log Backup	sybaseSkipFullafterLogBkp	boolean	sybaseSkipFullafterLogBkp
Enable Granular Recovery	collectMetaInfo	boolean	collectMetaInfo
Media Backup Option			mediaOpt

Allow Other Schedules To Use Media Set	allowOtherSchedulesToUseMediaSet	boolean	allowOtherSchedulesToUseMediaSet
Mark Media Full On Success	markMediaFullOnSuccess	boolean	markMediaFullOnSuccess
Start New Media	startNewMedia	boolean	startNewMedia
Days	numberOfDays	integer	numberOfDays
Extend Job Retention	retentionJobType	enum	retentionJobType
Data Backup Option			dataOpt
Follow mount points	followMountPoints	boolean	followMountPoints
Verify Synthetic Full	verifySynthFull	boolean	verifySynthFull
Ignore Error in Synthetic Full	ignorErrorInSynthFull	boolean	ignorErrorInSynthFull
Use Catalog Server	useCatalogServer	boolean	useCatalogServer
Use Transaction logs for granular restarts	enforceTransactionLogUsage	boolean	enforceTransactionLogUsage
Perform Consistency Check	skipConsistencyCheck	boolean	skipConsistencyCheck
Vault Tracker Backup Option			vaultTrackerOpt
Exclude Media Not Copied	excludeMediaNotCopied	boolean	excludeMediaNotCopied
Export Media After Job Finishes	exportMediaAfterJobFinishes	boolean	exportMediaAfterJobFinishes
Track Transit	trackTransit	boolean	trackTransit
Use Virtual Mail Slots	useVirtualMailSlots	boolean	useVirtualMailSlots
Filter Media By Retention	filterMediaByRetention	boolean	filterMediaByRetention
Media with extended retention job (s)	mediaWithExtendedRetentionJobs	boolean	mediaWithExtendedRetentionJobs
Media Status			mediaStatus
All	all	boolean	all
Active	active	boolean	active
Full	full	boolean	full
Overwrite Protected	overwriteProtected	boolean	overwriteProtected
Bad	bad	boolean	bad
SubTask Options			
Description	Field Name	Data Type	Commandline Parameter
Sub Task Type	subTaskType	enum	subTaskType (st)
Operation Type	operationType	enum	operationType (op)
Associations			
Description	Field Name	Data Type	Commandline Parameter
Backupset Name	backupsetName	string	backupsetName (b)
Client Name	clientName	string	clientName (c)
App Name	appName	string	appName (a)
Instance Name	instanceName	string	instanceName (i)

Usage

Task Request Information	
Task	
policyType	Home
Type: enum Default Value: DATA_PROTECTION Possible Values: DATA_PROTECTION , AUX_COPY , SRM_REPORT , SINGLE_INSTANCING , SRM_JOBS , SUBCLIENT_FILTER , CONTENT_INDEX , CONTENT_INDEX Command Line Paramter: policyType Location: taskInfo/task/policyType	
Policy Type	
taskType	Home
Type: enum Default Value: IMMEDIATE Possible Values: NONE , IMMEDIATE , SCHEDULE , SAVED_REPORT , SCHEDULE_POLICY , WORKFLOW , PREVIEW , AUTOMATIC_COPY ,	

AGENTLESS_SRM , AGENTLESS_SRM Command Line Paramter: taskType Location: taskInfo/task/taskType	
Type	
initiatedFrom	Home
Type: enum Default Value: GUI Possible Values: NONE , GUI , COMMANDLINE , SYSTEM , SCRIPT , SCHEDULE , SCHEDULE Command Line Paramter: initiatedFrom Location: taskInfo/task/initiatedFrom	
Initiated From	
Task Flags	
disabled	Home
Type: boolean Possible Values: true/false Command Line Paramter: disabled Location: taskInfo/task/taskFlags/disabled	
Disabled	
Common Job Options	
StartUp Options	
startInSuspendedState	Home
Type: boolean Possible Values: true/false Command Line Paramter: startInSuspendedState Location: taskInfo/subTasks/options/commonOpts/startUpOpts/startInSuspendedState	
Startup in suspended state	
priority	Home
Type: integer Command Line Paramter: priority Location: taskInfo/subTasks/options/commonOpts/startUpOpts/priority	
Priority	
useDefaultPriority	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: useDefaultPriority Location: taskInfo/subTasks/options/commonOpts/startUpOpts/useDefaultPriority	
Use Default Priority	
Job Retry Options	
killRunningJobWhenTotalRunningTimeExpires	Home
Type: boolean Possible Values: true/false Command Line Paramter: killRunningJobWhenTotalRunningTimeExpires Location: taskInfo/subTasks/options/commonOpts/jobRetryOpts/killRunningJobWhenTotalRunningTimeExpires	
Kill Running Job When Total Running Time Expires	
enableNumberOfRetries	Home
Type: boolean Possible Values: true/false Command Line Paramter: enableNumberOfRetries Location: taskInfo/subTasks/options/commonOpts/jobRetryOpts/enableNumberOfRetries	
Enable Number Of Retries	
numberOfRetries	Home
Type: integer Default Value: 0 Command Line Paramter: numberOfRetries Location: taskInfo/subTasks/options/commonOpts/jobRetryOpts/numberOfRetries	
Number Of Retries	
Running Time	
enableTotalRunningTime	Home
Type: boolean Possible Values: true/false Command Line Paramter: enableTotalRunningTime Location: taskInfo/subTasks/options/commonOpts/jobRetryOpts/runningTime/enableTotalRunningTime	
Enable Total Running Time	

totalRunningTime	Home
Type: integer Default Value: 3600 Command Line Paramter: totalRunningTime Location: taskInfo/subTasks/options/commonOpts/jobRetryOpts/runningTime/totalRunningTime	
Total Running Time	
Backup Job Options	
backupLevel	Home
Type: enum Default Value: INCREMENTAL Possible Values: NONE , FULL , INCREMENTAL , DIFFERENTIAL , SYNTHETIC_FULL , ASR , TRANSACTION_LOG , PRE_SELECT , QR_SNAPSHOT , QR_CREATE_QR_VOLUME , QR_INCREMENTALLY_UPDATE_QR_VOLUME , SRM_ANALYSIS , SRM_DISCOVERY , MINING , DATA_VERIFICATION , DATA_VERIFICATION Command Line Paramter: backupLevel Location: taskInfo/subTasks/options/backupOpts/backupLevel	
Backup Type	
runIncrementalBackup	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: runIncrementalBackup Location: taskInfo/subTasks/options/backupOpts/runIncrementalBackup	
Run Incremental Backup	
incLevel	Home
Type: enum Default Value: BEFORE_SYNTN Possible Values: NONE , BEFORE_SYNTN , AFTER_SYNTN , AFTER_SYNTN Command Line Paramter: incLevel Location: taskInfo/subTasks/options/backupOpts/incLevel	
Inc Level	
doNotTruncateLog	Home
Type: boolean Default Value: false Possible Values: true/false Command Line Paramter: doNotTruncateLog Location: taskInfo/subTasks/options/backupOpts/doNotTruncateLog	
Do Not Truncate Log	
sybaseSkipFullafterLogBkp	Home
Type: boolean Possible Values: true/false Command Line Paramter: sybaseSkipFullafterLogBkp Location: taskInfo/subTasks/options/backupOpts/sybaseSkipFullafterLogBkp	
Sybase Skip Full after Log Backup	
collectMetaInfo	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: collectMetaInfo Location: taskInfo/subTasks/options/backupOpts/collectMetaInfo	
Enable Granular Recovery	
Media Backup Option	
allowOtherSchedulesToUseMediaSet	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: allowOtherSchedulesToUseMediaSet Location: taskInfo/subTasks/options/backupOpts/mediaOpt/allowOtherSchedulesToUseMediaSet	
Allow Other Schedules To Use Media Set	
markMediaFullOnSuccess	Home
Type: boolean Possible Values: true/false Command Line Paramter: markMediaFullOnSuccess Location: taskInfo/subTasks/options/backupOpts/mediaOpt/markMediaFullOnSuccess	
Mark Media Full On Success	
startNewMedia	Home

Possible Values: true/false Command Line Paramter: startNewMedia Location: taskInfo/subTasks/options/backupOpts/mediaOpt/startNewMedia	
Start New Media	
numberOfDays	Home
Type: integer Command Line Paramter: numberOfDays Location: taskInfo/subTasks/options/backupOpts/mediaOpt/numberOfDays	
Days	
retentionJobType	Home
Type: enum Default Value: STORAGE_POLICY_DEFAULT Possible Values: INFINITE , NO_OF_DAYS , STORAGE_POLICY_DEFAULT , STORAGE_POLICY_DEFAULT Command Line Paramter: retentionJobType Location: taskInfo/subTasks/options/backupOpts/mediaOpt/retentionJobType	
Extend Job Retention	
Data Backup Option	
followMountPoints	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: followMountPoints Location: taskInfo/subTasks/options/backupOpts/dataOpt/followMountPoints	
Follow mount points	
verifySynthFull	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: verifySynthFull Location: taskInfo/subTasks/options/backupOpts/dataOpt/verifySynthFull	
Verify Synthetic Full	
ignorErrorInSynthFull	Home
Type: boolean Default Value: false Possible Values: true/false Command Line Paramter: ignorErrorInSynthFull Location: taskInfo/subTasks/options/backupOpts/dataOpt/ignorErrorInSynthFull	
Ignore Error in Synthetic Full	
useCatalogServer	Home
Type: boolean Possible Values: true/false Command Line Paramter: useCatalogServer Location: taskInfo/subTasks/options/backupOpts/dataOpt/useCatalogServer	
Use Catalog Server	
enforceTransactionLogUsage	Home
Type: boolean Possible Values: true/false Command Line Paramter: enforceTransactionLogUsage Location: taskInfo/subTasks/options/backupOpts/dataOpt/enforceTransactionLogUsage	
Use Transaction logs for granular restarts	
skipConsistencyCheck	Home
Type: boolean Default Value: false Possible Values: true/false Command Line Paramter: skipConsistencyCheck Location: taskInfo/subTasks/options/backupOpts/dataOpt/skipConsistencyCheck	
Perform Consistency Check	
Vault Tracker Backup Option	
excludeMediaNotCopied	Home
Type: boolean Possible Values: true/false Command Line Paramter: excludeMediaNotCopied Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/excludeMediaNotCopied	
Exclude Media Not Copied	
exportMediaAfterJobFinishes	Home

Type: boolean Possible Values: true/false Command Line Paramter: exportMediaAfterJobFinishes Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/exportMediaAfterJobFinishes	
Export Media After Job Finishes	
trackTransit	Home
Type: boolean Possible Values: true/false Command Line Paramter: trackTransit Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/trackTransit	
Track Transit	
useVirtualMailSlots	Home
Type: boolean Possible Values: true/false Command Line Paramter: useVirtualMailSlots Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/useVirtualMailSlots	
Use Virtual Mail Slots	
filterMediaByRetention	Home
Type: boolean Possible Values: true/false Command Line Paramter: filterMediaByRetention Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/filterMediaByRetention	
Filter Media By Retention	
mediaWithExtendedRetentionJobs	Home
Type: boolean Possible Values: true/false Command Line Paramter: mediaWithExtendedRetentionJobs Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/mediaWithExtendedRetentionJobs	
Media with extended retention job(s)	
Media Status	
all	Home
Type: boolean Possible Values: true/false Command Line Paramter: all Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/mediaStatus/all	
All	
active	Home
Type: boolean Possible Values: true/false Command Line Paramter: active Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/mediaStatus/active	
Active	
full	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: full Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/mediaStatus/full	
Full	
overwriteProtected	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: overwriteProtected Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/mediaStatus/overwriteProtected	
Overwrite Protected	
bad	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: bad Location: taskInfo/subTasks/options/backupOpts/vaultTrackerOpt/mediaStatus/bad	
Bad	
SubTask Options	
subTaskType	

	Home
Type: enum Possible Values: NONE , ADMIN , BACKUP , RESTORE , WORKFLOW , COMPLIANCE_POLICY , COMPLIANCE_POLICY Command Line Paramter: subTaskType Location: taskInfo/subTasks/subTask/subTaskType	
Sub Task Type	
operationType	Home
Type: enum Default Value: NONE Possible Values: NONE , ALL_BACKUP_JOBS , BACKUP , RECOVERY_POINT_CREATION , CONSISTENCY_POINT_CREATION , SRM , ARCHIVE , CONTENT_INDEXING , ALL_RESTORE_JOBS , RESTORE , POWER_RESTORE , BROWSE , RESTORE_BY_JOB , ONETOUCH_RECOVERY , ADMIN , WORK_FLOW , COMPLIANCE , SEARCH , SAVE , EMAIL , TAGGING , LEGAL_HOLDS , COMP_RESTORE , MOSS , PRUNE , DRBACKUP , AUX_COPY , REPORT , MEDIA_INVENTORY , SCHED_EXPORT , ARCHIVE_CHECK , MEDIA_PREDICTION , TAPE_ERASE , VT , SELECTIVE_DELETE , DRIVE_VALIDATION , DRIVE_CLEANING , STAMP_MEDIA , BROWSE_DELETE , CATALOGUE_MEDIA , DATA_AGING , DOWNLOAD_UPDATES , INSTALL_UPDATES , SRM_REPORT , OFFLINE_CONTENT_INDEX , MAGLIBMAINTENANCE , SHELF_MANAGEMENT , INFOMGMT , INSTALL_CLIENT , UNINSTALL_CLIENT , SNAP_TO_TAPE , CCM_CAPTURE , CCM_MERGE , EXTERNAL_DATA_PROCESSOR , MEDIA_REFRESHING , PREPARATION , FDC , MAGLIBVOLRECON , DEDUPDBSYNC , TAPEIMPORT , WORKFLOW , QR , FS_BACKUP , IMAGE_BACKUP , SERVERLESS_BACKUP , MOUNT_SNAPSHOT , UNMOUNT_SNAPSHOT , DELETE_SNAPSHOT , MINING_BACKUP , SRM_AGENTLESS , SRM_AGENTLESS Command Line Paramter: operationType Location: taskInfo/subTasks/subTask/operationType	
Operation Type	
Associations	
backupsetName	Home
Type: string Command Line Paramter: backupsetName Location: taskInfo/associations/backupsetName	
Backupset Name	
clientName	Home
Type: string Command Line Paramter: clientName Location: taskInfo/associations/clientName	
Client Name	
appName	Home
Type: string Command Line Paramter: appName Location: taskInfo/associations/appName	
App Name	
instanceName	Home
Type: string Command Line Paramter: instanceName Location: taskInfo/associations/instanceName	
Instance Name	

Advanced Backup Options (Data)

You can select advanced backup data options for the operation.

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.

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.

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 Options (Media)

You can select advanced backup media options for the operation.

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.

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.

Extend 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.

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.

Alert Wizard

Threshold and Notification Criteria Selection

Use this step to select or modify the alert threshold and notification criteria. (See **Alerts and Monitoring** in *Books Online* for detailed information.)

Alert Criteria

Select the conditions that will initiate the alert. The alerts available are grouped into five categories:

- Application Management
- Automatic Updates
- Configuration
- Job Management
- Media Management

Send Individual Notification for This Alert

Enable this option to send an individual alert notification, instead of multiple alerts within a single alert notification, for the criteria selected.

Notification Criteria

Select whether the alert notification should be repeated, the frequency and whether notification should be sent when the condition clears.

Escalation Notification Criteria

Some alert notifications allow for configuration of an escalated alert. If this option is available, select the time at which the escalated alert notification should be sent, the frequency and whether notification should be sent when the condition clears.

Notify only when jobs qualify for extended retention*

Select this option when configuring a Job Management Data Protection alert. If selected, when a data protection job meets the thresholds of the configured alert criteria, users will only be notified of those jobs that are set for extended retention.

Notify only when job contains failed objects*

Select this option when configuring a Job Management Data Protection alert. If selected, when a data protection job meets the thresholds of the configured alert criteria, users will only be notified of those jobs that contain failed objects.

*This notification option is applicable for Job Management Data Protection alerts only.

ALERT CRITERIA

The following tables identify the types of available alerts within each category, the user capabilities needed for each alert, the entities the alert can be associated with, the types of criteria available, and a description.

APPLICATION MANAGEMENT

Alert Type	User Capabilities Needed for Each Alert type	Entities that can be Associated with the Alert	Criteria	Description
ContinuousDataReplicator	Agent Management or Alert Management capability with association at the object associated with the alert.	Clients Client Groups	Log File Volume Reached Low Watermark	One of the following has occurred: <ul style="list-style-type: none"> A destination computer has imposed throttling on the source computer, based on the percentage of allocated log space remaining on the destination computer. A destination computer has stopped the source computer from sending logs, based on the percentage of allocated log space remaining on the destination computer. A source computer has run out of log space, and CDR has stopped monitoring the source paths for all the Replication Pairs, put the pairs in an aborted state, and deleted all log files. The free disk space thresholds are configurable in the ContinuousDataReplicator Properties (Operational Parameters) window.
			No transfer activity	There has been no data replicated from the source to the destination. The CommServe automatically checks for transfer activity every 15 minutes.
			Failed Replication	A Replication Pair's job has failed, been aborted by a user, or aborted by the system.
Exchange	Agent Management or Alert Management capability with association at the object associated with the alert.	Clients Client Groups	Journal Mailbox Threshold Exceeded	The journal mailbox exceeded its limit. (The mailbox threshold is set by the user in the CommCell console.) NOTES <ul style="list-style-type: none"> See <i>Configure the Agent for a Journal Mailbox Threshold Alert</i> in Books Online for step-by-step instructions for setting the threshold limit on the agent. If you would like to change the interval at which the threshold limit is checked or the time-out for the monitoring process, you can set these through the <code>nArcMonitorIntervalInMins</code> and <code>nArcMonitorTimeOutInMins</code> registry keys.
SharePoint	Agent Management or Alert Management capability with association at the object associated with the alert.	Clients Client Groups	New Virtual Servers Were Found. Restart IIS Services.	New virtual servers were found on the SharePoint server after an archive operation, which requires the Internet Information Services (IIS) to be restarted.
			SharePoint version is upgraded. Restart IIS.	The SharePoint server has been upgraded, which requires the Internet Information Services (IIS) to be restarted.

AUTOMATIC UPDATES

Alert Type	User Capabilities Needed for Each Alert type	Entities that can be Associated with the Alert	Criteria	Description
Download Updates	Administrative Management or Alert Management capability		Job Failed	Updates failed to be downloaded.
			Job Succeeded	Updates were downloaded successfully.

	with CommCell association.		Job Succeeded with Errors	A download updates operation completed with errors.
Install Updates	Administrative Management or Alert Management capability with CommCell association.	Machines Client Groups	Job Failed	An update installation failed.
			Job Succeeded	An update installation completed successfully.
			Job Succeeded with Errors	An update installation operation completed with errors.
			Job Initiated	An update installation was initiated.
Updates Available to Download	Administrative Management or Alert Management capability with CommCell association.		Updates Available to Download	An update is available to be downloaded for installation. The frequency interval at which these updates are detected is configurable in the registry key.
Upgrades and Service Packs	Administrative Management or Alert Management capability with CommCell association.	Machines Client Groups	Release Upgrade Required	A new release software upgrade is required. (If configured, this alert occurs when a Client and/or MediaAgent software version is lower than that of the CommServe.) The frequency interval at which these updates are detected is configurable in the registry key.
			Service Pack Required	A software update is required. (If configured, this alert occurs when a Client and/or MediaAgent service pack version is lower than that of the CommServe.) The frequency interval at which these updates are detected is configurable in the registry key.

CONFIGURATION

Alert Type	User Capabilities Needed for Each Alert type	Entities that can be Associated with the Alert	Criteria	Description
Clients	Agent Management or Alert Management capability with association at the object associated with the alert.	Clients Client Groups	Properties Modified	The properties of a client were modified, or there was an unauthorized attempt to alter properties.
			Disk Space Low	The minimum thresholds have been reached for the client software installation and system directories, which include the Job Results. The threshold for Job Results directory is configurable in the CommCell Console's Client Computers Properties window. The thresholds for the software installation and system directories and the frequency interval at which the directories are monitored are configurable in the registry key. If Data Classification Enabler is installed, this alert, if configured, will be sent if 85 percent or more of the volume's disk space is consumed. For computers where QSnap and either the Quick Recovery Agent or ContinuousDataReplicator are installed, this alert, if configured, will be sent if 80 percent or more of a volume's disk space is consumed, for all of the client computer's volumes. If Content Indexing Engine is installed, this alert, if configured will be sent for the following: <ul style="list-style-type: none"> • If 80 percent or more of the volume's disk space is consumed. • If the minimum free space falls below 10 GB.
		Agents	Properties Modified	The properties of an agent were modified, new content was added (for the Oracle agent only), or there was an unauthorized attempt to alter properties. This alert is also generated if the content, pre-post commands, or storage policy of a subclient were modified.
CommCell	Administrative Management or Alert Management capability with CommCell association		Alert every <i>n</i> failed login attempts	There were <i>n</i> failed attempts made to login to the CommCell.
			Alert CommServe License Expires With <i>n</i> Days	The CommServe license will expire in <i>n</i> days.
			Alert when License Consumed reaches <i>n</i> %	The CommServe license has reached <i>n</i> %. License Capacity Usage details get updated every 24 hours. It may also be updated if a Data Aging Job is run or if CommServe services are restarted.
			Properties Modified	The properties of the CommServe were modified, or there was an unauthorized attempt to alter properties.

			Alert Modified	A user was added or removed to an alert, an alert was modified, or there was an unauthorized attempt to modify the properties of an alert.
			Force De-configured	A user failed or successfully forced de-configured an Agent, Client, or MediaAgent.
			Disk Space Low	The minimum thresholds have been reached for the CommServe software installation and system directories or there is insufficient disk space for the CommServe database to grow. The threshold for the software installation and system directories and the frequency interval at which the directories are monitored are configurable in the registry key. The threshold for CommServe database directory, and the frequency interval at which the database directory is monitored, are configurable in the CommCell Console's Control Panel - System window (Database space check interval and Database Space Check Thresholds).
Library	Library Management or Alert Management capability with library association	Libraries	Properties Modified	The properties of a library were modified, an overwrite media option was selected for the library, or there was an unauthorized attempt to alter properties of a library.
MediaAgents	Media Management or Alert Management capability with MediaAgent association	MediaAgents	Properties Modified	The properties of a MediaAgent were modified, or there was an unauthorized attempt to alter the properties of a MediaAgent.
			Disk Space Low	The minimum thresholds have been reached for the MediaAgent software installation and system directories, which include the Index Cache. The threshold for MediaAgents Index Cache directory is configurable in the CommCell Console's MediaAgents Properties window. The threshold for the software installation and system directories and the frequency interval at which the directories are monitored are configurable in the registry key.
			DDB Store got corrupted	Deduplication Store of a MediaAgent is corrupted.
			MediaAgent went Offline	A MediaAgent was switched on/offline.
			Notify only if Condition persists for	Notify only if the condition persists for certain length of time.
			Repeat notification every	Repeat the notification for every <i>n</i> hours and <i>m</i> minutes. (<i>n</i> and <i>m</i> are set by the user at the time of configuration.)
Schedules	Alert Management capability with CommCell association		Scheduler Changes	A schedule was added, deleted, or modified, a job failed to be scheduled, a user added, removed, or modified a holiday.
Storage Policy	Storage Policy Management or Alert Management capability with storage policy association	Storage Policies	Properties Modified	The properties of a storage policy were modified, or there was an unauthorized attempt to alter the properties of a storage policy.

JOB MANAGEMENT

Alert Type	User Capabilities Needed for Each Alert type	Entities that can be Associated with the Alert	Criteria	Description
Auxiliary Copy	Administrative Management or Alert Management capability with CommCell association	Storage Policies Storage Policy Copies	Job Succeeded	An auxiliary copy operation completed successfully.
			Job Succeeded with Errors	An auxiliary copy operation completed with errors.
			Job Skipped	A scheduled auxiliary copy operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	An auxiliary copy operation failed, failed to start, or the operation was aborted by the system.
			Job Activity	An auxiliary copy operation was killed, resumed, or suspended by a user.
			Auxiliary Copy fallen behind alert	The following criteria have been met for the selected storage policy: <ul style="list-style-type: none"> data to be copied is more than <i>n</i> GB jobs have not been copied in more than <i>n</i> days (<i>n</i> is set by the user in the Storage Policy Properties (Advanced) window.) The interval at which the storage policy is checked for this criteria can be configured in the Media Management Configuration (Auxiliary Copy Configuration) window; the

				default Interval (Hours) between Auxiliary Copy Fallen Behind alerts is 24 hours.
			Delayed by <i>n</i> Hrs	An auxiliary copy operation was in a waiting state for <i>n</i> hours. (<i>n</i> is set by the user at time of configuration.)
			Alert every <i>n</i> attempt (Phase failures)	There were <i>n</i> attempts made to resume the auxiliary copy operation after a phase failure.
			Alert every <i>n</i> attempt (Network failures)	There were <i>n</i> attempts made to resume the auxiliary copy operation after a network failure.
Backup Copy Workflow	Administrative Management or Alert Management capability with CommCell association	Storage Policies	Job Succeeded	A backup copy operation completed successfully
			Job Succeeded with Errors	A backup copy operation completed with errors.
			Job Skipped	A scheduled backup copy operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A backup copy operation failed, failed to start, or the operation was aborted by the system.
			Job Activity	A backup copy operation was killed, resumed, or suspended by a user.
			Job Started	A backup copy operation was started by a user.
Continuous Data Replication	Data Protection Operations or Alert Management capability at each associated entity.	Clients Agents Replication Sets	Job Succeeded	A Recovery Point creation, Consistent Recovery Point creation, or CopyBack operation completed successfully.
			Job Succeeded with Errors	A Recovery Point creation, Consistent Recovery Point creation, or CopyBack operation completed with errors.
			Job Skipped	A scheduled Recovery Point creation, Consistent Recovery Point creation, or CopyBack operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A Recovery Point creation, Consistent Recovery Point creation, or CopyBack operation failed, failed to start, or the operation was aborted by the system.
			Job Activity	A Recovery Point creation, Consistent Recovery Point creation, or CopyBack operation was killed, resumed, or suspended by a user.
			Delayed by <i>n</i> Hrs	A Recovery Point creation, Consistent Recovery Point creation, or CopyBack operation was in a waiting state for <i>n</i> hours. (<i>n</i> is set by the user at time of configuration.)
			Alert every <i>n</i> attempt (Phase failures)	There were <i>n</i> attempts made to resume the Recovery Point Creation or CopyBack operation after a phase failure.
			Alert every <i>n</i> attempt (Network failures)	There were <i>n</i> attempts made to resume the Recovery Point Creation or CopyBack operation after a network failure.
Data Aging	Administrative Management or Alert Management capability with CommCell association		Job Succeeded	A data aging operation completed successfully.
			Job Succeeded with Errors	A data aging operation completed with errors.
			Job Skipped	A scheduled data aging operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A data aging operation failed, failed to start, or the operation was aborted by the system.
			Job Activity	A data aging operation was killed by a user.
Data Classification	Alert Management capability	Clients Client Groups	Classification Failed	A data classification operation failed to write to the database.
Data Protection	Data Protection Operations or Alert Management capability at each associated entity.	Clients Client Groups Agents Backup Sets Instance/Partition All Subclients** Subclients	Job Succeeded	A data protection operation completed successfully.
			Job Succeeded with Errors	A data protection operation completed with errors.
			Job Skipped	A scheduled data protection operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A data protection operation failed, failed to start, or was aborted by the system.
			Job Activity	A data protection operation was killed, resumed, or suspended by a user.
			No Data Protection	A data protection operation failed to start.
			Delayed by <i>n</i> Hrs	A data protection operation was in a waiting state for <i>n</i> hours. (<i>n</i> is set by the user at time of configuration.)
			No Backup for last <i>n</i> Days	A data protection operation did not complete successfully for the last <i>n</i> days. (<i>n</i> is set by the user at the time of configuration in the alert wizard.)
			Job exceeded running time of <i>n</i> Hrs	A data protection operation was in a suspended, running or in a pending state for more than <i>n</i> hours. (<i>n</i> is set by the user at the time of configuration in the alert wizard.)
			Alert every <i>n</i> attempt (Phase failures)	There were <i>n</i> attempts made to resume the data protection operation after a phase failure.
			Alert every <i>n</i> attempt	There were <i>n</i> attempts made to resume the data protection

			(Network failures)	operation after a network failure.
			Increase in Data Size by $n\%$	A data protection job is at least $n\%$ larger in data size than the previous data protection job of the same type (full, incremental, differential or synthetic full). Default is set at 10%. (n is the percentage of increase in data size, at which if met, will trigger the alert. The actual data size increase may be larger than the $n\%$.)
			Decrease in Data Size by $n\%$	A data protection job is at least $n\%$ smaller in data size than the previous data protection job of the same type (full, incremental, differential or synthetic full). Default is set at 10%. (n is the percentage of decrease in data size, at which if met, will trigger the alert. The actual data size decrease may be larger than the $n\%$.)
			Notify only when jobs qualify for extension retention	The data protection job is set for extended retention.
			Notify only when job contains failed objects	The data protection job contains one or more failed objects.
Data Recovery	Browse and In Place Recover or Browse and Out of Place Recover or Alert Management capability at each associated entity.	Clients Client Groups Agents Backup Sets Instance/Partition	Job Succeeded	A data recovery operation completed successfully.
			Job Succeeded with Errors	A data recovery operation completed with errors.
			Job Skipped	A scheduled data recovery operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A data recovery operation failed, failed to start, or the operation was aborted by the system.
			Job Activity	A data recovery operation was killed, resumed, or suspended by a user.
			Job Started	A data recovery operation was started by a user.
			List Media	A user requested a list of media used for the original data protection operation.
Data Verification	Administrative Management or Alert Management capability	Storage Policies Storage Policy Copies	Job Succeeded	A data verification operation completed successfully.
			Job Succeeded with Errors	A data verification operation completed with errors.
			Job Skipped	A scheduled data verification operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A data verification operation failed, failed to start, or the operation was aborted by the system.
			Job Activity	A data verification operation was killed, resumed, or suspended by a user.
			Delayed by n Hrs	A data verification operation was in a waiting state for n hours. (n is set by the user at time of configuration.)
Disaster Recovery Backup	Administration Management or Alert Management capability with CommCell association.		Job Succeeded	A disaster recovery backup completed successfully, a backup set was pruned during the operation (default = 5 backup sets).
			Job Succeeded with Errors	A disaster recovery backup operation completed with errors/warnings.
			Job Skipped	A scheduled disaster recovery backup ran late, was skipped, or was skipped due to a holiday.
			Job Failed	A disaster recovery backup failed, failed to start, the operation was aborted by the system, or no storage policy was defined for the operation.
			Job Activity	A disaster recovery backup operation was killed by a user.
			Delayed by n Hrs	A disaster recovery backup operation was in a waiting state for n hours. (n is set by the user at time of configuration.)
Erase Data	Administration Management or Alert Management capability with CommCell association.	Clients Agents Backup Set Subclients	Job Succeeded	An erase data operation completed successfully..
			Job Succeeded with Errors	An erase data operation completed with errors/warnings.
			Job Skipped	A scheduled erase data operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	An erase data operation failed, failed to start, was killed by a user, was aborted by the system.
			Job Activity	An erase data operation was killed, resumed, or suspended by a user.
Media Erase	Library Management or Alert Management capability with library association	Libraries	Job Succeeded	A media erase operation completed successfully.
			Job Succeeded with Errors	A media erase operation completed with errors/warnings.
			Job Failed	A media erase operation failed, failed to start, or was killed by a user.
			Job Activity	A media erase operation was killed, resumed, or suspended by a user.
Media Inventory	Library Management or Alert Management capability with library association	Libraries	Job Succeeded	An inventory operation completed successfully.
			Job Succeeded with Errors	An inventory operation completed with errors.
			Job Failed	An inventory operation failed, failed to start, or was killed by a user.

Media Refreshing	Administrative Management or Alert Management capability with CommCell association	Storage Policies Storage Policy Copies	Alert every n attempt (Phase failures)	There were n attempts made to resume the data protection operation after a phase failure.
			Alert every n attempt (Network failures)	There were n attempts made to resume the data protection operation after a network failure.
			Delayed by n Hrs	An offline content indexing operation was in a waiting state for n hours. (n is set by the user at time of configuration.)
			Job Succeeded	An offline content indexing operation completed successfully.
			Job Succeeded with Errors	An offline content indexing operation completed with errors.
			Job Skipped	An offline content indexing operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	An offline content indexing operation failed, failed to start, the operation was aborted by the system.
			Job Activity	An offline content indexing operation was killed by a user.
Offline Content Indexing	Administrative Management or Alert Management capability with CommCell association	Storage Policies Storage Policy Copies	Job Succeeded	An offline content indexing operation completed successfully.
			Job Succeeded with Errors	An offline content indexing operation completed with errors.
			Job Skipped	An offline content indexing operation ran late, was skipped, or was skipped due to a holiday.
			Job Failed	An offline content indexing operation failed, failed to start, the operation was aborted by the system.
			Job Activity	An offline content indexing operation was killed by a user.
			Delayed by n Hrs	An offline content indexing operation was in a waiting state for n hours. (n is set by the user at time of configuration.)
Information Management	Administrative Management or Alert Management capability with CommCell association		Job Succeeded	An information management operation completed successfully.
			Job Skipped	An information management operation ran late, was skipped, or was skipped due to a holiday.
			Job Succeeded with Errors	An information management operation completed with errors.
			Job Failed	An information management operation failed, failed to start, the operation was aborted by the system.
			Job Activity	An information management operation was killed by a user.
Report	Administration Management capability with CommCell association.		Job Activity	A report operation was killed by a user.
			Job Failed	A report operation failed, failed to start, the operation was aborted by the system, or a report failed to be saved.
			Job Skipped	A report operation ran late, was skipped, or was skipped due to a holiday.
			Job Succeeded	A report operation completed successfully.
			Job Succeeded with Errors	A report operation completed with errors.
SRM Data Collection	Administration Management capability with CommCell association.	Clients Client Groups	Alert every n attempt (Phase failures)	There were n attempts made to resume the data collection operation after a phase failure.
			Alert every n attempt (Network failures)	There were n attempts made to resume the data collection operation after a network failure.
			Job Activity	A data collection operation was killed by a user.
			Job Failed	A data collection operation failed, failed to start, the operation was aborted by the system.
			Job Skipped	A data collection operation ran late, was skipped, or was skipped due to a holiday.
			Job Succeeded	A data collection operation completed successfully.
			Job Succeeded with Errors	A data collection operation completed with errors.
			No Data Protection	A data collection operation failed to start.

**DataArchiver agents only

MEDIA MANAGEMENT

Alert Type	User Capabilities Needed for Each Alert type	Entities that can be Associated with the Alert	Criteria	Description
Device Status	Library Management or Alert Management capability with CommCell association	Libraries	Drive went Offline	A drive in a library switched offline.
			Library went Offline	A library switched offline.
			Mount Path went Offline	A mount path went offline.
Library Management	Library Management or Alert Management capability with library association.	Libraries	Insufficient Storage	The number of spare media inside the library for a scratch pool and cleaning pool fell below the low water mark defined or there is no spare media inside the library. For a disk library, the free disk space fell below the low water mark or there is

				insufficient disk space.
			Maintenance Occurred	A drive cleaning operation completed successfully or failed.
			Maintenance Required	The library or drive has exceeded its threshold, a drive requires cleaning, or the mount path has exceeded its fragmentation threshold. The percentage threshold at which the mount path is deemed fragmented can be configured in the Media Management Configuration (Service Configuration) window, Mount Path Fragmentation Threshold Percentage option.
			Media Handling Errors	The system found a duplicate barcode/label in the library, or the system detected a media in the wrong library.
			Media Handling Required	A media is not in the library, or a media in a drive needs changing because the system detected wrong or no media in the drive.
			Media Mount and Usage Errors	A media is marked read only, bad or depreciated, or a mount or an unmount error has occurred.
			User Overwrite of Media	The media was overwritten due to an option selected by the user.
			Media Ready in Mail Slot	Media in mail slot is ready to be picked up by the user. NOTES <ul style="list-style-type: none"> This criterion is applicable to a VaultTracker media export (to mail slot) only, which requires a VaultTracker license. For more information, see License Administration in Books Online. It is recommended that the <MEDIA LIST> and <MORE MEDIA Y/N> tokens be added to the notification message when configuring this alert. For more information, see Alert Tokens in Books Online.
			Media Recalled	The media has been retrieved from an export location for a specific operation. For more information, see Recall Media in Books Online.
VaultTracker	Library Management or Alert Management capability with Library association.	Tracking Policies	Job Succeeded	A pending media movement completed successfully.
			Job Succeeded with Errors	A pending media movement completed with errors.
			Job Failed	A pending media movement failed.
			Job Initiated	A pending media movement was created.
			Media Handling Required	A media is moved to a virtual mail slot, or a media needs import.
			Media Picked Up	Media was picked up.
			Media Reached Destination	A media has reached the required destination.
			Media Returned to Source	A media was returned to the source.
			Rolled Back	A media movement was rolled back.

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 this dialog box to add, modify or view general information on the selected subclient.

Client Name

Displays the name of the Client computer to which this subclient belongs.

Billing Department

Displays the name of the billing department, when the subclient is associated with a billing department.

iDataAgent

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.

Subclient Name

Displays the name of this Subclient. You can use this space to enter or modify the name of the subclient.

Default Subclient

Displays whether this is the default subclient. When a subclient is designated as the default subclient, it will back up all the data for the subclient that is not assigned to any other subclients within the backup set, and it cannot be deleted.

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.

Subclient Properties (Auto-discovery)

Use this dialog box to view and establish the criteria to automatically discover new mailboxes. The criteria that can be configured depends on the assignment method that was selected in **Backup Set Properties (Auto Discover)**. Assignment methods include:

- Regular Expressions
- Database Affinity
- Active Directory User Group Affinity

Automatically add new mailboxes that don't qualify for membership in any of the sub-clients

Specifies whether to assign auto-discovered mailboxes to the contents of this subclient. This is useful in cases where mailboxes have not been assigned to any other subclient within the Backup Set. This option applies only to the default subclient. Clearing this option will disable auto-discovery on the default subclient.

Add Mailbox Display Name

Displays a list of mailbox display name patterns i.e., regular expressions. Mailboxes that match the specified patterns entered in **Mailbox Display Names** will be automatically discovered and assigned to this subclient. This display pane is enabled when the **Match Mailboxes by Regular Expressions** option was selected in Backup Set Properties (Auto Discover).

Mailbox Display Names

Use this space to enter a mailbox display name pattern using regular expressions (i.e., wildcards). See Wildcards for a list of supported wildcards.

Wildcard Example	Description
Accounting*	Auto-discovers any mailbox display name that begins with Accounting followed by any number of any characters (e.g., Accounting Mailbox, Accounting Manager, etc.).
[!ei]nsure	Auto-discovers any mailbox display name that ends with nsure but does not begin with e or i (e.g., unsure).
[!a-k]Lee	Auto-discovers any mailbox display name that does not begin with a through k and that ends with Lee (e.g., xLee, yLee, etc.).

Add

Click to commit the mailbox display name pattern for auto-discovery entered in **Mailbox Display Names** and add it the **Add Mailbox Display Name** display pane. This button is enabled when the **Match Mailboxes by Regular Expressions** option was selected in Backup Set Properties (Auto Discover).

Remove

Click to delete the selected mailbox display name pattern. This button is enabled when the **Match Mailboxes by Regular Expressions** option was selected in Backup Set Properties (Auto Discover).

Newly discovered mailboxes from the following mailbox stores will automatically be associated with this subclient

Displays a list of databases. Mailboxes in these databases will be automatically discovered and assigned to this subclient. This display pane is enabled when the **Database Affinity** option is selected in Backup Set Properties (Auto Discover).

The new discovered mailboxes of the following AD User Group will be backed up to this subclient

Displays a list of the Active Directory User Groups. Mailboxes in these AD User Groups will be automatically discovered and assigned to this subclient. This display pane is enabled when the **AD User Group Affinity** option is selected in Backup Set Properties (Auto Discover).

Configuration

Click to configure the databases or AD User Groups that will be used to automatically discover mailboxes and assign them to this subclient.

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Configure Mailbox Stores for Auto-discovery

Use this dialog box to change the assignment of databases to subclients. Mailboxes in these databases will be automatically discovered and assigned to this subclient.

Mailbox Store

Displays the name of the database where newly discovered mailboxes for the assigned subclient will be backed up.

Subclient

Displays the name of the subclient whose newly discovered mailboxes will be backed up to the assigned database. To change the subclient assignment, click on the subclient and select a different one from the drop-down list.

Change all selected stores to:

Lists subclients that can be assigned to databases for auto-discovery. To change the subclient assignment, select one or more databases and click a subclient in the list.

Configure AD User Group for Auto-discovery

Use this dialog box to add or change Active Directory (AD) User Groups. Mailboxes in these AD User Groups will be automatically discovered and assigned to this subclient.

AD User Group Name

Displays the name of the Active Directory User Group where newly discovered mailboxes for this subclient will be backed up.

Subclient

Displays the name of the subclient that is assigned to the Active Directory User Group. Newly discovered mailboxes that reside in the AD User Group will be assigned to this subclient. To change the assignment, click on the subclient and select a different one from the drop-down list.

Move all selected items to:

Lists subclients that can be assigned to Active Directory User Groups. To change the subclient assignment, select one or more Active Directory User Groups and click a subclient in the list.

Discover

Specifies to discover an Active Directory User Group. When clicked, the Authenticate Active Directory Domain Controller dialog box will prompt you to provide authentication information before proceeding with the discovery process.

Configure Subclient Mailbox Affinity

Mailbox Affinity

Use this list to select the assignment method by which newly discovered mailboxes will be included in the contents of user-defined subclients. To change the assignment method, select one from the list. Choose from the following assignment methods:

- **Ad Hoc**

Manual assignment of newly discovered mailboxes.

- **Mailbox**

Automatic assignment of newly discovered mailboxes that match a wildcard pattern or mailbox name specified in the Subclient Properties (Mailboxes) dialog.

- **Active Directory User Group**

Automatic assignment of newly discovered mailboxes by Active Directory User Group specified in the Subclient Properties (Mailboxes) dialog.

Subclient Properties (Pre/Post Process)

Use the Pre/Post Process tab to add, modify or view Pre/Post processes for the selected subclient.

Pre-Backup process

Displays the name/path of the backup that you want to run before the respective phase. You can use this space to enter a path for the backup process that will execute before this phase on the subclient. Click **Browse** 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.

Post-Backup process

Displays the name/path of the backup process that you want to run after the respective phase. You can use this space to enter a path for the backup process that will execute after this phase on the subclient. Click **Browse** 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.

Run Post Backup Process for all attempts

Specifies whether this process will execute for all attempts to run the phase. Selecting this option will execute the post backup 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.

PreSnap process

Displays the name/path of the Snap process that you want to run before the respective phase. You can use this space to add or modify PreSnap processes for a subclient. Click **Browse** 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.

PostSnap process

Displays the name/path of the Snap process that you want to run after the respective phase. You can use this space to add or modify PostSnap processes for a subclient. Click **Browse** 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.

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.

Browse

Click to search for and select the Pre/Post Process.

Run As / User Account

Displays either the Local System Account, or for added security, another account as having permission to run these commands.

Change

Click to add or modify the account that has permission to run these commands.

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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 dialog box to add, modify, or view the filters on the selected 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 the following folders

Displays entries that will be excluded from data protection operations for this subclient.

Exclude the folders that contain the following patterns

Displays wildcard patterns to filter mailboxes from backups. The pattern you enter will be applied to all content defined for the subclient. Enter each wildcard pattern on a separate line. For a comprehensive wildcard list, see Wildcards.

Wildcard Example	Description
Sent*	To filter out a folder which begins with Sent, specify the name of the folder and the asterisk * wildcard with no delimiters.
Sent Items\test*	To filter out a subfolder called test, specify the full path including the leader \ backslash.
\test	To filter out any path that ends in a folder name, use the full path including the leader \ backslash and the asterisk * wildcard for the first level.

Add

Click to manually add an entry to be included in, or excluded from, data protection operations for this subclient.

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>Accounting*</p> <ul style="list-style-type: none"> 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.). 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. 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.).
?	<p>Any one character. For example:</p> <p>user_group?</p> <ul style="list-style-type: none"> 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.). 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.). For auto-discovery operations, the above wildcard pattern auto-discovers any mailbox display name that begins with "user_group" followed by any one character (e.g., user_groupA, user_group1, etc.).
[]	<p>Any range of characters. For example:</p> <p>[JT]im</p> <ul style="list-style-type: none"> 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). 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). <p>[a-k]Lee</p> <ul style="list-style-type: none"> 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.). 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.). <p>This wildcard cannot be used for search operations.</p>
[!]	<p>The negation of a range of characters. For example:</p> <p>[!ei]nsure</p> <ul style="list-style-type: none"> 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). 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). <p>[!a-k]Lee</p> <ul style="list-style-type: none"> 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.). 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.). <p>This wildcard cannot be used for search operations.</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:

```
[A-K]*
```

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:

- 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:

```
Sent*
```

- To filter out a subfolder called "test", specify the full path including the leader "\", as shown in the following example:

```
Sent Items\test*
```

- 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:

```
*\test*
```

- To filter all directories that begin with a particular word on all drives (e.g. My_Filter), use the global filter:

```
*:\**\My_Filter*\**
```

- If you know the drive letter to filter, use the subclient filter as follows:

```
C:\**\My_Filter*\**
```

- To filter every directory named "temp" on all drives, use the global filter:

```
*:\**\temp\**
```

- Or use the subclient filter:

```
C:\**\temp\**
```

- To filter every "recycler" directory on all drives, use the global filter:

```
*:\**\RECYCLER\**
```

- Or use the subclient filter:

```
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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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.

Command Line XML Restore Options - Exchange Mailbox

iDataAgent

Options

Task Request Information			
Description	Field Name	Data Type	Commandline Parameter
Task			task
Type	taskType	enum	taskType
Initiated From	initiatedFrom	enum	initiatedFrom
Task Flags			taskFlags
Disabled	disabled	boolean	disabled
Restore Job Options			
Description	Field Name	Data Type	Commandline Parameter
Browse Option			browseOption
Comm Cell Id	commCellId	integer	commCellId
Restore deleted items	noImage	boolean	noImage
List Media	listMedia	boolean	listMedia
Backupset			backupset
Backupset Name	backupsetName	string	backupset/backupsetName (b)
Client Name	clientName	string	backupset/clientName (c)
Media Option			mediaOption
Copy Precedence			mediaOption/copyPrecedence
Restore from copy precedence	copyPrecedenceApplicable	boolean	copyPrecedenceApplicable
Copy Precedence Type	copyPrecedenceType	enum	copyPrecedenceType
Synchronous Copy Precedence	synchronousCopyPrecedence	integer	synchronousCopyPrecedence
Copy Precedence	copyPrecedence	integer	copyPrecedence/copyPrecedence
Time Zone			timeZone
Time Zone Name	TimeZoneName	string	TimeZoneName
Restore Destination			destination
Specify destination path	destPath	list:string	destPath
Restore to same folder	inPlace	boolean	inPlace
Destination client			destClient
Client Name	clientName	string	destClient/clientName (c)
Exchange Restore Option			exchangeOption
Exchange Restore Choice	exchangeRestoreChoice	enum	exchangeRestoreChoice
Exchange Restore Drive	exchangeRestoreDrive	enum	exchangeRestoreDrive
Volume Restore Option			volumeRstOption
Volume Leve Restore	volumeLeveRestore	boolean	volumeLeveRestore
File Restore Option			fileOption
Source Item	sourceItem	list:string	sourceItem
Restore Common Options			commonOptions
Append	append	boolean	append
Skip	skip	boolean	skip
Unconditional Overwrite	unconditionalOverwrite	boolean	unconditionalOverwrite
Unconditionally overwrite only if target is a DataArchiver stub	restoreOnlyStubExists	boolean	restoreOnlyStubExists
One Pass Restore	onePassRestore	boolean	onePassRestore
Cluster DBBackedup	clusterDBBackedup	boolean	clusterDBBackedup
Recover all selected items to 'Recovered Items' folder	recoverToRecoveredItemsFolder	boolean	recoverToRecoveredItemsFolder
SubTask Options			
Description	Field Name	Data Type	Commandline Parameter
Sub Task Type	subTaskType	enum	subTaskType (st)

Operation Type	operationType	enum	operationType (op)
Associations			
Description	Field Name	Data Type	Commandline Parameter
Backupset Name	backupsetName	string	associations/backupsetName (b)
Subclient Name	subclientName	string	subclientName (s)
Client Name	clientName	string	associations/clientName (c)
App Name	appName	string	appName (a)
Instance Name	instanceName	string	instanceName (i)

Usage

Task Request Information	
Task	
taskType	Home
Type: enum Default Value: IMMEDIATE Possible Values: NONE , IMMEDIATE , SCHEDULE , SAVED_REPORT , SCHEDULE_POLICY , WORKFLOW , PREVIEW , AUTOMATIC_COPY , AGENTLESS_SRM , AGENTLESS_SRM Command Line Paramter: taskType Location: taskInfo/task/taskType	
Type	
initiatedFrom	Home
Type: enum Default Value: GUI Possible Values: NONE , GUI , COMMANDLINE , SYSTEM , SCRIPT , SCHEDULE , SCHEDULE Command Line Paramter: initiatedFrom Location: taskInfo/task/initiatedFrom	
Initiated From	
Task Flags	
disabled	Home
Type: boolean Possible Values: true/false Command Line Paramter: disabled Location: taskInfo/task/taskFlags/disabled	
Disabled	
Restore Job Options	
Browse Option	
commCellId	Home
Type: integer Command Line Paramter: commCellId Location: taskInfo/subTasks/options/restoreOptions/browseOption/commCellId	
Comm Cell Id	
noImage	Home
Type: boolean Possible Values: true/false Command Line Paramter: noImage Location: taskInfo/subTasks/options/restoreOptions/browseOption/noImage	
Restore deleted items	
listMedia	Home
Type: boolean Possible Values: true/false Command Line Paramter: listMedia Location: taskInfo/subTasks/options/restoreOptions/browseOption/listMedia	
List Media	
Backupset	
backupsetName	Home
Type: string Command Line Paramter: backupset/backupsetName Location: taskInfo/subTasks/options/restoreOptions/browseOption/backupset/backupsetName	

Backupset Name	
clientName	Home
Type: string Command Line Paramter: backupset/clientName Location: taskInfo/subTasks/options/restoreOptions/browseOption/backupset/clientName	
Client Name	
Media Option	
Copy Precedence	
copyPrecedenceApplicable	Home
Type: boolean Possible Values: true/false Command Line Paramter: copyPrecedenceApplicable Location: taskInfo/subTasks/options/restoreOptions/browseOption/mediaOption/copyPrecedence/copyPrecedenceApplicable	
Restore from copy precedence	
copyPrecedenceType	Home
Type: enum Default Value: SYNCHRONOUS Possible Values: SYNCHRONOUS , SELECTIVE , SELECTIVE Command Line Paramter: copyPrecedenceType Location: taskInfo/subTasks/options/restoreOptions/browseOption/mediaOption/copyPrecedence/copyPrecedenceType	
Copy Precedence Type	
synchronousCopyPrecedence	Home
Type: integer Command Line Paramter: synchronousCopyPrecedence Location: taskInfo/subTasks/options/restoreOptions/browseOption/mediaOption/copyPrecedence/synchronousCopyPrecedence	
Synchronous Copy Precedence	
copyPrecedence	Home
Type: integer Command Line Paramter: copyPrecedence/copyPrecedence Location: taskInfo/subTasks/options/restoreOptions/browseOption/mediaOption/copyPrecedence/copyPrecedence	
Copy Precedence	
Time Zone	
TimeZoneName	Home
Type: string Command Line Paramter: TimeZoneName Location: taskInfo/subTasks/options/restoreOptions/browseOption/timeZone/TimeZoneName	
Time Zone Name	
Restore Destination	
destPath	Home
Type: list:string Command Line Paramter: destPath Location: taskInfo/subTasks/options/restoreOptions/destination/destPath	
Specify destination path	
inPlace	Home
Type: boolean Default Value: true Possible Values: true/false Command Line Paramter: inPlace Location: taskInfo/subTasks/options/restoreOptions/destination/inPlace	
Restore to same folder	
Destination client	
clientName	Home
Type: string Command Line Paramter: destClient/clientName Location: taskInfo/subTasks/options/restoreOptions/destination/destClient/clientName	
Client Name	
Exchange Restore Option	
exchangeRestoreChoice	Home
Type: enum Default Value: TO_MAILBOX Possible Values: NONE , TO_MAILBOX , TO_PST_FILE , TO_PST_FILE Command Line Paramter: exchangeRestoreChoice Location: taskInfo/subTasks/options/restoreOptions/exchangeOption/exchangeRestoreChoice	
Exchange Restore Choice	

exchangeRestoreDrive	Home
Type: enum Default Value: LOCAL_DRIVE Possible Values: NONE , LOCAL_DRIVE , NETWORK , NETWORK Command Line Paramter: exchangeRestoreDrive Location: taskInfo/subTasks/options/restoreOptions/exchangeOption/exchangeRestoreDrive	
Exchange Restore Drive	
Volume Restore Option	
volumeLeveRestore	Home
Type: boolean Possible Values: true/false Command Line Paramter: volumeLeveRestore Location: taskInfo/subTasks/options/restoreOptions/volumeRstOption/volumeLeveRestore	
Volume Leve Restore	
File Restore Option	
sourceItem	Home
Type: list:string Command Line Paramter: sourceItem Location: taskInfo/subTasks/options/restoreOptions/fileOption/sourceItem	
Source Item	
Restore Common Options	
append	Home
Type: boolean Possible Values: true/false Command Line Paramter: append Location: taskInfo/subTasks/options/restoreOptions/commonOptions/append	
Append	
skip	Home
Type: boolean Possible Values: true/false Command Line Paramter: skip Location: taskInfo/subTasks/options/restoreOptions/commonOptions/skip	
Skip	
unconditionalOverwrite	Home
Type: boolean Possible Values: true/false Command Line Paramter: unconditionalOverwrite Location: taskInfo/subTasks/options/restoreOptions/commonOptions/unconditionalOverwrite	
Unconditional Overwrite	
restoreOnlyStubExists	Home
Type: boolean Possible Values: true/false Command Line Paramter: restoreOnlyStubExists Location: taskInfo/subTasks/options/restoreOptions/commonOptions/restoreOnlyStubExists	
Unconditionally overwrite only if target is a DataArchiver stub	
onePassRestore	Home
Type: boolean Possible Values: true/false Command Line Paramter: onePassRestore Location: taskInfo/subTasks/options/restoreOptions/commonOptions/onePassRestore	
One Pass Restore	
clusterDBBackedup	Home
Type: boolean Possible Values: true/false Command Line Paramter: clusterDBBackedup Location: taskInfo/subTasks/options/restoreOptions/commonOptions/clusterDBBackedup	
Cluster DBBackedup	
recoverToRecoveredItemsFolder	Home
Type: boolean Possible Values: true/false Command Line Paramter: recoverToRecoveredItemsFolder Location: taskInfo/subTasks/options/restoreOptions/commonOptions/recoverToRecoveredItemsFolder	
Recover all selected items to 'Recovered Items' folder	
SubTask Options	

subTaskType	Home
Type: enum Possible Values: NONE , ADMIN , BACKUP , RESTORE , WORKFLOW , COMPLIANCE_POLICY , COMPLIANCE_POLICY Command Line Paramter: subTaskType Location: taskInfo/subTasks/subTask/subTaskType	
Sub Task Type	
operationType	Home
Type: enum Default Value: NONE Possible Values: NONE , ALL_BACKUP_JOBS , BACKUP , RECOVERY_POINT_CREATION , CONSISTENCY_POINT_CREATION , SRM , ARCHIVE , CONTENT_INDEXING , ALL_RESTORE_JOBS , RESTORE , POWER_RESTORE , BROWSE , RESTORE_BY_JOB , ONETOUCH_RECOVERY , ADMIN , WORK_FLOW , COMPLIANCE , SEARCH , SAVE , EMAIL , TAGGING , LEGAL_HOLDS , COMP_RESTORE , MOSS , PRUNE , DRBACKUP , AUX_COPY , REPORT , MEDIA_INVENTORY , SCHED_EXPORT , ARCHIVE_CHECK , MEDIA_PREDICTION , TAPE_ERASE , VT , SELECTIVE_DELETE , DRIVE_VALIDATION , DRIVE_CLEANING , STAMP_MEDIA , BROWSE_DELETE , CATALOGUE_MEDIA , DATA_AGING , DOWNLOAD_UPDATES , INSTALL_UPDATES , SRM_REPORT , OFFLINE_CONTENT_INDEX , MAGLIBMAINTENANCE , SHELF_MANAGEMENT , INFOMGMT , INSTALL_CLIENT , UNINSTALL_CLIENT , SNAP_TO_TAPE , CCM_CAPTURE , CCM_MERGE , EXTERNAL_DATA_PROCESSOR , MEDIA_REFRESHING , PREPARATION , FDC , MAGLIBVOLRECON , DEDUPDBSYNC , TAPEIMPORT , WORKFLOW , QR , FS_BACKUP , IMAGE_BACKUP , SERVERLESS_BACKUP , MOUNT_SNAPSHOT , UNMOUNT_SNAPSHOT , DELETE_SNAPSHOT , MINING_BACKUP , SRM_AGENTLESS , SRM_AGENTLESS Command Line Paramter: operationType Location: taskInfo/subTasks/subTask/operationType	
Operation Type	
Associations	
backupsetName	Home
Type: string Command Line Paramter: associations/backupsetName Location: taskInfo/associations/backupsetName	
Backupset Name	
subclientName	Home
Type: string Command Line Paramter: subclientName Location: taskInfo/associations/subclientName	
Subclient Name	
clientName	Home
Type: string Command Line Paramter: associations/clientName Location: taskInfo/associations/clientName	
Client Name	
appName	Home
Type: string Command Line Paramter: appName Location: taskInfo/associations/appName	
App Name	
instanceName	Home
Type: string Command Line Paramter: instanceName Location: taskInfo/associations/instanceName	
Instance Name	

Advanced Restore Options (General)

Use this dialog box to access additional restore options.

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

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.

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)

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.

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.