# Quick Start - Generic NAS File Archiver

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# Overview - Generic File Archiver for NAS

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## INTRODUCTION

Generic NAS File Archiver is installed as a stand alone archiving agent to archive and recover data residing on a NAS File Server. The Data is always archived on CIFS share.

The Archived data allows preservation, transparent retrieval, and discovery of information held within file system environment. It reduces the size of data on the primary storage and decreases the duration of backup operations by the corresponding iDataAgent. Migrating data from file systems to secondary, tiered-storage maximizes storage utilization across the enterprise.

The Generic NAS File Archiver Agent can optionally create stubs that contain information about the archived data to facilitate end-users with non-browse recovery operations from third-party applications. Migrated data can also be recovered from the CommCell Console using the browse recovery operation whether the stubbing feature is enabled or disabled. Additionally, it employs centralized, policy-based storage to reduce costs and simplify management.

## KEY FEATURES

The Generic NAS File Archiver Agent involves the following key features:

### RECALL THROTTLING

You can configure the stub recovery parameters, such that, you can set the Maximum Number of Stubs in a Recall Job, Time between recalls and Time to wait after maximum successive recalls limit is reached.

### POINT IN TIME RESTORE

You can restore the system state of a client, backed up on a specific date and time.

### STUB PRUNING

In the archive phase, Generic NAS Archiver will archive files meeting the pre-set archive criteria and, if applicable, put them into a list for the stubbing phase and prune the expired stubs. This helps in secondary storage space reclamation.

## TERMINOLOGY

The Generic NAS File Archiver Agent documentation uses the following terminology:

| | |
|---|---|
| **PROXY CLIENT** | A proxy client is any computer on which the File Archiver Agent is installed to archive and recover data residing on a NAS File Server. |
| **MIGRATION ARCHIVING** | Migration archiving is a process of periodically moving unused or infrequently used data on a host computer to secondary storage, thereby reducing the size of data on the primary storage. |
| **STUBBING** | The stubbing phase starts after the archive phase succeeds. Stubs are placeholders of the original data after it has been migrated to the secondary storage. Stubs replace the archived files in the location selected by the user during the archive. However, stubs will only be created if the subclient properties were configured to create them during archive. |
| **DATA RECOVERY** | The archived and migrated data can be recovered in any of the following three methods:<br>● Recovery of archived files per file paths provided using the CommCell Console.<br>● Browse and Recovery of archived files using the CommCell Console.<br>● Recall of archived files from stubs using third-party applications like: Windows Terminal or Console window. |
| **STUB RECOVERY** | If the subclient is configured to create stubs, you can perform a recall operation from a Windows workstation for recovering the stubs. A recall is any action that causes an open and read to be executed on the stub, which automatically initiates a recovery operation. |
| **PERSISTENT RECOVERY** | Multiple stub recoveries are submitted to the Job Controller as one job called a Persistent Recovery job. The job will wait for approximately 5 seconds in order to allow other stub recovery requests being submitted on the same client to be batched into the same job. |

# System Requirements - Generic NAS File Archiver

System Requirements | Supported Features

The following requirements are for the File Generic NAS File Archiver:

## OPERATING SYSTEM

**WINDOWS 7**
Microsoft Windows 7 32-bit and x64 Editions

**WINDOWS SERVER 2008**
Microsoft Windows Server 2008 32-bit and x64 Editions*
*Core Editions not supported

**WINDOWS VISTA**
Microsoft Windows Vista Ultimate 32-bit Edition
Microsoft Windows Vista Ultimate x64 Edition

**WINDOWS SERVER 2003**
Microsoft Windows Server 2003 32-bit and x64 Editions*
*Core Editions not supported

**WINDOWS XP**
Microsoft Windows XP Professional 32-bit Edition with a minimum of Service Pack 3
Microsoft Windows XP Professional x64 Edition with a minimum of Service Pack 3

## CLUSTER - SUPPORT

The software can be installed on a Cluster if clustering is supported by the above-mentioned operating systems.

For information on supported cluster types, see Clustering - Support.

## HARD DRIVE

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

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

In addition, number of archived files * 4 KB space is required for stub cache directory.

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

## MEMORY

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

## PROCESSOR

All Windows-compatible processors supported

## FILE SERVERS

The File Archiver for Isilon and other Agents can perform data protection/recovery operations on the file server versions.

## PERIPHERALS

DVD-ROM drive

Network Interface Card

## MISCELLANEOUS

**NETWORK**
TCP/IP Services configured on the computer.

## .NET FRAMEWORK

.NET Framework 3.5 with Service Pack 1 is automatically installed. Note that .NET Framework 3.5 can co-exist with other versions of this software.

## MICROSOFT VISUAL C++

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

**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 - Generic File Archiver for NAS Deployment

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## WHERE TO INSTALL

Install the software on a computer with connectivity to the NAS file server. The client computer must satisfy 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 install the software directly on client computer.

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

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

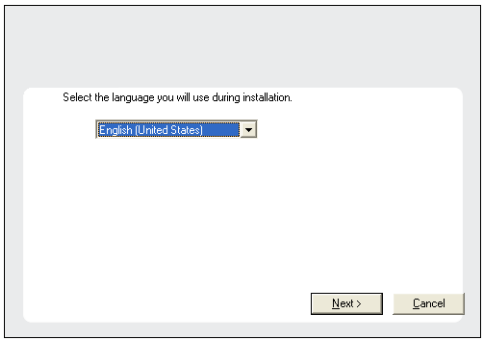
## BEFORE YOU BEGIN

**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.

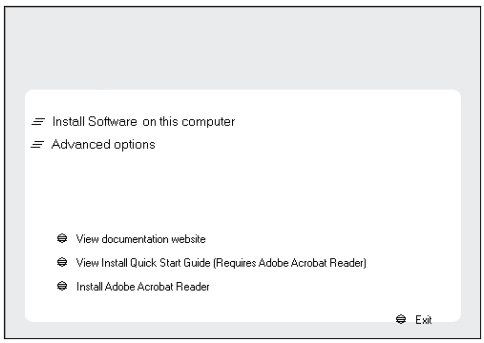
## METHOD 1: INTERACTIVE INSTALL

1. Run **Setup.exe** from the **Software Installation Disc** on a client computer.
2. Select the required language.
   Click **Next**.

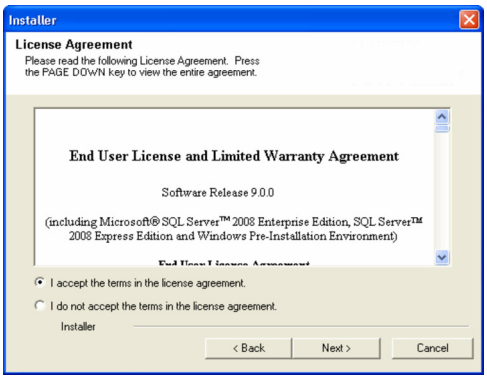



3. Select the option to install software on this computer.

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

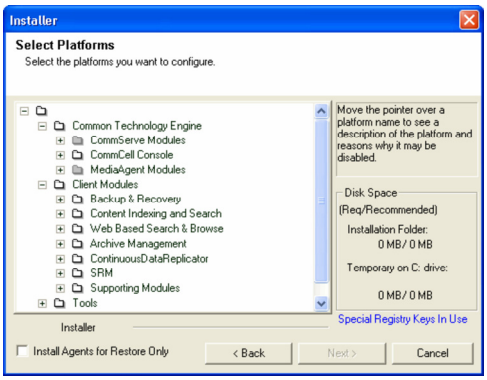



4. Select **I accept the terms in the license agreement**.
   Click **Next**.




5. Expand **Client Modules** | **Archive Management** and select **File Archiver for Windows Agent**

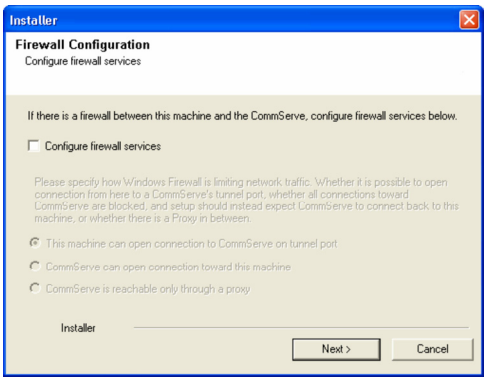
Click **Next**.




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

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

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

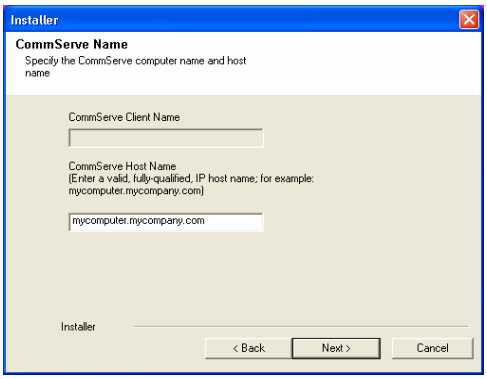



7. Enter the fully qualified domain name of the **CommServe Host Name**.

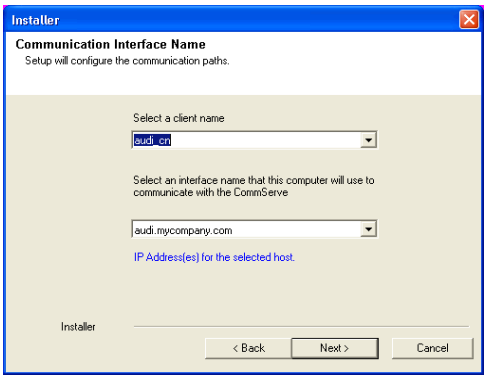
   Click **Next**.

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

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




8. Click **Next**.

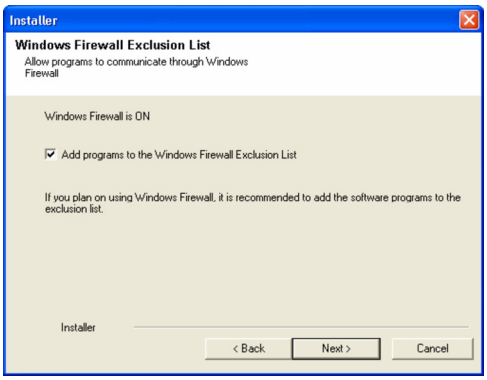



9. Select **Add programs to the Windows Firewall Exclusion List**, to add CommCell programs and services to the Windows Firewall Exclusion List.

   Click **Next**.

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

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




**10.** Verify the default location for software installation.

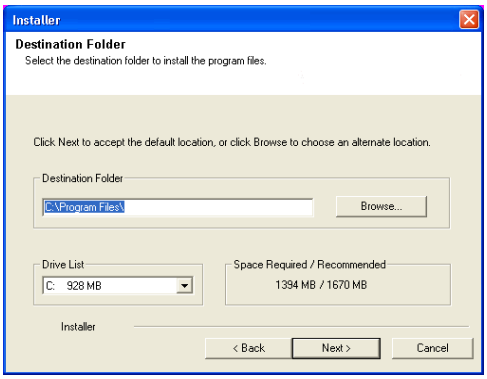
Click **Browse** to change the default location.

Click **Next**.

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

  / : * ? " < > | #

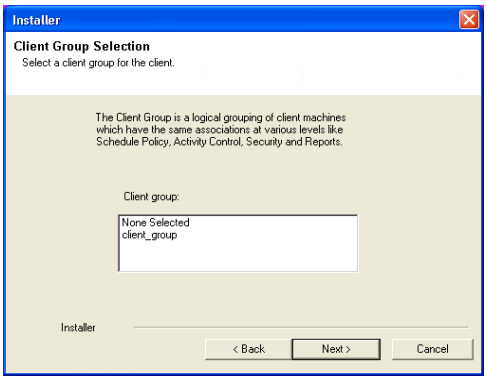
  It is recommended that you use alphanumeric characters only.



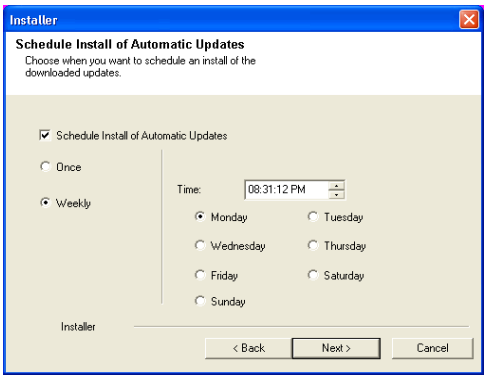

**11.** Select a Client Group from the list.

Click **Next**.

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



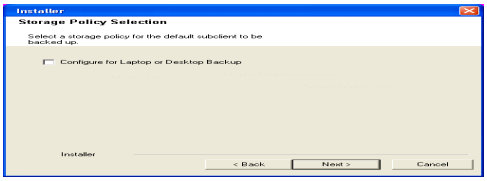

**12.** Click **Next**.



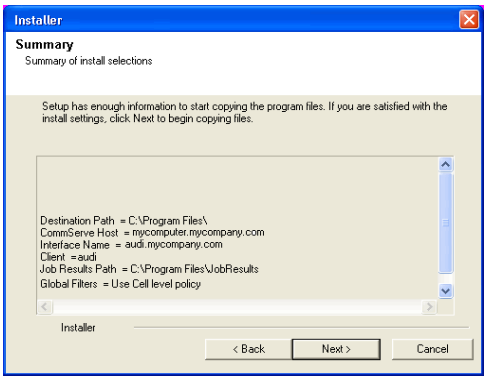

If you do not have Storage Policy created, this message will be displayed.

Click **OK**.

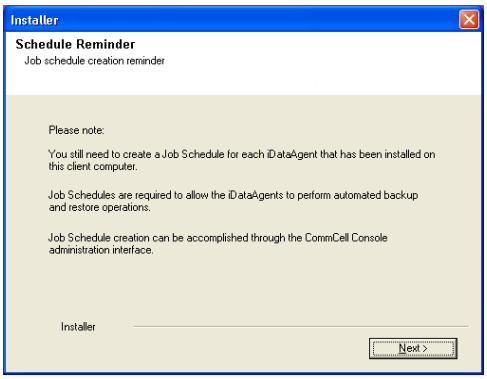
You can create the Storage Policy later in step 16



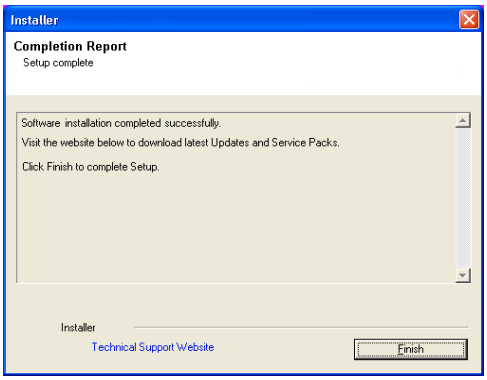

**13.** Click **Next**.




14. Click **Next**.




15. Click **Finish**.

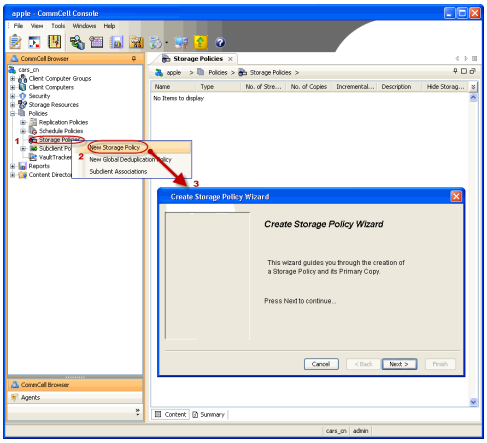



CHOICE

If you already have a storage policy selected in step 12, click the **Next** button available on the bottom of the page to proceed to the **Configuration** section.

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

16. Create a Storage Policy:




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

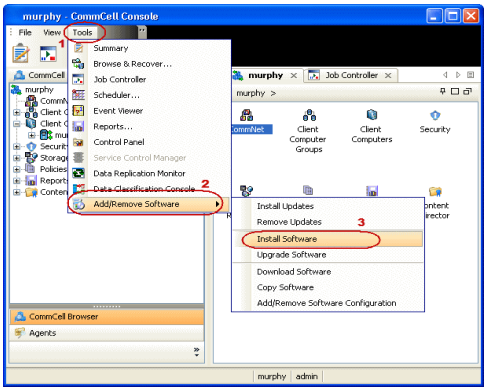
     Ensure that you select a library attached to a MediaAgent operating in the current release.
   - From the **MediaAgent** list, click the name of a MediaAgent that will be used to create the primary copy and then click **Next**.
   - For the device streams and the retention criteria information, click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

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

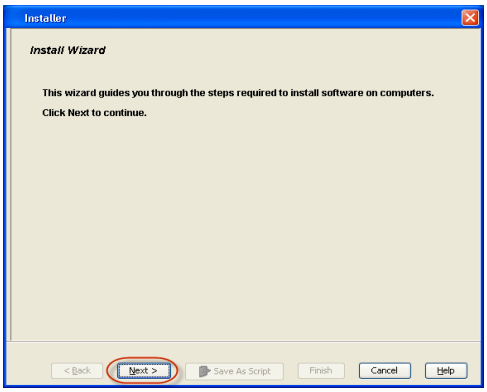
- Review the details and click **Finish** to create the Storage Policy.

## METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

1. From the CommCell Browser, select **Tools** | **Add/Remove Software** | **Install Software.**

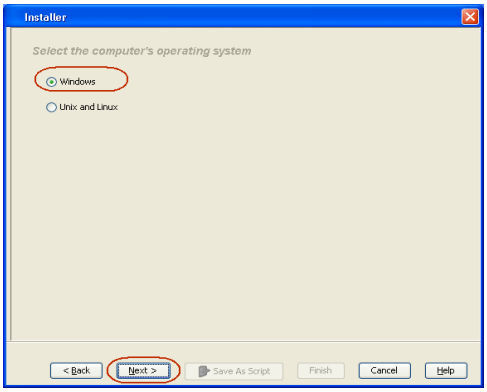



2. Click **Next**.



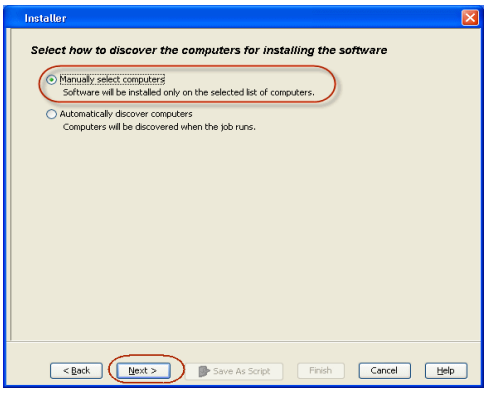

3. Select **Windows**.

   Click **Next**.

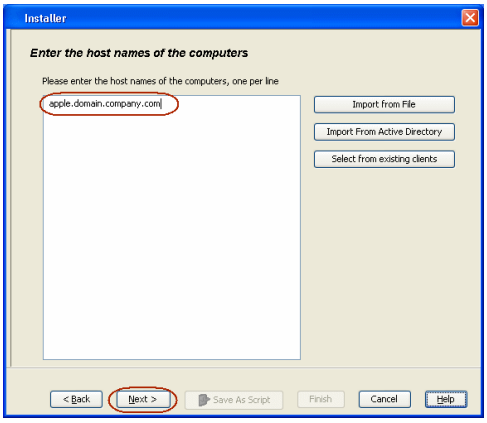



4. Select **Manually Select Computers**.

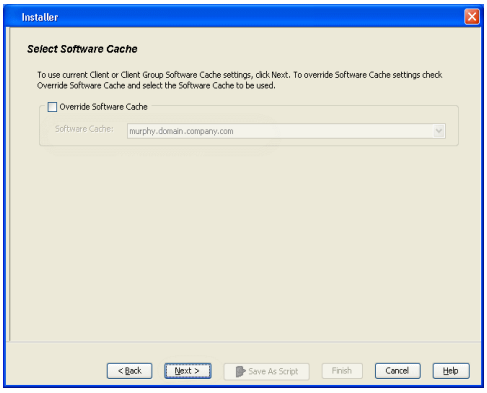
   Click **Next**.



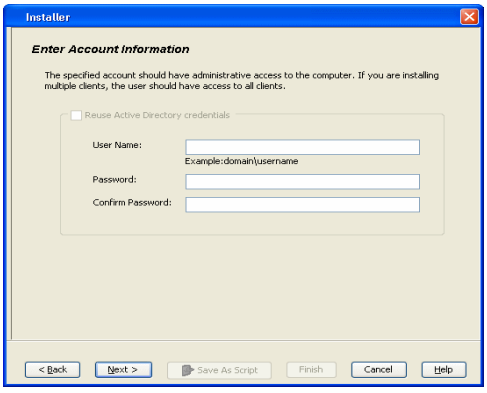

5. Enter the fully qualified domain name of the client computer.
   For example: `apple.domain.company.com`
   Click **Next**.



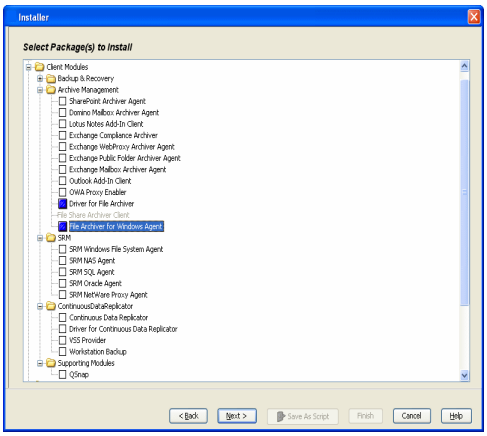

6. Click **Next**.




7. Specify **UserName** and **Password** of the client computer.
   Click **Next**.

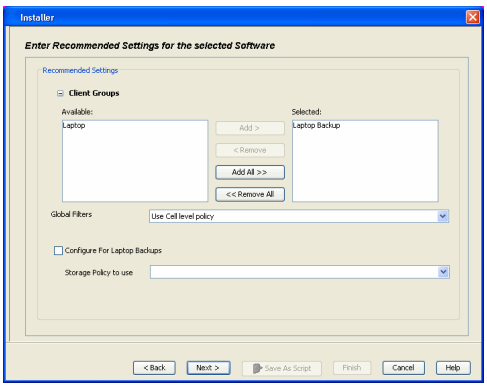



8. Select **File Archiver for Windows Agent**.
   Click **Next**.



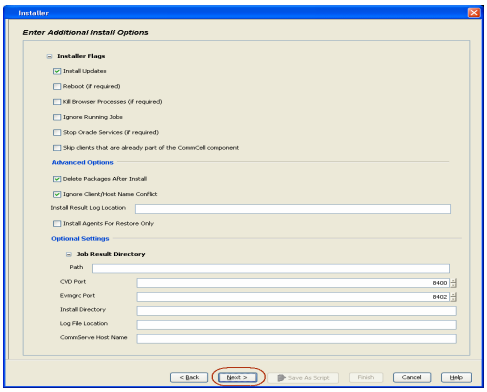

**9.**

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



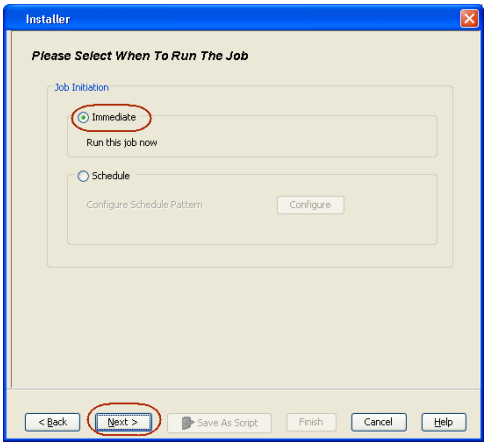

**10.**

- Select **Reboot.**
- Click **Next**.

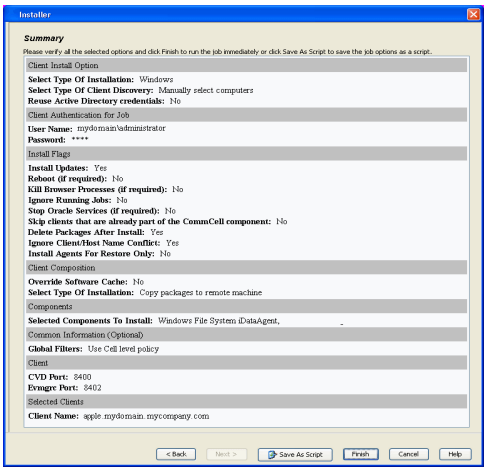



**11.**

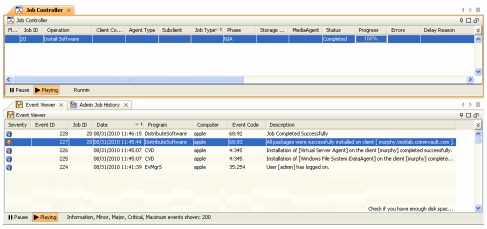
- Select **Immediate**.
- Click **Next**.



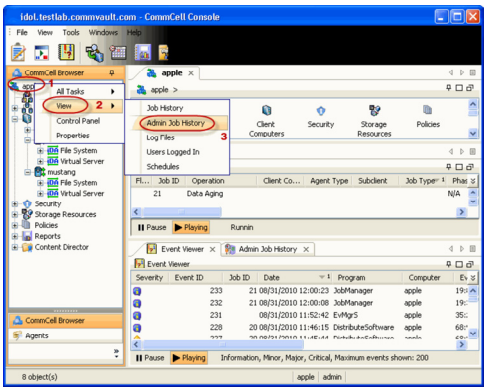

**12.** Click **Finish**.




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

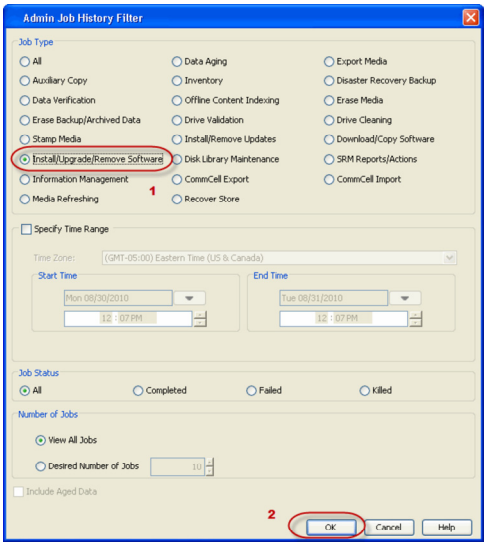



14. Once the job is complete, right-click the **CommServe** computer, click **View** and then click **Admin Job History**.



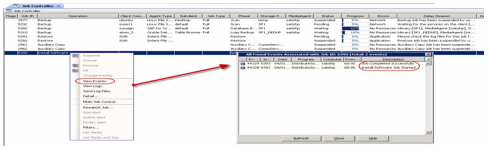

15. Select **Install/Upgrade/Remove Software**.

    Click **OK**.




16. You can view the following details about the job by right-clicking the job:
    - Event of the job displaying that the software installation has started and completed.
    - Details of where the job was run.

- Date of the job.
- Client computer name on which the software was installed.
- Logs of the job.



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# Getting Started - Generic File Archiver for NAS Configuration

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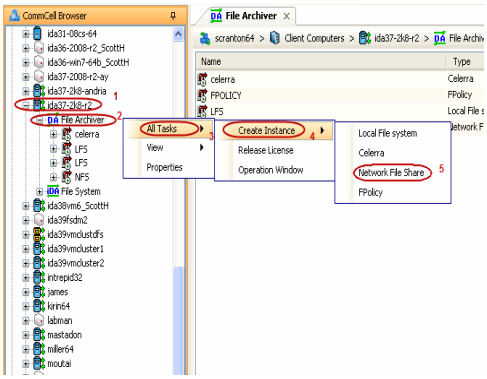
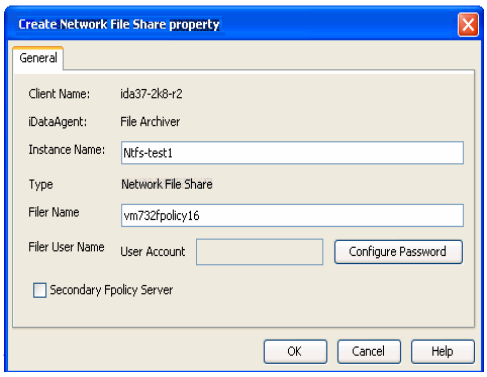
## CONFIGURATION

Once the NAS File Archiver Agent has been installed, configure an Instance and create a Subclient as follows:

1. 
   - From the CommCell Browser, navigate to ***<Client>* | File Archiver.**
   - Right-click **File Archiver,** point to **All Tasks** | **Create Instance** and then click **Network File Share**.

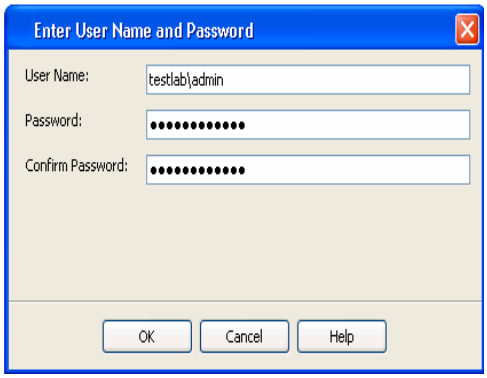



2. 
   - In the **Instance Name** box enter the instance name.
   - In the **Filer Name** box enter the Filer name.
   - Click **Configure Password**.

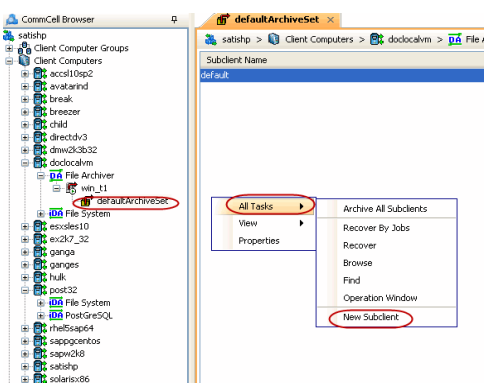



3. Enter credentials for an account with administrative access to the file server.

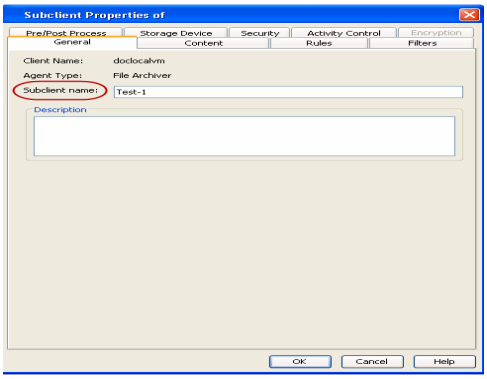
   If you have two or more instances of NAS File Archiver configured on your CommCell Console, then use the same credentials for all instances. If you plan to use different credentials, file server must have access to those credentials.



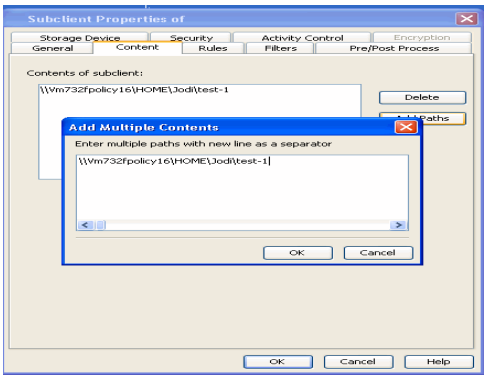

4. Navigate to ***<Client>* | File Archiver| Instance | DefaultArchiveSet,** point to **All Task** and select **New Subclient**.



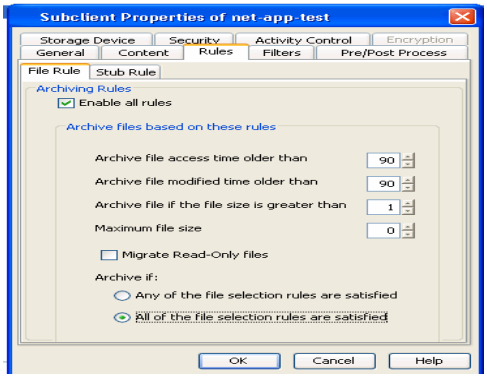
5. In the **Subclient Name** box enter the subclient name.




6.
- Click the **Content** tab.
- Click **Add Path** and add the path of the folders on the filer that has files to be archived.
- Click **OK**.

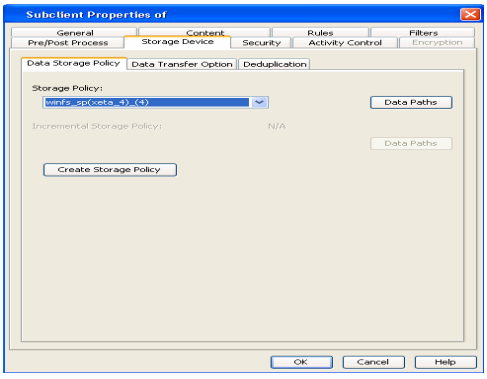



7.
- Click the **Rules** tab.
- Select **Enable All Rules**.



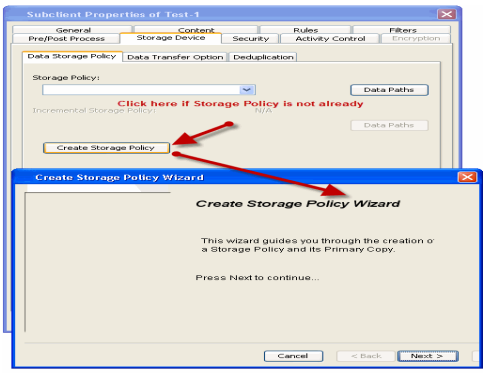

8.
- Click the **Storage Device** tab
- Select **Storage Policy**
- Click **OK**

Click Next ➤ to continue. If you do not have Storage Policy created, click **Create Storage Policy**.




9.
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`.
   - Select `No` to allow legal hold to use the policy.
   - Specify the name of the Storage Policy.
   - Specify the name of the primary copy. The primary copy is automatically created along with the Storage Policy.

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

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# Getting Started - Generic File Archiver for NAS Migration Archiving

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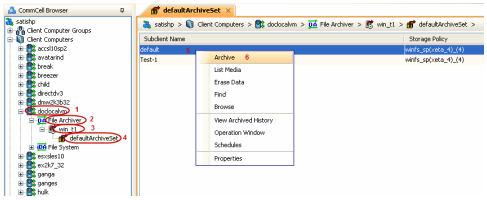
| WHAT GETS ARCHIVED | WHAT DOES NOT GET ARCHIVED |
|---|---|
| Files on the generic NAS file server | Encrypted Files |
| | Files with extensions `*.dll`, `*.bat`, `*.exe`, `*.cur`, `*.ico`, and `*.lnk` |
| | Sparse Files |

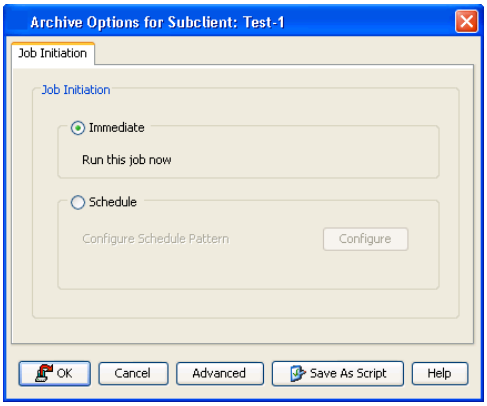
## PERFORM AN ARCHIVE

After configuring a subclient and a storage policy, you are ready to perform your first archive. The following section provides step-by-step instructions for performing your first archive:

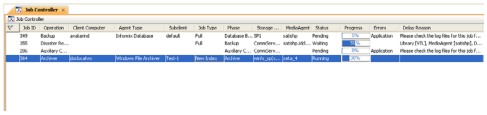
1. 
   - From the CommCell Console, navigate to **Client Computers** | **File Archiver** | **<Instance_name>** | **defaultArchiveSet**.
   - Right-click the **Subclient** in the right-pane and click **Archive**.



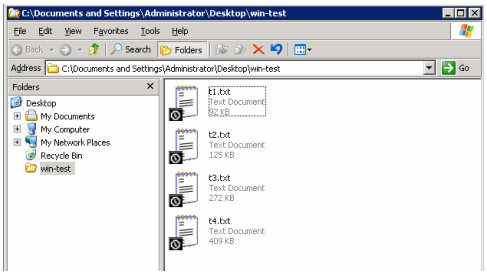
2. 
   - Select **Immediate** to run the job immediately.
   - Click **OK**.



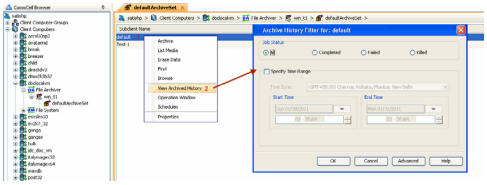

3. You can track the progress of the job from the **Job Controller** or **Event Viewer** window of the CommCell console.



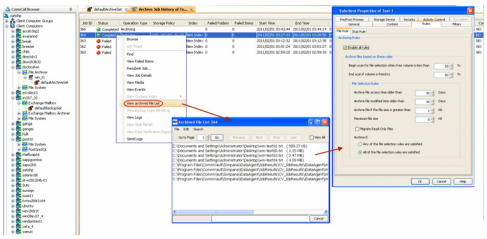
4. Once the archive process is completed, files that meet the stubbing rules are stubbed.
   - **Stubs** are placeholders of the original data after it has been migrated to the secondary storage.
   - Stubs replace the archived files in the location of the file.
   - After stubbing, the size of the files on the disk reduces.




5. 
   - Once job is complete, view the details of job from the **Archive Job History**. Right-click the subclient and select **View Archived History**.
   - Click **OK**.



6. 
   - You can view a list of the files archived during the archive job.
   - Right-click the job.
   - Click **View Stub File List**.



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# Getting Started - Generic File Archiver for NAS Recover Data

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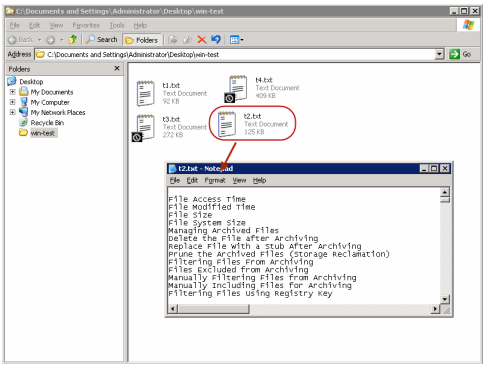
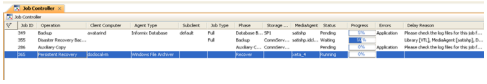
## PERFORM A DATA RECOVERY

It is recommended that you perform a recovery operation of an archived file after your first archive operation to understand the process. Follow the steps given below to perform a restore of a file or multiple files:

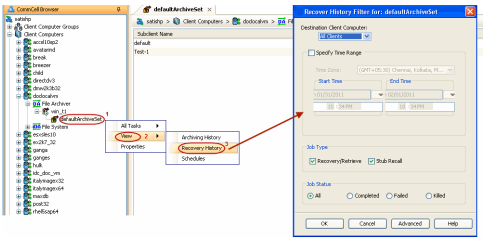
1.
- Navigate to the folder with the stubs by mapping a network drive to the share or through the UNC path.
- Perform an action that executes an open and read on an archived file to initiate the recovery operation.



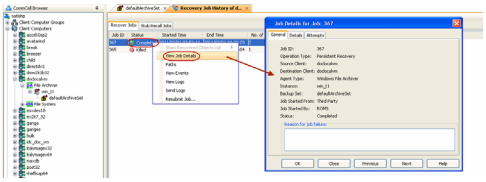
2.
- You can track the progress of the job from the **Job Controller** window of the CommCell console.
- Multiple stub recoveries are submitted to the Job Controller as one job called a *Persistent Recovery* job.



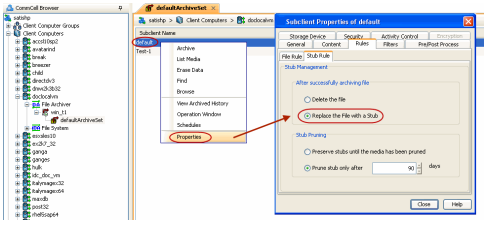
3.
- Once job is complete, view the details of job from the **Recover History**.
- Right-click the **ArchiveSet** and select **View | Recovery History**.
- Click **OK**.



4.
- Right-click the job and select **View Job Details**.
- After recovery, stubs are replaced by files in the location specified.



5. If the subclient is configured to create stubs, by choosing the option **Replace the File with a Stub**, files that qualify the archiving rule will get stubbed. You can restore stubs following the same steps listed above (step 1 - step 4).



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