

Quick Start Guide - Macintosh File System *iDataAgent*

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INTRODUCTION

The Macintosh File System iDataAgent provides a simplified end-to-end backup and recovery solution for file system data (i.e., files and directories) residing on Macintosh computer systems. The product can be used to perform both full system rebuilds and granular recovery of the data.

KEY FEATURES

The Macintosh File System iDataAgent offers the following key features:

SIMPLIFIED DATA MANAGEMENT

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

POINT-IN-TIME RECOVERY

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

BACKUP AND RECOVERY FAILOVERS

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

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

EFFICIENT JOB MANAGEMENT AND REPORTING

You can view and verify the status of 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.

BLOCK LEVEL DEDUPLICATION

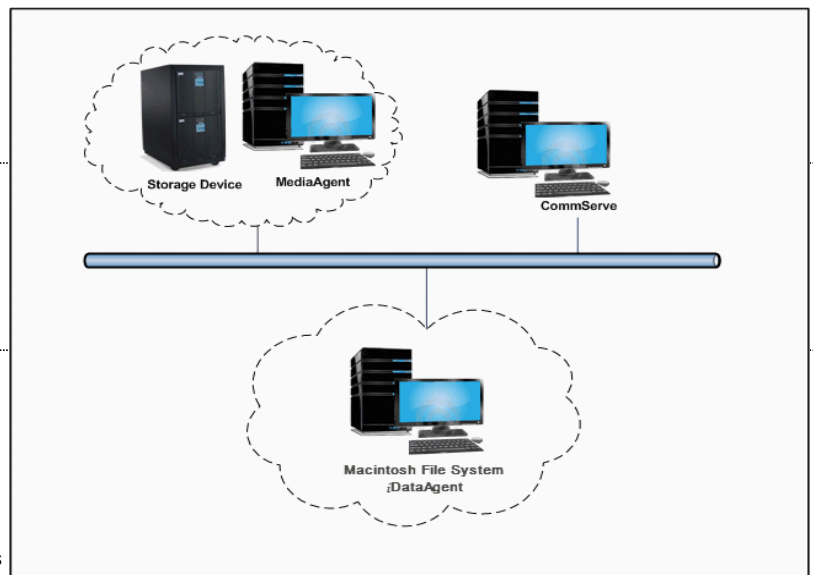
Deduplication provides a smarter way of storing data by identifying and eliminating the duplicate items in a data protection operation.

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

WHERE TO GO NEXT

Getting Started - Macintosh File System

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



ADD-ON COMPONENTS

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 Macintosh File System documentation uses the following terminology:

CLIENT	The computer in which the iDataAgent is installed and contains the data to be secured.
BACKUP SET	A group of subclients which includes all of the data backed up by the iDataAgent.
SUBCLIENT	The Macintosh file system data to be backed up.

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New Features - Macintosh File System *iDataAgent*

NEW COMMCELL FEATURES SUPPORTED FOR MACINTOSH FILE SYSTEM IDATAAGENT

DEPLOYMENT

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](#).

System Requirements - Macintosh File System iDataAgent

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

The following requirements are for the Macintosh File System iDataAgent:

OPERATING SYSTEM

MAC OS X

Mac OS X v10.4.x
Mac OS X v10.5.x
Mac OS X v10.6.x
Mac OS X v10.7.x
Mac OS X v10.8.x

HARD DRIVE

95 MB minimum of hard disk space for software
50 MB of additional hard disk space for log file growth
10 MB of temp space required for install or upgrade (where the temp folder resides).

MEMORY

64 MB RAM per stream/drive minimum required beyond the requirements of the operating system and running applications
Swap space = 2*RAM size

PROCESSOR

Intel-based Macintosh computers

MISCELLANEOUS

NETWORK

TCP/IP Services configured on the computer.

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 - Macintosh File System iDataAgent

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	✓	Additional option in the Data tab : • Backup Mount Points
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		
CLUSTERING	Netware cluster		
	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		
	Not Restartable		

JOB RESTART - DATA RECOVERY			
	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	✓	See Advanced Restore - Macintosh File System iDataAgent
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 Policy	✓	

SUBCLIENT POLICIES			
	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 Deployment - Macintosh File System iDataAgent



Use the following steps to install the File System iDataAgent on a Macintosh Server.

WHERE TO INSTALL

Install the software directly on the Macintosh computer you wish to protect.

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

INSTALLATION

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

METHOD 1: INTERACTIVE INSTALL

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

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

Use this procedure to remotely install the software on a client computer.

METHOD 1: INTERACTIVE INSTALL

1. Logon to the client computer as **root**.
2. If you are installing the software from CD, run the following command to mount the CD:

```
mount_cd9660 /dev/disk1s1 /cdrom
```

 Run the following command from the Software Installation Package or mount point:

```
./cvpkgadd
```
3. The product banner and other information is displayed.
Press **Enter**.
4. Read the license agreement. Type **y** and press **Enter**.
5. Press **Enter**.
6. If you have only one network interface, press **Enter** to accept the default network interface name and continue.
 If you have multiple network interfaces, enter the interface name that you wish to use as default, and then press **Enter**.

The interface names and IP addresses depend on the computer in which the software is installed and may be different from the example shown.
7. Press **Enter**.
8. Press **Enter**.

BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

System Requirements

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

Please select a setup task you want to perform from the list below:

Advance options provide extra setup features such as creating custom package, recording/replaying user selections and installing External Data Connector software.

- 1) Install data protection agents on this computer
- 2) Advance options
- 3) Exit this menu

Your choice: [1]

Network interfaces with the following IPs have been found available on your system. One of these interfaces should be associated with the client being installed. It will also be used by the CommServe to initiate connections to the client. Note that you will be able to additionally customize Datapipe Interface Pairs used for the backup data traffic later in the Calypso Java GUI.

Please select the correct network interface below.

- 1) mcstone.mycompany.com (172.16.60.176)
- 2) cvmcstn2.local (fe80::21e:52ff:fe85:56b4)

Interface number: [1]

Client Host Name

Please verify the client interface name below. Make it as complete (with fully qualified domain name) as possible.

Client Host Name: [mcstone.mycompany.com]

Client Name

Please specify the client name for this machine.

9. Type the number associated with the **Unix File System iDataAgent** and press **Enter**.
10. A confirmation screen will mark your choice with an "**X**". Type **d** for **Done**, and press **Enter**.
11. Type **Yes** to install **Backup Monitor** utility which allows you to view the backup job summary of your client computer. See Monitor - Laptop User for more information. Otherwise, accept **no**, press **Enter**.
12. Press **Enter**.
13. Type the appropriate number to install the latest software scripts and press **Enter**.
- Select **Download from the software provider website** to download the latest software scripts. Make sure you have internet access.
 - Select **Use the one in the installation media** to install the software scripts from the package or share from which the installation is currently being performed.
 - Select **Use the copy I already have by entering its unix path**, to specify the path if you have the software script in an alternate location.
14. Press **Enter** to accept the default path.
- If you want to specify a different path, type the path and then press **Enter**.
 - If you want to install the software binaries to an NFS shared drive, specify the directory on which you have mounted the NFS file system and then press **Enter**.
- In order to make sure that the client computer has `read/write` access to NFS shared drive, review the steps described in Installing Software Binaries to an NFS Shared Drive.
- Do not use the following characters when specifying the path:
- ```
!@#%&^*():/?\
```
15. Press **Enter** to accept the default location.
- Enter a path to modify the default location and press **Enter**.
  - All the modules installed on the computer will store the log files in this directory.
16. Press **Enter**.

It does not have to be the network host name: you can enter any word here without spaces. The only requirement is that it must be unique on the CommServe.

Client Name: [mcstone]

Install Calypso on physical machine mcstone

Please select the Calypso module(s) that you would like to install.

[ ] 1) UNIX File System iDataAgent [1101] [CVGxIDA]

[ ] 2) ProxyHost iDataAgent [1102] [CVGxProxyIDA]

[ ] 3) CommCell Console [1118] [CVGxGUI]

[ ] 4) Resource Pack [1130] [CVGxRP]

[ ] 5) CommNet Browser [1134] [CVGxQGUI]

[a=all n=none r=reverse q=quit d=done >=next <=previous ? =help] Enter number(s)/one of "a,n,r,q,d,>,<," here:1

Install Calypso on physical machine mcstone

Please select the Calypso module(s) that you would like to install.

[X] 1) UNIX File System iDataAgent [1101] [CVGxIDA]

[ ] 2) ProxyHost iDataAgent [1102] [CVGxProxyIDA]

[ ] 3) CommCell Console [1118] [CVGxGUI]

[ ] 4) Resource Pack [1130] [CVGxRP]

[ ] 5) CommNet Browser [1134] [CVGxQGUI]

[a=all n=none r=reverse q=quit d=done >=next <=previous ? =help] Enter number(s)/one of "a,n,r,q,d,>,<," here:1

Config for Laptop or Desktop Backups

Do you want to configure the iDataAgent for laptop or desktop backups? [no]

Do you want to use the agents for restore only without consuming licenses? [no]

Installation Scripts Pack provides extra functions and latest support and fix performed during setup time. Please specify how you want to get this pack.

If you choose to download it from the website now, please make sure you have internet connectivity at this time. This process may take some time depending on the internet connectivity.

1) Download from the software provider website.

2) Use the one in the installation media

3) Use the copy I already have by entering its unix path

Your choice: [1] 2

Please specify where you want us to install Calypso binaries.

It must be a local directory and there should be at least 176MB of free space available. All files will be installed in a "calypso" subdirectory, so if you enter "/opt", the files will actually be placed into "/opt/calypso".

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

It must be a local directory and there should be at least 100MB of free space available. All log files will be created in a "calypso/Log\_Files" subdirectory, so if you enter "/var/log", the logs will actually be placed into "/var/log/calypso/Log\_Files".

Log Directory: [/var/log]

Most of Software processes run with root privileges, but some are launched by databases and inherit database access rights. To make sure that registry and log files can be written to by both kinds of processes we can either make such files world-writeable or we can grant write access only to processes belonging to a particular group, e.g. a "calypso" or a "dba" group.



23. Type a network TCP port number for the Communications Service (CVD) and press **Enter**.  
Type a network TCP port number for the Client Event Manager Service (EvMgrC) and press **Enter**.
24. If you do not wish to configure the firewall services, press **Enter**.  
  
If this computer is separated from the CommServe by firewall(s), type **Yes** and then press **Enter**.  
  
For firewall options and configuration instructions, see Firewall Configuration and continue with the installation.
25. Type the fully qualified CommServe host name and press **Enter**.  
  
Ensure that the CommServe is accessible before typing the name; otherwise the installation will fail.
26. Press **Enter**.
27. Type the appropriate number to select the **Client Group** and press **Enter**.  
  
This screen will be displayed only if Client Groups are configured for the CommCell.
28. Type **d** for **Done**, and press **Enter**.
29. Enter the number associated with the storage policy you want to use and press **Enter**.
30. If you have not created a storage policy, this message will be displayed.  
You may not be prompted for user input.  
  
You can create the Storage Policy later in step 32.
31. Type **3** and press **Enter**.
- ```

set semsys:seminfo_semmni=640
set semsys:seminfo_semmsl=640
set maxusers=256
Press <ENTER> to continue.

Every instance of Calypso should use a unique set of network ports to avoid interfering with other instances running on the same machine.

The port numbers selected must be from the reserved port number range and have not been registered by another application on this machine.

Please enter the port numbers.
Port Number for CVD : [8400]
Port Number for EvMgrC: [8402]

Is there a firewall between this client and the CommServe?
[no]

Please specify hostname of the CommServe below. Make sure the hostname is fully qualified, resolvable by the name services configured on this machine.
CommServe Host Name: mycommserve.company.com

Commcell Level Global Filters are set through Calypso GUI's Control Panel in order to filter out certain directories or files from backup Commcell-widely. If you turn on the Global filters, they will be effective to the default subclient. There are three options you can choose to set the filters.

1) Use Cell level policy
2) Always use Global filters
3) Do not use Global filters

Please select how to set the Global Filters for the default subclient? [1]

Selecting Client Computer Groups
Client Group(s) is currently configured on CommServe mycommserve.company.com. Please choose the group(s) that you want to add this client myclient.company.com to.

[ ] 1) Client Grp1
[a=all n=none r=reverse q=quit d=done >=next <=previous ? =help]

Enter number(s)/one of "a,n,r,q,d,>,<," here: 1

Selecting Client Computer Groups
Client Group(s) is currently configured on CommServe mycommserve.company.com. Please choose the group(s) that you want to add this client myclient.company.com to.

[X] 1) Client Grp1
[a=all n=none r=reverse q=quit d=done >=next <=previous ? =help]

Enter number(s)/one of "a,n,r,q,d,>,<," here: d

Please select one storage policy for this IDA from the list below:

1) SP_StandAloneLibrary2_2
2) SP_Library3_3
3) SP_MagLibrary4_4

Storage Policy: [1]

There seem to be no Storage Policies configured on the CommServe. Before you can run any backups of this IDA, you will need to install a MediaAgent, create a Storage Policy and assign it to all subclients..

Adjusting modes and permissions of files

Successfully installed Calypso

Certain Calypso packages can be associated with a virtual IP, or in other words, installed on a "virtual machine" belonging to some cluster. At any given time the virtual machine's services and IP address are active on only one of the cluster's servers. The virtual machine can "fail-

```

over" from one server to another, which includes stopping services and deactivating IP address on the first server and activating the IP address/services on the other server.

Currently you have Calypso installed on physical node angel.company.com.

Now you have a choice of either adding another package to the existing installation or configure Calypso on a virtual machine for use in a cluster.

- 1) Add another package to angel.company.com
- 2) Install Calypso on a virtual machine
- 3) Exit

Your choice: [3]

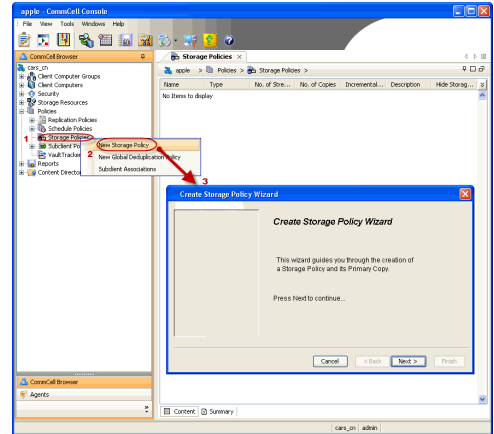


If you already selected a storage policy in step 29, proceed to the Configuration section.

If you do not have Storage Policy created, follow the procedure given below.

32.

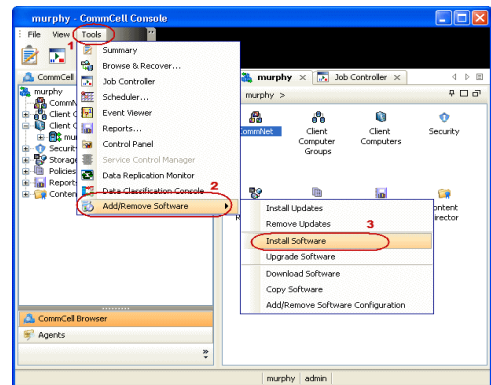
1. From the CommCell Browser, navigate to **Policies**.
2. Right-click the **Storage Policies** and then click **New Storage Policy**.
3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as **Data Protection and Archiving**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

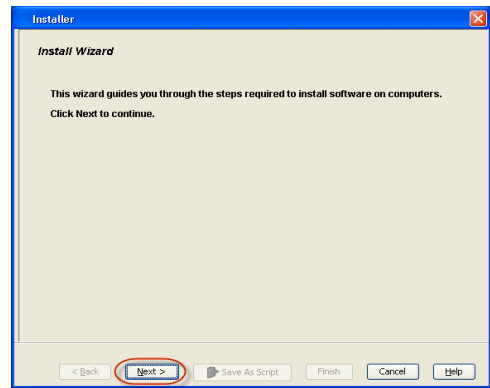
For sudo users, Service Pack 4B (or higher) must be available in the CommServe cache before performing the install. See Configure Download Software for step-by-step instruction on downloading the latest software or updates.

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

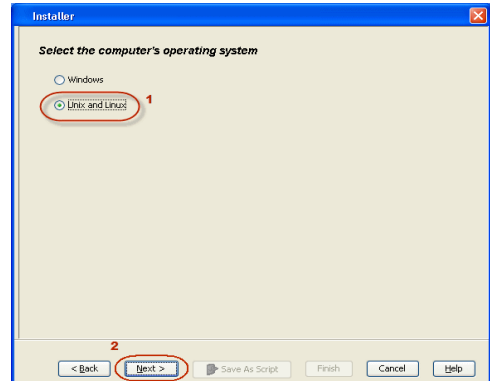


2. Click **Next**.

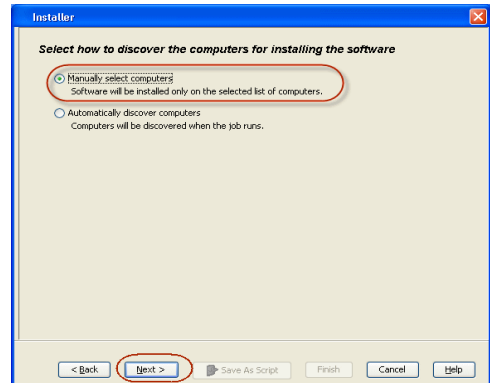
3. Select **Unix and Linux**, and then click **Next**.



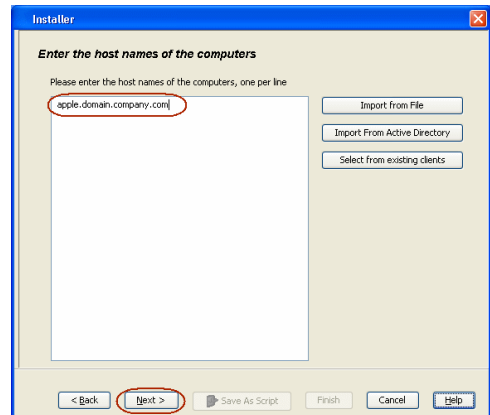
4. Select **Manually Select Computers**, and then click **Next**.



5. Enter the fully qualified domain name of the computer in which you wish to install.
For example: apple.domain.company.com
The **Unix File System iDataAgent** will be installed on this client computer.
Click **Next**.



6. Click **Next**.



7. Type the **User Name** and **Password** of client computer who has administrator or sudo privileges.

Click **Next**.

- If a SUDO user has been created for root access then use **visudo** to change **/etc/sudoers**, so that this user can SUDO into ssh without being prompted for the password. Change the **/etc/sudoers** by commenting the following lines.
- For Sudo users with restricted privileges, in order to gain privilege to install the software remotely, you need to have **/bin/sh** added to the permission section in the sudoers file.

On SuSE Linux:

- Defaults targetpw # ask for the password of the target user i.e. root
- ALL ALL=(ALL) ALL # WARNING! Only use this together with 'Defaults targetpw'!

On Red Hat Enterprise Linux/CentOS:

- Defaults requiretty

8. Select **Unix File System iDataAgent**.

Click **Next**.

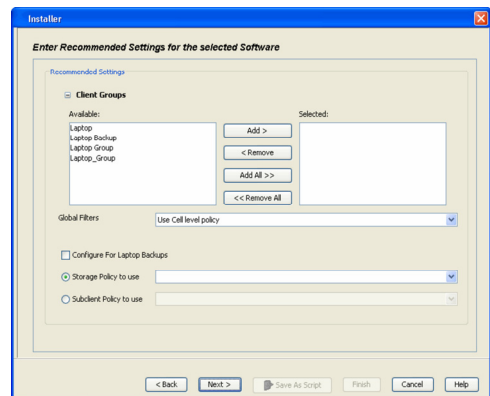
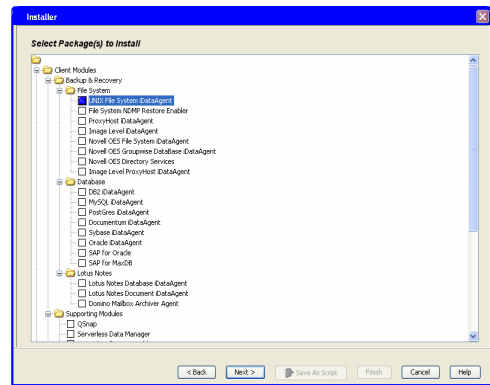
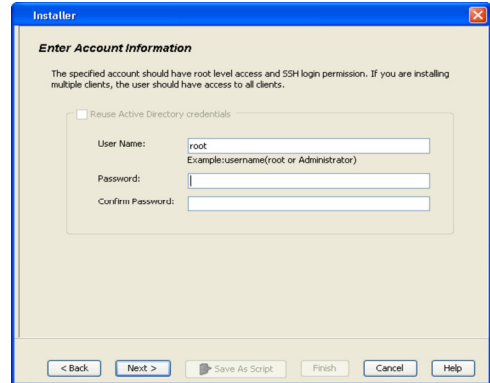
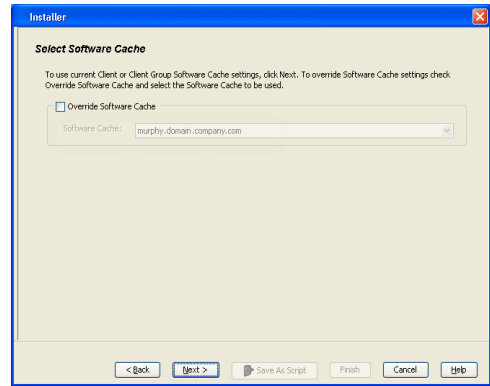
9. • Select **Client Group** from **Available** and click **Add**.

Do not add more than one Client Group.

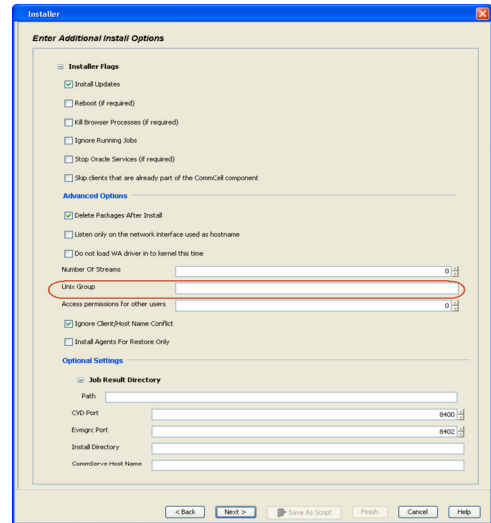
• Select a **Storage Policy** from the drop-down list. Click **Next**.

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

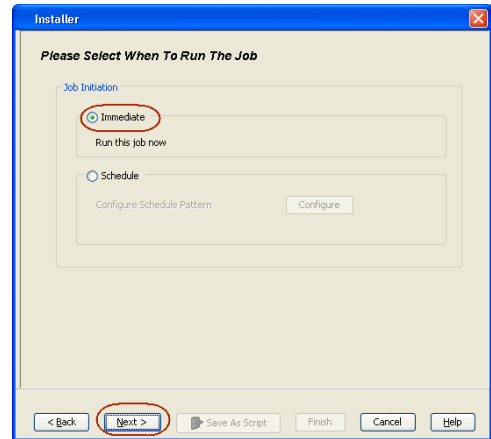
10. Click **Next**.



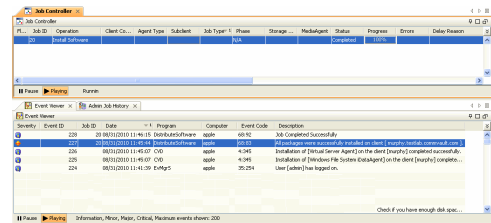
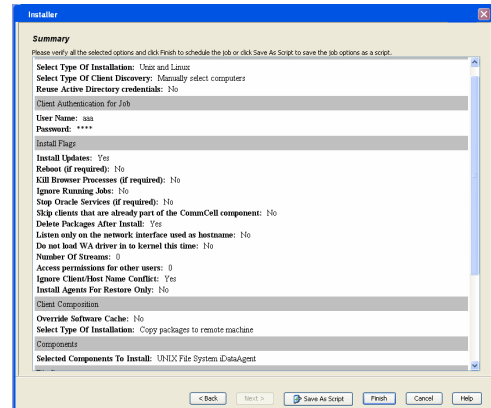
11. Select **Immediate**.
Click **Next**.



12. Click **Finish**.



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



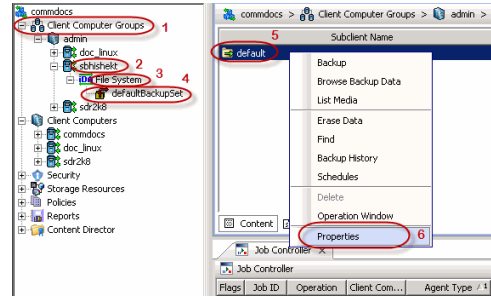
Getting Started Configuration - Macintosh File System iDataAgent



CONFIGURATION

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

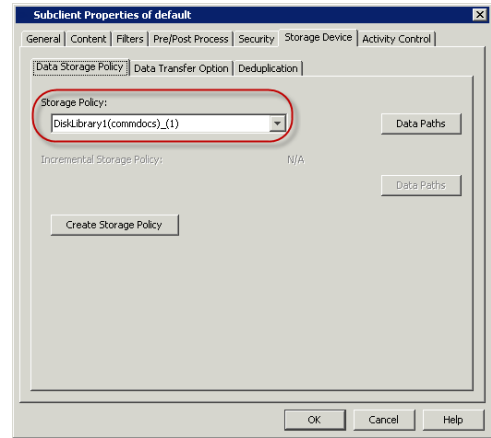
- From the CommCell Browser, navigate to **Client Computers | <Client> | File System | defaultBackupSet**.
 - Right-click the default subclient and then click **Properties**.



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

Click **Next** to continue.

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



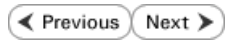
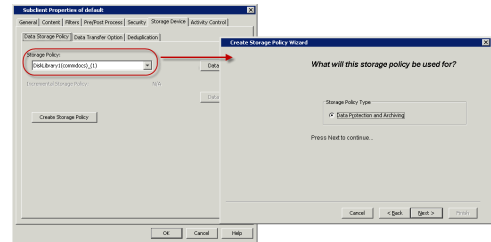
- Click **Create Storage Policy**.
- Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
 - Enter the name in the **Storage Policy Name** box and click **Next**.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

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

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

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

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



Getting Started Backup - Macintosh File System iDataAgent

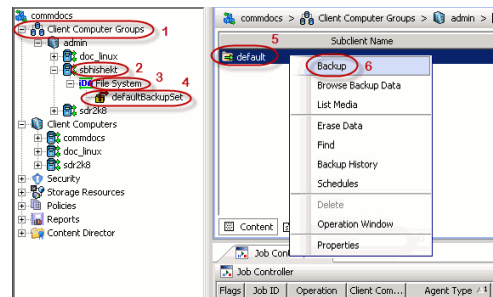
WHAT GETS BACKED UP	WHAT DOES NOT GET BACKED UP
<p>FILE SYSTEMS</p> <p>Apple Filing Protocol (AFP) Hierarchical File System (HFS) HFS+, Universal Disk Format (UDF) MS-DOS Universal File System (UFS)</p>	<p>By default, the following file systems are automatically skipped during backups:</p> <ul style="list-style-type: none"> • nfs • nfs3 • nfs4 • smbfs • afp • msdos • webdav • ftp • synthfs • ISO 9660 • udf • cd • lofs • tmpfs • proc • ctfs • autofs
<p>FILE SYSTEM ELEMENTS</p> <p>Raw device files Symbolic links that are browsed or manually added to the data contents Files with names containing non-ASCII characters as long as the appropriate locales are set</p>	<p>Files for which the file path or file name contains more than 1024 characters.</p>

PERFORM A BACKUP

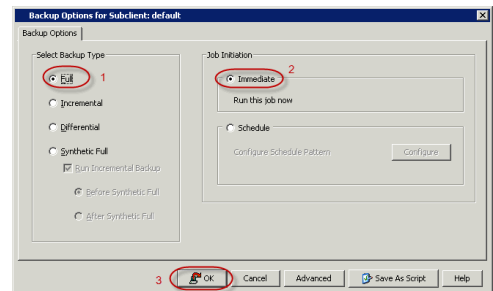
Once the storage policy is configured, you are ready to perform your first backup.

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

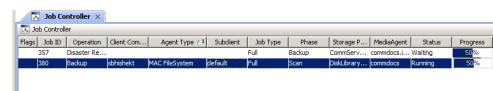
1.
 - From the CommCell Browser, navigate to **Client Computers | <Client> | File System | defaultBackupSet**.
 - Right-click the default subclient and click **Backup**.



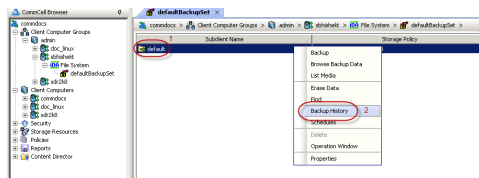
2.
 - Click **Full** as backup type and then click **Immediate**.
 - Click **OK**.



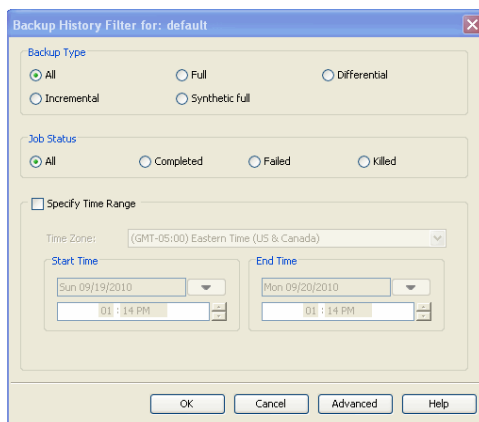
3. You can track the progress of the job from the **Job Controller** window of the CommCell console.



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

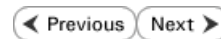
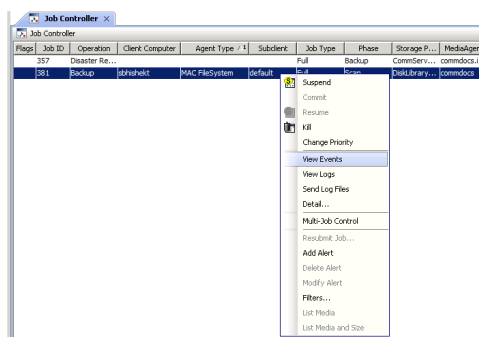


- Click **OK**.



- 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

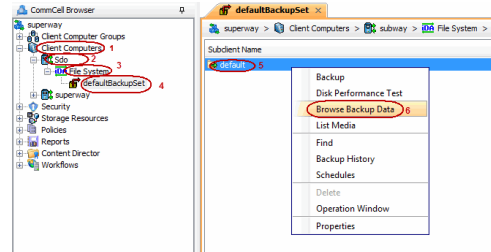


Getting Started Restore - Macintosh File System iDataAgent

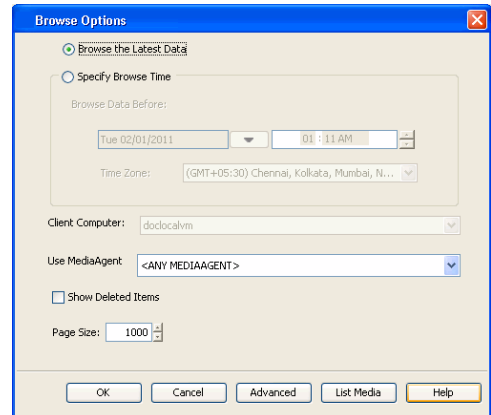
◀ Previous Next ▶

As restoring your backup data is very crucial, it is recommended that you perform a restore operation immediately after your first full backup to understand the process. The following section explains how to restore the **etc** folder to a new location.

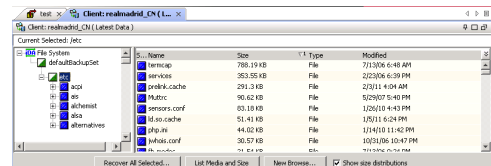
- From the CommCell Browser, navigate to **Client Computers | <Client> | File System | defaultBackupSet**
 - Right-click the default subclient and then click **Browse Backup Data**.



- Click **OK**.



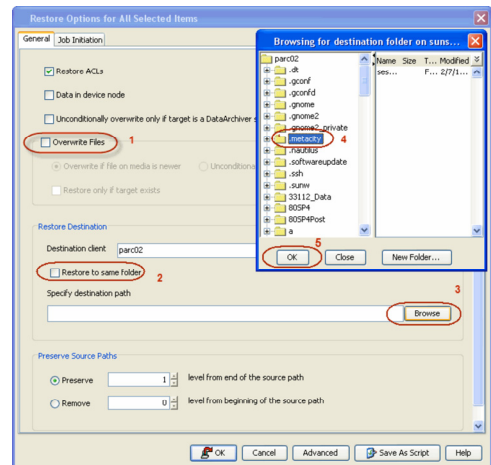
- Expand the **defaultBackupSet** and navigate to **etc** folder.
 - Select the **etc** folder.
 - Click **Recover All Selected**.



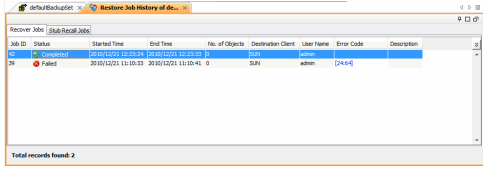
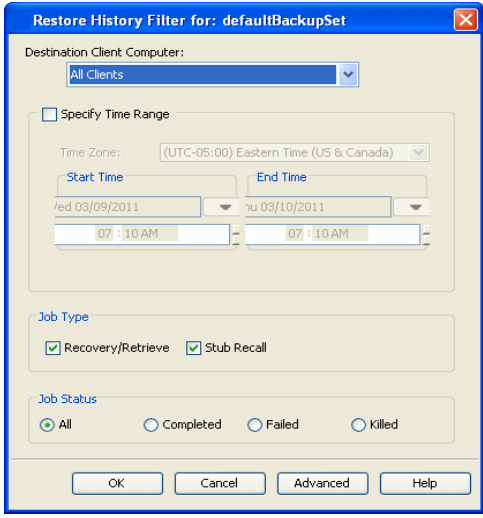
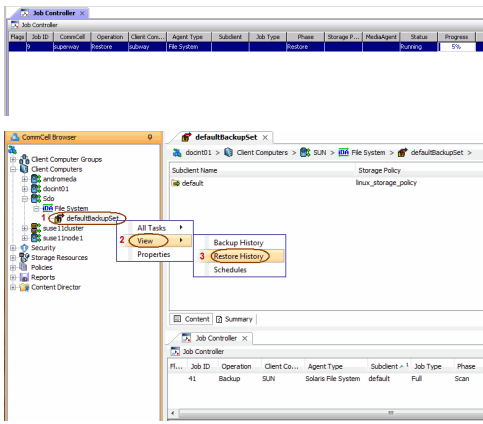
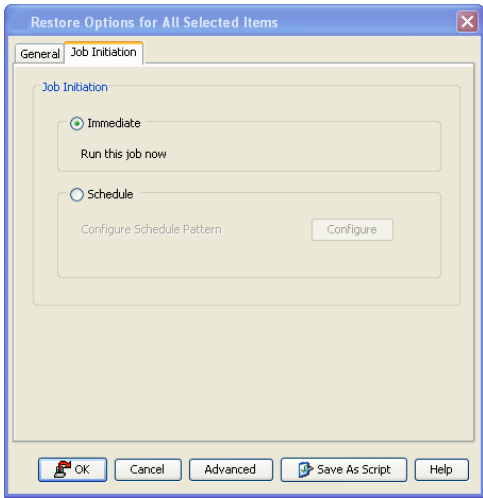
- Clear the **Overwrite Files** and **Restore to same folder** options.
 - Specify the destination path by clicking **Browse** button.

This will ensure that the existing files are not overwritten.

 - Click **OK**.



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



```
[parc02] # ls /.metacity
etc
```

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

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

8. Click **OK**.

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

- View Restore Items
You can view them as **Successful**, **Failed**, **Skipped** or **All**.
- View Job Details
- View Events of the restore job.
- View Log files of the restore job

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

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

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

