# Quick Start - AIX File System *i*DataAgent

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# Overview - Unix/Linux File System *i*DataAgents

## INTRODUCTION

Calypso software provides a simplified end-to-end protection of file system data residing on all the Unix computers in your enterprise. In addition to complete protection of file system data for disaster recovery, it also provides a robust and comprehensive backup and recovery solution with significant speed performance and efficient use of disk and tape drives. It also assists you in full system rebuilds and eliminates recovery failures.

## KEY FEATURES

The Unix File System *i*DataAgents offers the following key features:

### SIMPLIFIED DATA MANAGEMENT

The Unix File System *i*DataAgents enables easy management of all the UNIX 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 Unix File System *i*DataAgent provides point-in-time recovery of files at any given time.

### 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 backup works in conjunction with hardware snapshot engines.

### 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.

## ADD-ON COMPONENTS

### SRM FOR UNIX FILE SYSTEM

SRM is integrated with UNIX File System *i*DataAgent to provide several advanced reporting capabilities for your backups. When enabled, backup jobs collect details on the file systems currently being used or not used, the memory and hardware resources consumed, storage usage, and granular file-level analytics.

**SRM reports** include detailed information on the state of your file system data, including free space, used space, file count, file sizes, directory structure, and many other useful statistics.

In addition, **SRM summaries** provide a graphical, real-time representation of usage information such as memory and CPU utilization. Optional file-level analytics provides even more granular details at the file-level for optimizing your storage resources.

SRM integration with UNIX File System iDataAgent can be easily enabled with your backups to take advantage of these features.

### 1-TOUCH

1-Touch recovery helps to recover a crashed system in the least amount of time. By automatically rebuilding the operating system, you can recover systems with defective components such as inaccessible volumes or crashed disks. You don't need to reinstall the individual software packages or operating systems manually.

### ONEPASS AGENT

The OnePass Agent is an integrated File System agent which backs up and archives the qualified data. It reclaims backup storage space when files and stubs are deleted on the primary storage.

### 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.

### 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.

## TERMINOLOGY

The Unix File System documentation uses the following terminology:

| | |
|---|---|
| **CLIENT** | The computer in which the *i*DataAgent 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 *i*DataAgent. |
| **SUBCLIENT** | The Unix file system data to be backed up. |

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# System Requirements - AIX File System *i*DataAgent

| AIX | HP-UX | FreeBSD | Linux | Solaris | Tru64 | Supported Features |
|-----|-------|---------|-------|---------|-------|---------------------|

The following are the requirements for AIX File System *i*DataAgent:

| OPERATING SYSTEM | PROCESSOR |
|------------------|-----------|
| **AIX**  AIX 7.1 | Power PC (Includes IBM System p) |
| AIX 6.1 | Power PC (Includes IBM System p) |
| AIX 5.3 32-bit and 64-bit with technology level 7 (or higher) and runtime library xlC.rte 8.0.0.0 or higher | Power PC (Includes IBM System p) |
| Note that all AIX platforms support Logical Partitions (LPAR). | |

## 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

750 MB minimum of hard disk space for software

100 MB of additional hard disk space for log file growth

500 MB of reserved hard disk space for the Job Results directory

1 GB of temp space required for install or upgrade (where the temp folder resides)

For information on space requirements to install/upgrade the File System and service pack, see Service Pack - System Requirements.

## MEMORY

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

Swap space = 2*RAM size

## AIX LPAR/WPAR SUPPORT

Data protection on Logical Partitioning (LPAR) and Workload Partitioning (WPAR) is supported.

## PERIPHERALS

DVD-ROM drive

Network Interface Card

## MISCELLANEOUS

### NETWORK

TCP/IP Services configured on the computer.

## SUPPORTED FILE SYSTEMS

The AIX File System *i*DataAgent supports the following file systems: Enhanced Journal File System (JFS2)

General Parallel File System (GPFS)

Journal File System (JFS)

VERITAS File System (VxFS)

## VOLUME MANAGERS

Veritas Volume Manager (VxVM) 5.0 or higher

Logical Volume Manager (LVM)

**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

# Getting Started - AIX File System Deployment

Use the following steps to install the File System *i*DataAgent on an AIX computer.

## WHERE TO INSTALL

Install the software directly on the 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.

## 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.

## METHOD 1: INTERACTIVE INSTALL

1. Logon to the client computer as **root** or as a sudo user.

   If you are installing the software using a sudo user account, make sure that sudo user account is configured on this computer. For more information, see FAQ - Install.

2. If your are installing the software from CD, run the following command to mount the CD:

   **mount -V cdrfs -o ro /dev/cd0 /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**.

   ```
   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]
   ```

6. If your computer is 32-bit, press **Enter**.

   If your computer is 64-bit, see Install Unix Agents on 64-bit Platform for step-by-step procedure.

   ```
   32 or 64?

   This machine supports both 32 bit and 64 bit binaries. By
   default, we will install 32 bit binary set that has full
   support for all the modules included in this package.
   Please note that 64 bit binary set currently only support
   limited modules.

   1) 32 bit

   2) 64 bit

   Your choice: [1]
   ```

7. Press **Enter**.

   ```
   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.

   You now have a choice of performing a regular Calypso
   ```

install on the physical host or installing Calypso on a
virtual machine for operation within a cluster.

Most users should select "Install on a physical machine"
here.

1) Install on a physical machine

2) Install on a virtual machine

3) Exit

Your choice: [1]

**8.** 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.

We found one network interface available on your machine.
We will associate it with the physical machine being
installed, and it will also be used by the CommServe to
connect to the physical machine. 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 check the interface name below, and make
connections if necessary:

Physical Machine Host Name: [angel.company.com]

**9.** Press **Enter**.

Please specify the client name for this machine.

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.

Physical Machine Client name: [angel]

**10.** Type the number associated with the **Unix File System _i_DataAgent** and press
**Enter**.

Install Calypso on physical machine angel

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

[ ] 1) MediaAgent [1301] [CVGxMA]

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

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

Enter number(s)/one of "a,n,r,q,d,>,<,?" here:2

**11.** A confirmation screen will mark your choice with an "**X**".

Type **d** for **Done**, and press **Enter**.

Install Calypso on physical machine angel

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

[ ] 1) MediaAgent [1301] [CVGxMA]

[X] 2) UNIX File System iDataAgent [1101] [CVGxIDA]

[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

**12.** Press **Enter**.

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

**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.

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

**14.** Press **Enter**.

> It is recommended to download the latest Service pack(s). Type **Yes** and
> press **Enter** to automatically install the available updates during
> installation.

Keep Your Install Up to Date - Latest Service Pack

Latest Service Pack provides extra functions and latest
support and fix for the packages you are going to install.
You can download the latest service pack from software
provider website.

If you decide 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.

Do you want to download the latest service pack now? [no]

**15.** Press **Enter** to accept the default path.

Please specify where you want us to install Calypso
binaries.

- 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:

  !@#$%^&*():/?\

```
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]
```

16. 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.

```
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]
```

17. Type **Yes** and press **Enter.**

```
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.

We highly recommend now that you create a new user group
and enter its name in the next setup screen. If you choose
not to assign a dedicated group to Software processes, you
will need to specify the access permissions later.

If you're planning to backup Oracle DB you should use
"dba" group.

Would you like to assign a specific group to Software?
[yes]
```

18. Type the **Group name** and press **Enter**.

    Press **Enter** again.

```
Please enter the name of the group which will be assigned
to all Software files and on behalf of which all Software
processes will run.

In most of the cases it's a good idea to create a
dedicated "calypso" group. However, if you're planning to
use Oracle iDataAgent or SAP Agent, you should enter
Oracle's "dba" group here.

Group name: sky1

REMINDER

If you are planning to install Calypso Informix, DB2,
PostgreSQL, Sybase or Lotus Notes iDataAgent, please make
sure to include Informix, DB2, etc. users into group
"sky1".

Press <ENTER> to continue ...
```

19. 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**.

```
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]
```

20. 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.

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

21. 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.

```
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
```

22. Press **Enter**.

```
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]
```

**23.** Enter the number associated with the storage policy you want use and press **Enter**.

```
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]
```

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 25.

```
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
```
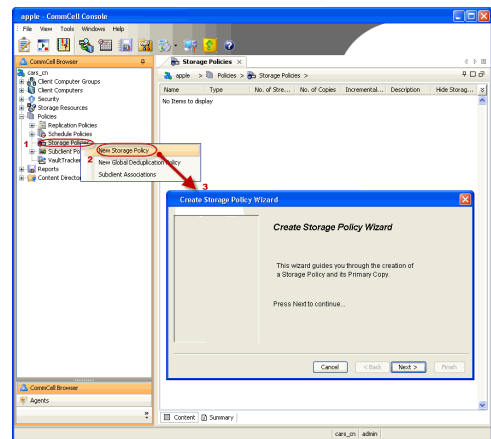
**24.** Type **3** and press **Enter**.

```
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 23, proceed to the Configuration section.

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

**25.**
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.
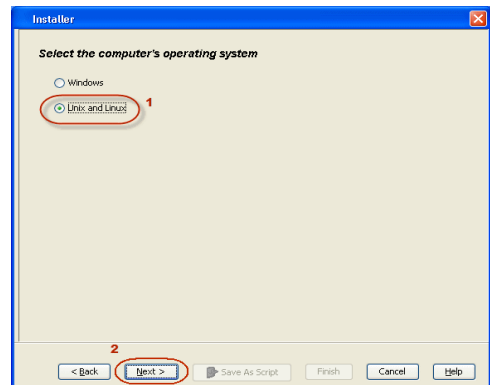
1. From the CommCell Browser, select **Tools** menu, point to **Add/Remove Software**, and then click **Install Software**.
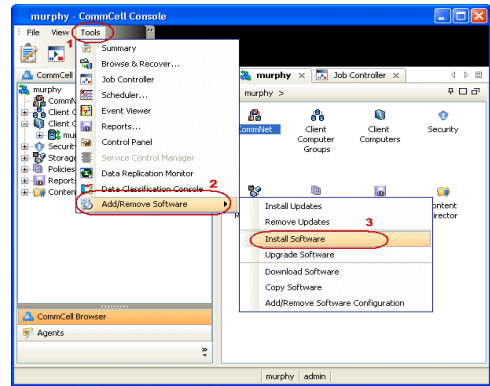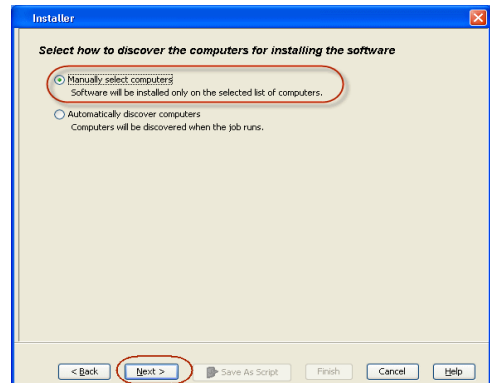
2. Click **Next**.
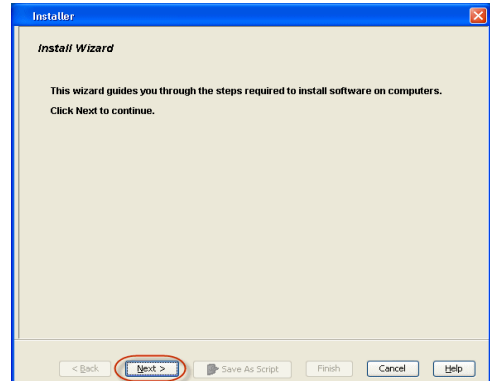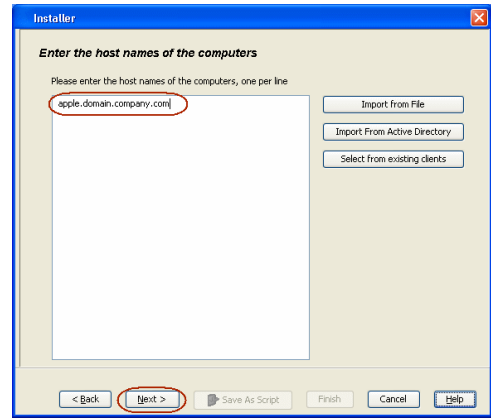
3. Select **Unix and Linux**, and then click **Next**.

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 _i_DataAgent** 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.
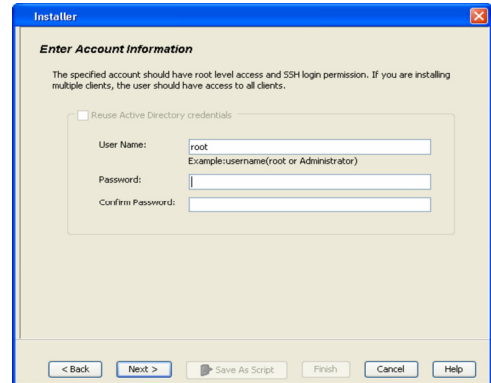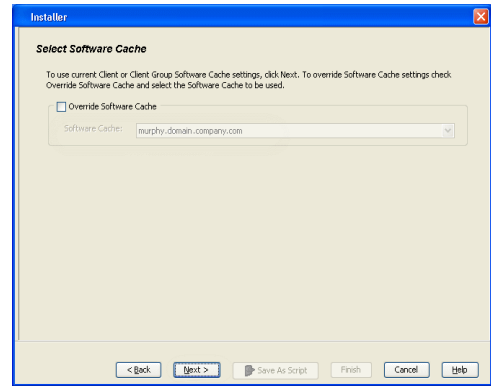
   On SuSE Linux:

   - `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 *i*DataAgent**.

   Click **Next**.



9. - Select **Client Group** from **Available** and click **Add**.
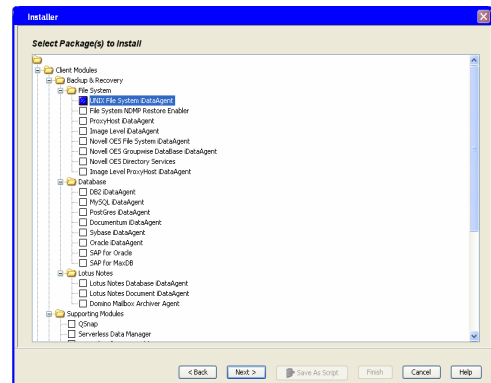
Do not add more than one Client Group.

- 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**.
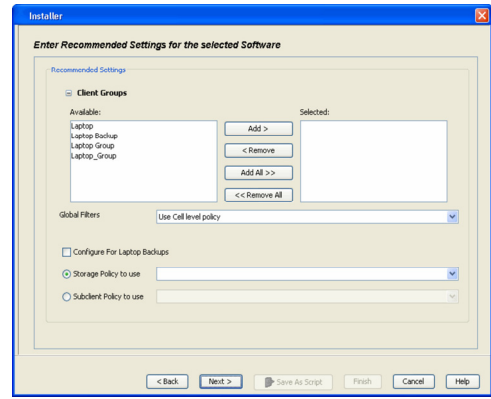
11. Select **Immediate**.

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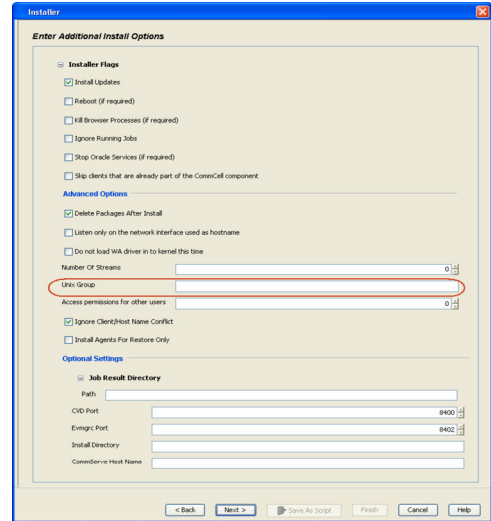
12. Click **Finish**.
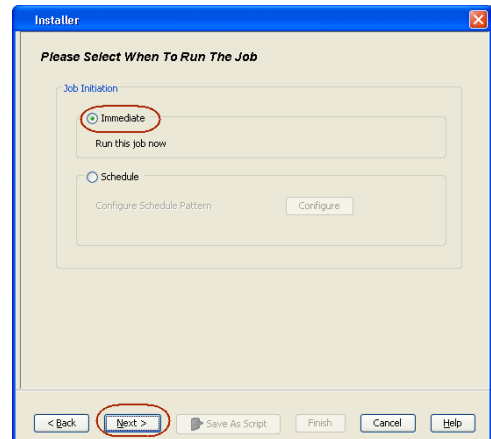
**13.** You can track the progress of the job from the **Job Controller** or **Event Viewer** window.

# Getting Started - AIX File System - Deployment on a Cluster

## SKIP THIS PAGE IF YOU ARE NOT INSTALLING THIS AGENT ON A CLUSTER.

Click Next ▶ to continue with the deployment.

### WHERE TO INSTALL

Install the software from the active node in the cluster group. Make sure the cluster group satisfies the minimum requirements specified in the System Requirements.

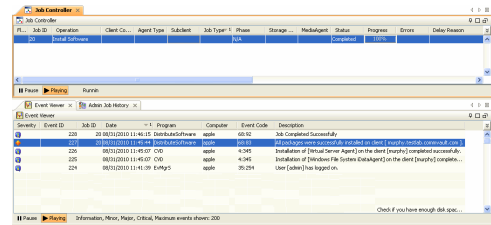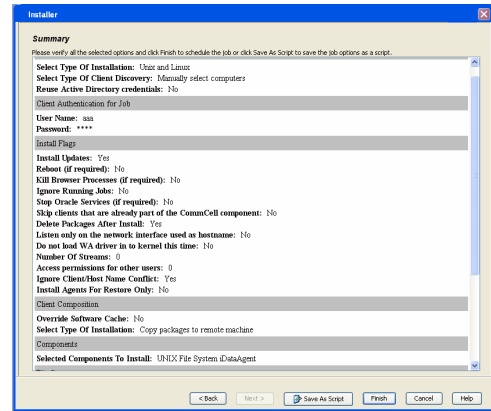Follow the steps given below to install the File System *i*DataAgent in a Clustered Environment.

### 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.

1. Logon to the client computer as **root** or as a sudo user.

   If you are installing the software using a sudo user account, make sure that sudo user account is configured on this computer. For more information, see FAQ - Install.

2. If your are installing the software from CD, run the following command to mount the CD:

   **mount -V cdrfs -o ro /dev/cd0 /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**.

```
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]
```

6. If your computer is 32-bit, press **Enter**.

   If your computer is 64-bit, see Install Unix Agents on 64-bit Platform for step-by-step procedure.

```
32 or 64?

This machine supports both 32 bit and 64 bit binaries. By
default, we will install 32 bit binary set that has full
support for all the modules included in this package.
Please note that 64 bit binary set currently only support
limited modules.

1) 32 bit

2) 64 bit

Your choice: [1]
```

7. Press **Enter**.

```
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.

You now have a choice of performing a regular Calypso
install on the physical host or installing Calypso on a
virtual machine for operation within a cluster.

Most users should select "Install on a physical machine"
here.

1) Install on a physical machine

2) Install on a virtual machine
```

<table>
<tr><td></td><td></td><td>

3) Exit

Your choice: [1]

</td></tr>
</table>

**8.** 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.

We found one network interface available on your machine. We will associate it with the physical machine being installed, and it will also be used by the CommServe to connect to the physical machine. 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 check the interface name below, and make connections if necessary:

Physical Machine Host Name: [angel.company.com]

**9.** Press **Enter**.

Please specify the client name for this machine.

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.

Physical Machine Client name: [angel]

**10.** Type the number associated with the **Unix File System** *i***DataAgent** and press **Enter**.

Install Calypso on physical machine angel

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

[ ] 1) MediaAgent [1301] [CVGxMA]

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

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

Enter number(s)/one of "a,n,r,q,d,>,<,?" here:2

**11.** A confirmation screen will mark your choice with an "**X**".

Type **d** for **Done**, and press **Enter**.

Install Calypso on physical machine angel

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

[ ] 1) MediaAgent [1301] [CVGxMA]

[X] 2) UNIX File System iDataAgent [1101] [CVGxIDA]

[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

**12.** Press **Enter**.

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

**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.

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

**14.** Press **Enter**.

It is recommended to download the latest Service pack(s). Type **Yes** and press **Enter** to automatically install the available updates during installation.

Keep Your Install Up to Date - Latest Service Pack

Latest Service Pack provides extra functions and latest support and fix for the packages you are going to install. You can download the latest service pack from software provider website.

If you decide 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.

Do you want to download the latest service pack now? [no]

**15.** 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:

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]

!@#$%^&*():/?\

| | | |
|---|---|---|
| **16.** | Press **Enter** to accept the default location. | Please specify where you want to keep Calypso log files. |

- 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.

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]

**17.** Press **Enter**.

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.

We highly recommend now that you create a new user group and enter its name in the next setup screen. If you choose not to assign a dedicated group to Software processes, you will need to specify the access permissions later.

If you're planning to backup Oracle DB you should use "dba" group.

Would you like to assign a specific group to Software? [yes]

**18.** Type the **Group name** and press **Enter**.

Press **Enter** again.

Please enter the name of the group which will be assigned to all Software files and on behalf of which all Software processes will run.

In most of the cases it's a good idea to create a dedicated "calypso" group. However, if you're planning to use Oracle iDataAgent or SAP Agent, you should enter Oracle's "dba" group here.

Group name: sky1

REMINDER

If you are planning to install Calypso Informix, DB2, PostgreSQL, Sybase or Lotus Notes iDataAgent, please make sure to include Informix, DB2, etc. users into group "sky1".

Press <ENTER> to continue ...

**19.** 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**.

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]

**20.** If you do not wish to configure the firewall services, press **Enter**.

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

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.

**21.** Type the fully qualified CommServe host name and press **Enter**.

Please specify hostname of the CommServe below. Make sure the hostname is fully qualified, resolvable by the name services configured on this machine.

Ensure that the CommServe is accessible before typing the name; otherwise the installation will fail.

CommServe Host Name: mycommserve.company.com

**22.** Press **Enter**.

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]

**23.** Type the appropriate number to select the **Client Group** and press **Enter**.

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

This screen will be displayed only if Client Groups are configured for the CommCell

```
selected group(s) will be marked (X) and can be deselected
if you enter the same number again. After you are finished
with the selection, select "Done with the Selection".

[ ] 1) Unix

[ ] 2) DR

[a=all n=none r=reverse q=quit d=done >=next <=previous ?
=help]s

Enter number(s)/one of "a,n,r,q,d,>,<,?" here: 2
```

**24.** A confirmation screen will mark your choice with an "**X**".

Type **d** for **Done**, and press **Enter**.

```
Client Group(s) is currently configured on CommServe
cs.company.com. Please choose the group(s) that you want
to add this client client.company.com to. The selected
group(s) will be marked (X) and can be deselected if you
enter the same number again. After you are finished with
the selection, select "Done with the Selection".

[ ] 1) Unix

[X ] 2) DR

[a=all n=none r=reverse q=quit d=done >=next <=previous ?
=help]s

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

**25.** Enter the number associated with the storage policy you want use and press **Enter**.

```
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]
```

If you do not have Storage Policy created, this message will be displayed. You may not be prompted for user input.

You can create the Storage Policy later in step 36.

```
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
```

**26.** Type **2** to install **Unix File System** *i*DataAgent on a Virtual machine , and press **Enter**.

```
Cluster Support

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
stone.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: [2]
```

**27.** 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.

```
Virtual Machine Host Name

Please enter the hostname or IP address of the virtual
machine being installed. It can be either short or long;
the only requirement is that it must be resolvable by the
name services configured on this machine

WARNING: You should follow this path ONLY if this host
participates in a cluster and you really want to install
Calypso on the virtual machine. This is

NOT how most people will use Calypso.

The name to be entered will be used by certain Calypso
CommServe to talk to this

virtual machine. Datapipe Interface Pairs used for the
backup data traffic can be customized later in the Calypso
Java GUI.

If you got into this screen by mistake, hit ^C and restart
cvpkgadd.

Virtual Machine Host Name: stone.company.com
```

**28.** Type the **Virtual Machine Client Name**, and press **Enter**.

```
Virtual Machine Client Name

Please specify the client name for this machine.
```

| 29. | Type the number associated with the **Unix File System** *i***DataAgent** and 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.<br><br>Virtual Machine Client Name: [stone]<br><br>Install Calypso on virtual machine stone<br><br>Please select the Calypso module(s) that you would like to install.<br><br>[ ] 1) MediaAgent [1301] [CVGxMA]<br><br>[ ] 2) UNIX File System iDataAgent [1101] [CVGxIDA]<br><br>>) >>>>>>>>>>>> NEXT PAGE >>>>>>>>>>>>><br><br>[a=all n=none r=reverse q=quit d=done >=next <=previous ?=help]<br><br>Enter number(s)/one of "a,n,r,q,d,>,<,?" here:2 |
|---|---|---|
| 30. | A confirmation screen will mark your choice with an "**X**".<br><br>Type **d** for **Done**, and press **Enter**. | Install Calypso on virtual machine stone<br><br>Please select the Calypso module(s) that you would like to install.<br><br>[ ] 1) MediaAgent [1301] [CVGxMA]<br><br>[X ] 2) UNIX File System iDataAgent [1101] [CVGxIDA]<br><br>>) >>>>>>>>>>>> NEXT PAGE >>>>>>>>>>>>><br><br>[a=all n=none r=reverse q=quit d=done >=next <=previous ?=help]<br><br>Enter number(s)/one of "a,n,r,q,d,>,<,?" here:d |
| 31. | Press **Enter**. | Do you want to use the agents for restore only without consuming licenses? [no] |
| 32. | Specify the path for the **Job Results directory**, and press **Enter**<br><br>    If Job Results directory does not exist, it prompts you to create it. Type **Yes** to create it. | Calypso Job Results Directory Please specify the name for the JobResults directory.Since you are installing Calypso on a virtual machine, the JobResults directory must reside on a shared disk and should have at least 20MB of free space available. The directory will be used to store intermediate data that should be passed from one backup phase to another.<br><br>JobResults Directory: |
| 33. | Enter the number associated with the storage policy you want use and press **Enter**. | Please select one storage policy for this IDA from the list below:<br><br>1) SP_StandAloneLibrary2_2<br><br>2) SP_Library3_3<br><br>3) SP_MagLibrary4_4<br><br>Storage Policy: [1] |
| | If you do not have Storage Policy created, this message will be displayed. You may not be prompted for user input.<br><br>    You can create the Storage Policy as shown in step 36. | 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..<br><br>Adjusting modes and permissions of files<br><br>Successfully installed Calypso |
| 34. | Type **4** to the **Exit** option and press **Enter**.<br><br>The installation is now complete. | Calypso is currently configured on the following virtual/physical machines.<br><br>Now you have an option of either installing certain Calypso on another virtual machine<br><br>or adding a new package to the existing installations.1) Add a new package to PM angel(angel.mycompany.loc)<br><br>2) Add a new package to VM stone (stone.company.com)<br><br>3) Install  Calypsopackages on a new virtual machine<br><br>4) Exit this menu<br><br>Your choice: [1] 4 |
| 35. | Type **3** to the **Exit** option, and press **Enter**. | Install a new Instance?<br><br>Calypso now supports the concept of instances, each of which can be installed to a separate CommServe and be totally independent of others. Instances are not the same as the virtual machines on a cluster, in fact, you will be given a choice to configure one or more virtual machines later. Contrary to previous releases of Calypso (6.1 and older), all virtual machines installed on the same host now share the same set of binaries and the same set of services.<br><br>Instances, on the other hand, have unique set of binaries |

and services and one situation where it is useful is when you want to back up the same host to several CommServes.

You already have one instance configured.

1) Add agents to existing Instance001 going to CS mycommserve.company.com

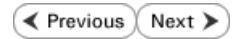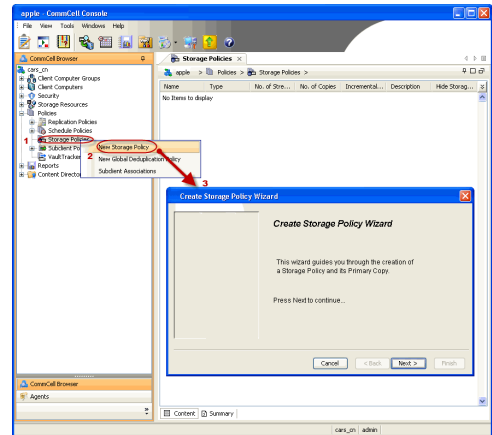2) Create a new instance of Calypso

3) Exit this menu

Your choice: 3

If you already selected a storage policy in step 33, proceed to the Configuration section.

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

**36.**

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

2. Right-click the **Storage Policies** and then click **New Storage Policy**.

3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:

   ○ Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.

   ○ Enter the name in the **Storage Policy Name** box and click **Next**.

   ○ From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

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

   ○ From the **MediaAgent** list, click the name of a MediaAgent that will be used to create the primary copy and then click **Next**.

   ○ For the device streams and the retention criteria information, click **Next** to accept default values.

   ○ Select **Yes** to enable deduplication for the primary copy.

   ○ From the **MediaAgent** list, click the name of the MediaAgent that will be used to store the Deduplication store.

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

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

# Getting Started - AIX File System Deployment on a Veritas Cluster

## SKIP THIS PAGE IF YOU ARE NOT INSTALLING THIS AGENT ON A VERITAS CLUSTER.

Click Next ➤ to begin Configuration

### WHERE TO INSTALL

Install the software on the AIX computer where you have application data and is part of Veritas Cluster.

Follow the steps given below to install the File System *i*DataAgent in a Veritas Clustered Environment.

### RELATED TOPICS

**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.

**Firewall**
Provides comprehensive information on firewall.

### INSTALLING THE AIX FILE SYSTEM IDATAAGENT - VERITAS CLUSTERED ENVIRONMENT

1.  Logon to the client computer as **root** or as a sudo user.

    If you are installing the software using a sudo user account, make sure that sudo user account is configured on this computer. For more information, see FAQ - Install.

2.  If your are installing the software from CD, run the following command to mount the CD:

    **mount -V cdrfs -o ro /dev/cd0 /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.  Type **2** and press **Enter**.

    ```
    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]
    ```

6.  Type the number associated with the **Veritas Cluster Agents** and press **Enter**.

    ```
    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]
    ```

7.  Enter the number corresponding to the binaries that you wish to install.

    ● Select 32 bit when installing on a 32-bit computer.
    ● When installing on a 64-bit computer, if this is the first package, determine whether you want to install 32-bit binaries or 64 bit binaries.

    You can determine this by verifying whether all the components that you wish to install in this computer are supported in 64-bit in System Requirements.

    ```
    This machine supports both 32 bit and 64 bit binaries. By
    default, we will install 32 bit binary set that has full
    support for all the modules included in this package.
    Please note that 64 bit binary set currently only support
    limited modules.

    1) All platforms (32 bit)

    2) FS and MA only (64 bit)

    Your choice: [1] >>> User answer was "1"
    ```

Note that when the first component is installed using 64-bit binaries, you cannot subsequently install another component using 32-bit. (Or vice-versa.)

8.  Type the number corresponding to the VCS service group and press **Enter**.

```
Please select one service group from the list below:
1) AIXVCS
2) ClusterService
Service Group: [1]
```

9.  Type **2** and press **Enter**.

```
Please select physical or virtual machine to install:
1) Install Calypso on a physical machine ibmaix21
2) Install Calypso on a virtual machine AIXVCS
3) Exit this menu
Your choice: [1] >>> User answer was "2"
```

10. Type appropriate number to select client host name and press **Enter**.

```
Please select the client hostname or IP address below.
1) aix61cluster.mydomain.mycompany.com
Interface number: [1] >>> User answer was "1".
```

11. Type the number associated with the **Unix File System iDataAgent** and press **Enter**.

```
Install Calypso on physical machine client.company.com
Select the Calypso module that you would like to install
[ ] 1) Media Agent          [1301] [CVGxMA]
[ ] 2) UNIX FileSystem iDataAgent    [1101] [CVGxIDA]
    >) >>>>> NEXT PAGE >>>>>>
[a=all n=none r=reverse q=quit d=done >=next <=previous ?
=help]
Enter number(s)/one of "a,n,r,q,d,>,<,?" here: 2
```

12. A confirmation screen will mark your choice with an "**X**".

Type **d** for **Done**, and press **Enter**.

```
Install Calypso on physical machine client.company.com
Select the Calypso module that you would like to install
[ ] 1) Media Agent          [1301] [CVGxMA]
[X] 2) UNIX FileSystem iDataAgent    [1101] [CVGxIDA]
    >) >>>>> NEXT PAGE >>>>>>
[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
```

13. Press **Enter**.

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

14. 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.

```
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
```

15. Press **Enter**.

It is recommended to download the latest Service pack(s). Type **Yes** and press **Enter** to automatically install the available updates during installation.

```
Keep Your Install Up to Date - Latest Service Pack
Latest Service Pack provides extra functions and latest
support and fix for the packages you are going to install.
You can download the latest service pack from software
provider website.
If you decide 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.
Do you want to download the latest service pack now? [no]
```

16. 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

```
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
```

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:

!@#$%^&*():/?\

```
in a "calypso" subdirectory, so if you enter "/opt", the
files will actually be placed into "/opt/calypso".

Installation Directory: [/opt]
```

**17.** 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.

```
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]
```

**18.** Type **Yes** and press **Enter.**

```
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.

We highly recommend now that you create a new user group
and enter its name in the next setup screen. If you choose
not to assign a dedicated group to Software processes, you
will need to specify the access permissions later.

If you're planning to backup Oracle DB you should use
"dba" group.

Would you like to assign a specific group to Software?
[yes]
```

**19.** Type the **Group name** and press **Enter**.

Press **Enter** again.

```
Please enter the name of the group which will be assigned
to all Software files and on behalf of which all Software
processes will run.

In most of the cases it's a good idea to create a
dedicated "calypso" group. However, if you're planning to
use Oracle iDataAgent or SAP Agent, you should enter
Oracle's "dba" group here.

Group name: sky1

REMINDER

If you are planning to install Calypso Informix, DB2,
PostgreSQL, Sybase or Lotus Notes iDataAgent, please make
sure to include Informix, DB2, etc. users into group
"sky1".

Press <ENTER> to continue ...
```

**20.** 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**.

```
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]
```

**21.** 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.

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

**22.** 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.

```
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
```

**23.** Type path for the Job Results Directory and press **Enter**.

```
Please specify the name for the JobResults directory.

Since you are installing Calypso on a virtual machine, the
JobResults directory must reside on a shared disk and
should have at least 20MB of free space available. The
directory will be used to store intermediate data that
should be passed from one backup phase to another.

JobResults Directory:
```

**24.** Press **Enter**.

```
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]
```

**25.** 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

```
Client Group(s) is currently configured on CommServe
cs.company.com. Please choose the group(s) that you want
to add this client client.company.com to. The selected
group(s) will be marked (X) and can be deselected if you
enter the same number again. After you are finished with
the selection, select "Done with the Selection".

[ ] 1) Unix
[ ] 2) DR
[ ] 3) DKS

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

Enter number(s)/one of "a,n,r,q,d,>,<,?" here: 2
```

**26.** Enter the number associated with the storage policy you want use and press **Enter**.

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

1) SP_StandAloneLibrary2_2
2) SP_Library3_3
3) SP_MagLibrary4_4
4) fornax_fornax_HWCmp
5) ranger_ranger_HWCmp
6) fornax_fornax_ClntCmp
7) fornax_fornax_MACmp
8) fornax_fornax_NoCmp

Storage Policy: [1]
```

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

You may not be prompted for user input.

You can create the Storage Policy later in step 28.

```
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
```

**27.** Type **3** to the **Exit** option and press **Enter**.

The installation is now complete.

```
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
client.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 client.company.com

2) Install Calypso on a virtual machine

3) Exit

Your choice: [1]
```
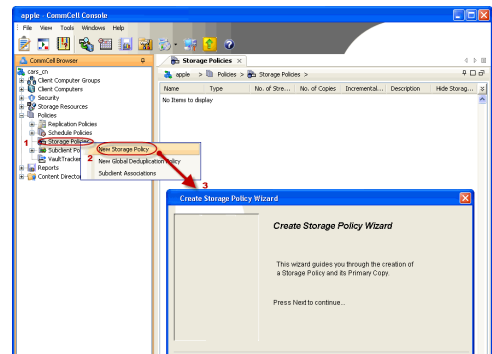
If you already have a storage policy selected in step 26, you can proceed to the Configuration section.

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

**28.**

1. From the CommCell Browser, navigate to **Policies**.
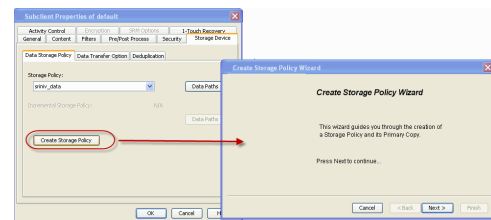
2. Right-click the **Storage Policies** and then click **New Storage Policy**.

3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:

   o Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.

   o Enter the name in the **Storage Policy Name** box and click **Next**.

   o From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

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

- 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.

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# Getting Started - AIX File System 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> | File System | defaultBackupSet**.
- Right-click the default subclient and then click **Properties**.
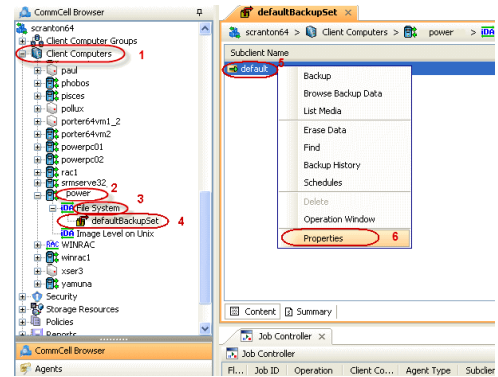


**2.**
- Click the **Storage Device** tab.
- In the **Storage Policy** box, select a Storage Policy name.
- Click **OK**.

Click **Next ▶** to continue.

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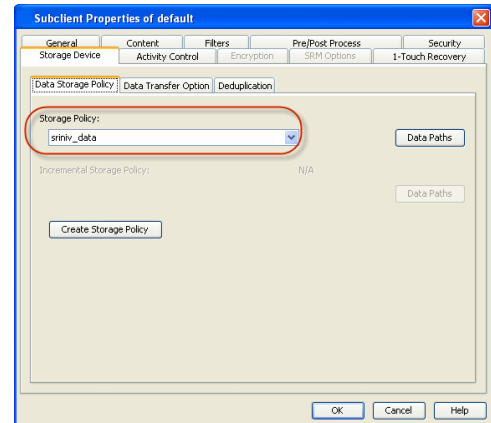


**3.**
1. Click **Create Storage Policy**.
2. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
   ○ Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
   ○ Enter the name in the **Storage Policy Name** box and click **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 - AIX File System Backup

| WHAT GETS BACKED UP | WHAT DOES NOT GET BACKED UP |
|---|---|
| **FILE SYSTEMS**<br>Enhanced Journal File System (JFS2)<br>General Parallel File System (GPFS)<br>Journal File System (JFS)<br>VERITAS File System (VxFS)<br>**VOLUME MANAGERS**<br>Veritas Volume Manager (VxVM) 5.0 or higher<br>Logical Volume Manager (LVM) | By default, the following file systems are automatically skipped during backups:<br>● nfs<br>● autofs<br>● cdrom<br>● nfs3<br>● lofs<br>● tmpfs<br>● proc<br>● ctfs |
| **FILE SYSTEM ELEMENTS**<br>Files with holes<br>Raw device files<br>Files with Advisory locks<br>A maximum path level of 10 symbolic links pointing to each raw device<br>Files with names containing non-ASCII characters as long as the appropriate locales are set<br>Shares with Macintosh File System data<br>Symbolic links that are browsed or manually added to the data contents | Files with mandatory locks - these files are not backed up by default. See Configuring Backups For Locked Files to backup files with mandatory locks.<br>Files for which the file path or file name contains more than 1023 characters |

## 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**.
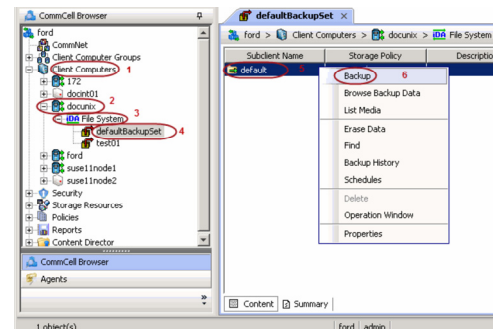
2.
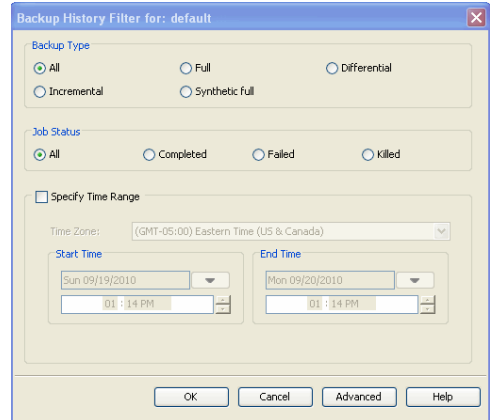   - Click **Full** as backup type and then click **Immediate**.
   - Click **OK**.
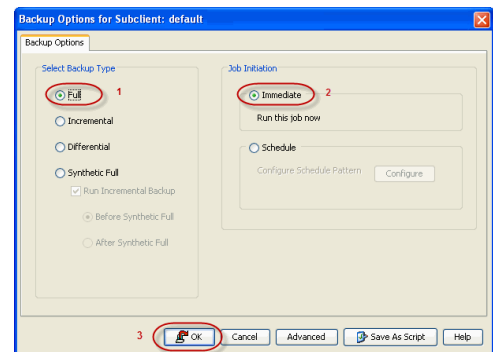
3. You can track the progress of the job from the **Job Controller** window of the CommCell console.
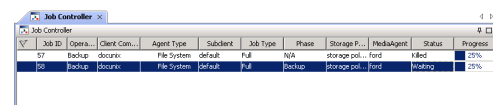
**4.** Once the job is complete, view the job details from the **Backup History**. Right-click the **Subclient** and select **Backup History**.
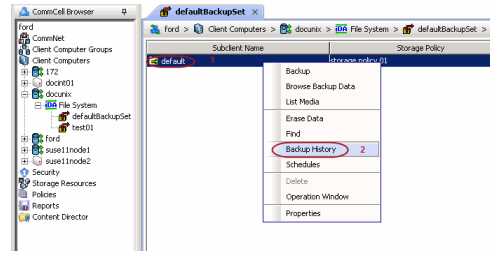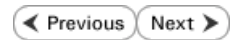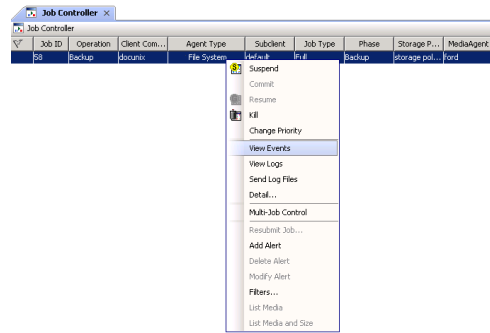
**5.** Click **OK**.

**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 - AIX File System Restore

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## 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 the **etc** folder to a new location.
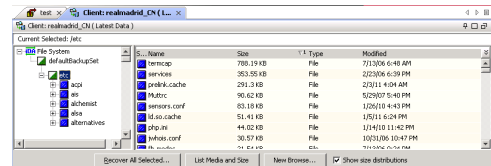
1.
   - From the CommCell Browser, navigate to **Client Computers| <Client>** | **File System | defaultBackupSet**
   - Right-click the default subclient and then click **Browse Backup Data**.
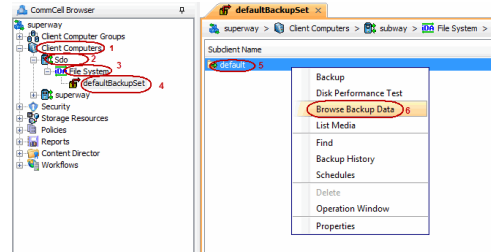
2. Click **OK**.
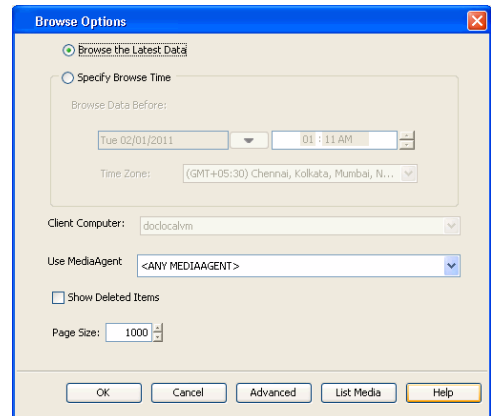
3.
   - Expand the **defaultBackupSet** and navigate to **etc** folder.
   - Select the **etc** folder.
   - Click **Recover All Selected**.

4.
   - 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**.
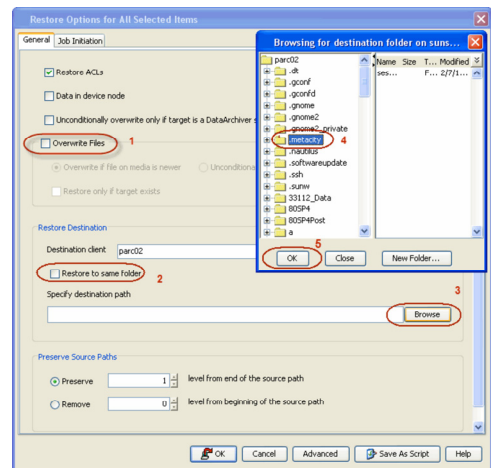
5.
   - Click the **Job Initiation** tab.
   - Select **Immediate** to run the job immediately.
   - Click **OK**.
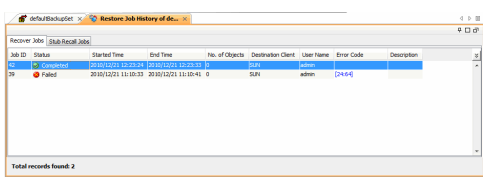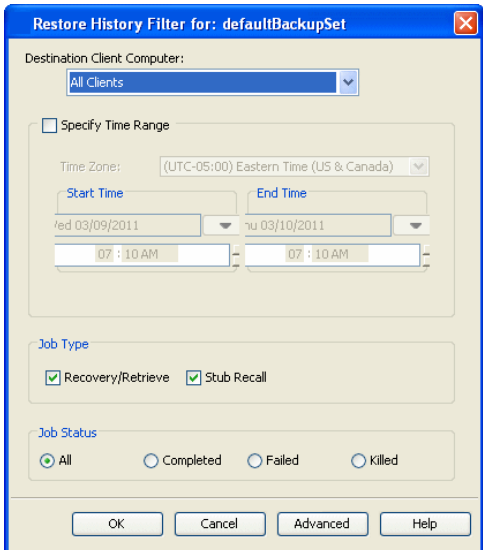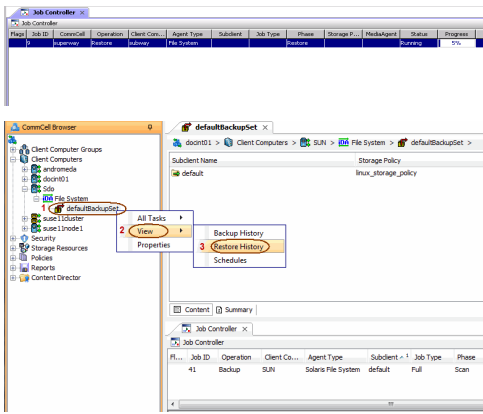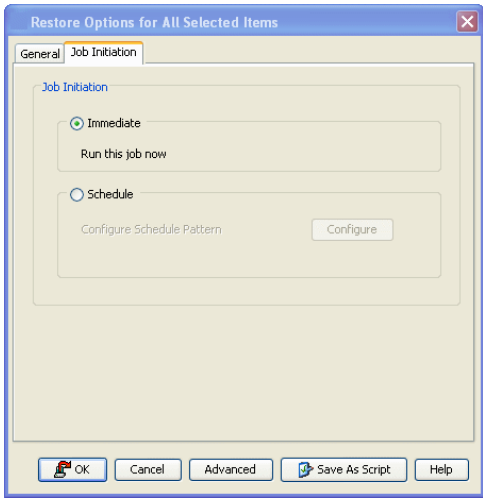
6. You can monitor the progress of the restore job in the **Job Controller** window of the CommCell Console.



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

```
[parc02] # ls /.metacity

etc
```

**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.