Quick Start Guide - Active Directory *i*DataAgent

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Overview - Active Directory *i*DataAgent

WHERE TO GO NEXT

Install the Active Directory *i*DataAgent
  Walks you through the process of installing the Active
  Directory *i*DataAgent.

INTRODUCTION

The Active Directory *i*DataAgent provides granular backup and restore of individual Active Directory attributes.

KEY FEATURES

The Active Directory *i*DataAgent offers the following key features:

COMPREHENSIVE DATA PROTECTION AND RECOVERY

The Active Directory *i*DataAgent along with the Windows File System *i*DataAgent provides complete data protection for a domain controller and other computers in a domain. It can also secure LDS/ADAM attributes.

POINT-IN-TIME RECOVERY

In the event of a serious system failure, such as the breakdown of hardware, software, or operating systems, the Active Directory *i*DataAgent provides point-in-time recovery of files at any given time.

EFFICIENT JOB MANAGEMENT AND REPORTING

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

BACKUP AND RECOVERY FAILOVERS

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

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

DEDUPLICATION

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

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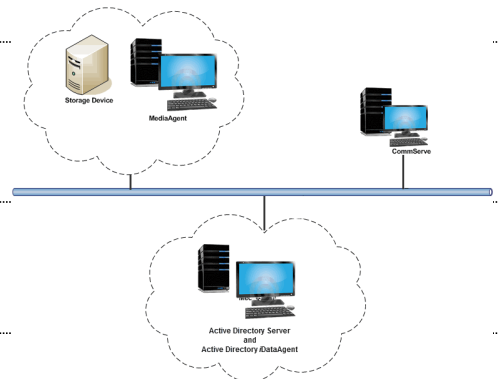
ADD-ON COMPONENT

OFFLINE MINING

The Active Directory Offline Mining enables you to browse multiple versions of the directory server database from different points in time. This is useful if you want to compare different versions of a single object or attribute. The value of each attribute is visible in the offline copy, which allows you to easily compare

attributes and recover the exact version you need.

TERMINOLOGY

The Active Directory documentation uses the following terminology:

CLIENT	The computer in which the *i*DataAgent is installed and contains the data to be secured.
BACKUPSET	A group of subclients which includes all of the data backed up by the *i*DataAgent.
SUBCLIENT	The Active Directory Server data to be backed up.

New Features - Active Directory *i*DataAgent

NEW FEATURES FOR ACTIVE DIRECTORY IDATAAGENT

DATA PROTECTION OPERATIONS

The Active Directory *i*DataAgent is now supported on Unix MediaAgents.

SUPPORT FOR ACTIVE DIRECTORY PARTITIONS

Active Directory iDataAgent now provides the ability to backup and restore the Configuration, Schema, and ForestDNSZones partitions with certain restrictions on restore capability. For more information, see What Gets Backed Up.

NEW COMMCELL FEATURES SUPPORTED FOR ACTIVE DIRECTORY IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

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

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

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

INSTALL FROM THE COMMCELL CONSOLE

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

UNINSTALL FROM THE COMMCELL CONSOLE

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

SCHEDULE POLICY

A data protection schedule policy can now be created for this specific agent. For more information, see Agent-Specific Data Protection Schedule Policy.

System Requirements - Active Directory *i*DataAgent

System Requirements	Supported Features

The following requirements are for the Active Directory *i*DataAgent:

OPERATING SYSTEM

WINDOWS SERVER 2012
Microsoft Windows Server 2012 Editions
Microsoft Windows Server 2012 R2 Editions

WINDOWS SERVER 2008
Microsoft Windows Server 2008 32-bit and x64 Editions

WINDOWS SERVER 2003
Microsoft Windows Server 2003 32-bit, 64-bit and x64 Editions with a minimum of Service Pack 1

HARD DRIVE

1 GB minimum of hard disk space 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.

PROCESSOR

All Windows-compatible processors supported

PERIPHERALS

DVD-ROM drive

Network Interface Card

MISCELLANEOUS

NETWORK

TCP/IP Services configured on the computer.

SERVICES

It is recommended that your Active Directory server has DNS services configured.
The File System *i*DataAgent will be automatically installed during installation of this software, if it is not already installed. For System Requirements specific to the File System *i*DataAgent, refer to System Requirements - Microsoft Windows File System *i*DataAgent.

DISCLAIMER

Minor revisions and/or service packs that are released by application and operating system vendors are supported by our software but may not be individually listed in our System Requirements. We will provide information on any known caveat for the revisions and/or service packs. In some cases, these revisions and/or service packs affect the working of our software. Changes to the behavior of our software resulting from an application or operating system revision/service pack may be beyond our control. The older releases of our software may not support the platforms supported in the current release. However, we will make every effort to correct the behavior in the current or future releases when necessary. Please contact your Software Provider for any problem with a specific application or operating system.

Additional considerations regarding minimum requirements and End of Life policies from application and operating system vendors are also applicable

Supported Features - Active Directory *i*DataAgent

| System Requirements | Supported Features |

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

FEATURE	SUB-FEATURE	SUPPORT	COMMENTS
ADVANCED BACKUP/ARCHIVE OPTIONS	Data tab - Catalog	✔	
	Data tab - Create New Index	✔	
	Data tab - Verify Synthetic Full	✔	
	Job Retry tab	✔	
	Media tab - Allow other Schedule to use Media Set	✔	
	Media tab - Mark Media Full on Success	✔	
	Media tab - Reserve Resources Before Scan	✔	
	Media tab - Start New Media	✔	
	Startup tab	✔	
	VaultTracking tab	✔	
	Comments		
ADVANCED FILE SYSTEM IDATAAGENT OPTIONS	Automatic File System Multi-Streaming		
	On Demand Data Protection Operation		
	Restore by Jobs		
	Restore Data Using a Map File		
	Comments		
ALERTS AND MONITORING	Global Alerts	✔	
	Job-Based Alerts*	✔	
	Comments		
AUTOMATIC UPDATES	Automatic Updates	✔	
	Comments		
BACKUP/ARCHIVE OPTIONS	Differential Backup	✔	
	Full Backup	✔	
	Incremental Backup	✔	
	Other Backup Types		
	Synthetic Full Backup	✔	
	Comments		
BACKWARD COMPATIBILITY	Version 7	✔	
	Version 8	✔	
	Version 9		
	Comments		
BROWSE	Browse from Copy Precedence	✔	
	Browse the Latest Data	✔	
	Exclude Data Before	✔	
	Find	✔	
	Full Backup Transparent Browse	✔	
	Image Browse	✔	
	No Image Browse	✔	
	Page Size	✔	
	Specify Browse Path		
	Specify Browse Time	✔	
	Subclient Browse	✔	
	Use MediaAgent	✔	
	View All Versions		
	Comments		
	Netware cluster		

CLUSTERING			
	Unix Cluster		
	Windows - Microsoft Cluster (MSCS)		
	Windows - Non-Microsoft Cluster		
	Comments		
COMMAND LINE INTERFACE	Command Line Interface	✔	
	Comments		
COMMAND LINE INTERFACE - SPECIFIC COMMANDS	Qcreate - Backup set/SubClient		
	Qcreate - Instance		
	Qdelete - Backup set/Subclient		
	Qdelete - Client/Agent	✔	
	Qlist globalfilter		
	Qmodify - instance		
	Qoperation - Backup	✔	
	Qoperation - move		
	Qoperation - Restore		
	Comments		
COMMCELL MIGRATION	CommCell Migration	✔	
	Comments		
CONTENT INDEXING	Offline Content Indexing		
	Comments		
DATA AGING	Basic Retention Rules	✔	
	Extended Retention Rules	✔	
	Unique Data Aging Rules		
	Comments		
DATA CLASSIFICATION ENABLER	Data Classification Enabler		
	Comments		
DATA COMPRESSION	Client Compression	✔	
	Hardware Compression	✔	
	MediaAgent Compression	✔	
	Comments		
DATA ENCRYPTION	Data Encryption Support	✔	
	Third-party Command Line Encryption Support		
	Comments		
DATA MULTIPLEXING	Multiplexing	✔	
	Comments		
DEDUPLICATION	MediaAgent Deduplication		
	Source Deduplication		
	Comments		
ERASE BACKUP/ARCHIVED DATA	Erase Data by Browsing		
	Erase Stubs		
	Comments		
GLOBAL FILTERS	Global Filters		
	Comments		
INSTALLATION	Custom Package	✔	
	Decoupled Install		
	Remote Install	✔	
	Restore Only Agents		
	Silent Install	✔	
	Comments		
INSTALLING 32-BIT COMPONENTS ON A MICROSOFT WINDOWS X64 PLATFORM	Install 32-bit On x64		
	Comments		
JOB RESTART - DATA PROTECTION	Not Restartable		

	Restarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure		
	Comments		
JOB RESTART - DATA RECOVERY	Not Restartable		
	Restarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure		
	Comments		
LIST MEDIA	List Media Associated with a Specific Backup Set or Instance	✔	
	List Media Associated with Index	✔	
	List Media Associated with Specific Files and/or Folders	✔	
	List Media Associated with Specific Jobs		
	Comments		
MULTI INSTANCING	Multi Instance	✔	
	Comments		
PRE/POST PROCESSES	Pre/Post Process with Data Protection and Recovery	✔	
	Comments		
RESTORE/RECOVER/RETRIEVE DESTINATIONS	Cross-Application Restores (Different Application version)		
	Cross-Platform Restores - Different Operating System		
	Cross-Platform Restores - Same Operating System - Different Version		
	In-place Restore - Same path/ destination - Same Client	✔	
	Out-of-place Restore - Different path/ destination		
	Out-of-place Restore - Same path/ destination - Different Client		
	Restore Data Using a Map File		
	Restore to Network Drive /NFS-Mounted File System		
	Comments	✔	The Active Directory *i*DataAgent allows you to perform in-place restores of Active Directory attributes and objects. You cannot restore an Active Directory attribute or object to a different tree path.
RESTORE/RECOVER/RETRIEVE OPTIONS	Automatic Detection of Regular Expressions		
	Filter Data From Recover Operations		
	Rename/ Redirect Files on Restore		
	Restore Data Using Wildcard Expressions		
	Restore Data with Pre/Post Processes		
	Restore from Copies	✔	
	Skip Errors and Continue	✔	
	Use Exact Index		
	Use MediaAgent	✔	
	Comments		
RESTORE/RECOVER/RETRIEVE OVERWRITE OPTIONS	Overwrite Files		
	Overwrite if file on media is newer		
	Restore only if target exists		
	Unconditional Overwrite		
	Unconditionally overwrite only if target is a DataArchiver stub		

	Comments		
SCHEDULE POLICY	Agent Specific Data Protection Schedule Policy	✔	
	All Agent Types Schedule Policy	✔	
	Comments		
STORAGE POLICIES	Incremental Storage Policy*	✔	
	Standard Storage Policies	✔	
	Comments		
STORAGE POLICY COPIES	Data Verification	✔	
	Job Based Pruning	✔	
	Manual Retention	✔	
	Mark Job Disabled	✔	
	Selective Copy	✔	
	Comments		
SUBCLIENT POLICIES	SubClient Policy		
	Comments		
UPGRADE	Netware - Local		
	Unix - Remote (Push)		
	Unix/Linux/Macintosh - Local		
	Unix/Linux/Macintosh - Silent		
	Upgrade from CommCell Console	✔	
	Windows - Local	✔	
	Windows - Remote (Push)	✔	
	Windows - Silent	✔	
	Comments		
USER ADMINISTRATION AND SECURITY	Backup Set/Archive Set	✔	
	Subclient	✔	
	Comments		

Additional features are listed below:

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

Getting Started - Active Directory Deployment

WHERE TO INSTALL

Install the software on a computer where Active Directory Server resides and which satisfies the minimum requirements specified in the System Requirements.

Follow the steps given below to install the Active Directory iDataAgent.

INSTALLATION

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

METHOD 1: INTERACTIVE INSTALL

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

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

Use this procedure to install remotely on a client computer.

BEFORE YOU BEGIN

Download Software Packages
Download the latest software package to perform the install.

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

METHOD 1: INTERACTIVE INSTALL

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

2. Select the required language.

   Click **Next**.

   Select the language you will use during installation.

   English (United States)

   Next >   Cancel

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

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

   ⇆ Install Software on this computer
   ⇆ Advanced options

   ⊜ View documentation website
   ⊜ View Install Quick Start Guide (Requires Adobe Acrobat Reader)
   ⊜ Install Adobe Acrobat Reader

   ⊜ Exit

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

   Click **Next**.

   License Agreement
   Please read the following License Agreement. Press the PAGE DOWN key to view the entire agreement.

   End User License and Limited Warranty Agreement

   Software Release 9.0.0

   (including Microsoft® SQL Server™ 2008 Enterprise Edition, SQL Server™ 2008 Express Edition and Windows Pre-Installation Environment)

   End User License Agreement

   ● I accept the terms in the license agreement.
   ○ I do not accept the terms in the license agreement.

   Installer

   < Back   Next >   Cancel

5.   Expand **Client Modules** | **Backup & Recovery** | **File System** and select **Active Directory** *i***DataAgent**

Click **Next**.

> Windows File System *i*DataAgent is installed by default when you install the Active Directory *i*DataAgent.
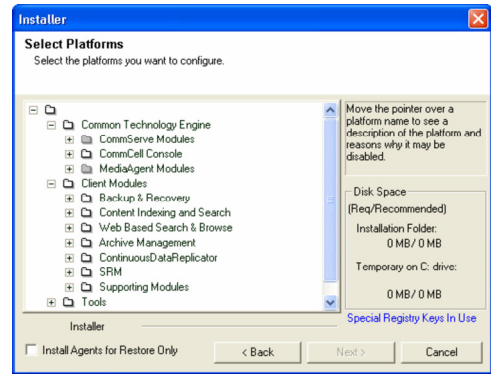
6.   Click **YES** to install Microsoft .NET Framework package.

- This prompt is displayed only when Microsoft .NET Framework is not installed.
- Once the Microsoft .NET Framework is installed, the software automatically installs the Microsoft Visual J# 2.0 and Visual C++ redistributable packages.
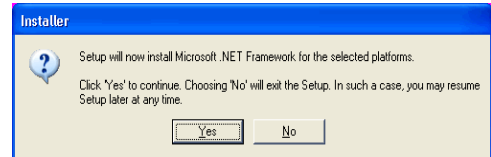
7.   If this computer and the CommServe is separated by a firewall, select the **Configure firewall services** option and then click **Next**.

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

If firewall configuration is not required, click **Next**.
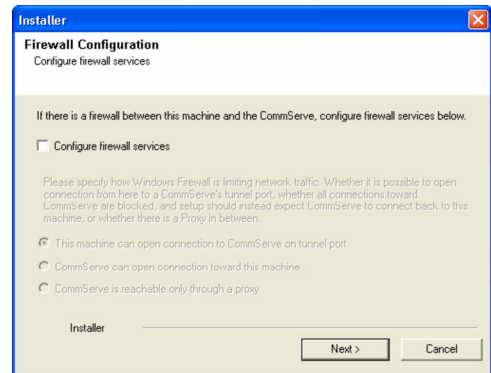
8.   Enter the fully qualified domain name of the **CommServe Host Name**.

Click **Next**.

> Do not use space and the following characters when specifying a new name for the CommServe Host Name:
>
> \|`~!@#$%^&*()+=<>/?,[]{}:;'"
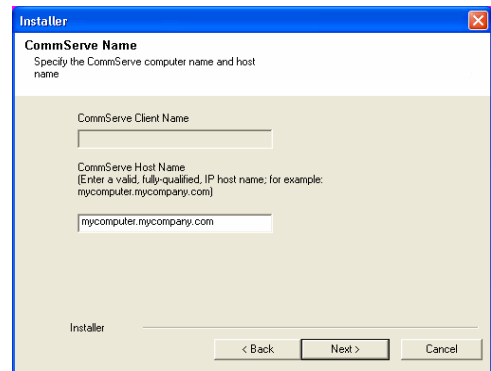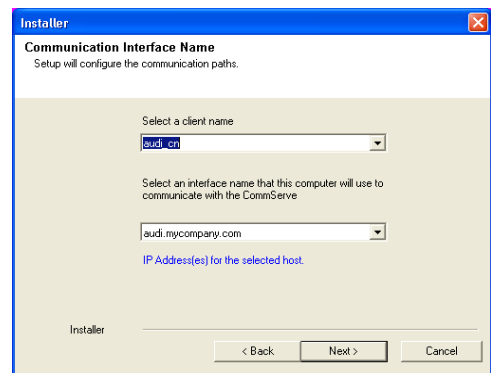
9.   Click **Next**.

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

Click **Next**.

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

It is recommended to select this option even if Windows firewall is disabled. This will allow the CommCell programs and services to function if the Windows firewall is enabled at a later time.
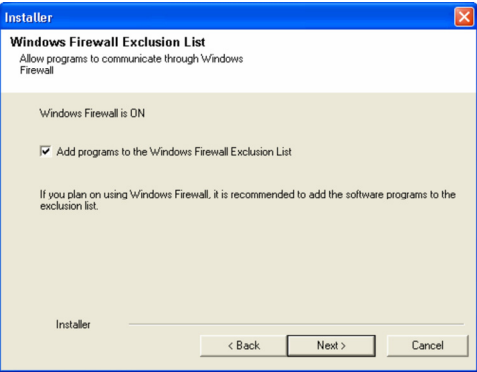
11. Verify the default location for software installation.

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

Click **Next**.

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

/ : * ? " < > | #

It is recommended that you use alphanumeric characters only.
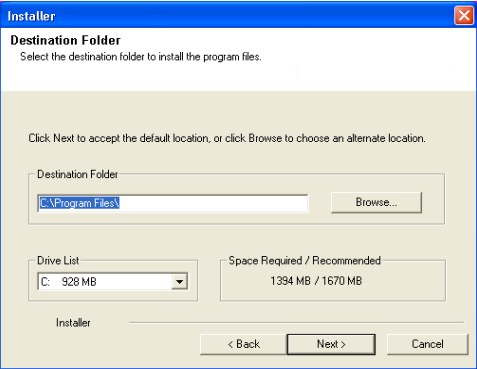
12. Select a Client Group from the list.

Click **Next**.

This screen will be displayed if Client Groups are configured in the CommCell Console.
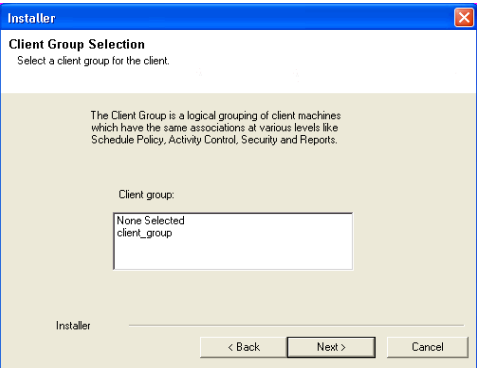
13. Click **Next**.
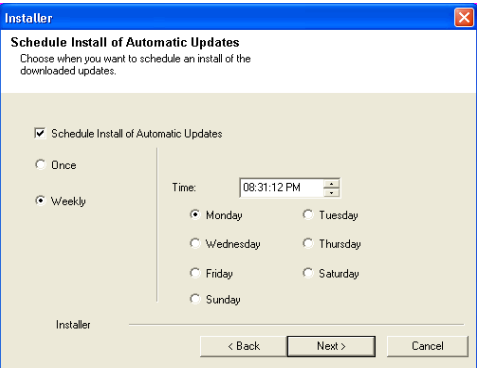
14. Click **Next**.

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

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

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

Click **OK**.

You can create the Storage Policy later in step 21.

16. Enter the account information which will be used to verify the rights to backup and restore data and then click **Next** to continue.

- Enter the account information associated with an account that has Administrator rights in Domain Controller.
- If you are using the Chinese language, you must manually type in `Administrator` in English language if you are using the default value.

17. Click **Next**.

The ADLDAPTool will modify the Active Directory Schema to enable restore of passwords. For more information about this tool, refer to Enabling Restore of Passwords.

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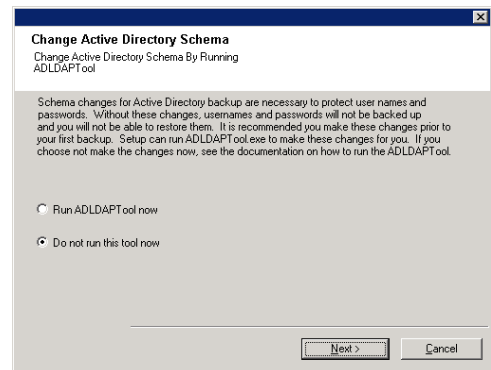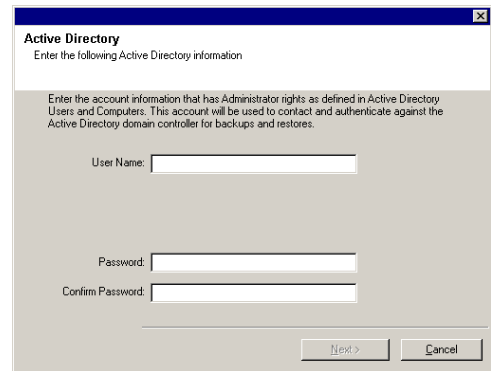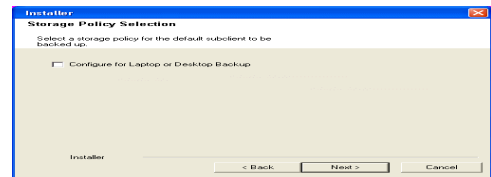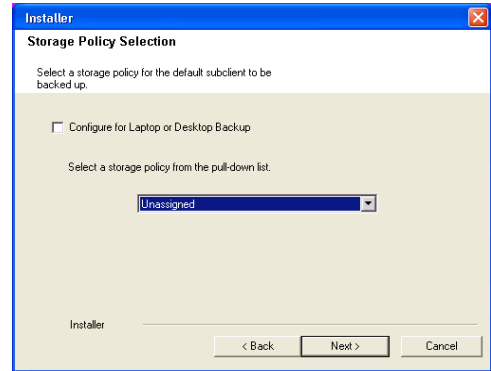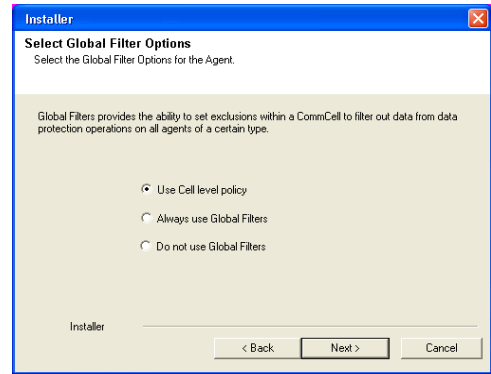
19. Click **Next**.
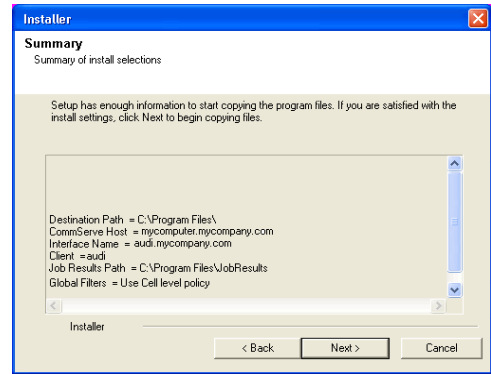
20. Click **Finish**.
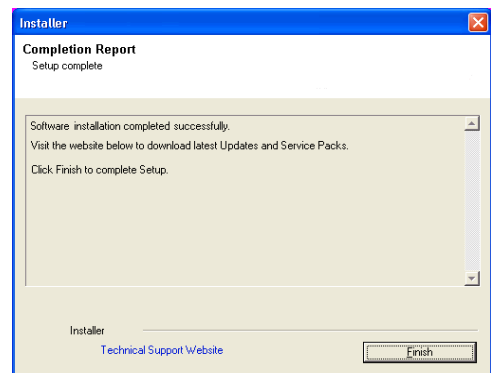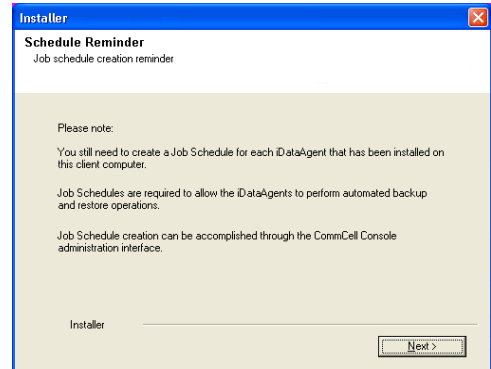
If you already have a storage policy selected in step 15, Click button available at the bottom of the page to proceed to the **Configuration** section.

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.

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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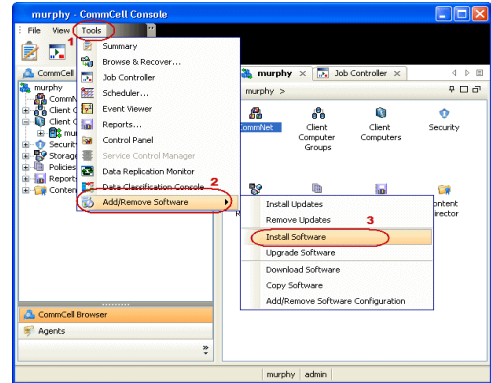
2. Click **Next**.
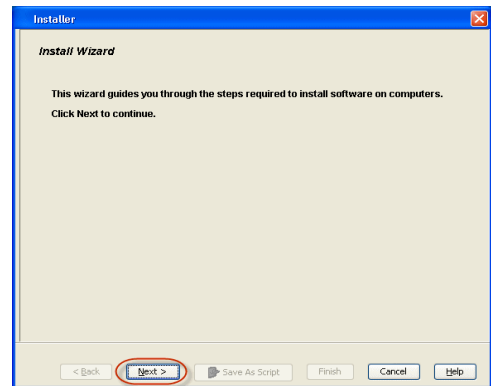
3. Select **Windows**.

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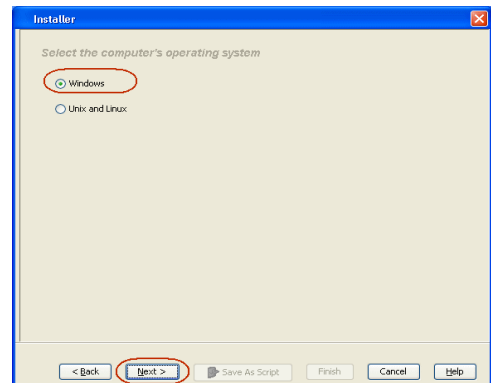
4. Select **Manually Select Computers**.

    Click **Next**.
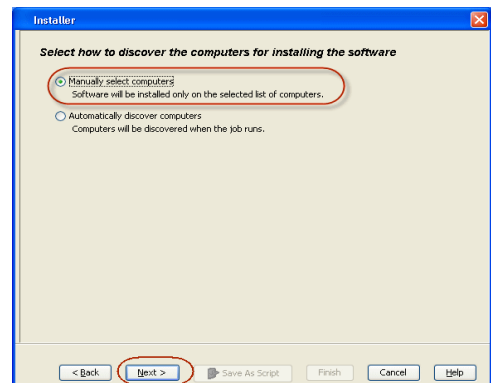
5. Enter the fully qualified domain name of the client computer.

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

Click **Next**.
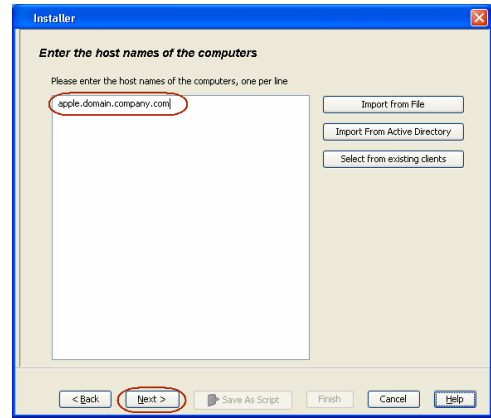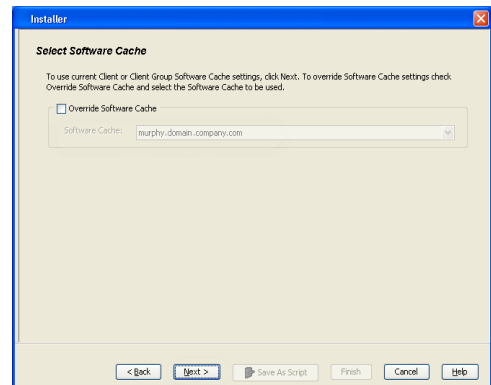
6. Click **Next**.

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

Click **Next**.
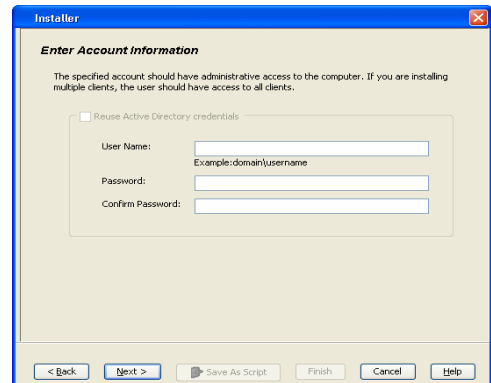
8. Select **Active Directory *i*DataAgent**.

Click **Next**.

> Windows File System *i*DataAgent is installed by default when you install the Active Directory *i*DataAgent.
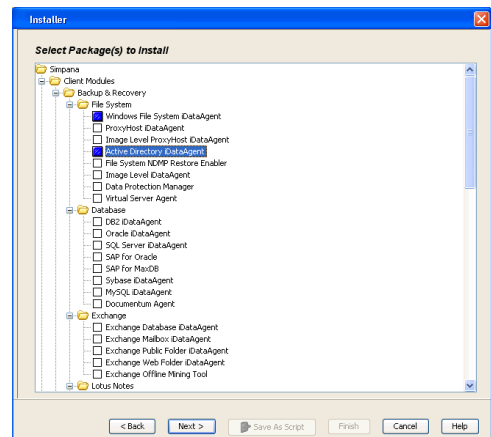
9.
- Select **Client Group** from **Available** and click **Add**.
- Select a **Storage Policy** from the drop-down list. Click **Next**.

  Select the **Configure for Laptop or Desktop Backup** option to install

Backup Monitor utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.

10.
- Enter the account information associated with an account that has Administrator rights in Domain Controller.
- Click **Next**.
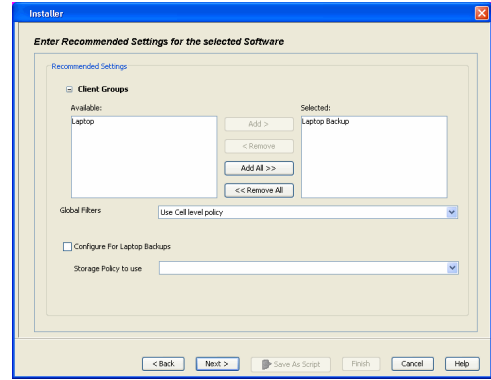
11. Click **Next**.
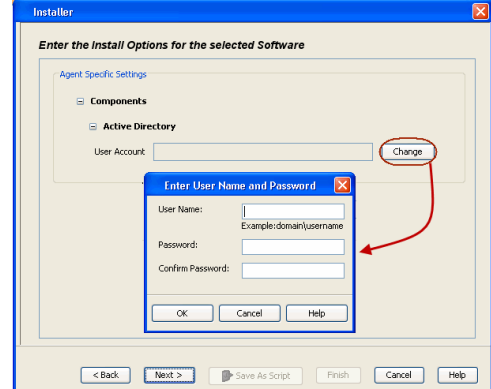
12. Select **Immediate**.

Click **Next**.
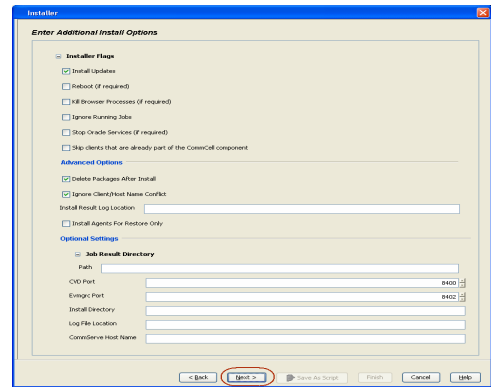
13. Click **Finish**.
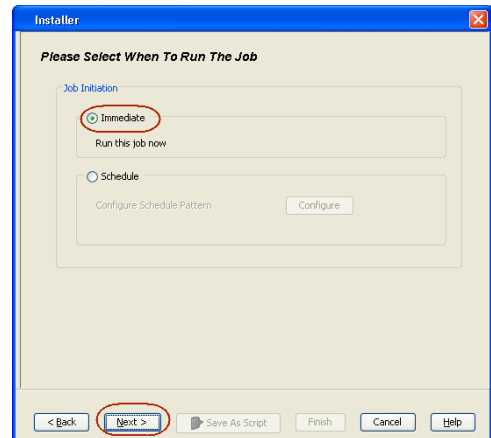
13. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.
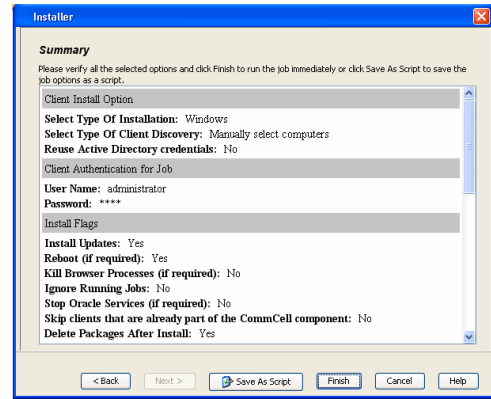
14. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.
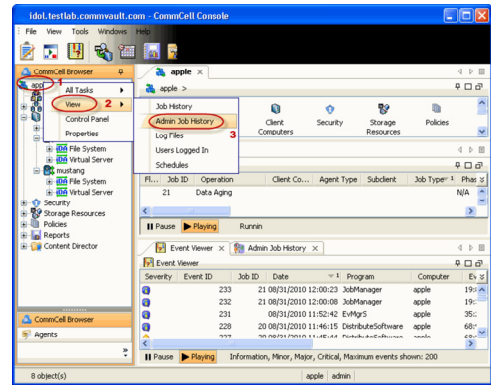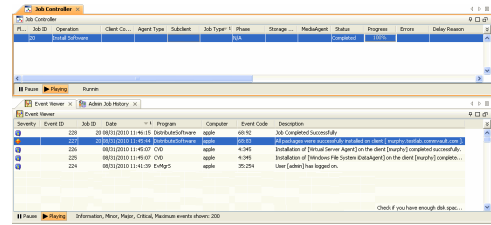
15. Select **Install/Upgrade/Remove Software**.

Click **OK**.
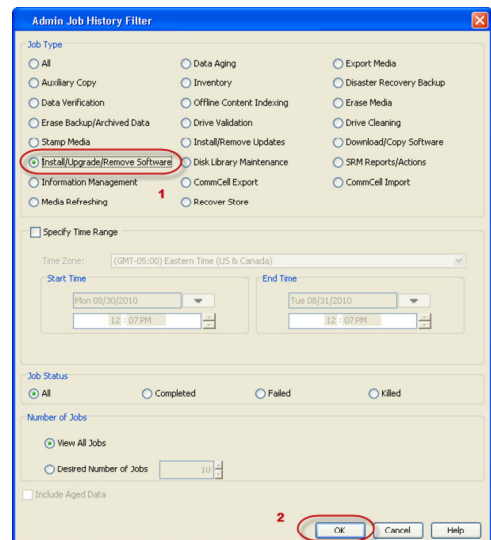
16. You can view the following details about the job by right-clicking the job:

- Items that succeeded during the job
- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job
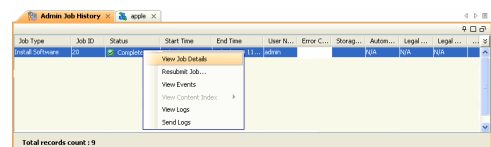
Getting Started - Active Directory Configuration

CONFIGURATION

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

1.
- From the CommCell Browser, navigate to **Client Computers | <*Client*> | Active Directory | defaultBackupSet**.
- Right-click the default subclient and then click **Properties**.
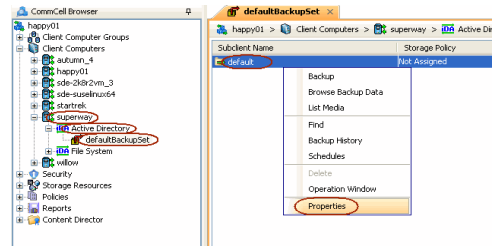
2.
- Click the **Storage Device** tab.
- In the **Storage Policy** box, select a Storage Policy name.
- Click **OK**.

Click Next ▶ to continue.

If you do not have Storage Policy created, follow the step given below to create a storage policy.
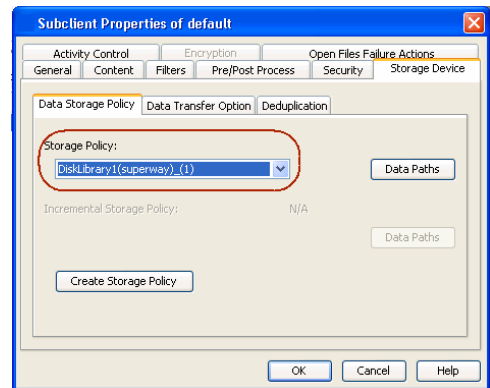
3.
1. Click **Create Storage Policy**.

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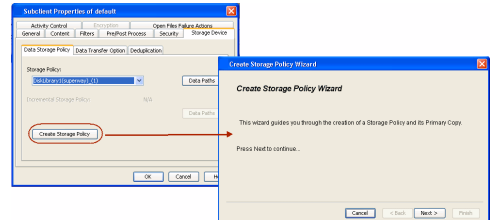   - Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
   - Enter the name in the **Storage Policy Name** box and click **Next**.
   - From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

     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 - Active Directory Backup

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

Active Directory *i*DataAgent can backup the following data types, modifiable, and non-modifiable attributes of an object.

SUPPORTED DATA TYPES	NON-MODIFIABLE ATTRIBUTES OF AN OBJECT
Attributes on each supported Windows object	ObjectGUID
Computer	ObjectSid
Contact	PrimaryGroupID
Group	BadPasswordTime
IntetOrgPerson	LastLogoff
MSMQ Queue Alias	LastLogon
Organizational Unit	MemberOf
Printer	PwdLastSet (only if adldaptool.exe was executed before the backup)
User	USNChanged
Shared Folder	USNCreated
Configuration	WhenChanged
Schema	WhenCreated
ForestDNSZones	DistinguishedName
	UserAccountControl
	Delete Objects
	rootDSE object

The following section provides step-by-step instructions for performing your first backup:
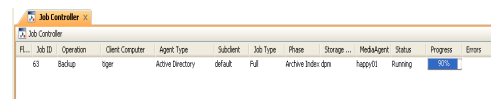
1.
   - From the CommCell Browser, navigate to **Client Computers | *<Client>* | Active Directory | defaultBackupSet**.
   - Right-click the default subclient and click **Backup**.
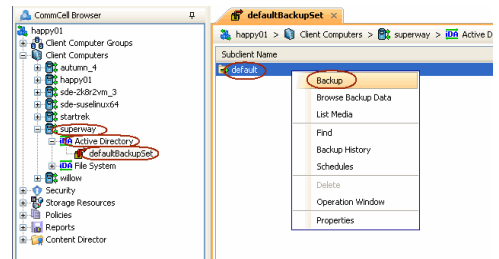
2.
   - Click **Full** as backup type and then click **Immediate**.
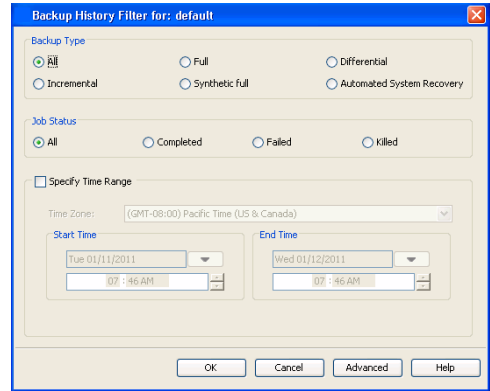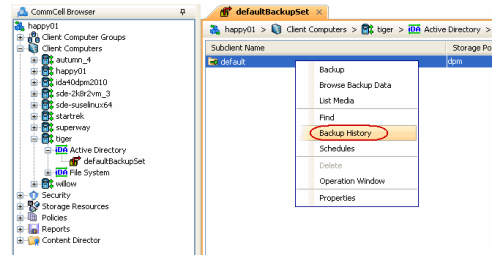   - Click **OK**.
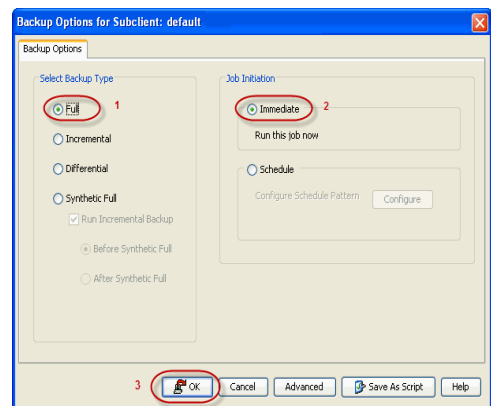
3. You can track the progress of the job from the **Job Controller** window of the CommCell console.

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

5. Click **OK**.

6. You can view the following details about the job by right-clicking the job:
- Items that failed during the job
- Items that succeeded during the job
- Details of the job
- Events of the job
- Log files of the job
- Media associated with the job

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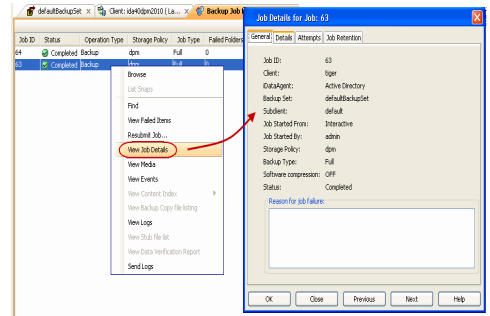
Getting Started - Active Directory Restore

After your first backup, you are ready to perform your first restore.

| WHAT GETS RESTORED	WHAT DOES NOT GET RESTORED
Attributes on each supported Windows object	ObjectGUID
Computer	ObjectSid
Contact	PrimaryGroupID
Group	BadPasswordTime
IntetOrgPerson	LastLogoff
MSMQ Queue Alias	LastLogon
Organizational Unit	MemberOf
Printer	PwdLastSet (only if adldaptool.exe was executed before the backup)
User	USNChanged
Shared Folder	USNCreated
Configuration	WhenChanged
Schema	WhenCreated
ForestDNSZones	DistinguishedName
	UserAccountControl
	Delete Objects
	rootDSE object

PERFORM A RESTORE

It is recommended that you perform a restore operation immediately after your first full backup to understand the process. Keep in mind that any object or attribute is restored to the same location from where it is backed up. The following section explains how to restore the Common Name (CN) **Guests**.

1.
   - From the CommCell Browser, navigate to **Client Computers| <Client>** | **Active Directory | defaultBackupSet**
   - Right-click the default subclient and then click **Browse Backup Data**.
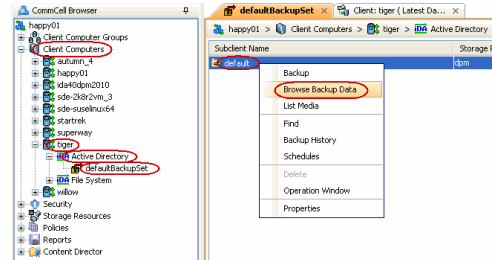
2. Click **OK**.
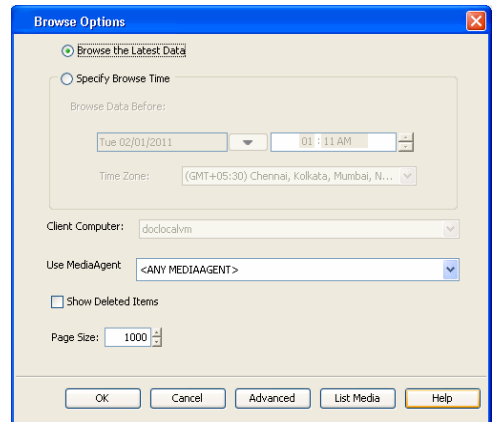
3.
   - Expand the **defaultBackupSet** and navigate to the required Domain Component.
   - Select the CN **Guest**.

   All the attributes of the object are selected by default.

   For the first restore job, select any object with smaller data size.

- Click **Recover All Selected**.

**4.** By default, the object and its attributes are restored to the same location from where they are backed up.

If you have modified the object or attribute after the first backup, you may loose the changes.
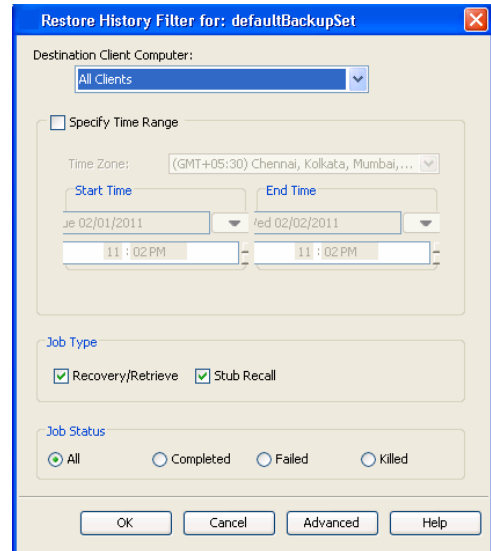

5.
- Click the **Job Initiation** tab.
- Select **Immediate** to run the job immediately.
- Click **OK**.

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

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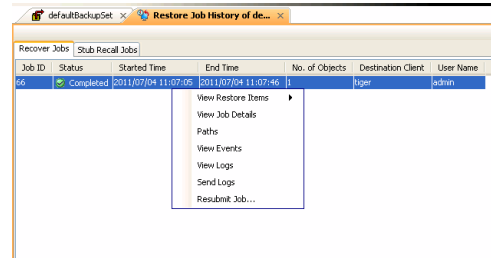

8. Click **OK**.
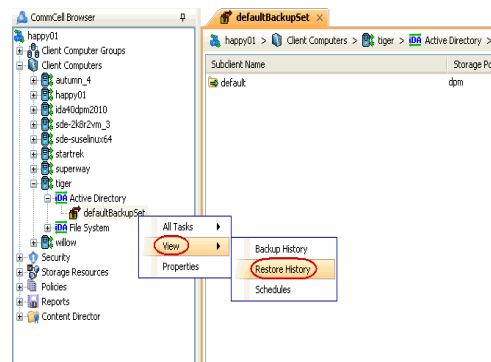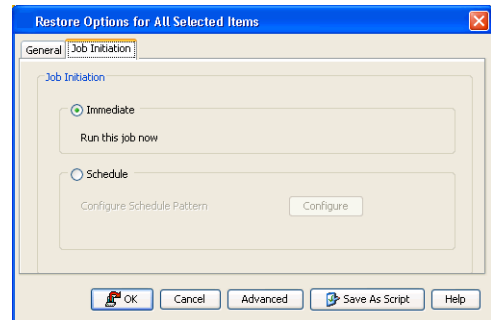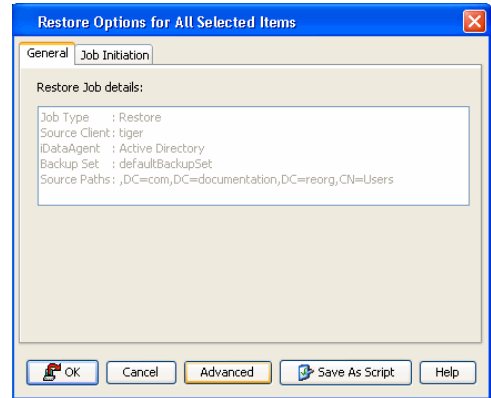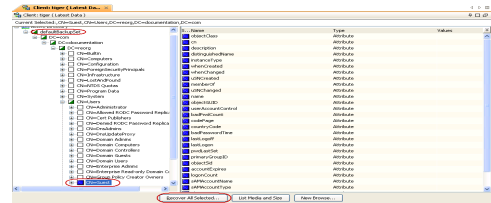
9. You can view the following details about the job by right-clicking the job:

- View Restore Items

  You can view them as **Successful**, **Failed**, **Skipped** or **All**.

- View Job Details
- View Events of the restore job.
- View Log files of the restore job

10. Once the restore jobs complete successfully, verify that the restored objects/attributes are available in the domain controller.

CONGRATULATIONS - YOU HAVE SUCCESSFULLY COMPLETED YOUR FIRST BACKUP AND RESTORE.

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

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