

1-Touch *iDataAgent*

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- Fully unattended operating system reinstall
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Terminology

INTRODUCTION

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.

This feature is available on the Windows platform as well as on various Unix platforms. You need to setup a 1-Touch server to enable this feature. Depending on client environment, you can use the CommCell Console or the 1-Touch wizard to run the recovery process. The 1-Touch server secures the required information from the 1-Touch client's backup and then uses this information to recreate the client's environment.

Linux clients do not require 1-Touch server. The required information for 1-Touch recovery is available on the CommServe and Linux Live CD.

KEY FEATURES

The 1-Touch Recovery involves the following key features:

FULLY UNATTENDED OPERATING SYSTEM REINSTALL

You can initiate the recovery process of a single or multiple clients from a central location, such as the CommServe. This will be useful when you want to reinstall the operating system on all the clients connected to a CommServe.

POINT IN TIME RESTORE

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

FASTER DISASTER RECOVERY VIA OFFLINE RESTORES

On Windows platform, 1-Touch recovery can be performed in online and offline modes. Online recovery involves many steps to be carried out manually and is a very slow process for a Disaster Recovery. This process uses Windows distribution to install the operating system and then initiate a recovery which makes it slower. Also, a lot of space is needed on the 1-Touch server to maintain the distributions and the Calypso software to be installed after the operating system installation is complete.

Offline recovery does away with operating system installation and the restore is performed while running on Boot CD itself making this a quick process for a Disaster Recovery.

CROSS HARDWARE RESTORE

You can perform the 1-Touch Recovery to a target Windows system with completely different hardware configurations. The target system can have different network interface adapters, mass storage devices, video adapters, motherboards, and CPUs

TERMINOLOGY

The 1-Touch documentation uses the following terminology:

1-TOUCH CLIENT	A computer that is connected to 1-Touch server
1-TOUCH SERVER	A server that is used for 1-Touch recovery of 1-Touch clients.
LIVE CD	A CD used to boot the client for 1-Touch recovery.
DISSIMILAR DISK RESTORE	This term is used in the 1-Touch recovery of Windows clients. When the disk configuration of the restored system is different than that of the backed up system, you need to perform a Dissimilar Disk Restore.
ASYMMETRIC DISK RESTORE	This term is used in 1-Touch recovery of Unix clients. When the disk configuration of the restored system is different than that of the backed up system, you need to perform the Asymmetric Disk Restore.

ISO IMAGE	This is a file that contains all the information required to initiate the 1-Touch recovery. Use this file to create the Live CD.
OFFLINE RESTORE	This term is used in the 1-Touch recovery of Windows clients. A recovery procedure in which the operating system is restored and not re-installed. An access to 1-Touch server is not required to perform the Offline Restore.
ONLINE RESTORE	This term is used in the 1-Touch recovery of Windows clients. A recovery procedure in which the operating system is re-installed. You need access to 1-Touch server to perform the Offline Restore.
ANSWER FILE	The client answer file contains information such as the computer name, operating system, IP address, and disk partition/format information. This information is used during the 1-Touch Recovery for silent deployment of operating system and restoration of the client.

For more terms, refer to Glossary.

System Requirements - 1-Touch

AIX	HP-UX	Linux	Solaris	Windows
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OPERATING SYSTEM

The following are the requirements for 1-Touch on an AIX:

SERVER

AIX 6.1 64-bit with technology level 2 or higher (LPAR with shared fibre channel card NPIV supported)
 AIX 5.3 32-bit and 64-bit with technology level 6 (or higher) and runtime library xIc.rte 8.0.0.0 or higher

CLIENT

AIX 6.1 64-bit with technology level 2 or higher (LPAR with shared fibre channel card NPIV supported)
 AIX 5.3 32-bit and 64-bit with technology level 6 (or higher) and runtime library xIc.rte 8.0.0.0 or higher

Note that all AIX platforms support Logical Partitions (LPAR).

HARD DRIVE

The 1-Touch Server requires 2 GB of disk space per client for the 1-Touch client configuration files.

MEMORY

1 GB RAM minimum required; 2 GB RAM recommended.

PROCESSOR

Power PC (Includes IBM System p)

SUPPORTED FILE SYSTEM AND VOLUME MANAGER TYPES

- AIX logical Volume Manager for Root and Non- root Volumes (LVM)
- VERITAS Volume Manager 5.0 or higher for Non root Volumes (VXVM)
- Journal File System (JFS) (AIX)
- Enhanced Journal File System (JFS2) (AIX)
- For AIX 5.3, RAW logical volume is supported for ML 10 and above

NOTES

SERVER

- The 1-Touch Server must be a dedicated AIX machine running the NIM master server environment.

CLIENT

- For 1-Touch clients with Link Aggregation or Ether Chanel, ensure that standard network adapter is configured for communication with NIM server.
- The 1-Touch server can be in the same subnet as the client computer, or it can be in a different subnet. However, if they are in different subnets, ensure that there is no network firewall between the server and the client.

For each different subnet there should be NIM network resource defined. This is important not only when NIM master and client are in different subnets, but also in case 1-Touch recovery is performed to a client that is in a different subnet than the NIM master and the original client. If the network resource is not defined for the destination client subnet and selected during recovery, 1-Touch recovery will not be successful. For more information on defining NIM network resources, refer to IBM NIM documentation.

- Only active volume group will be backed up during 1-Touch backup.
- This feature is not supported when bootable partitions are on the disk arrays (snapable disk).

DISCLAIMER

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

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

Deployment - 1-Touch for AIX

Deployment | Configuration | Recovery | FAQ | Troubleshooting

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1-Touch Recovery allows you to recover the entire computer system without installing the Operating system or any other software.

INSTALLATION

To perform 1-Touch Recovery you must first install the following:

• 1-TOUCH SERVER

Install 1-Touch Server software on the computer that satisfies the minimum system requirements.

Install the 1-Touch Server Software

• 1-TOUCH CLIENT

Install Unix File System *iDataAgent* on the computer that satisfies the minimum system requirements. The computer is referred to as the Client computer in this install procedure.

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

Method 1: Interactive Install Unix File System *iDataAgent* - to install directly on client computer.

Method 2: Install Software from CommCell Console - to install remotely on a client computer.

1-TOUCH SERVER

INSTALL THE 1-TOUCH SERVER SOFTWARE

1. Place the **Software Installation Disc** on a AIX computer that satisfies the minimum System Requirements.
2. Run the following command from the Software Installation Disc:
./cvpkgadd
3. The product banner and other information is displayed.
Press **Enter**.
4. Read the license agreement. Type **y** and press **Enter**.
5. Press **Enter**.
6. Press **Enter**.
7. If you have only one network interface, press **Enter** to accept the default network interface name and continue.

BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

System Requirements for 1-Touch Server and Client

Verify that the computer in which you wish to install the 1-Touch Server Software satisfies the System Requirements.

Overview

Provides comprehensive information about 1-Touch feature

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]

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]

We found one network interface available on your machine. We will associate it with the physical machine being

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.

8. Press **Enter**.

9. Type the appropriate number to select **1-Touch Server**.

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

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

10. Press **Enter**.

11. 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.

12. Press **Enter**.

13. 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:

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

14. 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.

15. Press **Enter**.

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]

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]

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

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

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

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

1) Download from the software provider website.

2) Use the one in the installation media

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

Your choice: [1] 2

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]

Please specify where you want us to install Calypso binaries.

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

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

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

Log Directory: [/var/log]

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

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

Press **Enter** again.

17. 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**.

18. 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.

19. 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.

20. Press **Enter**.

21. 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

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

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

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]

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: skyl

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 "skyl".

Press <ENTER> to continue ...

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

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

Please enter the port numbers.

Port Number for CVD : [8400]

Port Number for EvMgrC: [8402]

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

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

CommServe Host Name: mycommserve.company.com

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

1) Use Cell level policy

2) Always use Global filters

3) Do not use Global filters

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

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 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

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

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

```
[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

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]

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]

1-TOUCH CLIENT

METHOD 1: INTERACTIVE INSTALL UNIX FILE SYSTEM /DATAAGENT

Before installing Unix File System /DataAgent, ensure that the client computer is in same subnet as the 1-Touch Server. If both 1-Touch Server and client computer are in different subnet, ensure that there is no firewall between the server and the client computer.

1. Place the **Software Installation Disc** on a AIX client computer that satisfies the minimum System Requirements.
2. Run the following program from the Software Installation Disc:
./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. 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.

7. 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.

8. Press **Enter**.

9. Type the appropriate number to install **Unix File System iDataAgent**.

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

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

10. Press **Enter**.

11. 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.

12. Press **Enter**.

13. 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:

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

14. 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.

1) Install on a physical machine

2) Install on a virtual machine

3) Exit

Your choice: [1]

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]

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]

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

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

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

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

1) Download from the software provider website.

2) Use the one in the installation media

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

Your choice: [1] 2

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]

Please specify where you want us to install Calypso binaries.

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

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

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

15. Press **Enter**.
16. Type the **Group name** and press **Enter**.
Press **Enter** again.
17. 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**.
18. 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.
19. 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.
20. Press **Enter**.
21. 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
- Log Directory: [/var/log]
- Most of Software processes run with root privileges, but some are launched by databases and inherit database access rights. To make sure that registry and log files can be written to by both kinds of processes we can either make such files world-writeable or we can grant write access only to processes belonging to a particular group, e.g. a "calypso" or a "dba" group.
- 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]
- 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: skyl
- 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 "skyl".
- Press <ENTER> to continue ...
- Every instance of Calypso should use a unique set of network ports to avoid interfering with other instances running on the same machine.
- The port numbers selected must be from the reserved port number range and have not been registered by another application on this machine.
- Please enter the port numbers.
- Port Number for CVD : [8400]
- Port Number for EvMgrC: [8402]
- Is there a firewall between this client and the CommServe? [no]
- Please specify hostname of the CommServe below. Make sure the hostname is fully qualified, resolvable by the name services configured on this machine.
- CommServe Host Name: mycommserve.company.com
- Commcell Level Global Filters are set through Calypso GUI's Control Panel in order to filter out certain directories or files from backup Commcell-widely. If you turn on the Global filters, they will be effective to the default subclient. There are three options you can choose to set the filters.
- 1) Use Cell level policy
2) Always use Global filters
3) Do not use Global filters
- Please select how to set the Global Filters for the default subclient? [1]
- 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 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

- 22. A confirmation screen will mark your choice with an "X".
Type **d** for **Done**, and press **Enter**.

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

- 24. Type **3** to the **Exit** option and press **Enter**.
The installation is now complete.

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
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]

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.

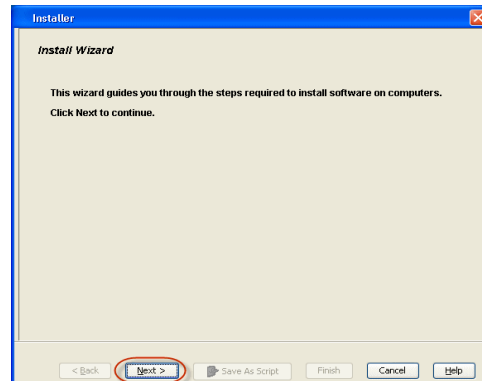
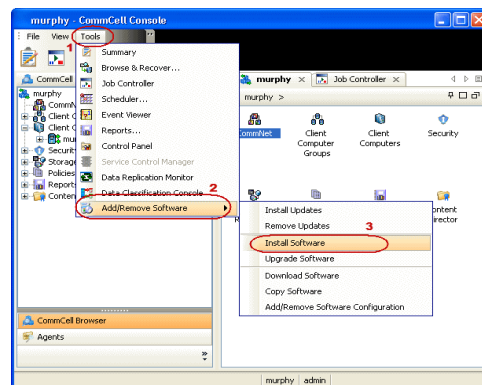
Now you have a choice of either adding another package to the existing installation or configure Calypso on a virtual machine for use in a cluster.

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

Your choice: [3]

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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



Click **Next**.

- 4. Select **Manually Select Computers**.

Click **Next**.

- 5. Enter the fully qualified domain name of the AIX client computer in which you wish to install.

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

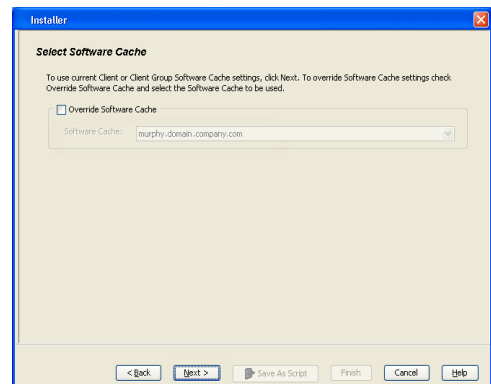
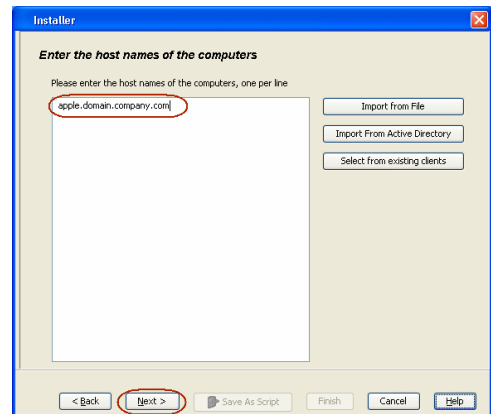
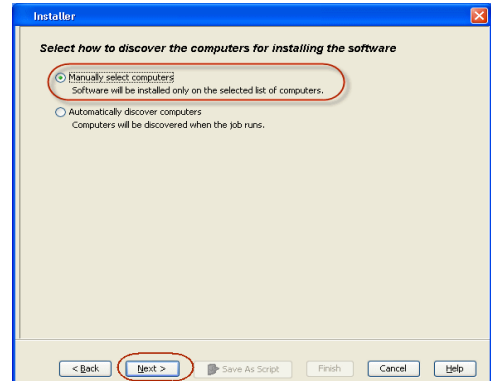
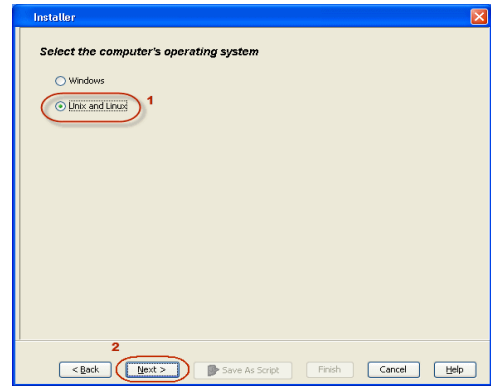
The Unix File System /DataAgent software will be installed on this client computer.

Click **Next**.

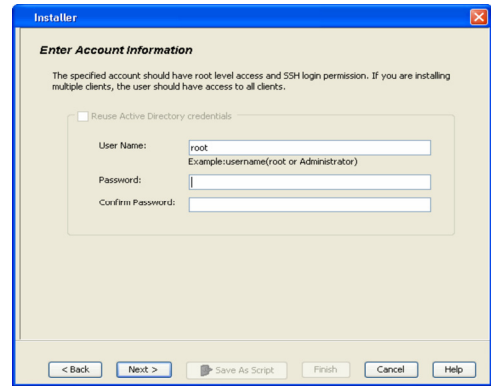
- 6. Click **Next**.

- 7. Specify **UserName** and **Password** of client computer.

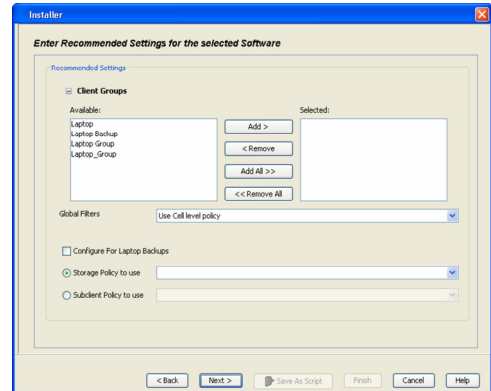
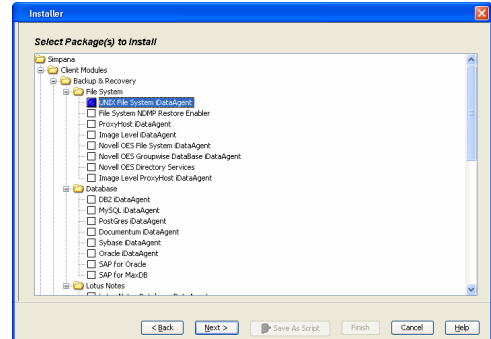
Click **Next**.



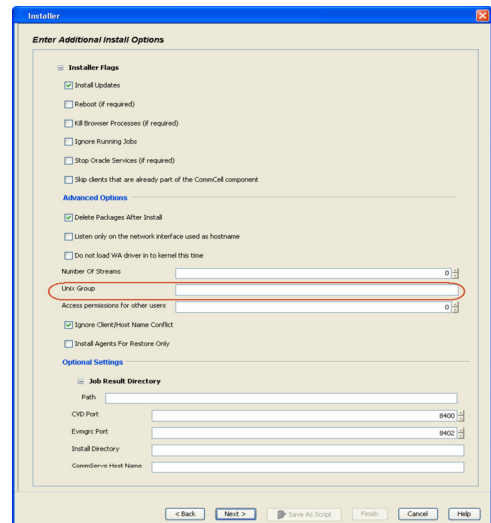
8. Select **Unix File System iDataAgent**.
Click **Next**.



9.
 - Select **Client Group** from **Available** and click **Add**.
Do not add more than one Client Group.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.

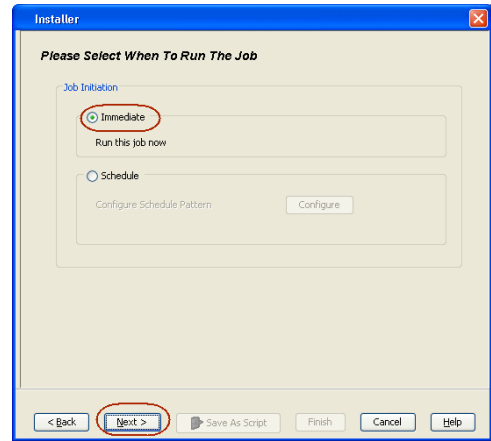


10. Click **Next**.

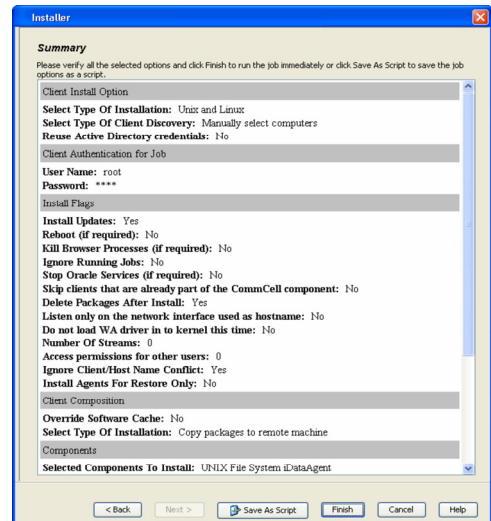


11. Select **Immediate**.
Click **Next**.

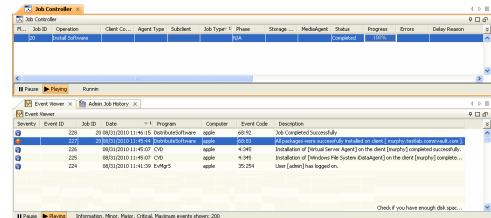
12. Click **Finish**.



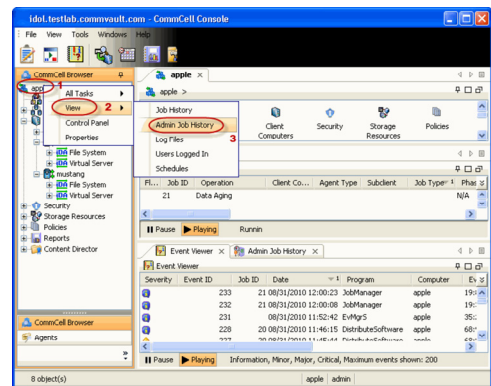
13. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

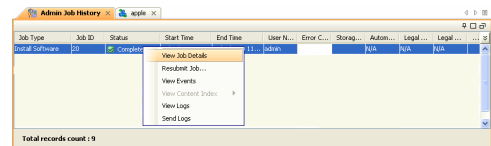
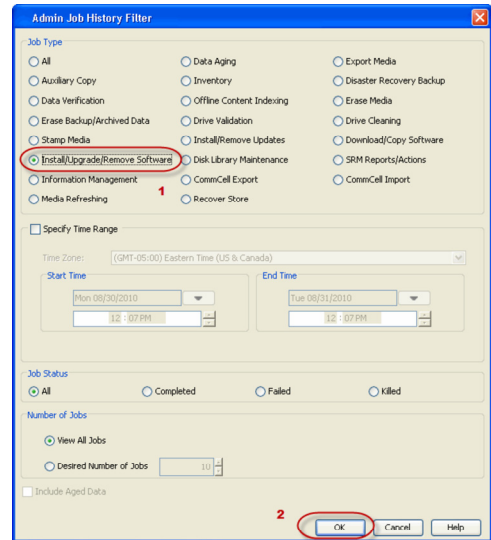


15. Select **Install/Upgrade/Remove Software**.
Click **OK**.



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

- Items that succeeded during the job
- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job



Configuration - 1-Touch for AIX

Deployment | Configuration | Recovery | FAQ | Troubleshooting

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- Enable 1-Touch Backup
- Perform a Backup

Advanced Configuration

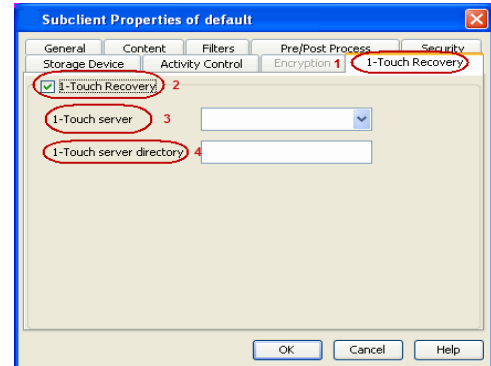
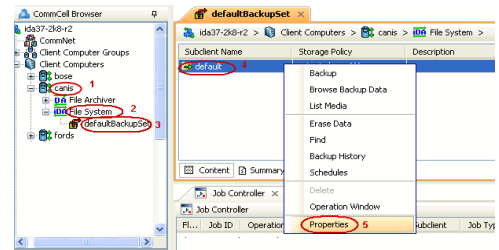
- Performing Backup for AIX WPAR Client
- NIM Master Server Configuration

BASIC CONFIGURATION

ENABLE 1-TOUCH

After you install the File System iDataAgent, follow the steps given below to enable the 1-Touch for the default subclient :

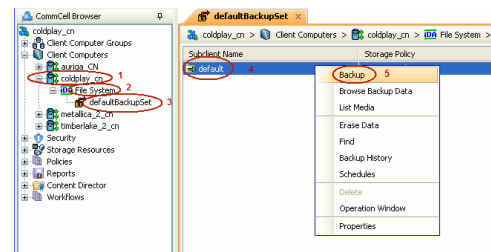
- From the CommCell Console, navigate to **<Client> | File System iDataAgent | defaultBackupSet**.
 - Right-click the default subclient and click **Properties**.
- Click **1-Touch Recovery** tab.
 - Select **1-Touch Recovery**.
 - Select the **1-Touch Server** from the list.
 - Enter the path to the **1-Touch server Directory**.
 - Click **OK**.

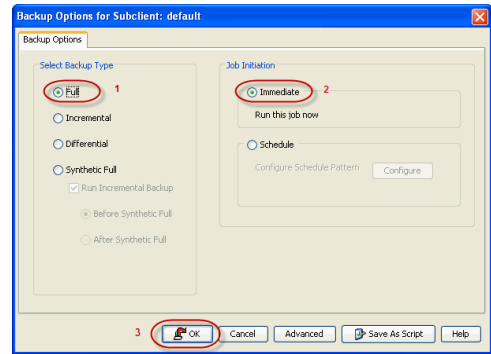


PERFORM A BACKUP

After you enable 1-Touch, perform backups of the default subclient periodically to capture any changes in the client system configuration. Before recovering a client, ensure that you have run at least one full backup of the default subclient.

- From the CommCell Console, navigate to **<Client> | File System iDataAgent | defaultBackupSet**.
 - Right-click the subclient, and click **Backup**.
- Select **Full**.
 - Select **Immediate**.
 - Click **OK**.





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

ID	Job ID	Operation	Client Co.	Agent Type	Subclient	Job Type	Phase	Storage	MediaAgent	Status	Progress	Errors
8819	Archiver	hpurd	Linux File S...	FSM		Archive	scantone4...	scantone4	Pending	7%	Network	
10109	Snap Backup	center	Linux File S...	hpwrp_jm6	Full	Backup	scn_jm6	scn_jm6	Running	100%		
2924	Snap Backup	center	Linux File S...	hd_jm6	Full	Backup	scn_jm6	scn_jm6	Suspended	100%		
9074	Archiver	center	Linux File S...	FSM	Full	Archive Index	scantone4...	scantone4	Waiting	0%	No Resource	
9101	Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
9235	Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
9257	Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
10000	Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
10184	Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
10186	Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
2886	Avarex Copy	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	
9114	Disaster Recovery Backup	center	Linux File S...	center	Full	Backup	scantone4...	scantone4	Waiting	0%	No Resource	

ADVANCED CONFIGURATION

PERFORMING BACKUP FOR AIX WPAR CLIENT

For AIX 6.1 clients that have a System Workload Partitioning (WPAR) environment installed on the root volume, the WPAR environment creates a file system. This file system has a mount option that is set to **false** by default. Before performing a full backup, set this option to **true** to enable 1-Touch for AIX backups.

NIM MASTER SERVER CONFIGURATION

Ensure that the 1-Touch Recovery Server is a dedicated AIX machine and it is running the NIM master server environment.

If you are using the the AIX 6.1 NIM server as a 1-Touch server, then for an AIX 5.3 client, ensure that server has the following resources:

- Spot resource with the appropriate ML version
- LPP resource with the appropriate ML version

Verify that the NIM master server and the CommServe names are resolved correctly using `/etc/hosts` or `bind`.



Recovery- 1-Touch for AIX

- Deployment
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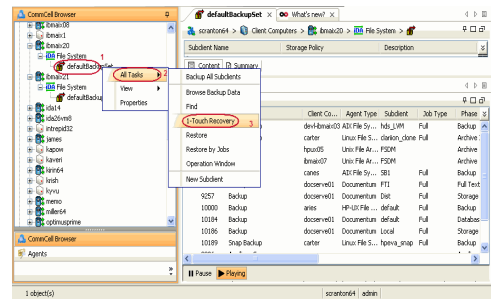
Basic Recovery

Advanced Recovery

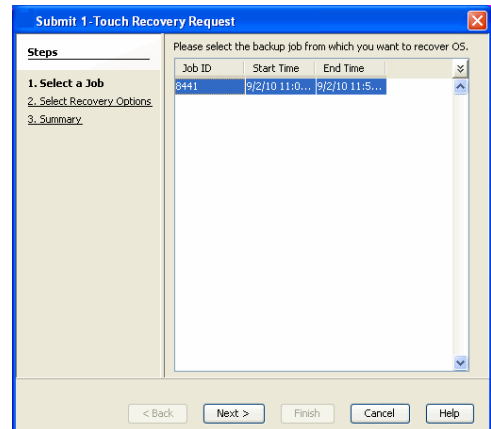
- Restoring Data Backed Up Before a Specific Date
- Changing the Priority of the Restore Job
- Starting the Restore Job in Suspended State
- Restoring From a Copy Precedence
- Restoring From a Specific Data Path

BASIC RECOVERY

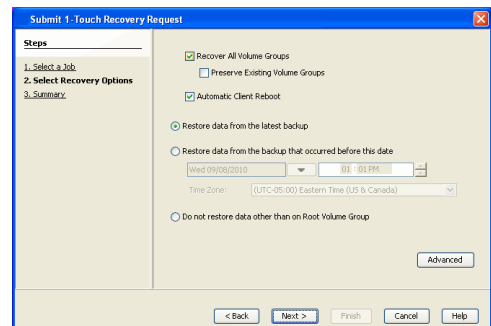
1. Login to CommCell Console using CommCell credentials.
 - Do not use domain credentials to login to CommCell. The single sign on is not supported for 1-Touch feature.
2.
 - From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
 - Right-click the **Default Backup Set** and click **All Tasks | 1-Touch Recovery**.



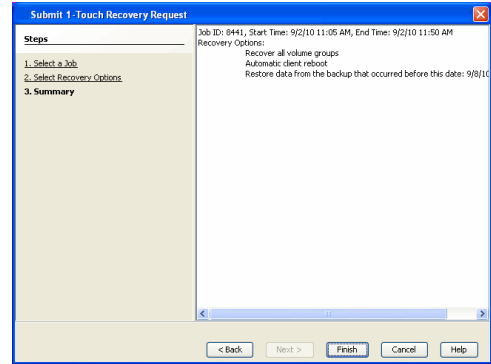
3.
 - Select the backup job for recovering the operating system.
 - Click **Next**.



4. Click **Next**.



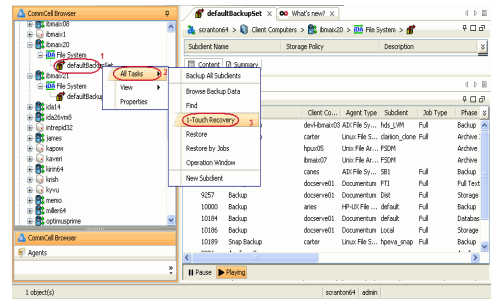
5.
 - Review the recovery options.
 - Click **Finish**.



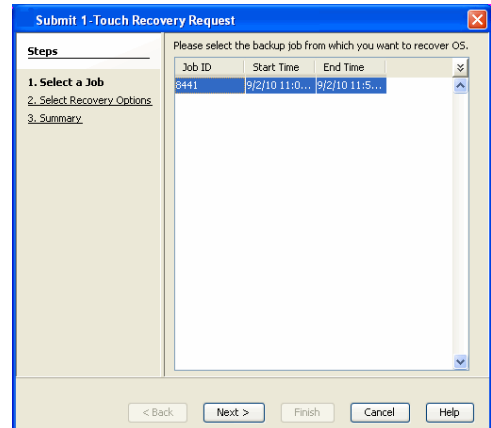
ADVANCED RECOVERY

When AIX operating system is not running or if additional manual steps are required on the client, you have to manually perform the network boot for the client.

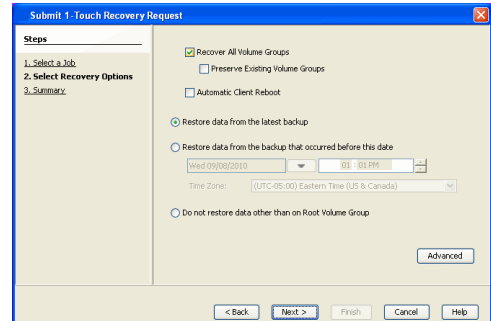
1.
 - From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
 - Right-click the **Default Backup Set** and click **All Tasks | 1-Touch Recovery**.



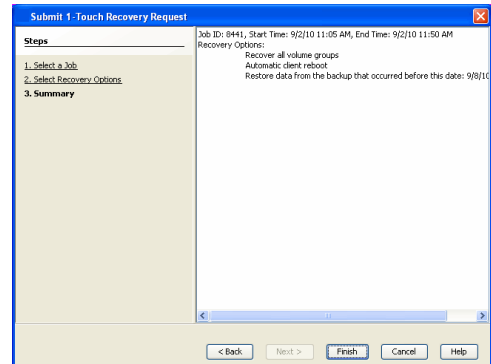
2.
 - Select the backup job for recovering the operating system.
 - Click **Next**.



3.
 - Do not select **Automatic Client Reboot**.
 - Click **Next**.



4.
 - Review the recovery options.
 - Click **Finish**.

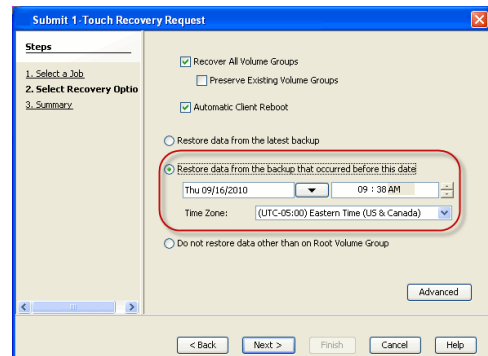


5. Wait for the 1-Touch recovery job to complete restoring `mksysb` to the NIM master.
6. If the client is running operating system you can perform any necessary steps required on client computer.
If the client doesn't have the operating system, connect it to the network and switch power ON.
 - Navigate to the SMS menu
 - Configure network interface if required to use the NIM master server.
 - Boot the client computer using network interface.
 - If Restore Data option is selected, a new restore job will be automatically started.
 - After the client computer reboot and the restore job are complete, verify if the client is up and services are running.
 - Check connectivity from the CommCell Console.
 - Clean up the NIM master server.

RESTORING DATA BACKED UP BEFORE A SPECIFIC DATE

You can perform a point-in-time restore of the system state. You can recover data from a backup that occurred before the specified date and time.

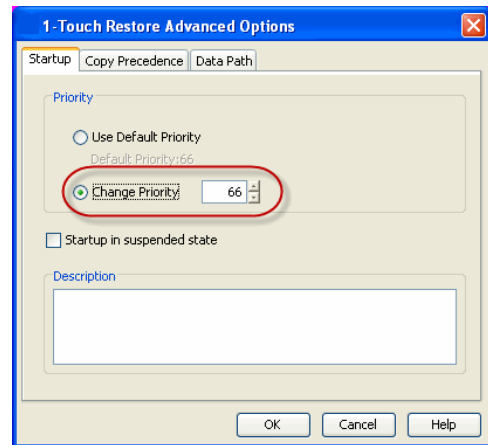
1. From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Restore data from the backup that occurred before this date**.
5. Enter date and time.
6. Select a **Time Zone**.
7. Click **Next**.
8. Click **Finish**.



CHANGING THE PRIORITY OF THE RESTORE JOB

You can increase the priority of a restore job. If you want to perform the 1-Touch recovery on a high priority, follow the steps given below:

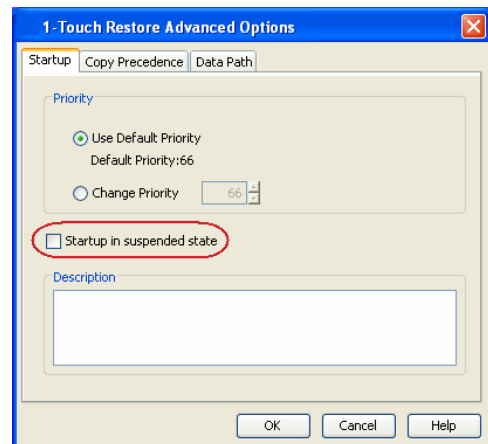
1. From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Change Priority**.
6. Enter the priority number between 0 to 999. Lower the number, higher the priority.
7. Click **Ok**.
8. Click **Next**.
9. Click **Finish**.



STARTING THE RESTORE JOB IN SUSPENDED STATE

If there are multiple jobs running simultaneously on the CommServe, you can hold the restore job on suspended state. Once the CommServe is freed up, you can resume the restore job from the **Job Controller** window.

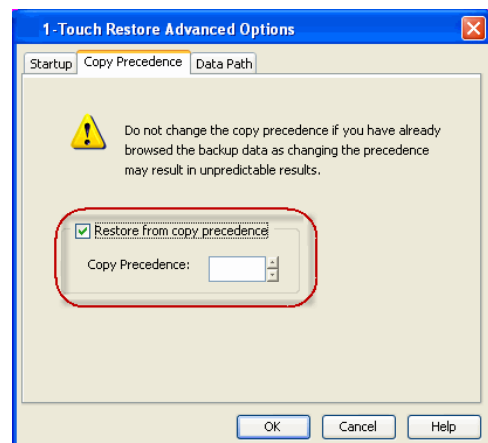
1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Startup in suspended state**
6. Click **Ok**.
7. Click **Next**.
8. Click **Finish**.



RESTORING DATA FROM A COPY PRECEDENCE

By default, 1-Touch recovery will restore the data from the primary copy. But if you want to restore data from a particular storage policy copy, you can specify the copy precedence.

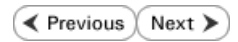
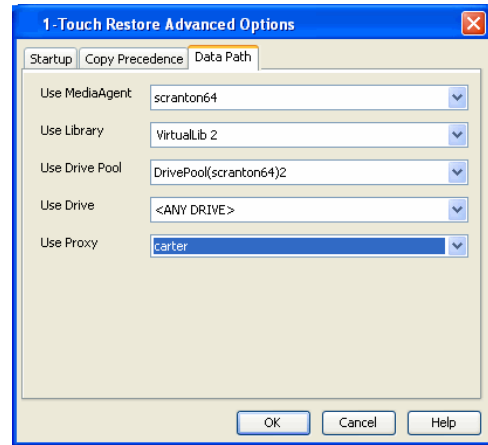
1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Copy Precedence**.
6. Click **Restore from copy precedence**.
7. Enter the copy precedence number.
8. Click **Ok**.
9. Click **Next**.
10. Click **Finish**.



RESTORING DATA FROM A SPECIFIC DATA PATH

If you want to restore the data from a specific location on a MediaAgent, you can specify the data path as follows:

1. From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Data Path**.
6. Select the following to specify the data path:
 - **Use MediaAgent**
 - **Use Library**
 - **Use Drive Pool**
 - **Use Drive**
 - **Use Proxy**
7. Click **Ok**.
8. Click **Next**.
9. Click **Finish**.



System Requirements - 1-Touch

AIX	HP-UX	Linux	Solaris	Windows
-----	-------	-------	---------	---------

OPERATING SYSTEM

The following are the requirements for 1-Touch on HP-UX:

SERVER

HP-UX 11i v3 (11.31)

HP-UX 11i v2 (11.23)

HP-UX 11i v1 (11.11) with a minimum of OS patch level of December 2008 patch bundle or higher (contact Hewlett Packard to obtain the patch)

CLIENT

HP-UX 11i v3 (11.31)

HP-UX 11i v2 (11.23)

HP-UX 11i v1 (11.11) with a minimum of OS patch level of December 2008 patch bundle or higher (contact Hewlett Packard to obtain the patch)

HARD DRIVE

The 1-Touch Server requires 2 GB of disk space per client for the 1-Touch client configuration files.

The 1-Touch Client requires 2 GB of disk space per client.

MEMORY

1 GB RAM minimum required; 2 GB RAM recommended.

PROCESSOR

Itanium

PA-RISC

SUPPORTED FILE SYSTEM AND VOLUME MANAGER TYPES

- HPUX Logical Volume Manager for Root and Non-Root volumes (LVM)
- VERITAS Volume Manager 5.0 or higher for Root and Non Root volumes (VxVM)
- HFS File system (HFS)
- VERITAS File System (VxFS)

NOTES

- The latest Ignite-UX software must be installed on both the 1-Touch servers and the 1-Touch clients. Ensure that the same version of this software is installed on both the servers and the clients.
- Ensure that the same version of NFS PV3 is installed on the 1-Touch servers and 1-Touch clients.
- 1-Touch Server and the client must have the same processor.

SERVER

- The 1-Touch Server must be a dedicated HP-UX machine running the Ignite server environment.

CLIENT

- Ensure that the remsh process is running on the 1-Touch client to enable a network boot from the 1-Touch server. If this process is not running, you must manually reboot the client and perform the network recovery.
- This feature is not supported when bootable partitions are on the disk arrays (snapable disk).

DISCLAIMER

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

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

Deployment - 1-Touch for HP-UX

Deployment Configuration Recovery FAQ

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1-Touch Recovery allows you to recover the entire computer system without installing the Operating system or any other software.

INSTALLATION

To perform the 1-Touch Recovery, you must install the following:

- **1-TOUCH SERVER**

Interactive Install - 1-Touch Server Software

- **1-TOUCH CLIENT**

Install Unix File System *iDataAgent* on the computer that satisfies the minimum system requirements. The computer is referred to as the Client computer in this install procedure.

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

- Method 1: Interactive Install Unix File System *iDataAgent* - to install directly on client computer.
- Method 2: Install Software from CommCell Console - to install remotely on a client computer.

1-TOUCH SERVER

INSTALL THE 1-TOUCH SERVER SOFTWARE

1. Place the **Software Installation Disc** on a HP-UX computer that satisfies the minimum System Requirements.
2. Run the following command from the Software Installation Disc:
./cvpkgadd
3. The product banner and other information is displayed.
Press **Enter**.
4. Read the license agreement. Type **y** and press **Enter**.
5. Press **Enter**.
6. Press **Enter**.
7. 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**.

BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

System Requirements for 1-Touch Server and Client

Verify that the computer in which you wish to install the 1-Touch Server Software satisfies the System Requirements.

Overview

Provides comprehensive information about 1-Touch feature

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]

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]

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

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

8. Press **Enter**.

9. Type the appropriate number to select **1-Touch Server**.

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

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

10. Press **Enter**.

11. 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.

12. Press **Enter**.

13. 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:

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

14. 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.

15. Press **Enter**.

GUI.

Please check the interface name below, and make connections if necessary:

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

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]
```

```
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
```

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

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

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

```
1) Download from the software provider website.
```

```
2) Use the one in the installation media
```

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

```
Your choice: [1] 2
```

```
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]
```

Please specify where you want us to install Calypso binaries.

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

```
Installation Directory: [/opt]
```

Please specify where you want to keep Calypso log files.

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

```
Log Directory: [/var/log]
```

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

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.

16. If you indicated **Yes** in the previous step, you will be prompted for the group name that must be used to launch processes.

Enter the group name and then press **Enter**.

17. 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**.

18. 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.

19. 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.

20. Press **Enter**.

21. 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

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

23. Type **3** to the **Exit** option and press **Enter**.
The installation is now complete.

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

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

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: skyl

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 "skyl".

Press <ENTER> to continue ...

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

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

Please enter the port numbers.

Port Number for CVD : [8400]

Port Number for EvMgrC: [8402]

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

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

CommServe Host Name: mycommserve.company.com

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

1) Use Cell level policy

2) Always use Global filters

3) Do not use Global filters

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

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 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

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]

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]

1-TOUCH CLIENT

METHOD 1: INTERACTIVE INSTALL UNIX FILE SYSTEM /DATAAGENT

1. Place the **Software Installation Disc** on a HP-UX client computer that satisfies the minimum System Requirements.
2. Run the following command from the Software Installation Disc:
./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. 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]

7. 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]

8. 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.

9. Type the appropriate number to install **Unix File System iDataAgent**.
A confirmation screen will mark your choice with an "X".
Type **d** for **Done**, and press **Enter**.
10. Press **Enter**.
11. 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.

12. Press **Enter**.

13. 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:

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

14. 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.

15. Press **Enter**.

16. Type the **Group name** and press **Enter**.
Press **Enter** again.

Physical Machine Client name: [angel]

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

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

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

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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

Keep Your Install Up to Date - Latest Service Pack

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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]

Please specify where you want us to install Calypso binaries.

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

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

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

Log Directory: [/var/log]

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

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]

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

17. 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**.

use Oracle iDataAgent or SAP Agent, you should enter Oracle's "dba" group here.

Group name: skyl

REMINDER

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Press <ENTER> to continue ...

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

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

Please enter the port numbers.

Port Number for CVD : [8400]

Port Number for EvMgrC: [8402]

18. 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]

19. 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

20. 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.

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3) Do not use Global filters

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

21. 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 mycommserve.company.com. Please choose the group(s) that you want to add this client angel.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

[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

22. 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]

23. 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.

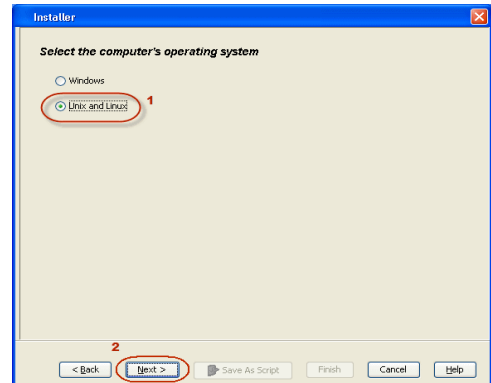
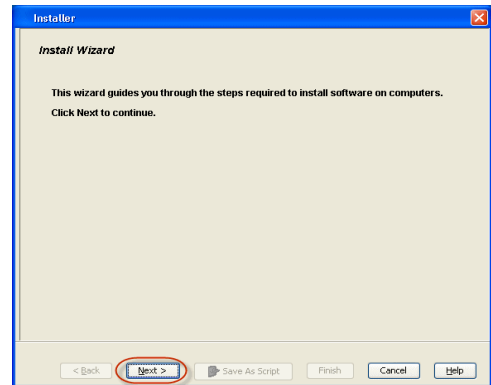
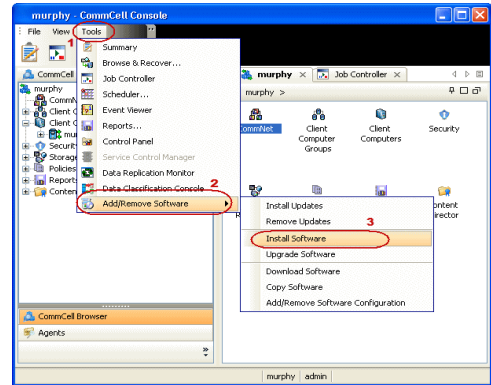
Currently you have Calypso installed on physical node angel.company.com.

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]

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

1. From the CommCell Browser, select **Tools | Add/Remove Software | Install Software**.
2. Click **Next**.
3. Select **Unix and Linux**.
Click **Next**.
4. Select **Manually Select Computers**.
Click **Next**.



5. Enter the fully qualified domain name of the HP-UX client computer in which you wish to install.

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

The Unix File System *iDataAgent* software will be installed on this client computer.

Click **Next**.

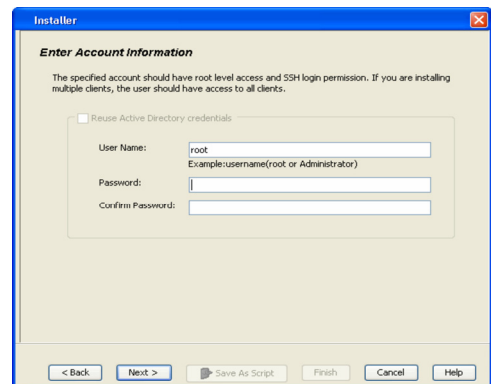
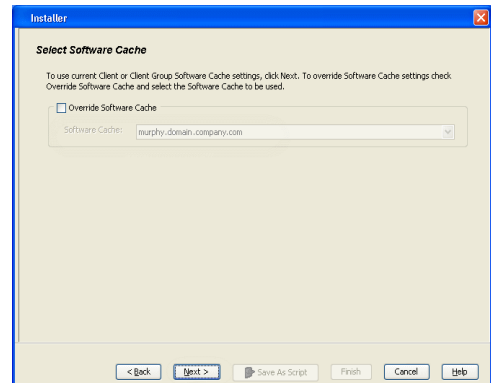
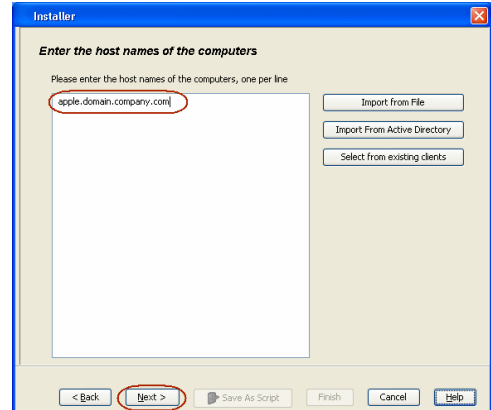
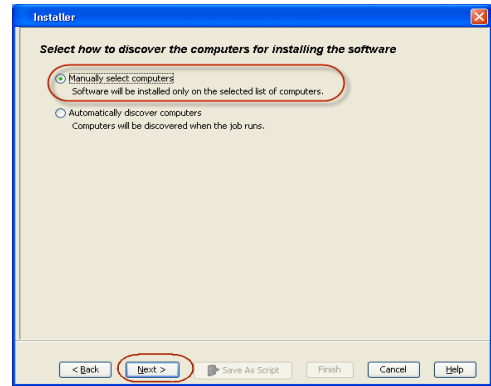
6. Click **Next**.

7. Specify **UserName** and **Password** of client computer.

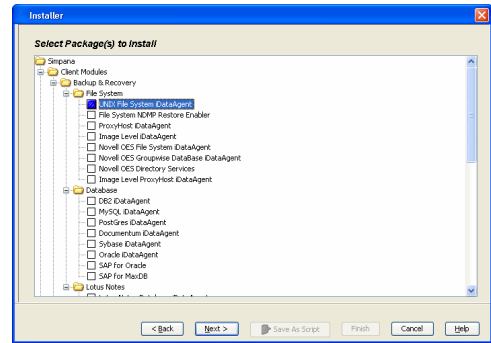
Click **Next**.

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

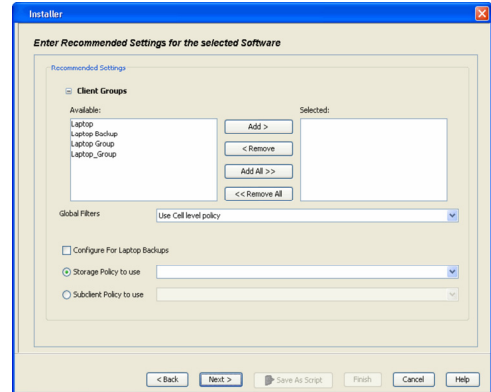
Click **Next**.



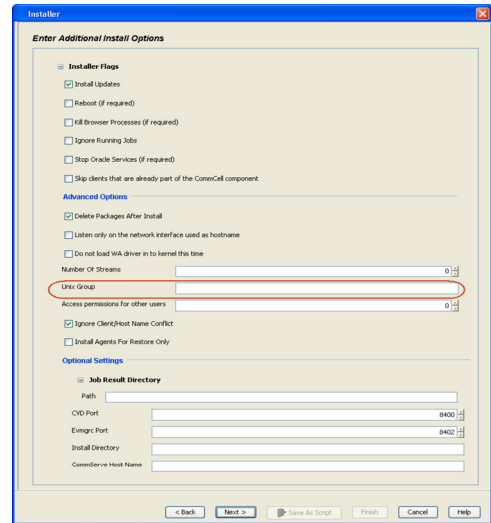
9.
 - Select **Client Group** from **Available** and click **Add**.
Do not add more than one Client Group.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.



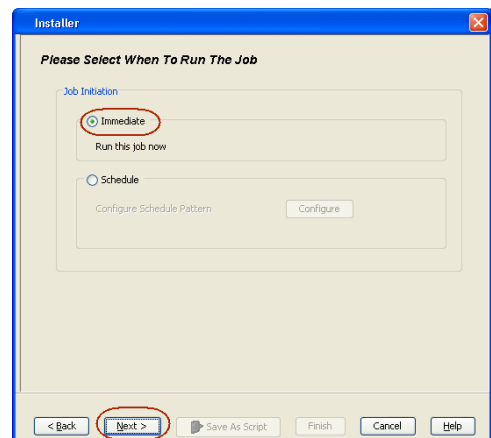
10. Click **Next**.



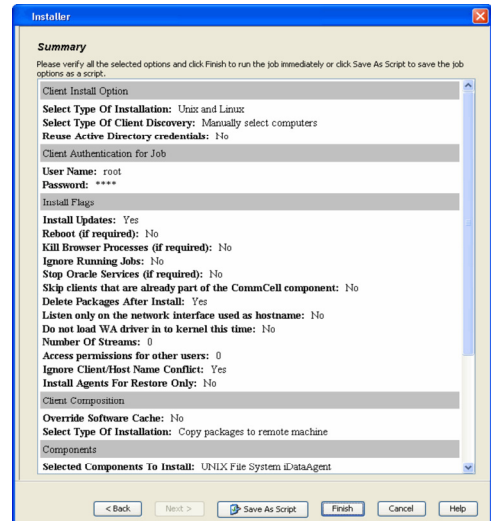
11. Select **Immediate**.
Click **Next**.



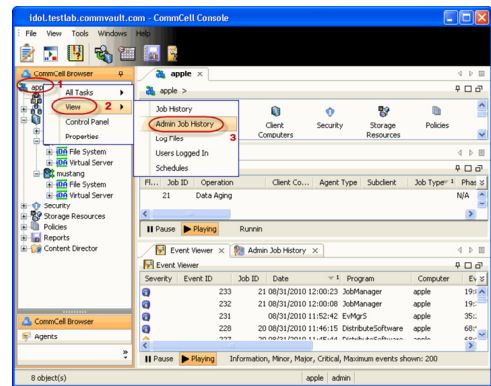
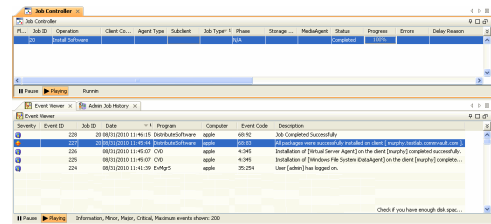
12. Click **Finish**.



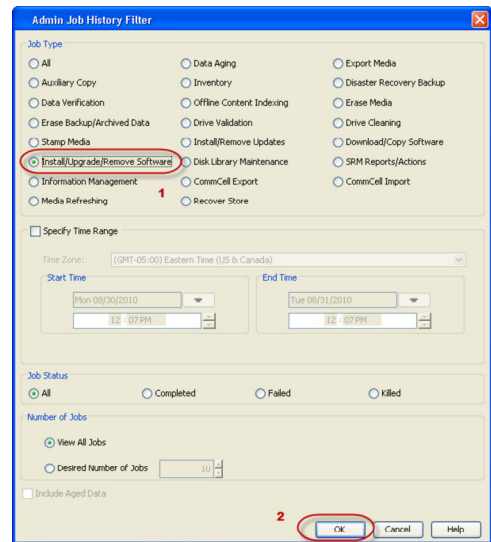
13. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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



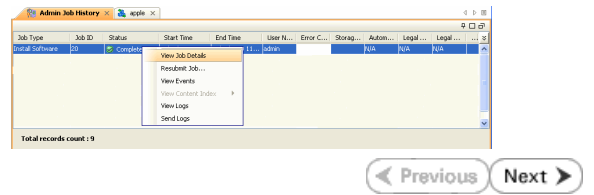
15. Select **Install/Upgrade/Remove Software**.
Click **OK**.



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

- Items that succeeded during the job

- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job



Configuration - 1-Touch for HP-UX

Deployment Configuration Recovery FAQ

Previous Next

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Basic Configuration

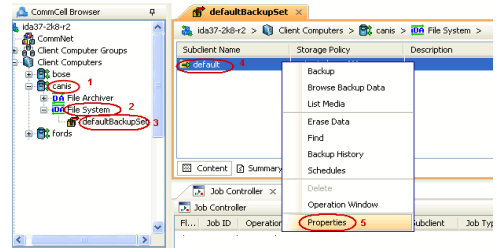
- Enable 1-Touch
- Perform a Backup

BASIC SETUP

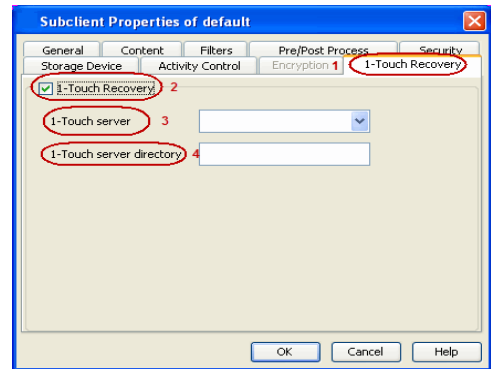
ENABLE 1-TOUCH

After you install the File System iDataAgent, follow the steps given below to enable the 1-Touch for the default subclient :

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



- Click **1-Touch Recovery** tab.
 - Select **1-Touch Recovery**.
 - Select the **1-Touch Server** from the list.
 - Enter the path to the **1-Touch server directory**.
Enter the location of the ignite server in the **1-Touch Server directory**. Typically, the location of the the ignite server is as follows: `/var/opt/ignite/clients/`
 - Click **Ok**.

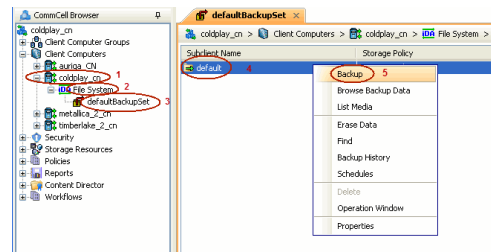


If you replaced the 1-Touch client's network card after the 1-Touch backup, be sure to update the 1-Touch server with the new MAC address before you start the 1-Touch recovery.

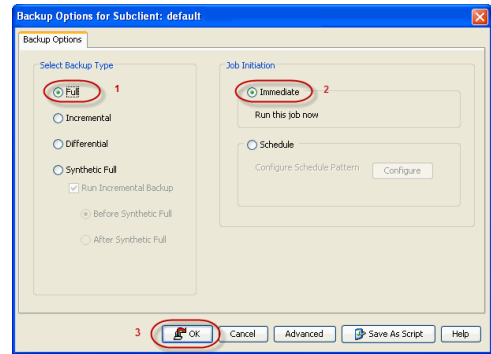
PERFORM A BACKUP

After you enable 1-Touch, perform backups of the default subclient periodically to capture any changes in the client system configuration. Before recovering a client, ensure that you have run at least one full backup of the default subclient.

- From the CommCell Console, navigate to **<Client> | File System iDataAgent | defaultBackupSet**.
 - Right-click the subclient, and click **Backup**.

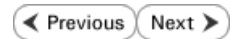


- Select **Full**.
 - Select **Immediate**.
 - Click **OK**.



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

ID	Job ID	Operation	Client Co...	Agent Type	Subclient	Job Type	Phase	Storage...	MediaAgent	Status	Progress	Errors
8819		Archiver	hpaur0	Linux File...	FSM1	Full	Archive	scantora4...	scantora4	Pending	7%	Network
10109		Snap Backup	carter	Linux File...	hpaur0_jm...	Full	Backup	scantora4...	scantora4	Running	100%	
2124		Snap Backup	dev4baw00	ADSI File S...	hd_j1m1	Full	Backup	scantora4...	scantora4	Suspended	100%	
8491		Snap Backup	carter	Linux File S...	carter_kh...	Full	Archive Index	scantora4...	scantora4	Waiting	0%	No Resource
9074		Archive	dev4baw0	Linux File...	FSM1	Full	Archive	scantora4...	scantora4	Waiting	0%	No Resource
9101		Backup	carter	ADSI File S...	SE1	Full	Backup	scantora4...	scantora4	Waiting	0%	No Resource
9235		Backup	doccarne0	Documentar...	PT1	Full	Full Text In...	scantora4...	scantora4	Waiting	0%	No Resource
9257		Backup	doccarne0	Documentar...	Dst	Full	Storage Ar...	scantora4...	scantora4	Waiting	0%	No Resource
10000		Backup	area	HPFS File...	default	Full	Backup	scantora4...	scantora4	Waiting	0%	No Resource
10184		Backup	doccarne0	Documentar...	default	Full	Database B...	scantora4...	scantora4	Waiting	0%	No Resource
10186		Backup	doccarne0	Documentar...	Local	Full	Storage Ar...	scantora4...	scantora4	Waiting	0%	No Resource
2085		Assemble Copy	doccarne0	Documentar...	Local	Full	Assemble C...	scantora4...	scantora4	Waiting	0%	No Resource
9114		Disaster Recovery Backup				Full	Backup	scantora4...	scantora4	Waiting	0%	No Resource



Recovery - 1-Touch for HP-UX

Deployment Configuration Recovery FAQ

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Basic Recovery - Restoring to Client with HP-UX Operating System Running

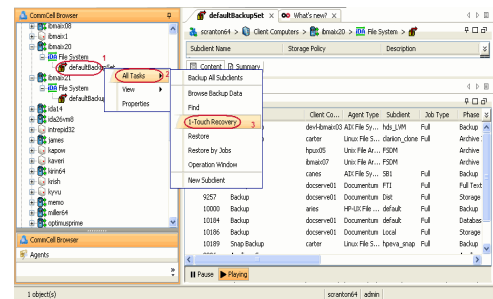
Advanced Recovery

- Rebuilding a Client
- Restoring Data Backed Up Before a Specific date
- Changing the Priority of the Restore Job
- Starting the Restore Job in Suspended State
- Restoring From a Copy Precedence
- Restoring From a specific Data Path

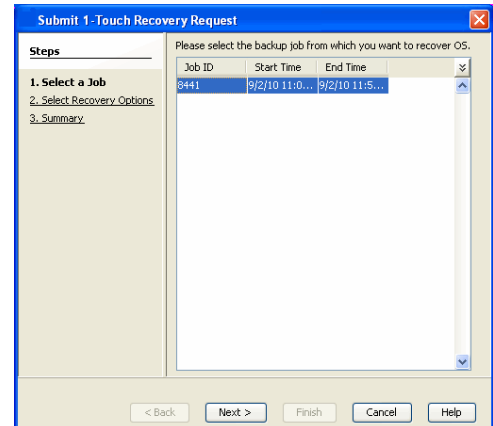
BASIC RECOVERY - RESTORING TO A CLIENT WITH HP-UX OPERATING SYSTEM RUNNING

Follow the steps given below when the HP-UX Operating System is running on the client and you can automatically boot the client:

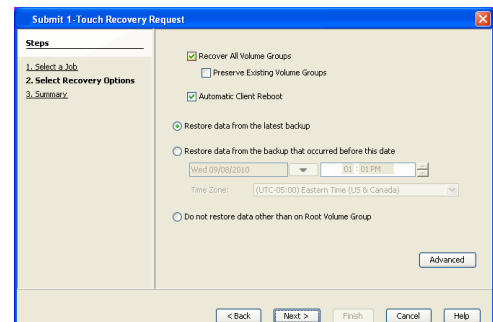
1. Login to CommCell Console using CommCell credentials.
 - Do not use domain credentials to login to CommCell. The single sign on is not supported for 1-Touch feature.
2.
 - From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
 - Right-click the **Default Backup Set** and click **All Tasks | 1-Touch Recovery**.



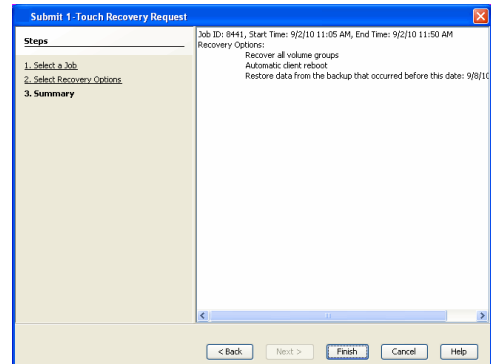
3.
 - Select the backup job for recovering the operating system.
 - Click **Next**.



4. Click **Next**.



5.
 - Review the recovery options.
 - Click **Finish**.



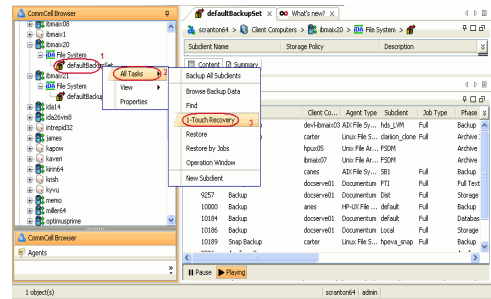
ADVANCED RECOVERY

REBUILDING A CLIENT

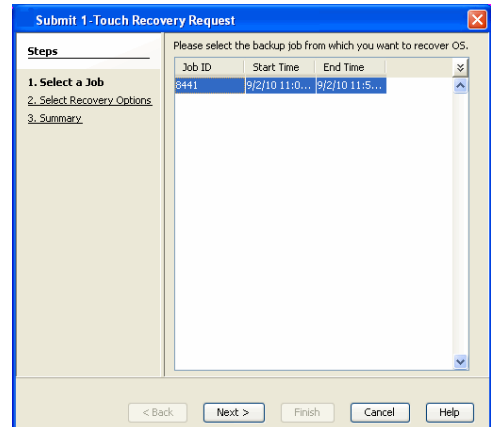
When HP-UX operating system is not running, you need to rebuild the client. You have to manually perform the network boot for the client.

For network reboot, The 1-Touch server and the 1-Touch client need not be in the same subnet. If the client is in a different subnet, data can still be recovered over the network by using an Ignite Server with the help of a boot helper (provided by Hewlett-Packard).

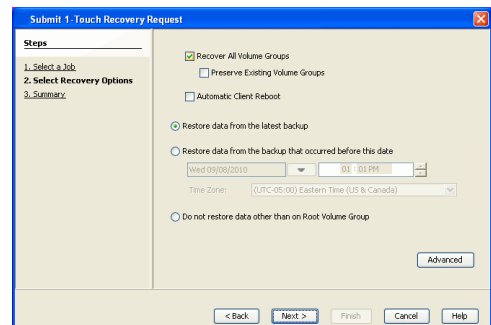
1.
 - From the CommCell Console, navigate to **<Client> | File System | DataAgent | defaultBackupSet**.
 - Right-click the **Default Backup Set** and click **All Tasks | 1-Touch Recovery**.



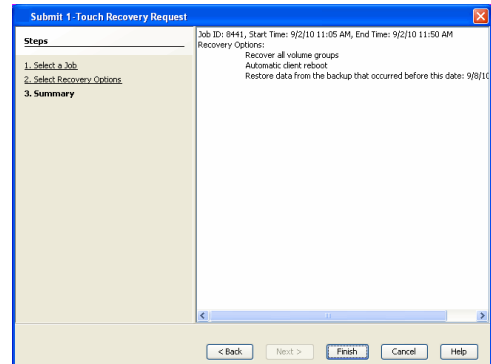
2.
 - Select the backup job for recovering the operating system.
 - Click **Next**.



3.
 - Do not select **Automatic Client Reboot**.
 - Click **Next**.



4.
 - Review the recovery options.
 - Click **Finish**.

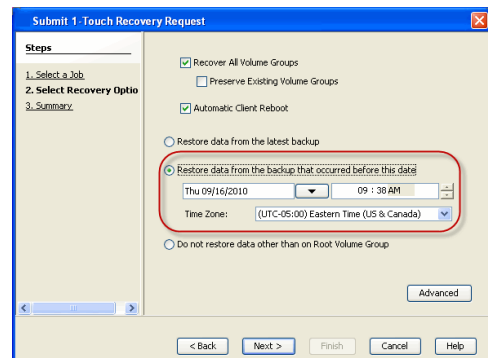


5.
 - Connect the client to network and switch on the power.
 - Perform the LAN boot.

RESTORING DATA BACKED UP BEFORE A SPECIFIC DATE

You can perform a point-in-time restore of the system state. You can recover data from a backup that occurred before the specified date and time.

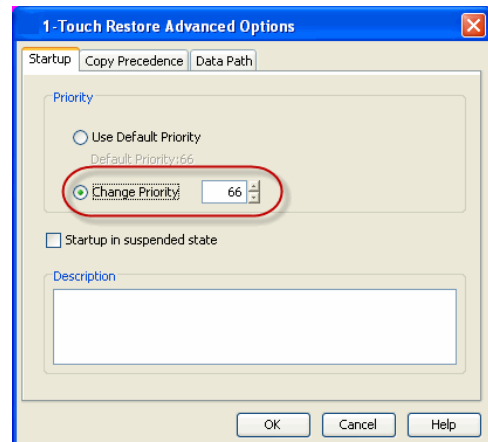
1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Restore data from the backup that occurred before this date**.
5. Enter date and time.
6. Select a **Time Zone**.
7. Click **Next**.
8. Click **Finish**.



CHANGING THE PRIORITY OF THE RESTORE JOB

You can increase the priority of a restore job. If you want to perform the 1-Touch recovery on a high priority, follow the steps given below:

1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Change Priority**.
6. Enter the priority number between 0 to 999. Lower the number, higher the priority.
7. Click **Ok**.
8. Click **Next**.
9. Click **Finish**.

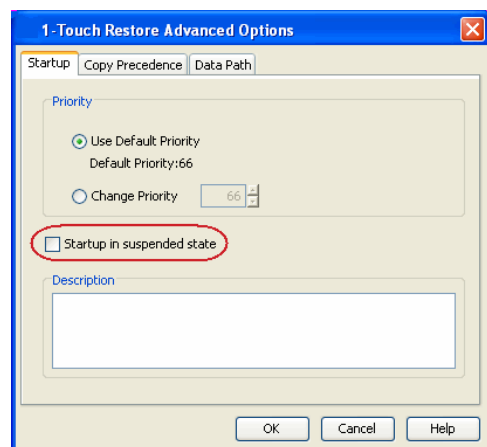


STARTING THE RESTORE JOB IN SUSPENDED STATE

If there are multiple jobs running simultaneously on the CommServe, you can hold the restore job on suspended state. Once the CommServe is freed up, you can resume the restore job from the **Job Controller** window.

1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.

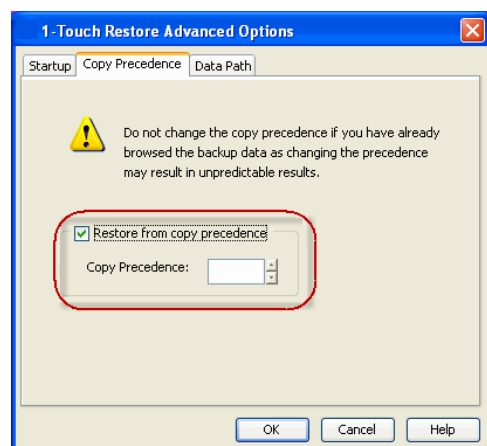
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Startup in suspended state**
6. Click **Ok**.
7. Click **Next**.
8. Click **Finish**.



RESTORING DATA FROM A COPY PRECEDENCE

By default, 1-Touch recovery will restore the data from the primary copy. But if you want to restore data from a particular storage policy copy, you can specify the copy precedence.

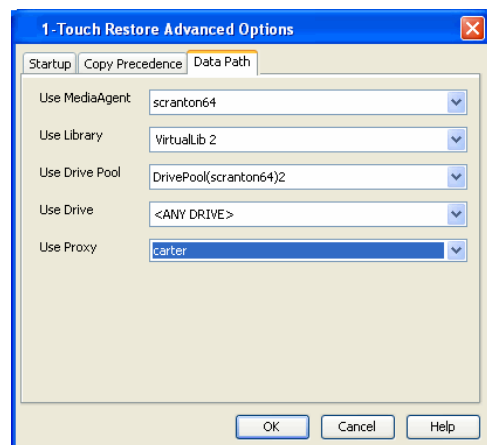
1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Copy Precedence**.
6. Click **Restore from copy precedence**.
7. Enter the copy precedence number.
8. Click **Ok**.
9. Click **Next**.
10. Click **Finish**.



RESTORING DATA FROM A SPECIFIC DATA PATH

If you want to restore the data from a specific location on a MediaAgent, you can specify the data path as follows:

1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Data Path**.
6. Select the following to specify the data path:
 - o **Use MediaAgent**
 - o **Use Library**
 - o **Use Drive Pool**
 - o **Use Drive**
 - o **Use Proxy**
7. Click **Ok**.
8. Click **Next**.
9. Click **Finish**.



System Requirements - 1-Touch

AIX | HP-UX | Linux | Solaris | Windows

OPERATING SYSTEM

The following are the requirements for 1-Touch on Linux:

CLIENT

ORACLE LINUX

Oracle Enterprise Linux 5.x(Carthage) with glibc 2.5.x

RED HAT ENTERPRISE LINUX

Red Hat Enterprise Linux 6.0 with glibc 2.12.x*

*client must have a minimum of Service Pack 11 (SP11) installed

Red Hat Enterprise Linux 5.x with glibc 2.5.x

Red Hat Enterprise Linux 4.7 with glibc 2.3.x

SUSE LINUX

SuSE Linux 11.x with glibc 2.9.x

SuSE Linux 10.x with glibc 2.4.x

HARD DRIVE

The 1-Touch Client requires 500 MB of disk space for 1-Touch client configuration files.

MEMORY

2 GB RAM minimum required; 3 GB RAM recommended.

PROCESSOR

Intel Pentium, x64 or compatible processors

PERIPHERALS

A CD-ROM drive or ability to boot from an ISO image file is required to boot the 1-Touch client for recovery.

SUPPORTED FILE SYSTEM AND VOLUME MANAGER TYPES

Supported File system and volume manager types	Supported Options
Linux Logical Volume Manager (LVM) Version 2	
Second Extended File System (ext2)	Block size, blocks per group, revision
Third Extended File System (ext3)	Block size, blocks per group, revision
Fourth Extended File System (ext4)	Block size, blocks per group, revision
Reiser File System (reiserfs)	Block size, hash function, journaling device, uuid
XFS	Block size, number of allocation groups, stripe unit, inode size, maximum percentage of file system space that can be allocated to inodes, log device, lazy-count, log version, size of blocks in the real-time section

Snapshot volumes will not be recovered as part of the 1-touch recovery. Hence, it is recommended that you mount and backup the snapshot data.

NOTES

COMMSERVE

- To enable 1-Touch recovery, the **Force per-client certificate authentication on CommServe** option has to be turned off on the CommServe at least for the duration of the recovery. This option can be accessed from the CommServe **Control Panel** by clicking on **Certificate Administration**.

CLIENT

- iSCSI disks are supported for Virtualize Me; all the backed up iSCSI disks will be re-created as regular SCSI disks on the virtual machine if they are selected during restores.
- iSCSI disks are not supported for 1-Touch. These disks need to be manually unselected during interactive restores if any iSCSI disks are backed up.
- SAN disks are supported for 1-Touch and Virtualize Me. For Virtualize Me, as FC HBA (Fibre Channel Host Bus Adapter) virtualization is not supported, multipath SAN disks will be re-created as regular SCSI disks.
- 1-Touch supports native Linux multipathing. Vendor specific multipath implementations are not supported.
- Itanium (IA64) processor is not supported.

DISCLAIMER

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

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

Deployment - 1-Touch for Linux

Deployment Configuration Recovery Troubleshooting FAQs

◀ Previous Next ▶

1-Touch Recovery allows you to recover the entire computer system without installing the operating system or any other software.

INSTALLATION

1-TOUCH CLIENT

Install the Unix File System *iDataAgent* on the computers that satisfies the minimum system requirements. The computer is referred to as the Client computer in this install procedure.

The software can be installed using one of the following methods. Ensure you have the following before performing the install:

- Software version Service Pack 12.

METHOD 1: INTERACTIVE INSTALL

Use this procedure to install directly on client computer.

METHOD 2: INSTALL SOFTWARE FROM COMMCELL CONSOLE

Use this procedure to install remotely on a client computer.

METHOD 1: INTERACTIVE INSTALL

1. Place the **Software Installation Disc** on a Linux client computer that satisfies the minimum System Requirements.
2. Run the following command from the Software Installation Disc:
./cvpkgadd
3. The product banner and other information is displayed.
Press **Enter**.
4. Read the license agreement. Type **y** and press **Enter**.
5. Press **Enter**.
6. Press **Enter**.
7. 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.

BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

System Requirements for 1-Touch Client

Verify that the computer in which you wish to enable 1-Touch feature satisfies the System Requirements.

Overview

Provides comprehensive information about 1-Touch feature

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]

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]

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

8. Press **Enter**.

9. Type the appropriate number to select **Unix File System iDataAgent**.

A confirmation screen will mark your choice with an "X". Type **d** for **Done**, and press **Enter**.

- To select multiple component, enter the number by adding a space.
- Your screen may look different from the example shown.

10. Press **Enter**.

11. 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.

12. Press **Enter**.

13. 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:

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

14. 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.

15. 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

```
connections if necessary:
Physical Machine Host Name: [angel.company.com]

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]

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

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

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

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

1) Download from the software provider website.
2) Use the one in the installation media
3) Use the copy I already have by entering its unix path

Your choice: [1] 2

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]

Please specify where you want us to install Calypso
binaries.

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

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

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

Log Directory: [/var/log]

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
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]

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

- 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]

- Type **3** 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 angel.company.com.

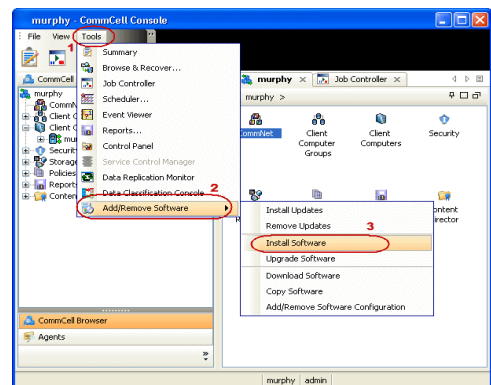
Now you have a choice of either adding another package to the existing installation or configure Calypso on a virtual machine for use in a cluster.

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

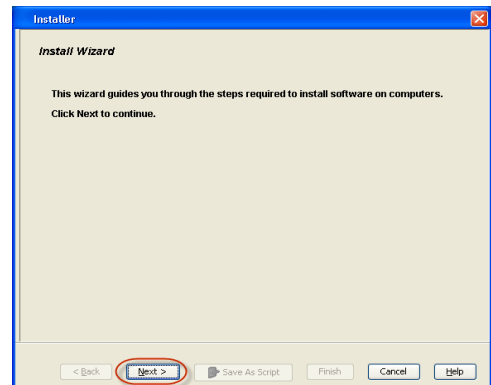
Your choice: [3]

METHOD 1: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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



- Click **Next**.



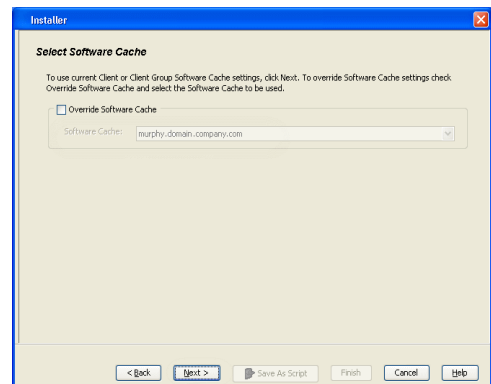
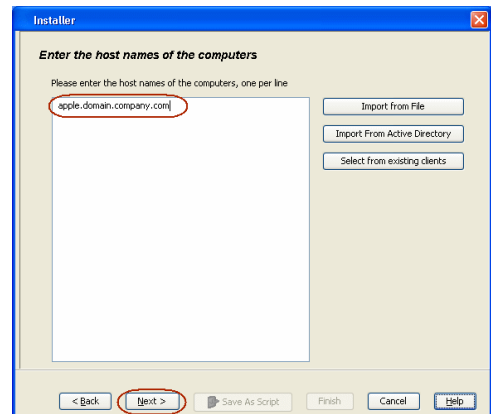
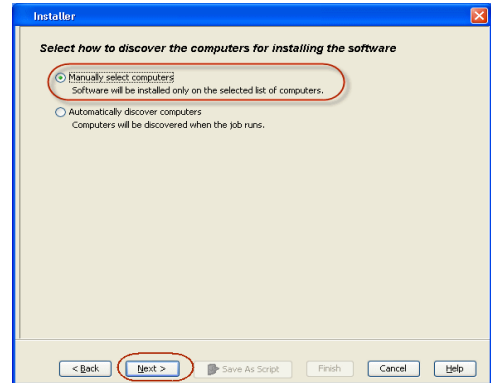
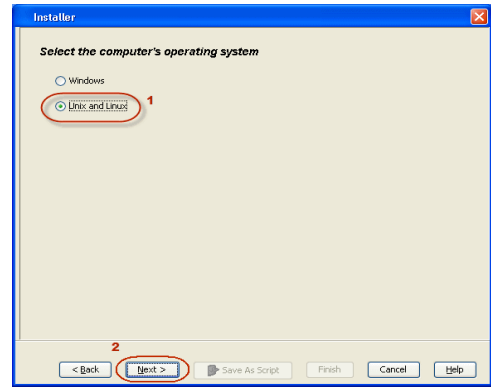
- Select **Unix and Linux**.
Click **Next**.

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

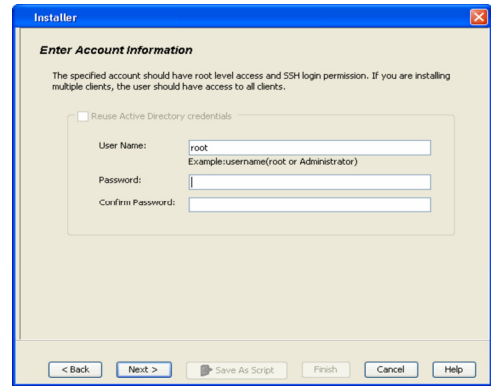
- 5. Enter the fully qualified domain name of the linux client computer in which you wish to install.
For example: `apple.domain.company.com`
The Unix File System iDataAgent will be installed on this client computer.
Click **Next**.

- 6. Click **Next**.

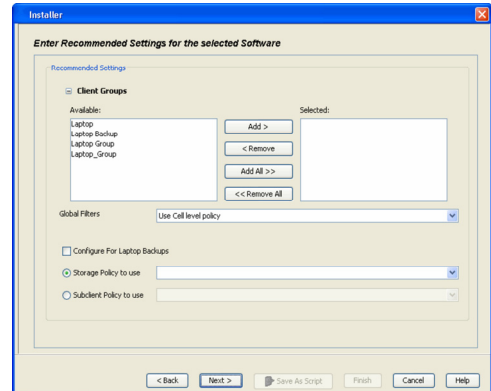
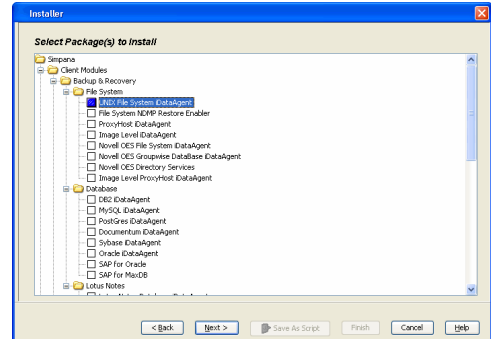
- 7. Specify **UserName** and **Password** of client computer.
Click **Next**.



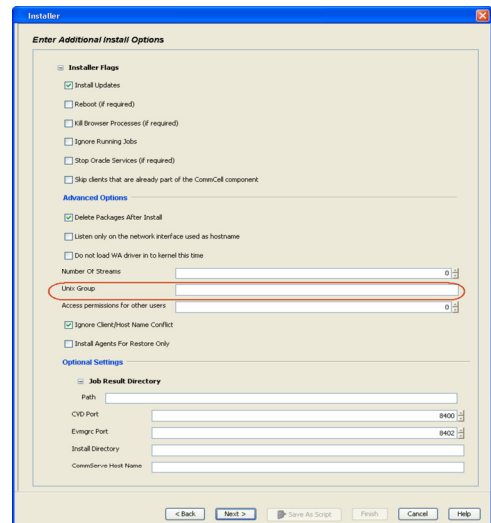
8. Select **Unix File System iDataAgent**.
Click **Next**.



9.
 - Select **Client Group** from **Available** and click **Add**.
Do not add more than one Client Group.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.

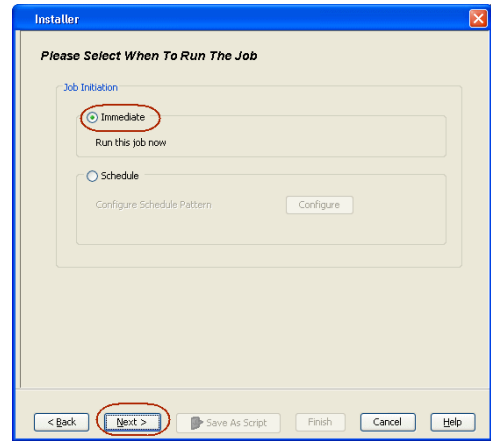


10. Click **Next**.

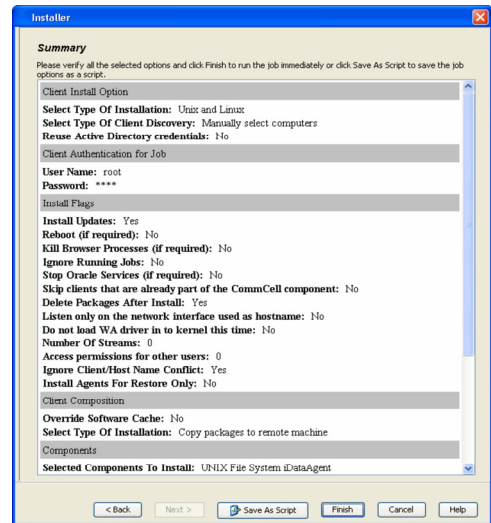


11. Select **Immediate**.
Click **Next**.

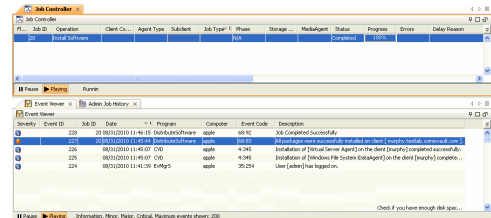
12. Click **Finish**.



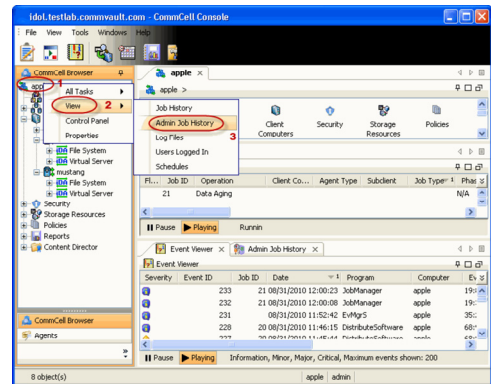
13. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

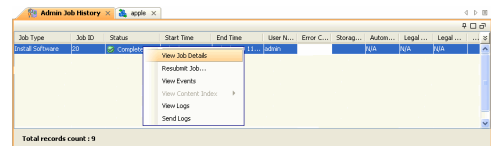
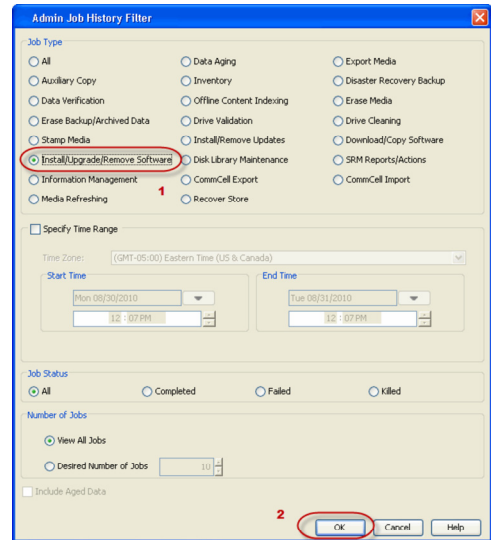


15. Select **Install/Upgrade/Remove Software**. Click **OK**.



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

- Items that succeeded during the job
- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job



Configuration - 1-Touch for Linux

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- Enable 1-Touch
- Perform a Backup

Advanced Configuration

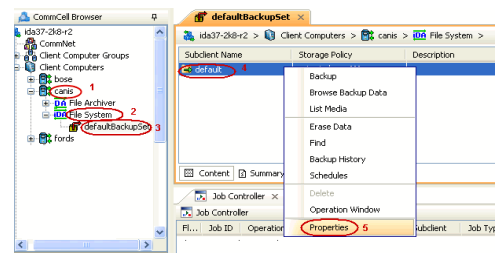
- Create a Client Information Checklist
- Schedule a Backup

BASIC CONFIGURATION

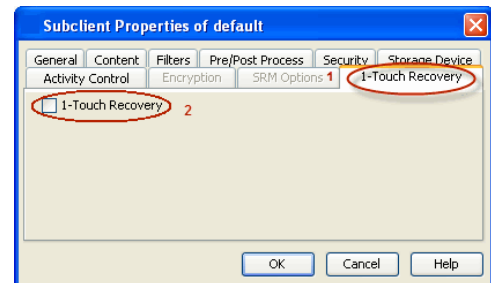
ENABLE 1-TOUCH

After you install the File System iDataAgent, follow the steps given below to enable the 1-Touch for the default subclient :

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



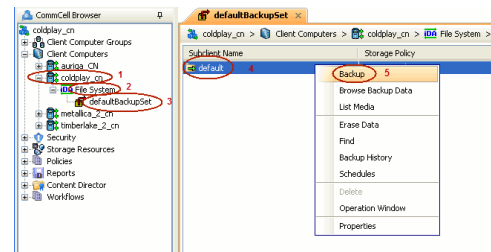
- Click **1-Touch Recovery** tab.
 - Select **1-Touch Recovery**.
 - Click **OK**.



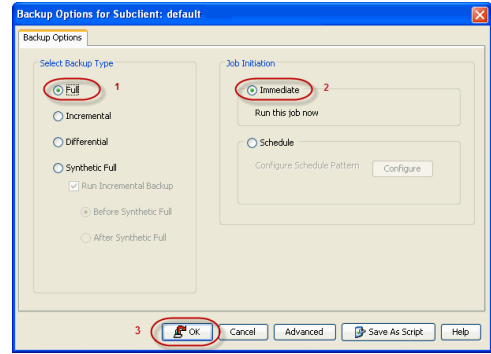
PERFORM A BACKUP

After you enable 1-Touch, perform backups of the default subclient periodically to capture any changes in the client system configuration. Before recovering a client, ensure that you have run at least one full backup of the default subclient.

- From the CommCell Console, navigate to <Client> | **File System iDataAgent | defaultBackupSet**.
 - Right-click the subclient, and click **Backup**.



- Select **Full**.
 - Select **Immediate**.
 - Click **OK**.



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

ID	Client Co.	Agent Type	Subclient	Job Type	Phase	Storage	MediaAgent	Status	Progress	Errors
8819	hpaur0	Linux File...	FSM1	Archive	scantone4...	scantone4	Pending	7%	Network	
10109	center	Linux File S...	hpaur_2nd	Full Backup	scantone4...	scantone4	Running	100%		
2924	center	dev4base001	AD1 File Sy...	Full Backup	scantone4...	scantone4	Suspended	100%		
8991	center	Linux File S...	center_store	Full Backup	scantone4...	scantone4	Waiting	0%	No Resource	
9074	center	Linux File S...	FSM1	Archive	scantone4...	scantone4	Waiting	0%	No Resource	
9101	center	AD1 File Sy...	SE1	Full Backup	scantone4...	scantone4	Waiting	0%	No Resource	
9235	document01	Documentar...	PT1	Full Backup	scantone4...	scantone4	Waiting	0%	No Resource	
9257	document01	Documentar...	dat	Storage Ar...	scantone4...	scantone4	Waiting	0%	No Resource	
10000	area	HP107 File...	default	Full Backup	scantone4...	scantone4	Waiting	0%	No Resource	
10184	document01	Documentar...	default	Full Backup	scantone4...	scantone4	Waiting	0%	No Resource	
10186	document01	Documentar...	Local	Full Backup	scantone4...	scantone4	Waiting	0%	No Resource	
2885	Autobackup	ComGen...		Waiting			Waiting	0%	No Resource	
9114	Disaster Recovery	Backup		Waiting			Waiting	0%	No Resource	

ADVANCED CONFIGURATION

CREATE A CLIENT INFORMATION CHECKLIST

If you want to perform the interactive restore, you must create a client information checklist before starting the restore. You can also use client configuration stored on a CommServe to create a client information checklist.

Create a checklist that contains the following client information:

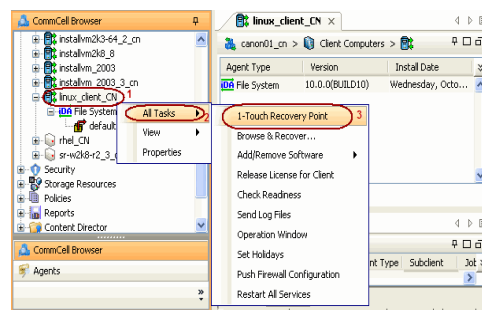
REQUIRED INFORMATION	HOW TO FIND IT
CLIENT INFORMATION	
<ul style="list-style-type: none"> Client Name Host Name 	<ol style="list-style-type: none"> From the CommCell Console, navigate to <Client>. Right click the <Client> and click Properties. Select General tab. Note down the Client Name and Host Name.
<ul style="list-style-type: none"> IP Address Net Mask Gateway Address 	<p>Note down IP address, Net Mask and Gateway address of the interface of the client that is used to communicate with the CommServe.</p> <p>For Example:</p> <ol style="list-style-type: none"> Login to Client computer using the root login and password. Type <code>ifconfig</code>. Note down <code>inet addr</code> and <code>Mask</code> for <code>eth0</code>
DNS Server address	<ol style="list-style-type: none"> Login to Client computer using the root login and password. Type <code>cat /etc/resolv.conf</code>. Note down the IP address for <code>nameserver</code>.
COMMSERVE AND MEDIAAGENT INFORMATION	
CommServe Client Name	<ol style="list-style-type: none"> From the CommCell Console, navigate to <Client>. Right click the <Client> and click Properties. Select General tab. Note down the Client Name.
CommServe Host Name	<ol style="list-style-type: none"> From the CommCell Console, navigate to <Client>. Right click the <Client> and click Properties. Select General tab. Note down the CommServe HostName.
CommServe IP Address	<ol style="list-style-type: none"> Login to CommServe using the administrator login and password.

	<ol style="list-style-type: none"> Invoke the Command Prompt. Type <code>ipconfig</code>.
CommCell Credentials	<ol style="list-style-type: none"> Start CommCell Console on the Client Computer. Note down the username and password to login the CommServe.
Firewall Port Number	<p>You will need this information only when the firewall is set between the CommServe and the client.</p> <ol style="list-style-type: none"> From the CommCell Console, navigate to <Client>. Right click the <Client> and click Properties. Select Firewall Configuration tab. Select Summary tab. Note down the firewall port number.
MediaAgent Name	<ol style="list-style-type: none"> From the CommCell Console, navigate to <Client> File System DataAgent defaultBackupSet. Note down the storage policy associated with the default subclient. From the CommCell Console, navigate to the <Storage Policy> Right-click the Primary copy and select Properties. Note down the MediaAgent name.
MediaAgent IP Address	<ol style="list-style-type: none"> Login to MediaAgent using the administrator login and password. Invoke the Command Prompt. Type <code>ipconfig</code>.

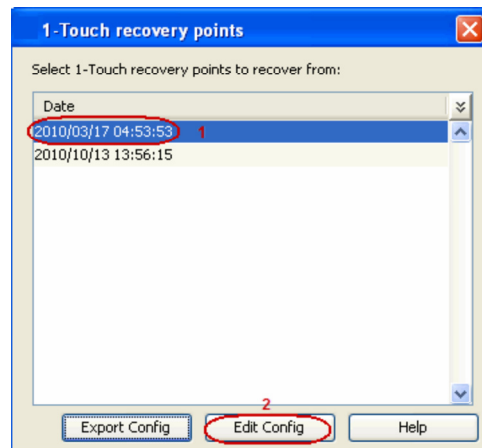
CREATE CLIENT INFORMATION CHECKLIST USING THE CLIENT CONFIGURATION

A new Client Configuration is stored on a CommServe when you make any changes in the client system configuration and perform a backup. Use the client configuration stored on a CommServe to create a client information checklist.

- From the CommCell Console, navigate to **<Client>**
 - Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**.

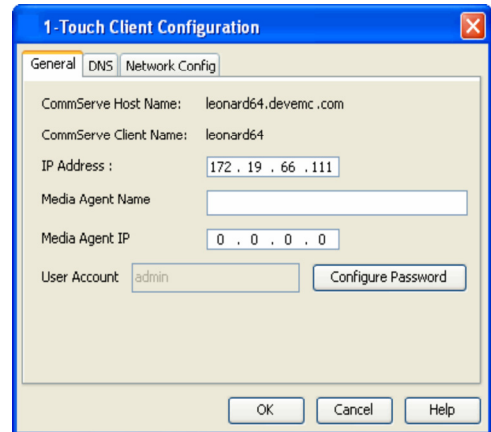


- Select the most recent client configuration.
 - Click **Edit Config**.

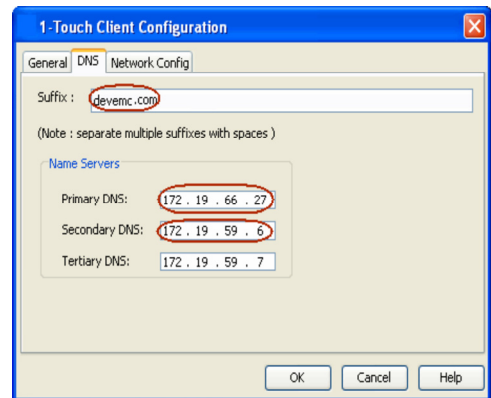


- Note down the following information in the client information checklist:
 - CommServe Host Name**
 - CommServe Client Name**

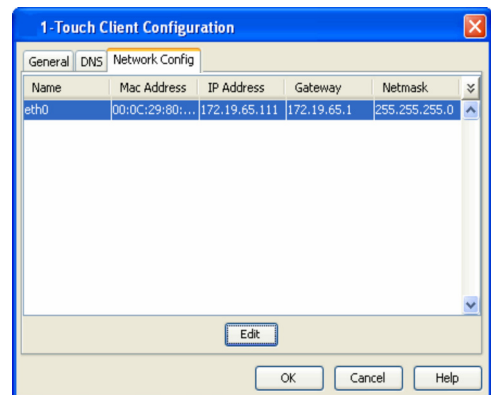
4. Click the **DNS** tab and note down the following information in the client information checklist:
 - **DNS Suffix**
 - **Primary, Secondary** and **Tertiary Name Server** IP address



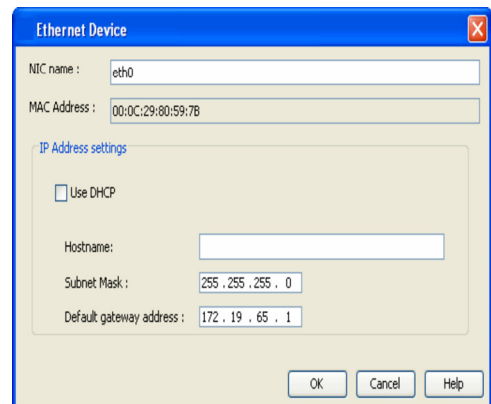
6. Click the **Network Config** tab and note down the following information in the client information checklist:
 - Client **IP Address**
 - Client **Gateway**
 - Client **Netmask**



7. Click **Edit** and note down the Client **Hostname**.

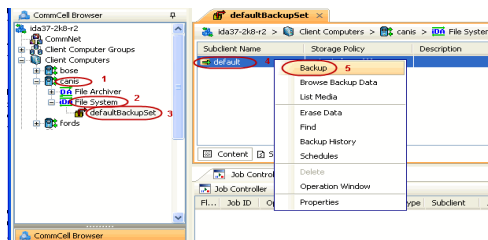


8. Click **Cancel** to close the dialog box.

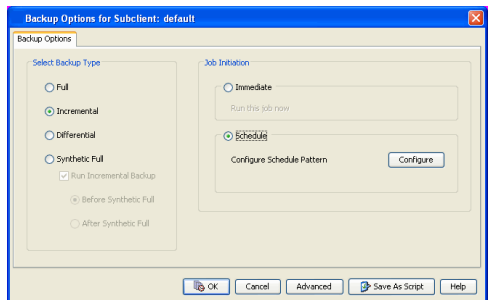


SCHEDULE A BACKUP

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

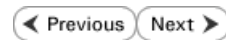
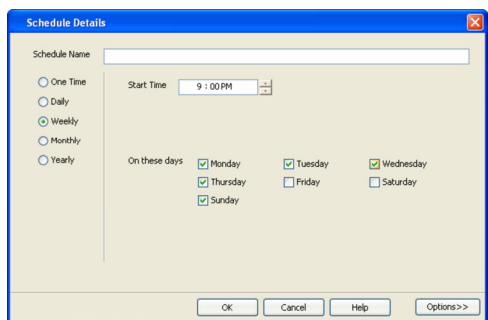


2.
 - Click **Schedule** to schedule the backup for a specific time.
 - Click **Configure** to set the schedule for the backup job.



3. Select the appropriate scheduling options. For example:
 - Click **Weekly**.
 - Check the days you want the run the backup job.
 - Change the Start Time to 9:00 PM
 - Click **OK** to close the Schedule Details dialog
 - Click **OK** to close the Backup Options dialog

The backup job will execute as per the schedule.



Recovery - 1-Touch for Linux

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Create a New Mountpoint
Add a New Physical Volume
Add a New Logical Volume
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PREPARE FOR RECOVERY

The `DVD4.iso` will be available in the Linux Live CD directory of the Calypso Installer package. You can also download the `DVD4.iso`.

1. Log on to the Maintenance Advantage web site.
2. Click the **Downloads & Packages** tab to download the `DVD4.iso`.
3. Use this ISO image to boot the client using one of the following methods:
 - Burn a **Live CD** and boot the client.
 - Copy the ISO image to a NFS server and setup a PXE Server to perform a network boot.
 - Copy the ISO image on a ESX server and setup the ESX server to boot a virtual machine.

SIMILAR SYSTEM RESTORE

If you are restoring to a computer which has the same hard disk configuration as that of the backed up computer, perform a Similar System Restore using one of the following methods:

NON INTERACTIVE RESTORE

A recovery point is a point-in-time configuration of the client containing the network configuration, mountpoint details and information about the client itself. A new client configuration (recovery point) is generated on subsequent backups if the client's hardware has changed, or changes have been made to the network, storage or mountpoint configuration.

Use the client configuration stored on the CommServe to create a recovery response file needed to perform a non-interactive recovery.

1. Connect a USB drive to a Linux computer and use the following command to format the USB drive:

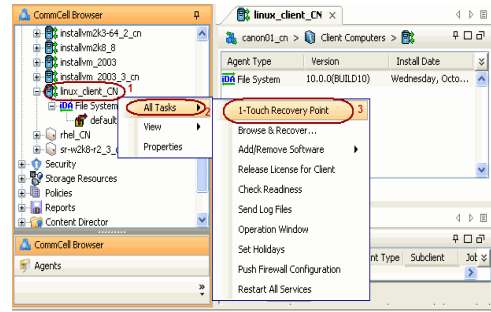
```
mkfs.vfat -I /dev/<drive_name>
```

For example: `mkfs.vfat -I /dev/sdb`

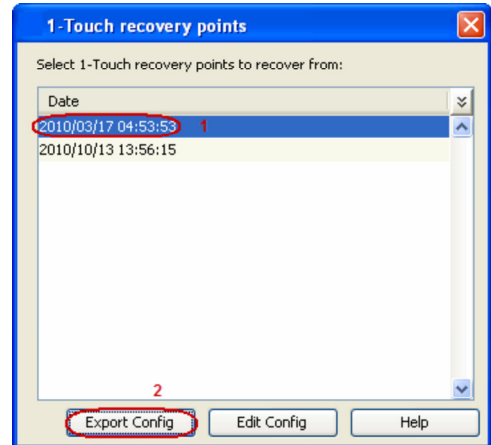
Do not partition the disk. Use the drive as a full disk.

2.
 - From the CommCell Console, navigate to **<Client>**
 - Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**

3.
 - Select the most recent client configuration to create a recovery response file.
 - Click **Export Config**.



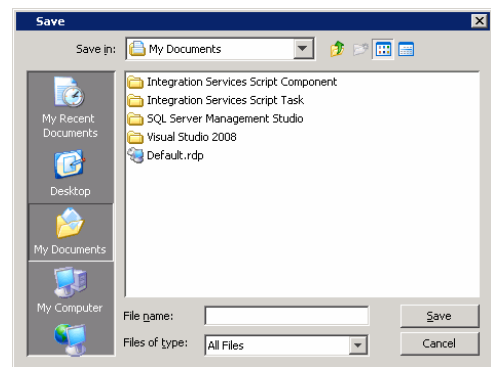
4.
 - Enter the credentials used to login to CommCell Console.
 - Click **OK**.



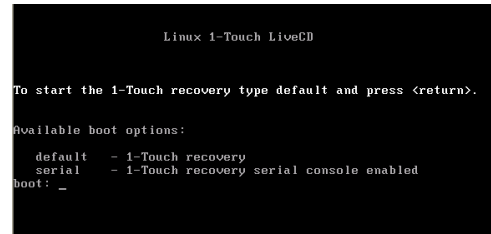
5. Save the recovery response file as onetouchresponse.xml.



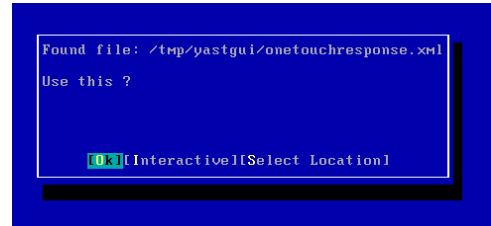
6. Connect the formatted USB drive to the computer where recovery response file is stored.
7. Copy the recovery response file to the formatted drive.
8. Connect the USB drive to the client.
9. Boot the client using the ISO image.
10. Type **Default** and press **Enter** to start the default recovery.



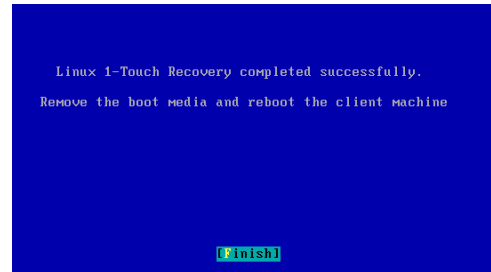
11. Select **OK** and press **Enter** to start the system state and file system restore.
The system state and the file system data backed up during the most recent backup will be restored.



13. Press **Enter**.



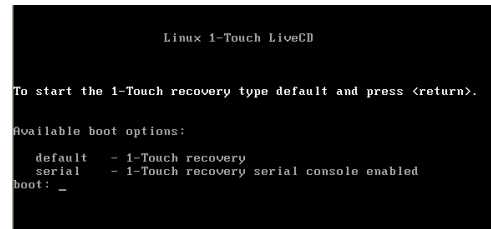
14. Remove the **1-Touch Linux Live CD** and reboot the system.



INTERACTIVE RESTORE

Perform the interactive restore when you don't want to use the recovery response file.

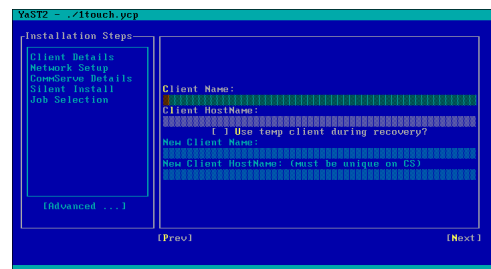
1. Keep the Client Information Checklist ready.
 2. Boot the client using the ISO image.
 3. Type **Default** and press **Enter** to start the default recovery.
4. Enter the short name or the fully qualified client hostname specified in the client information checklist.
 - Select the **Use temp client during recovery** option if you want to create a new client temporarily during the restore process. This option is not required for regular 1-Touch recovery. For more information, refer to Use Temporary Client during Recovery.
 - If a temporary client is being used during recovery, the **New Client Host Name** must be unique on the CommServe. Otherwise, any other existing client with the same host name will be renamed and the associated backed up data will be lost permanently.



Select **Next** and press **Enter**.

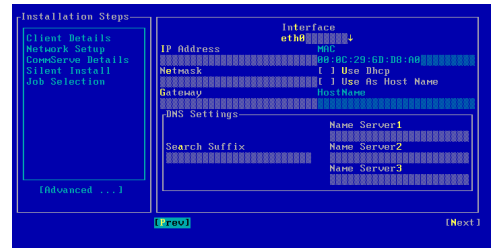
5. Enter the IP address, network and name server details of the network specified in the client information checklist.

Select **Next** and press **Enter**.



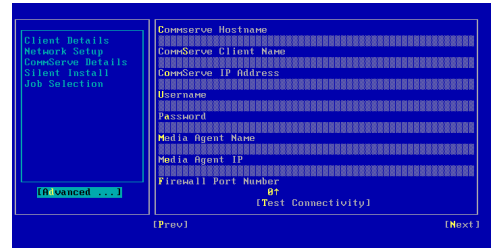
- Enter the details of the CommServe and MediaAgent specified in the client information checklist.

Select **Next** and press **Enter**.



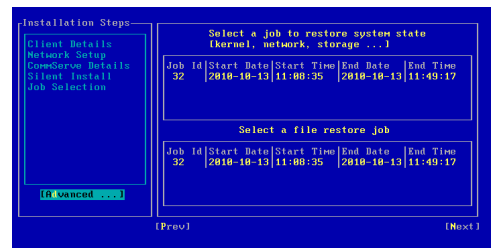
- Select **Next** and press **Enter**.

By default the system state and the file system data, backed up during the most recent backup will be restored. You can select a backup job to restore the system state data and a backup job to restore the file system data.

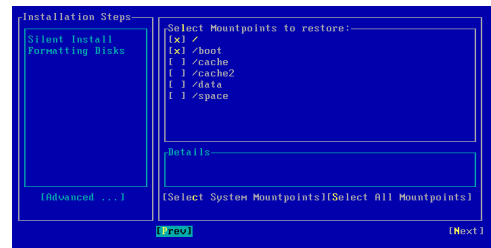


- Select **Next** and press **Enter**.

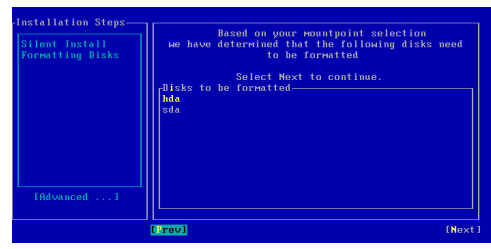
By default the system mountpoints will be selected for restore. You can select the mountpoints that you want to recover.



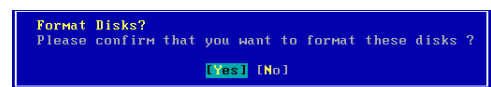
- Select **Next** and press **Enter**.



- Select **Yes** and press **Enter**.



- Press **Enter**.



- Remove the **1-Touch Linux Live CD** and reboot the system.



DISSIMILAR SYSTEM RESTORE

If you are restoring to a computer which has the different hard disk configuration than that of the backed up computer, perform a Dissimilar System Restore using one of the following methods:

NON-INTERACTIVE RESTORE

A recovery point is a point-in-time configuration of the client containing the network configuration, mountpoint details and information about the client itself. A new client configuration (recovery point) is generated on subsequent backups if the client's hardware has changed, or changes have been made to the network, storage or mountpoint configuration.

Use the client configuration stored on the CommServe to create a recovery response file needed to perform a non-interactive recovery.

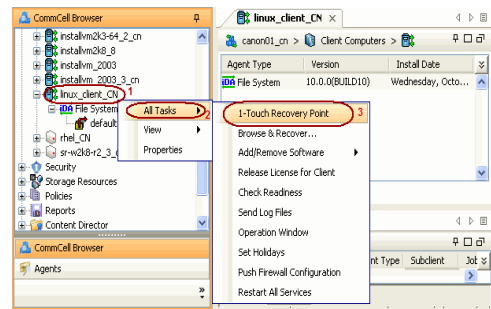
1. Connect a USB drive to a Linux computer and use the following command to format the USB drive:

```
mkfs.vfat -I /dev/<drive_name>
```

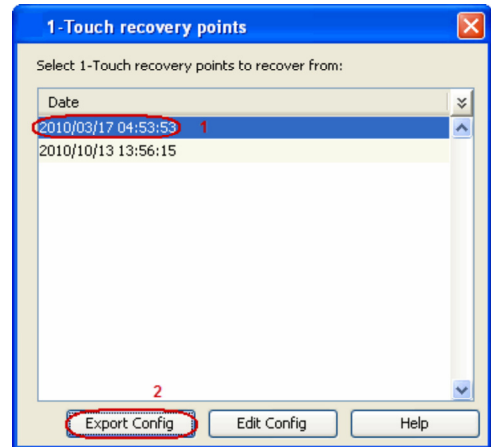
For example: `mkfs.vfat -I /dev/sdb`

Do not partition the disk. Use the drive as a full disk.

2.
 - From the CommCell Console, navigate to **<Client>**
 - Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**



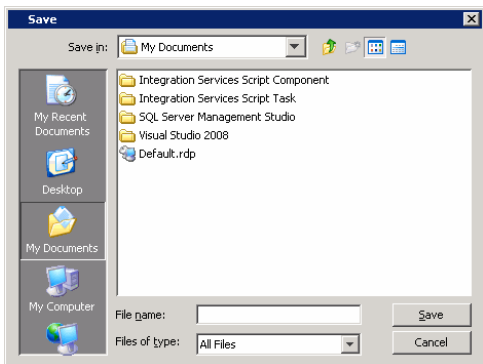
3.
 - Select the most recent client configuration to create a recovery response file.
 - Click **Export Config**.



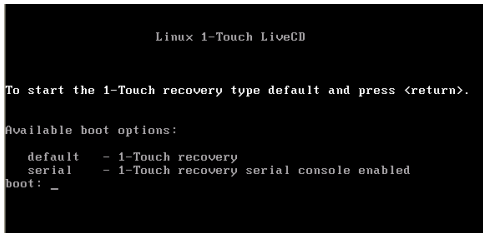
4.
 - Enter the credentials used to login to CommCell Console.
 - Click **OK**.



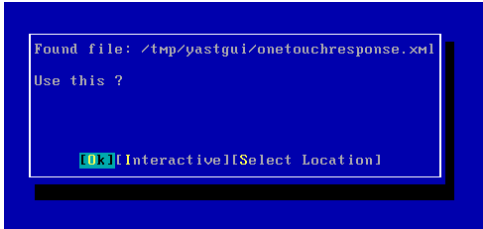
5. Save the recovery response file as `onetouchresponse.xml`.



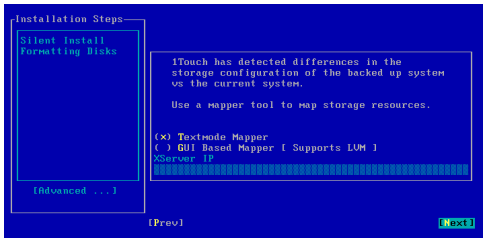
6. Connect the formatted USB drive to the computer where recovery response file is stored.
7. Copy the recovery response file to the formatted drive.
8. Connect the USB drive to the client.
9. Boot the client using the ISO image.
10. Type **Default** and press **Enter** to start the default recovery.



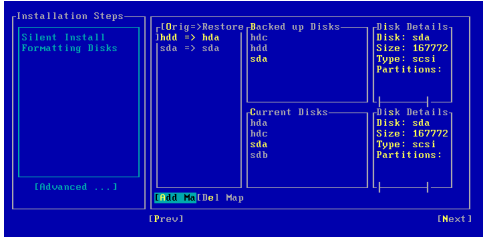
11. Select **OK** and press **Enter** to start the system state and file system restore. The system state and the file system data backed up during the most recent backup will be restored.



13. Select **Next** and press **Enter**. You can also use GUI Based Mapper to map disk.



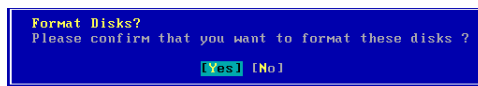
14.
 - Review the **Backed up Disks**.
 - Review the **Current Disks**.
 - Select a disk from the **Backed up Disks** that you want to map with a **Current Disk**.
 - Select a disk from the **Current Disk**.
 - Select **Add Map**.
 - Map all the required disks.
 - Select **Next** and press **Enter**.



15. Select **Next** and press **Enter**.



16. Select **Yes** and press **Enter**.



17. Press **Enter**.

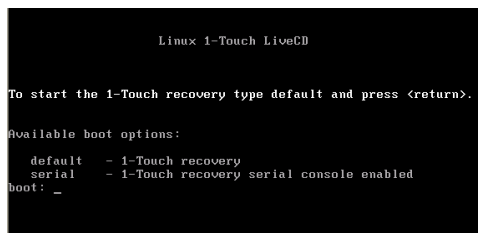


18. Remove the **1-Touch Linux Live CD** and reboot the system.

INTERACTIVE RESTORE

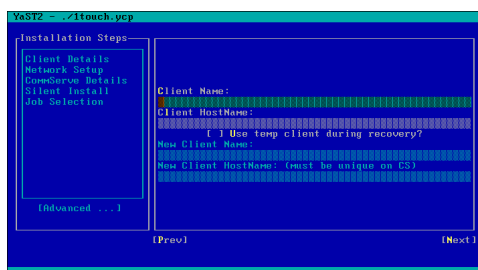
Perform the interactive restore when you don't want to use the recovery response file.

1. Keep the Client Information Checklist ready.
2. Boot the client using the ISO image.
3. Type **Default** and press **Enter** to start the default recovery.



4. Enter the short name or the fully qualified client hostname specified in the client information checklist.

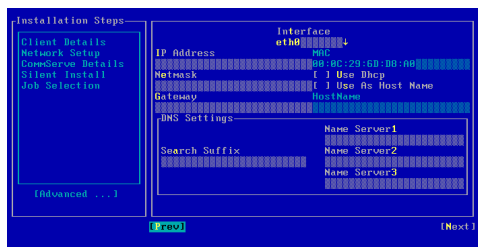
- Select the **Use temp client during recovery** option if you want to create a new client temporarily during the restore process. This option is not required for regular 1-Touch recovery. For more information, refer to Use Temporary Client during Recovery.
- If a temporary client is being used during recovery, the **New Client Host Name** must be unique on the CommServe. Otherwise, any other existing client with the same host name will be renamed and the associated backed up data will be lost permanently.



Select **Next** and press **Enter**.

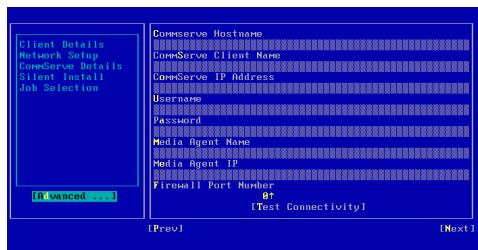
5. Enter the IP address, network and name server details of the network specified in the client information checklist.

Select **Next** and press **Enter**.



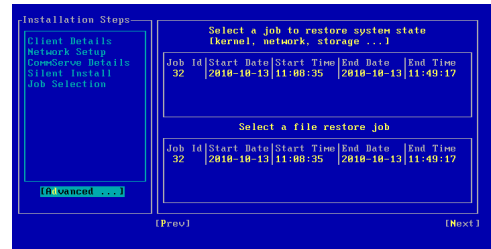
6. Enter the details of the CommServe and MediaAgent specified in the client information checklist.

Select **Next** and press **Enter**.



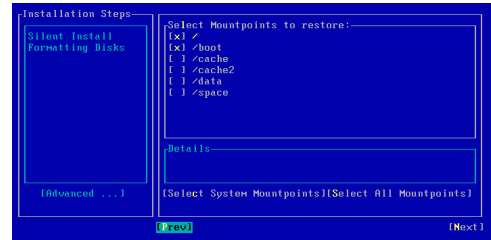
7. Select **Next** and press **Enter**.

By default the system state and the file system data, backed up during the most recent backup will be restored. You can select a backup job to restore the system state data and a backup job to restore the file system data.



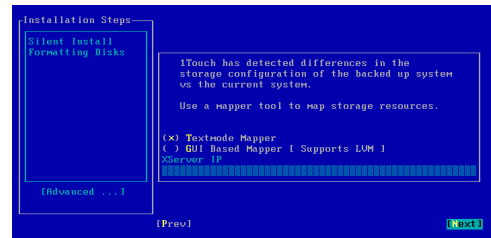
8. Select **Next** and press **Enter**.

By default the system mountpoints will be selected for restore. You can select the mountpoints that you want to recover.

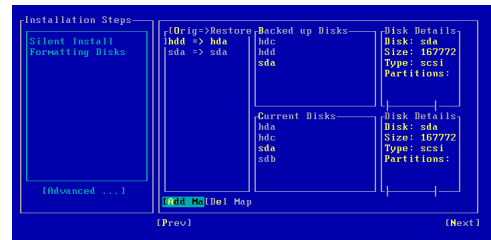


9. Select **Next** and press **Enter**.

You can also use GUI Based Mapper to map disks.



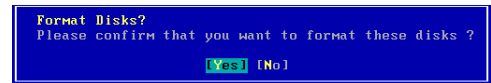
10.
 - Review the **Backed up Disks**.
 - Review the **Current Disks**.
 - Select a disk from the **Backed up Disks** that you want to map with a **Current Disk**.
 - Select a disk from the **Current Disk**.
 - Select **Add Map**.
 - Map all the required disks.
 - Select **Next** and press **Enter**.



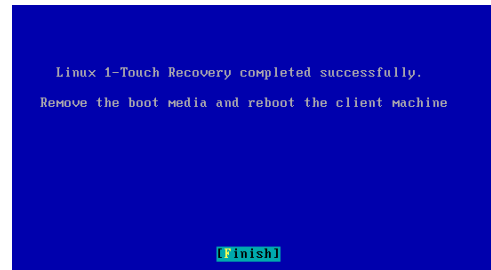
11. Select **Next** and press **Enter**.



12. Select **Yes** and press **Enter**.



13. Press **Enter**.

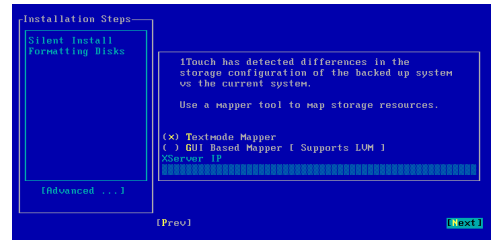


14. Remove the **1-Touch Linux Live CD** and reboot the system.

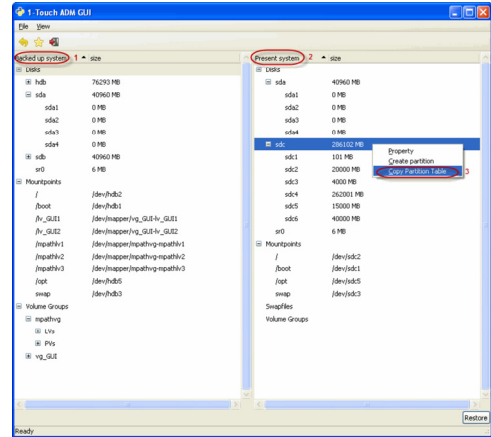
MAP DISKS USING THE GUI BASED MAPPER

During the Interactive Dissimilar System Restore you can select GUI Based Mapper tool to map disks.

1.
 - Select **GUI Based Mapper**.
 - Enter the IP address of a remote system where you can display the Asymmetric Disk Mapper (ADM) interface. The remote system must have xserver running on it.



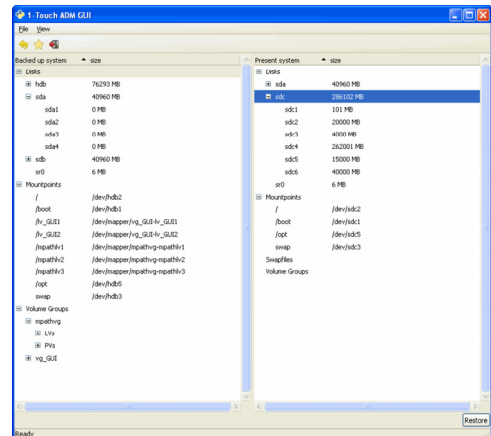
2.
 - Login to the remote system where you are displaying ADM Interface.
3.
 - Right click a disk from the target system.
 - Select **Copy Partitions** option.



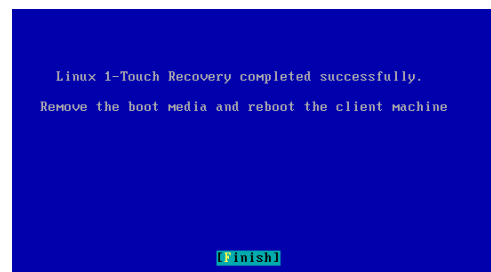
4.
 - Select a disk that you want to map.
 - Click **OK**.



5.
 - Review the target disk configuration.
 - Click **Restore**.
 - Close the **1-Touch ADM GUI** dialog box.



6. On the client computer and press **Enter**.



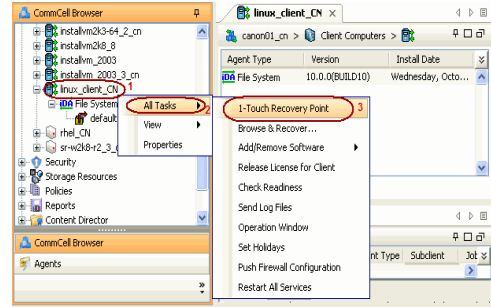
7. Remove the **1-Touch Linux Live CD** and reboot the system.

ADDITIONAL OPTIONS

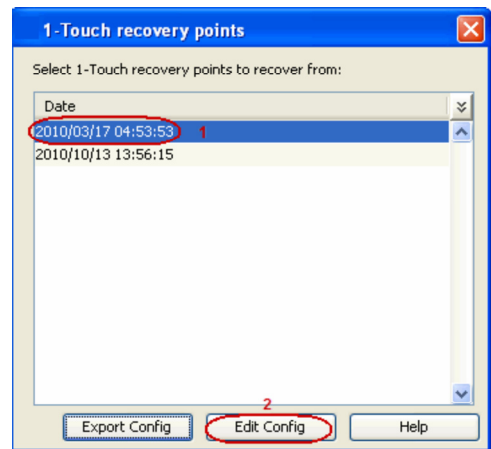
CHANGE THE CLIENT CONFIGURATION DURING NON-INTERACTIVE RESTORE

During a non-interactive restore, follow the steps given below to change the client configuration:

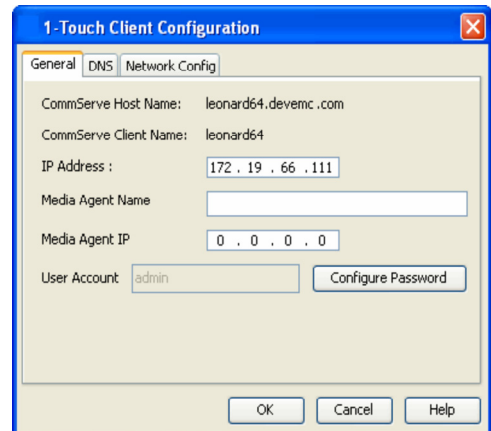
1.
 1. From the CommCell Console, navigate to **<Client>**
 2. Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**.



2.
 - Select a client configuration.
 - Click **Edit Config**.



3.
 - Enter the CommServe IP address.
 - Enter the hostname and IP address of the MediaAgent that is used to backup the client.
 - Click **Configure Password**.

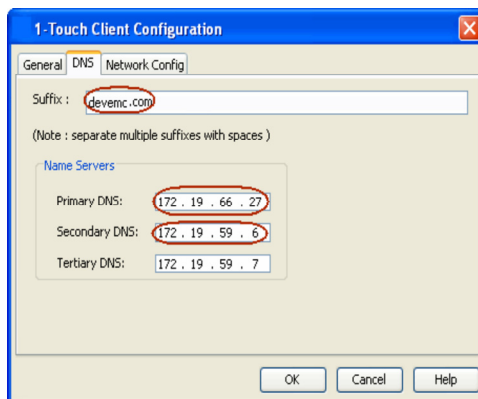


4.
 - Enter the credentials used to login to CommCell Console.
 - Click **OK**.
 - Click **DNS** tab.

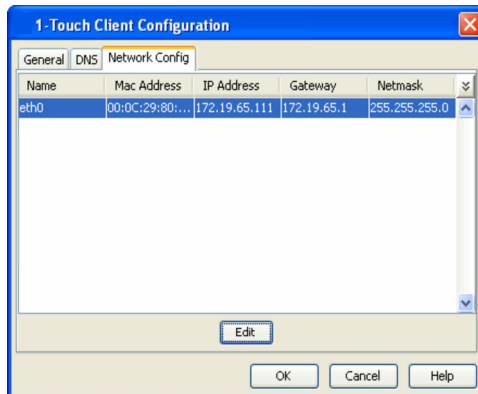


- 5.

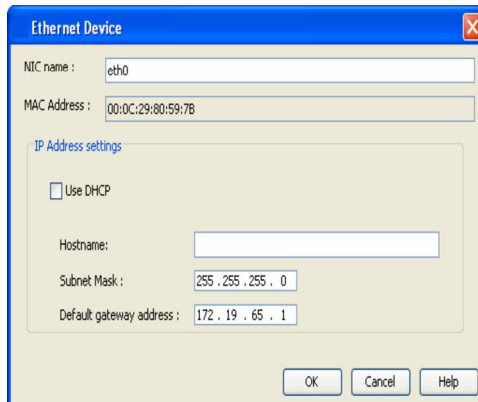
- Enter name server details and the domain name of the network where client will be recovered.
- Click **Network Config** tab.



- Select an interface to change the network configuration of the client.
 - Click **Edit**.



- Enter the IP address and network details of the network where client will be recovered.
 - Click **OK**.

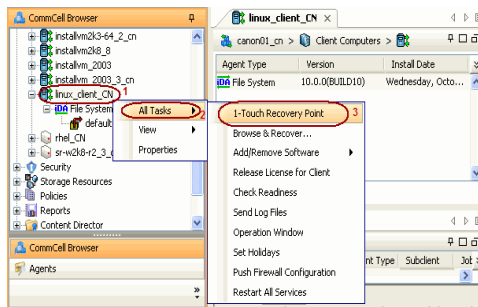


- Click **OK** to save the updated client configuration.

RECOVER THE CLIENT TO A DIFFERENT FIREWALL CONFIGURATION

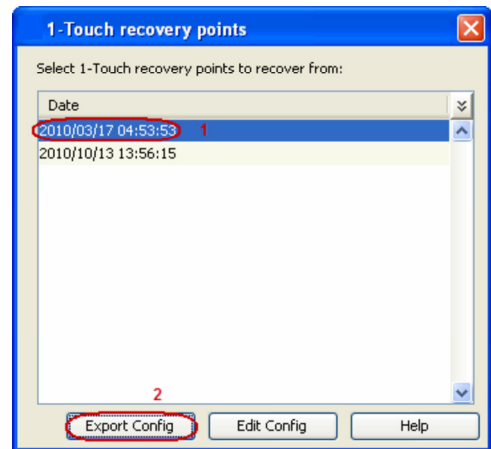
If you want to change the firewall configuration of the client before recovering it, follow the steps given below:

- From the CommCell Console, navigate to **<Client>**
 - Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**



- Select the most recent client configuration to create a recovery response file.
 - Click **Export Config**.

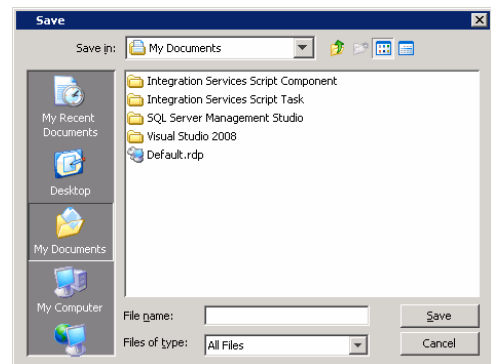
3.
 - Enter the credentials used to login to CommCell Console.
 - Click **OK**.



4. Save the recovery response file as `onetouchresponse.xml`.



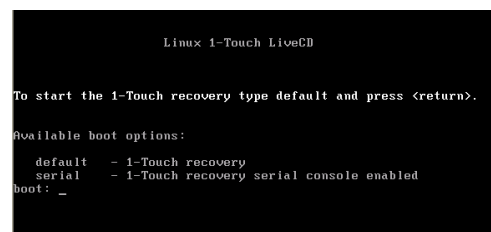
5.
 - Open the file `onetouchresponse.xml` using a text editor.
 - Enter the port number in `onetouchresponse.xml`.
For example: The Firewall Setting in the `onetouchresponse.xml` will be as follows:
`tunnel_ports=8600`
 - Save `onetouchresponse.xml`.
 - Use the updated recovery response file to perform the non-interactive restore.



CHANGE THE CLIENT CONFIGURATION DURING INTERACTIVE RESTORE

During interactive restore, follow the steps given below to change the client configuration:

1. Boot the client using the ISO image.
2. Type **Default** and press **Enter** to start the default recovery.



- Enter the short name or the fully qualified client hostname.

You cannot change the client name during the restore.

- Select the **Use temp client during recovery** option if you want to create a new client temporarily during the restore process. For more information, refer to Use Temporary Client during Recovery.
- If a temporary client is being used during recovery, the **New Client Host Name** must be unique on the CommServe. Otherwise, any other existing client with the same host name will be renamed and the associated backed up data will be lost permanently.

Select **Next** and press **Enter**.

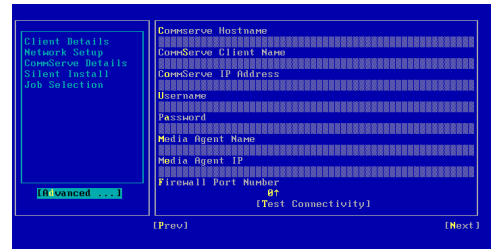
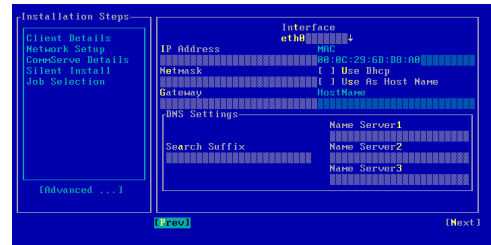
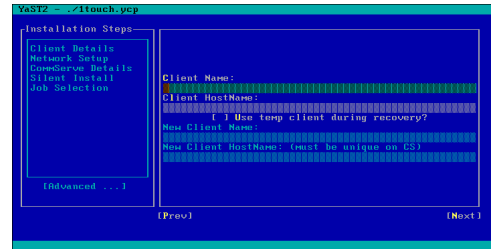
- Enter the IP address, network and name server details of the network where client will be recovered.

Select **Next** and press **Enter**.

- Enter the details of the CommServe and MediaAgent that are used to backup the client.

Select **Next** and press **Enter**.

- Continue the Similar or Dissimilar System Restore



USE TEMPORARY CLIENT DURING RECOVERY

You can change the client name and the host name temporarily during the restore process. This will be useful if the source computer and the computer being recovered are different and you do not want to turn off the source client until the restore completes successfully. You can also use this option when the source machine and the machine being recovered are same, to prevent corruption of the source client if the recovery process fails for any reason.

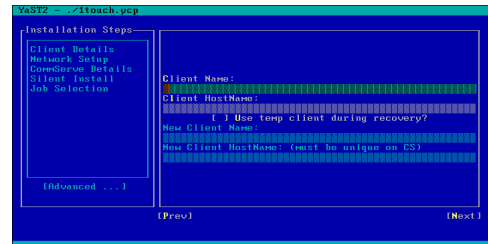
- Boot the computer where you want to recover the client using the ISO image.
- Type **Default** and press **Enter** to start the default recovery.
- Enter the short name of the client in the **Client Name** field.
- Enter the fully qualified hostname of the client in the **Client HostName** field.
- Select the **Use temp client during recovery** option.
- Enter the client name, which you want to use temporarily during the restore procedure in the **New Client Name** field.
- Enter fully qualified hostname of the client, which you want to use temporarily during the restore procedure in the **New Client HostName** field.

If a temporary client is being used during recovery, the **New Client Host Name** must be unique on the CommServe. Otherwise, any other existing client with the same host name will be renamed and the associated backed up data will be lost permanently.

- Complete the Similar or Dissimilar System Restore procedure.

During the restore, the Linux File System *iDataAgent* will be installed in the restore only mode with the new client name and host name. The CommServe and MediaAgent should be able to connect to the computer being recovered with the new host name. After the restore completes successfully, the temporary client will be deleted. The original client name and hostname and network settings, which were backed up will be restored.

You must turn off the source client before rebooting the restored client.

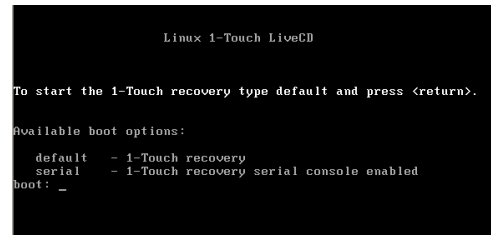


USE A NFS LOCATION FOR NON-INTERACTIVE RESTORE

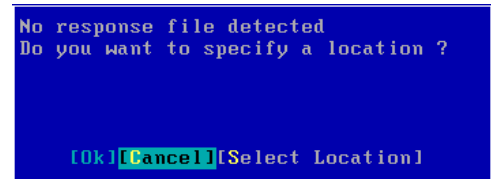
Instead of using the USB drive, use a NFS location to access the recovery response file during the similar or dissimilar system restore. Follow the steps give

below to perform the non-interactive restore when the recovery response file is stored in a NFS location:

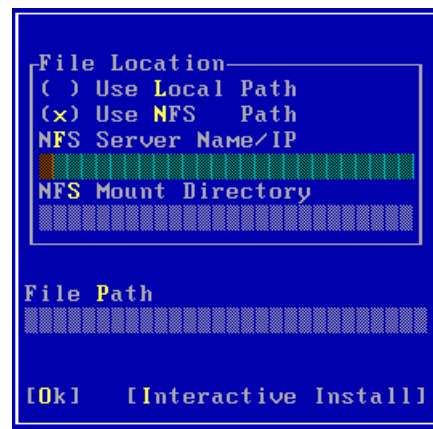
1. Boot the client using the ISO image.
1. Type **Default** and press **Enter** to start the default recovery.



2. Select **Select Location** to specify the NFS location of the response file.

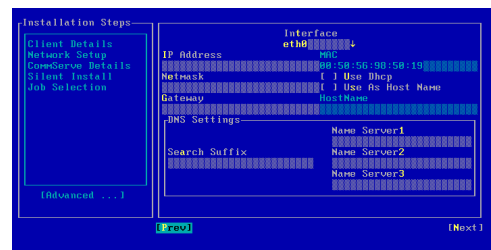


3.
 - Select **Use NFS Path**.
 - Enter the **NFS Server Name or IP** address.
 - Enter the response **file path** on the NFS server.



4.
 - Enter the **IP Address** of the client.
 - Enter **Net Mask** of the client.
 - Enter the **Gateway** of the client.
 - Enter the **DNS Suffix** for the client.
 - Select **Next** and press **Enter**.

The system state and the file system data backed up during the most recent backup is restored.



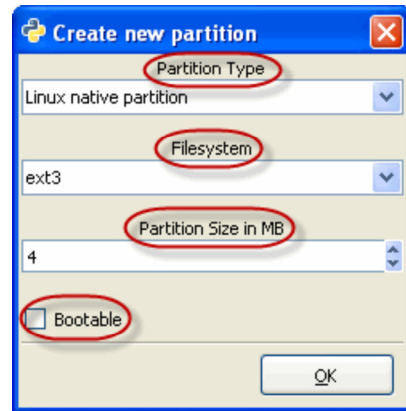
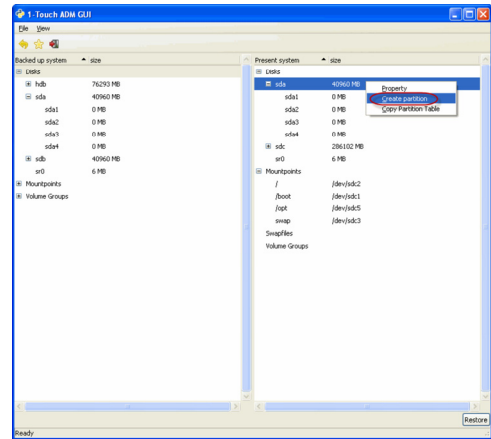
5. Follow the steps described in the Similar System Restore or Dissimilar System Restore depending upon the hard disk configuration of the client.

CREATE NEW PARTITIONS

Use the ADM Interface to create new partitions

1.
 - Right-click a disk on the target system.
 - Select **Create Partitions**.

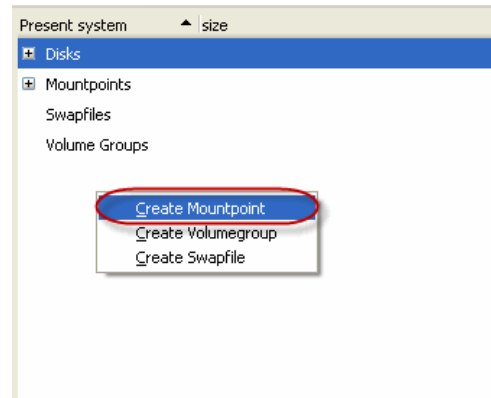
2.
 - Select the **Partition Type**.
 - Select the **Filesystem**.
 - Enter the **Partition Size**.
 - Click **Bootable** to create a boot partition.
 - Click **OK**.
 - Continue the disk mapping process.



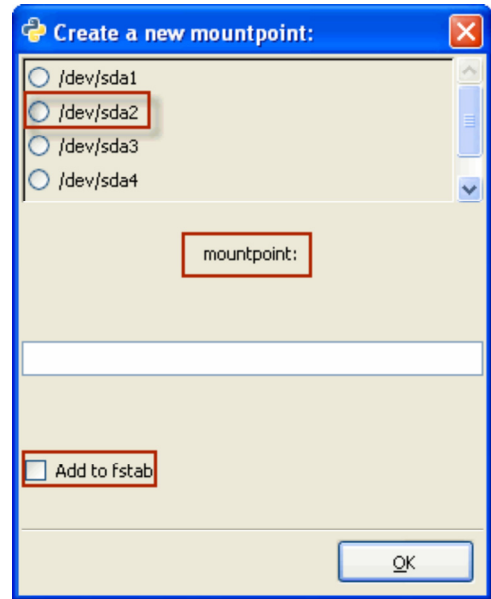
CREATE NEW MOUNT POINTS

Use the ADM Interface to create new mountpoints

1.
 - Right-click in the empty space in the right pane.
 - Select **Create Mountpoint**.



2.
 - Select the **Partition**.
 - Enter the mount path.
 - Click **Add to fstab** to include the mountpoint in the fstab file.
 - Click **OK**.
 - Continue the disk mapping process.



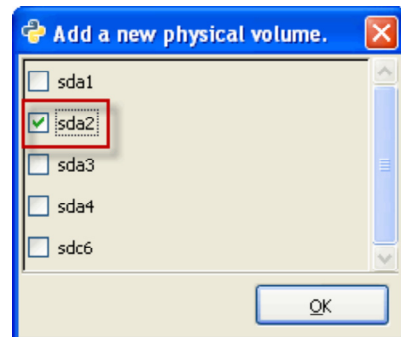
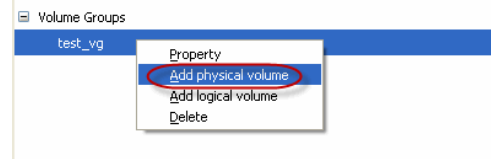
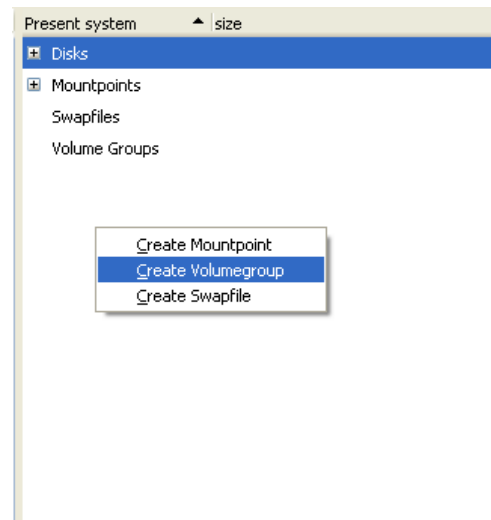
ADD A NEW PHYSICAL VOLUME

Use the ADM Interface to add a new volume.

1.
 - Right click in the empty space in the right pane.
 - Select **Create Volumegroup**.

2.
 - Right-click an existing volume group.
 - Select the **Add physical volume**.

3.
 - Select the partition to associate with the volume.
 - Click **OK**.
 - Continue the disk mapping process.

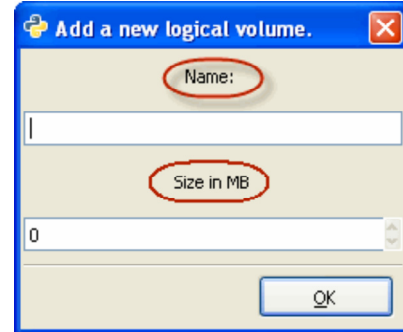
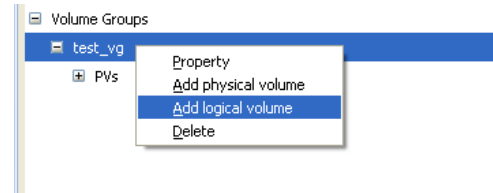


ADD A NEW LOGICAL VOLUME

Make sure that you have created at least one physical volume before adding a logical volume.

1.
 - Right-click an existing volume group.
 - Select the **Add logical volume**.

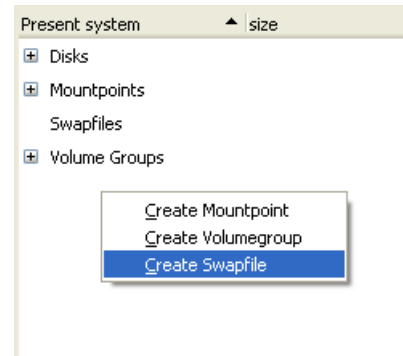
2.
 - Enter the name and size of the new logical volume.
 - Click **OK**.
 - Continue the disk mapping process.



ADD A NEW SWAPFILE

1.
 - Right-click in the empty space in the right pane.
 - Select the **Create Swapfile**.

2.
 - Enter the path and size of the swapfile.
 - Click **OK**.
 - Continue the disk mapping process.



Troubleshooting - 1-Touch for Linux

Deployment Configuration Recovery Troubleshooting FAQs

◀ Previous Next ▶

The following section provides information on some of the troubleshooting scenarios related to 1-Touch Recovery:

PROBLEM/ERROR	SOLUTION
The silent install fails during the recovery process.	Open another virtual terminal and check the silent install log file. The log file is available at the following location: /tmp/.gxsetup/silent_install.***** Here ***** is the cvpkgadd process ID. Identify and correct the problem. Restart the recovery process using the <code>/init</code> command.
Unable to retrieve the job details <corresponding job ID:XX>	This error message appears during the 1-Touch Recover if the file system restore job on the CommServe is killed or failed. Use the <code>/init</code> command to restart the file system restore job.
Error 17: Cannot mount selected Partition.	The system fails to boot because the boot disk is changed before restore. Perform the following steps to boot the client: <ol style="list-style-type: none"> 1. If the boot disk has changed, make sure it is selected as a bootable disk in the BIOS settings. 2. Edit the grub menu during boot. Change the root (hd#) entry to use the proper root disk. 3. Continue to boot. 4. Once the system is up, user can run the grub-install to make the fix permanent.
1-Touch recovery failed because of mismatch between the configurations of backed up and restored systems.	This error occurs when the vendor information for a drive is not available. Typically the vendor information is not available for a flash drive or pen drive. To resolve this issue, make sure that no flash drives or pen drives are connected to the client computer before starting the 1-Touch recovery.

◀ Previous Next ▶

Frequently Asked Questions - 1-Touch Linux

Deployment Configuration Recovery Troubleshooting FAQs

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DO I NEED TO SETUP 1-TOUCH SERVER TO PERFORM 1-TOUCH RECOVERY?

No. You don't need 1-Touch Server to perform the 1-Touch Recovery. You need to install File System iDataAgent on the client computer and then enable 1-Touch feature. For more information, refer to Enable 1-Touch.

You must perform atleast one full backup before performing the 1-Touch recovery of the client computer. It is recommended to perform the backup of default subclient periodically. This will capture any changes in the client configuration. For more information, refer to Perform A Backup.

DO I NEED A NEW BOOTCD FOR EACH CLIENT I PLAN TO RECOVER?

No. Use the 1-Touch Linux **Live CD** provided as DVD4 or You can also download the 1-Touch ISO image with the latest updates and use it for each of your clients. For more information, see Prepare for Recovery.

ARE ANY OPERATING SYSTEM UTILITIES SPECIFICALLY REQUIRED DURING 1-TOUCH RECOVERY?

No. In general, all the below listed operating system utilities are distributed along with standard operating system distributions.

OPERATING SYSTEM UTILITIES				
arch	e2image	last	mv	swapon
awk	echo	ldd	netstat	sync
basename	egrep	ln	openvt	tail
bash	eject	locale	passwd	tar
cat	env	ls	pidof	tee
chgrp	expr	lsmmod	ping	test
chmod	false	lspci	ping6	time
chown	fdisk	lvcreate	ps	top
chroot	fgrep	lvdisplay	pvcreate	touch
chvt	file	lvmd	pvdisplay	tr
cksum	find	lvmdiskscan	pvs	true
clear	fsck	lvscan	pvscan	tset
cp	fsck.ext2	mkdir	pvs	tty
cpio	fsck.ext3	mke2fs	pvscan	umount
cut	fuser	mkfifo	pwd	uname
date	gawk	mkfs	reboot	uptime
dd	getopt	mkfs.ext2	rm	usleep
ddate	grep	mkfs.ext3	rmdir	vgcfgbackup
depmod	gunzip	mkinitrd	rmmod	vgcfgrestore
df	gzip	mkswap	route	vgchange
diff	head	modinfo	sdiff	vgcreate
dir	host	modprobe	sed	vgdisplay
dirname	hostname	mknod	sleep	vi
dmesg	ifconfig	mktemp	stty	whereis
du	insmod	more	su	which
e2fsck	kill	mount	swapoff	zcat

HOW TO SETUP A PXE SERVER FOR NETWORK BOOT?

1. Ensure that the machine where you are setting up Network boot or PXE boot is running nfs server, tftp server and dhcp server in the same subnet as the client. Preferably, use a Linux host to setup the pxe boot.
2. Copy or mount the Linux **1-Touch Live CD** ISO to the Linux host and set up nfs server to export this mount point.
3. Copy the kernel and initrd to the host tftp server directory. The default location is `/tftpboot`.
4. Configure dhcp server options such that the restoring client will obtain a dynamic IP address and the PXE boot configuration files will be passed to the client.

For example: Create a dhcp configuration file(`/etc/dhcpd.conf`) as follows:

```
authoritative;
```

```

ddns-update-style none;

allow bootp;

allow booting;

subnet 172.16.64.0 netmask 255.255.252.0
{
    option routers 172.16.64.1;
    option subnet-mask 255.255.252.0;
    option domain-name-servers 172.19.59.6;
    option domain-name-servers 172.19.59.7;
    option ip-forwarding off;
    default-lease-time 21600;
    max-lease-time 43200;

    host garuda5 {
        hardware ethernet 00:0c:29:c8:bf:11;
        fixed-address 172.16.65.165;
        next-server 172.16.66.167;
        filename "linux-install/pxelinux.0";
    }
}

```

The hostname of the client that needs to be assigned the IP address is `garuda5`

MAC address of the client that needs to be assigned IP is `00:0c:29:c8:bf:11`

IP that will be assigned to the client being booted through dhcp is `172.16.65.165`

IP address of the tftp server is `172.16.65.167`

The location on the tftp server where `pxelinux.0` boot loader is located: `linux-install/pxelinux.0`

A prefix of `/tftpboot` will automatically be added to the filename provided in the `/etc/dhcpd.conf` file. So the actual location on the tftp server where `pxelinux.0` is located is `"/tftpboot/linux-install/pxelinux.0"`.

5. Create a configuration file to setup a TFTP server at the following location: `/tftpboot/linux-install/pxelinux.cfg`.

The file should have a name like `01-00-0c-29-c8-bf-11` (MAC address of the client that is being booted through TFTP) or `AC1041A5` (IP address that is being assigned to client in the hex notation.) The configuration file contents can be as below:

```

default onetouch

label onetouch

kernel onetouch/vmlinuz

append initrd=onetouch/initrd.img crashkernel=32M@0 ramdisk_blocksize=1024 ramdisk_size=1024M root=/dev/ram rw
method=nfs:172.16.65.167:/mnt/netboot ip=dhcp

```

The kernel and `initrd` locations are relative to the location mentioned in `dhcpd.conf` file. For example: When you create the `dhcpd.conf` file as mentioned above, the kernel and `initrd` will be located `/tftpboot/linux-install/onetouch`.

6. Edit the `/etc/xinetd.d/tftp` configuration file as follows to enable the tftp services.

```
disable=no
```

7. Restart the `xinetd` service. This can also be done by running `chkconfig tftp on`.

The kernel and `initrd` will be extracted from the 1Touch boot cd. The network boot will access the contents of boot cd through NFS.

For example: If you have created the above configuration file @ `/tftpboot/linux-install/pxelinux.cfg/01-00-0c-29-c8-bf-11`, the NFS location that will be used for network boot is `172.16.65.167:/mnt/netboot`.

8. Use the following commands for creating the network boot setup.

Copy the `bootcd.iso` to the TFTP server.

```
mkdir -p /mnt/cdrom
```

```
mount -t iso9660 bootcd.iso /mnt/cdrom -o loop
cp -f /mnt/cdrom/isolinux/initrd.img /tftpboot/linux-install/onetouch
cp -f /mnt/cdrom/isolinux/vmlinuz-2.6.27.29-0.1-default /tftpboot/linux-install/onetouch/vmlinuz
```

The above commands will create the kernel and initrd required for Network boot.

9. Create the NFS mount point from where the CD contents can be accessed.

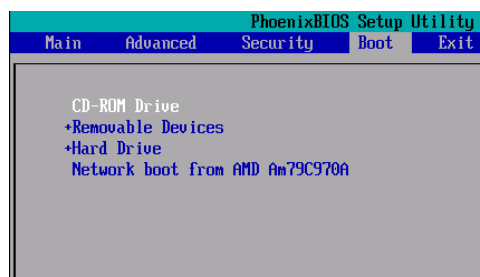
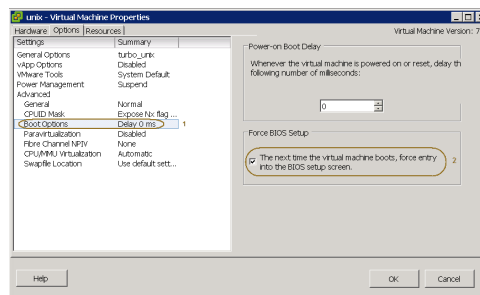
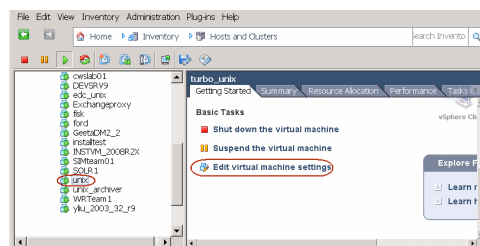
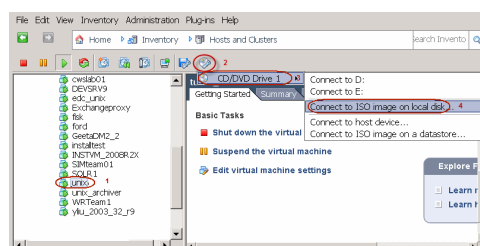
```
cp -rf /mnt/cdrom/* /mnt/netboot
```

Here /mnt/netboot is a NFS mount point which can be accessed by the restored system through NFS.

10. After creating the above setup, reboot the client being restored and choose to boot through network in BIOS.

HOW TO SETUP AN ESX SERVER TO BOOT A VIRTUAL MACHINE?

1.
 - Log on to ESX Server.
 - Download the ISO Image on ESX Server.
 - Start the ESX Server Client.
2. Click **CD/DVD Drive 1 | Connect to ISO Image on Local Disk.**
3. Click **Edit virtual machine settings.**
4.
 - Click **Options.**
 - Click **Boot Options.**
 - Click **The next time virtual machine boots, force entry into BIOS setup screen.**
5. Power Off the virtual machine.
Power On the virtual machine.
Select **CD-ROM Drive** from the **Boot** menu.



1-TOUCH LINUX DVD4 IS UNABLE TO FIND/LOAD A HARDWARE DRIVER?

During 1-Touch Recovery, a driver missing error shows up when the 1-Touch DVD4 cannot locate and load some specific hardware driver/s. In such cases,

1. Determine the phase when driver load failed.
1-Touch Recovery and VirtualizeME processes are carried out in two phases.

- When the machine being recovered is booted using DVD4, the client boots up using a customized kernel (re) distributed by Bull StoreWay Calypso. Once booted, any driver missing error message showing up before YaST GUI is launched falls under the first phase.
 - After the system state restore, kexec operation is invoked to boot up the backed up machine's kernel. Any driver missing error message that you see after the reboot falls under the second phase.
2. Compile the driver for the specific kernel version.

It is recommended to report any driver missing error messages via Technical Support. If it is critical to proceed without delay, the specific drivers may be compiled for the following kernel version:

2.6.27.29-0.1-default

The kernel module is compiled for x86 (32-bit).

Missing storage driver error messages during the first phase may be ignored as only the networking and keyboard/display drivers are required in this phase.

3. Copy and load the drivers.

Copy the required drivers to a USB removable disk, partitioned such that the first partition is a vfat/ext2/ext3 file system.

- Insert the USB disk and look up for the device name using the `dmesg` command.
- Check if the device exists in `/dev`

- For example, to check for the device named `sdb`:

```
# ls -l /dev/sdb*
```

- lists device names like `sdb`, `sdb1` etc.,

- If the device is not listed, use the following steps:

```
# mknod /dev/sdb b 8 16
```

- the minor number should be as per the device naming convention followed in Linux

```
# mknod /dev/sdb1 b 8 17
```

```
# mkdir /mnt
```

```
# mount /dev/sdb1 /mnt
```

- Copy and load the driver:

```
# cp /mnt/<driver>.ko /lib/modules/`uname -r`/<path>
```

```
# modprobe -f <driver>
```

Ensure that you use the `modprobe -f` option to load the custom built drivers.

HOW CAN I RESTART THE RECOVERY YAST UI AFTER LOADING CUSTOM DRIVERS OR IF THE RECOVERY PROCESS FALLS BACK TO A SHELL?

1. For VirtualizeME, the UI should not be restarted manually. Kill the VirtualizeME job to make sure the VM is deleted and resubmit the job after making appropriate changes.
2. For interactive 1-Touch recovery, if the UI fails to load due to some missing drivers or if it falls back to shell, report to the Technical Support with appropriate logs. If you are able to resolve the error manually by loading custom drivers or by making any necessary corrections, use the following steps to restart the YaST UI:

- Make sure the YaST UI is stopped:

```
# killall y2base
```

- Go to the first virtual terminal by hitting `Alt+F1`.
- Navigate to the root directory, and type the command

```
# cd /
```

- If the error occurred in the first phase.

```
# /usr/lib/YaST2/bin/y2base /1touch.ycp ncurses
```

- If the error occurred in the second phase.

```
# chroot /chroot /launchyast.sh
```

A SYSTEM MOUNT POINT RESIDING ON A VOLUME GROUP IS NOT RECOVERED. WHAT DO I DO?

1. To avoid this problem, select the option to recover only the system mount points. For more information, see Interactive Restore.
2. If you cannot fix the problem, create a new volume group using the ADM Interface.
3. Add a physical volume to the volume group using the ADM Interface. See Add New Physical Volumes.
4. Create logical volume on the volume group. See Add New Logic Volumes.
5. Create the system mount point that you want to recover.

A SYSTEM MOUNT POINT RESIDING ON A MPATH DEVICE IS NOT RECOVERED. WHAT DO I DO?

1. To avoid this problem, select the option to recover only the system mount points. For more information, see Interactive Restore.
2. After the client is recovered, a list of all the available external disk and devices is displayed.
3. Create the the system mount point that you want to recover on the external drive.
Otherwise, you can create the lost system mount point on a logical volume or a partition in the recovered disk.

CAN I PERFORM 1-TOUCH RECOVERY REMOTELY?

Yes. . Follow the steps given below to perform the remote recovery:

1. Connect the client using a serial cable..
2. Open hyperterminal or putty in full screen mode.
3. Set baud rate to 115200n8
4. Select 'serial' at the boot prompt .
5. Follow the steps for the Symmetric or Asymmetric Disk Restore. The entire recovery process can be performed over the serial console.

MY RECOVERY FAILED, WHAT DO I DO?

Depending on the error message that was prompted, you may try to fix the problem as follows:

1. Select ALT + F(n) to open another terminal if needed
2. Run /init to restart the recovery process. It will restart from the point of failure
3. If you cannot fix the problem, gather the following data and escalate.
 - o Entire contents of /tmp (For Example: tar zcvf tmp.tgz /tmp)
 - o Entire contents of /system_state
 - o Entire contents of /python_dir
4. Configure NFS share or any other means to transfer the data.

I ENTERED IP OF THE MACHINE WHERE I WANT TO EXPORT THE ADM GUI, BUT IT DOESN'T WORK

1. Check if you can ping to the machine using another terminal. Select ALT + F(n) to open another terminal if needed
2. Check if the machine has an X server running with no authentication. For example: Xming
3. IF this has not solved the problem, keep all the required data ready and escalate the issue.
4. Configure NFS share or any other method to transfer the data.

MY DISKS ARE PARTITIONED AND FORMATTED - BUT NOW THE RECOVERY PROCESS HAS STOPPED WITH AN ERROR. WHAT DO I DO?

1. Check for any error such as bad disks, bad FC port, etc.
2. If this does not solve the problem, keep all the required data ready and escalate the issue.
3. Configure NFS share or any other method to transfer the data.
4. Set up the same recovery over serial console and set up a webex.

MY FS DATA HAS RECOVERED – BUT NOW THE RECOVERY PROCESS HAS STOPPED WITH AN ERROR CONCERNING THE BOOTLOADER. WHAT DO I DO?

1. Check for errors in cvrestore.log and /tmp/grub.log
2. If this does not solve the problem, keep all the required data ready and escalate the issue.

3. Configure NFS share or any other method to transfer the data.
4. Use the bootcd hidden menu option 'rescue' to boot up and tweak the bootloader if required.
5. Set up the same recovery over serial console and set up a webex.

CAN I CHANGE THE CLIENT NAME AND CLIENT HOST NAME DURING 1-TOUCH RECOVERY?

You can change the client host name during the 1-Touch recovery. For more information, see [Change the Client Configuration during Interactive Restore](#) or [Change the Client Configuration during Non-Interactive Restore](#).

You can not change the client name during the 1-Touch recovery.

CAN I CHANGE THE IP ADDRESS, NET MASK AND DEFAULT GATEWAY OF THE CLIENT DURING 1-TOUCH RECOVERY?

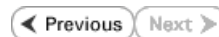
Yes. For more information, see [Change the Client Configuration during Interactive Restore](#) or [Change the Client Configuration during Non-Interactive Restore](#).

CAN I CHANGE THE DNS SEARCH SUFFIX AND NAME SERVER IP ADDRESS OF THE CLIENT DURING 1-TOUCH RECOVERY?

Yes. For more information, see [Change the Client Configuration during Interactive Restore](#) or [Change the Client Configuration during Non-Interactive Restore](#).

DOES 1-TOUCH SUPPORT MACHINES CONFIGURED WITH SOFTWARE RAID?

No. Software RAID is currently not supported.



System Requirements - 1-Touch

AIX	HP-UX	Linux	Solaris	Windows
-----	-------	-------	---------	---------

OPERATING SYSTEM

The following are the requirements for 1-Touch on Solaris:

SERVER

Solaris 9 64-bit
 Solaris 9 4/04 64-bit
 Solaris 9 4/04 32-bit
 Solaris 9 32-bit
 Solaris 8 [Extended Support]
 Solaris 10.x 64-bit

CLIENT

Solaris 9 64-bit
 Solaris 9 4/04 64-bit
 Solaris 9 4/04 32-bit
 Solaris 9 32-bit
 Solaris 8 [Extended Support]
 Solaris 10.x 64-bit

The x64 processor is supported for Solaris 10.x 64-bit operating system. All other operating systems support Sun Sparc5 or higher recommended processors.

HARD DRIVE

The 1-Touch Server and client requires 500 MB of disk space.

MEMORY

1 GB RAM minimum required; 2 GB RAM recommended.

PROCESSOR

Sparc5 or higher recommended
 x64

SUPPORTED FILE SYSTEMS AND VOLUME MANAGER TYPES

- VERITAS Volume Manager (VxVM) 5.0 or higher (unencapsulated root volume only)
- Solaris Volume Manager (svm)
- UNIX File System (UFS)
- VERITAS File System (VxFS)
- Zettabyte File System (ZFS)

NOTES

SERVER

- The 1-Touch Server must be a dedicated Solaris machine running the Jump Start server environment.
- For 1-Touch Server, use any Solaris system that is configured as a JumpStart server and has the required networking services, which include RARP, bootp, and tftp. Configure the 1-Touch server using the Solaris Advanced Installation Guide (see, <http://docs.sun.com/app/docs/doc/802-5740>). It is recommended that you set the primary mirror as the boot device for restores to succeed.
- The Solaris JumpStart server version (including updates) should be greater than or equal to the version of the Solaris client whose data is targeted for recovery. A Solaris JumpStart server can recover data from a Solaris client whose version is equal to or less than the server version. For example, a Solaris 10 JumpStart server can recover data from Solaris 10 client, Solaris 9 client, etc. Similarly, a Solaris 9 JumpStart server cannot recover data from Solaris 10 client, but it can recover data from Solaris 9 client, Solaris 8 client, etc.
- If Solaris 10 Update 6 or above jumpstart server is used as 1-touch server, please make sure that it has `/boot/solaris/bin/root_archive`. It is required for unpacking and repacking Solaris miniroot in jumpstart server.
- Ensure that the permissions setting for an NFS share on the JumpStart server is "ro" (read-only)
- Solaris 9 and Solaris 10 boot image versions are supported.

CLIENT

- This feature is not supported when bootable partitions are on the disk arrays (snapable disk).
- iSCSI root is supported for 1-Touch.
- Solaris local zones are not supported for 1-Touch backups.
- Link aggregation is not supported for 1-Touch backups.
- I/O Multipathing(MPxIO) is not supported for root file system recovery.

DISCLAIMER

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

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

Deployment - 1-Touch for Solaris

Deployment | Configuration | Recovery | Troubleshooting

◀ Previous Next ▶

1-Touch Recovery allows you to recover the entire computer system without installing the Operating system or any other software.

INSTALLATION

To perform 1-Touch Recovery you must first install the following:

• 1-TOUCH SERVER

Install 1-Touch Server software on the computer that satisfies the minimum system requirements.

Install the 1-Touch Server Software

• 1-TOUCH CLIENT

Install Unix File System *iDataAgent* on the computer that satisfies the minimum system requirements. The computer is referred to as the Client computer in this install procedure.

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

- Method 1: Interactive Install Unix File System *iDataAgent* - to install directly on client computer.
- Method 2: Install Software from CommCell Console - to install remotely on a client computer.

1-TOUCH SERVER

INSTALL THE 1-TOUCH SERVER SOFTWARE

1. Place the **Software Installation Disc** on a Solaris computer that satisfies the minimum System Requirements.
2. Run the following command from the Software Installation Disc:
./cvpkgadd
3. The product banner and other information is displayed.
Press **Enter**.
4. Read the license agreement. Type **y** and press **Enter**.
5. Press **Enter**.

6. Press **Enter**.

7. If you have only one network interface, press **Enter** to accept the default network interface name and continue.

BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

System Requirements for 1-Touch Server and Client

Verify that the computer in which you wish to install the 1-Touch Server Software satisfies the System Requirements.

Overview

Provides comprehensive information about 1-Touch feature

```
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]
```

```
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]
```

```
We found one network interface available on your machine. We will associate it with the physical machine being
```

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.

8. Press **Enter**.

9. Type the appropriate number to select **1-Touch Server**.

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

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

10. Press **Enter**.

11. 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.

12. Press **Enter**.

13. 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:

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

14. 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.

15. Press **Enter**.

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]

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]

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

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

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

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

1) Download from the software provider website.

2) Use the one in the installation media

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

Your choice: [1] 2

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]

Please specify where you want us to install Calypso binaries.

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

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

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

Log Directory: [/var/log]

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

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

Press **Enter** again.

17. 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**.

18. 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.

19. 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.

20. Press **Enter**.

21. 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

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

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]

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: skyl

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 "skyl".

Press <ENTER> to continue ...

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

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

Please enter the port numbers.

Port Number for CVD : [8400]

Port Number for EvMgrC: [8402]

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

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

CommServe Host Name: mycommserve.company.com

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

1) Use Cell level policy

2) Always use Global filters

3) Do not use Global filters

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

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 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

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

1) SP_StandAloneLibrary2_2

2) SP_Library3_3

3) SP_MagLibrary4_4

23. If you want 1-Touch support for Solaris 8, type **Yes**, press **Enter** and go to step 27.
If you do not want this support, accept the **No** default, press **Enter** and go to the next step.
24. If you want 1-Touch support for Solaris 9, type **Yes**, press **Enter** and go to step 27.
If you do not want this support, accept the **No** default, press **Enter** and go to the next step.
25. If you want 1-Touch support for Solaris 10 (Sparc) Update 5 and below, type **Yes**, press **Enter** and go to step 27.
If you do not want this support, accept the **No** default, press **Enter** and go to the next step.
26. For Solaris 10 64-bit or Solaris 10 (Sparc) Update 6 and above, type **Yes** and press **Enter** for 1-Touch support.
27. If you entered **Yes** in the above step, this screen will be displayed.
Type the path to the JumpStart boot directory and press Enter.
If Jumpstart files are not yet installed, quit this install and install JumpStart first.

If another question requesting 1-Touch support is displayed, go to the previous step; if not, go to the next step.
28. Type **3** to the **Exit** option and press **Enter**.
The installation is now complete.

```
Storage Policy: [1]
Calypso JumpStart
Do you want 1-Touch support for Solaris 8? [no]

Do you want 1-Touch support for Solaris 9? [no]

Do you want 1-Touch support for Solaris 10 Update 5 and
below? [no]

Do you want 1-Touch support for Solaris 10 Update 6 and
above? [no]

Please specify the absolute path to the Jumpstart 'Boot'
directory.

If JumpStart files are not yet installed on this system,
please quit the installation of this package and install
the JumpStart package before proceeding.

JumpStart Dir:
/export/home/sol10u6/Solairs_10/Tools/Boot/release = 6

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]
```

1-TOUCH CLIENT

METHOD 1: INTERACTIVE INSTALL UNIX FILE SYSTEM /DATAAGENT

1. Locate the **Software Installation Disc** and then enter **cvpkgadd**.
2. The product banner and other information is displayed.
Press **Enter**.
3. Read the license agreement. Type **y** and press **Enter**.
4. 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]

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
```

6. If you have only one network interface, press **Enter** to accept the default network interface name and continue.
- If you have multiple network interfaces, enter the interface name that you wish to use as default, and then press **Enter**.

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

7. Press **Enter**.

8. Type the number associated with the **Unix File System iDataAgent** and press **Enter**. A confirmation screen will mark your choice with an "X".
- Type **d** for **Done**, and press **Enter**.

9. Press **Enter**.

10. 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.

11. Press **Enter**.

12. 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:

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

13. Press **Enter**.

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]

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]

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]

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

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

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

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

- 1) Download from the software provider website.
- 2) Use the one in the installation media
- 3) Use the copy I already have by entering its unix path

Your choice: [1] 2

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]

Please specify where you want us to install Calypso binaries.

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

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

It must be a local directory and there should be at least

14. Press **Enter**.

15. Type the **Group name** and press **Enter**.
Press **Enter** again.

16. Press **Enter** to accept the default number of streams and continue, or
Enter the appropriate number of streams, and then press **Enter**.

The number of streams specified ensures that concurrent backup/restore streams would have sufficient system resources. For more information on the subject, see Configuring Kernel Parameters for Solaris.

17. 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**.

18. 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.

19. 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.

20. Press **Enter**.

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

100MB of free space available. All log files will be created in a "calypso/Log_Files" subdirectory, so if you enter "/var/log", the logs will actually be placed into "/var/log/calypso/Log_Files".

Log Directory: [/var/log]

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

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]

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: skyl

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 "skyl".

Press <ENTER> to continue ...

Please enter the total number of streams that you plan to run at the same time. We need to make sure that you have enough semaphores and shared memory segments configured in /etc/system.

Number of streams: [10]

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

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

Please enter the port numbers.

Port Number for CVD : [8400]

Port Number for EvMgrC: [8402]

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

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

CommServe Host Name: mycommserve.company.com

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

1) Use Cell level policy

2) Always use Global filters

3) Do not use Global filters

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

Client Group(s) is currently configured on CommServe mycommserve.company.com. Please choose the group(s) that

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

- 22. A confirmation screen will mark your choice with an "X".
Type **d** for **Done**, and press **Enter**.

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

- 24. Type **3** to the **Exit** option and press **Enter**.
The installation is now complete.

you want to add this client angel.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
[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

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

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]

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.

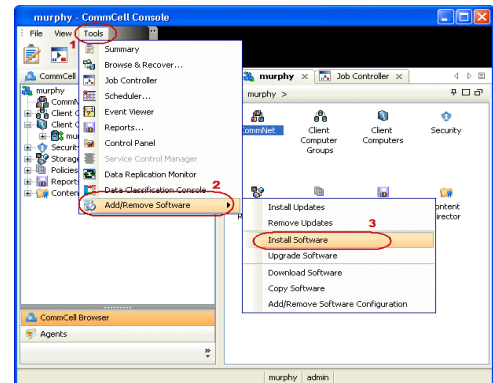
Now you have a choice of either adding another package to the existing installation or configure Calypso on a virtual machine for use in a cluster.

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

Your choice: [3]

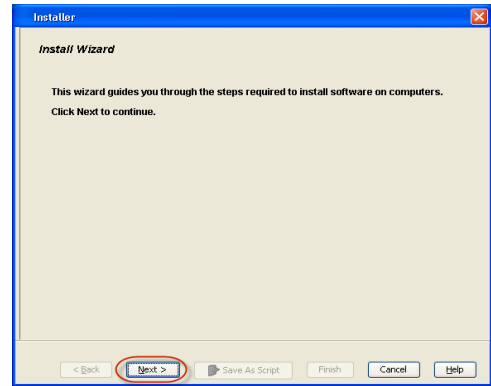
METHOD 1: INSTALL SOFTWARE FROM COMMCELL CONSOLE

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

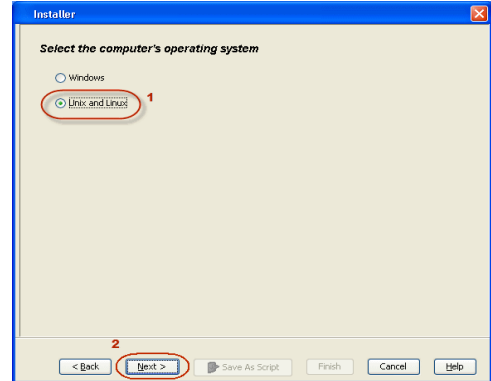


- 2. Click **Next**.

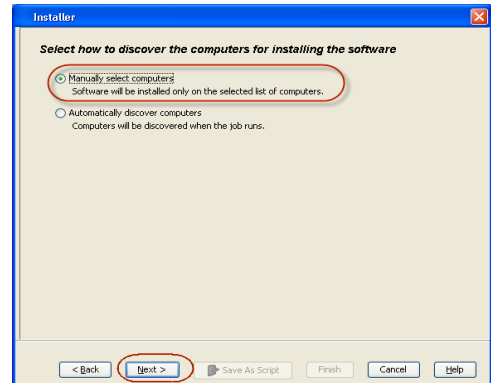
3. Select **Unix and Linux**.
Click **Next**.



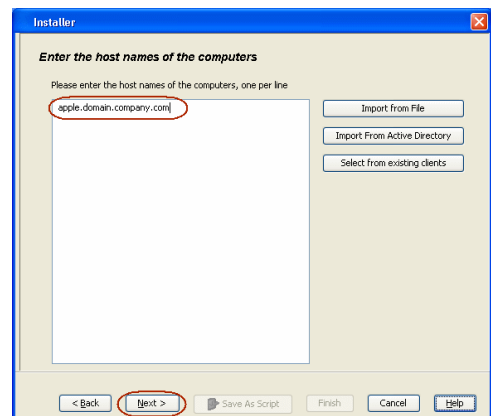
4. Select **Manually Select Computers**.
Click **Next**.



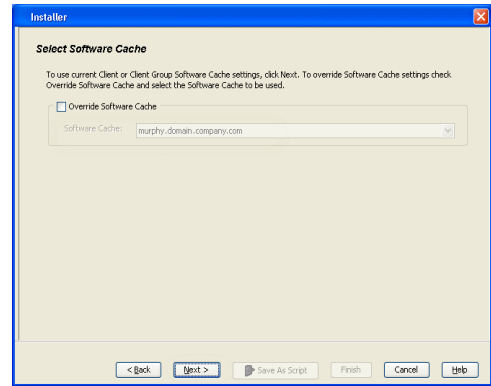
5. Enter the fully qualified domain name of the Linux client computer in which you wish to install.
For example: apple.domain.company.com
The Unix File System /DataAgent will be installed on this client computer.
Click **Next**.



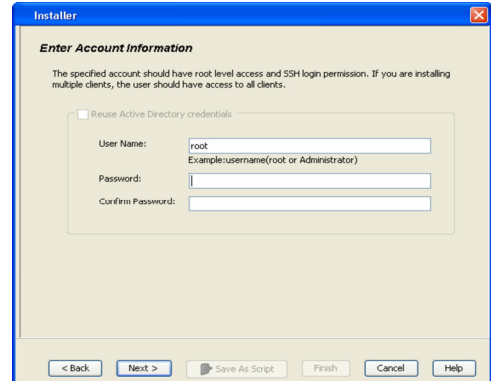
6. Click **Next**.



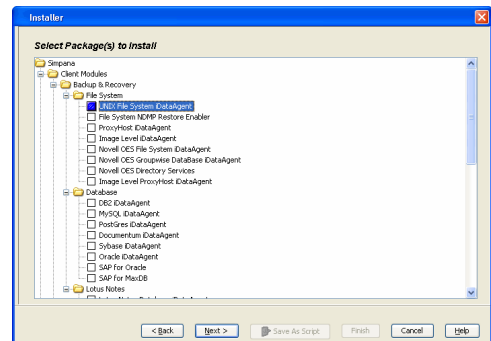
7. Specify **UserName** and **Password** of client computer.
Click **Next**.



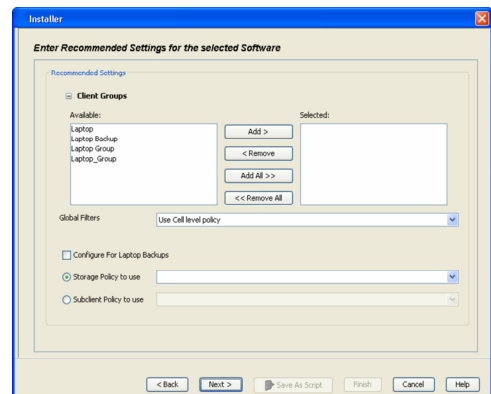
8. Select **Unix File System iDataAgent**.
Click **Next**.



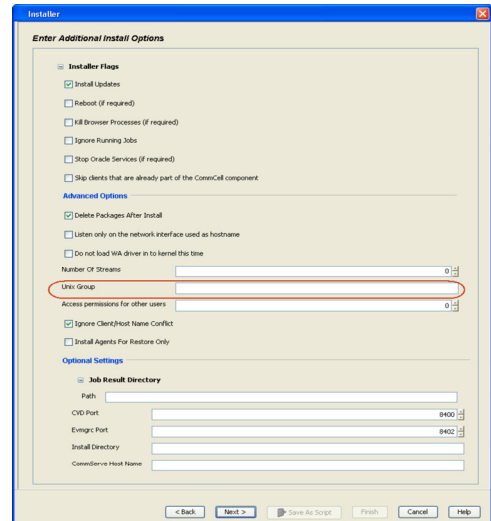
9.
 - Select **Client Group** from **Available** and click **Add**.
Do not add more than one Client Group.
 - Select a **Storage Policy** from the drop-down list. Click **Next**.



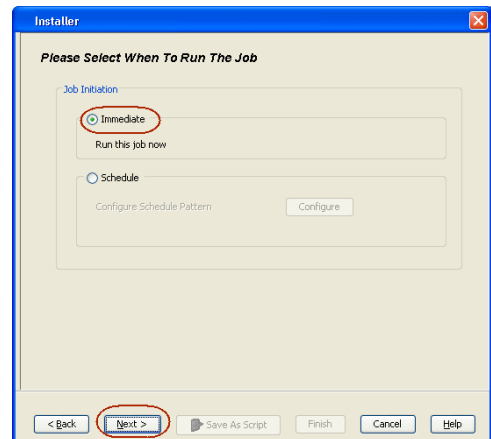
10. Click **Next**.



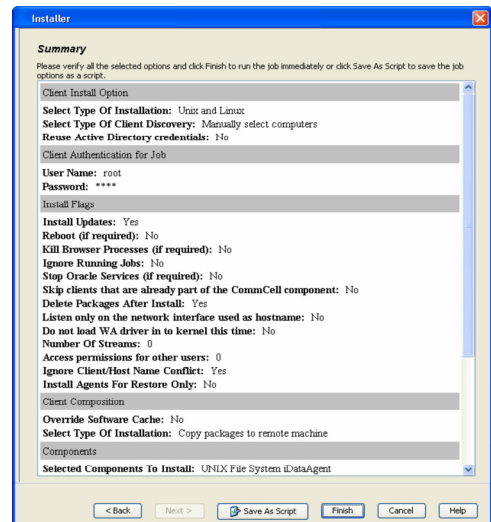
11. Select **Immediate**.
Click **Next**.



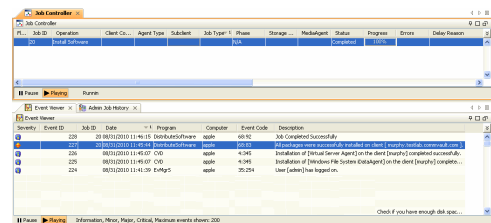
12. Click **Finish**.



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

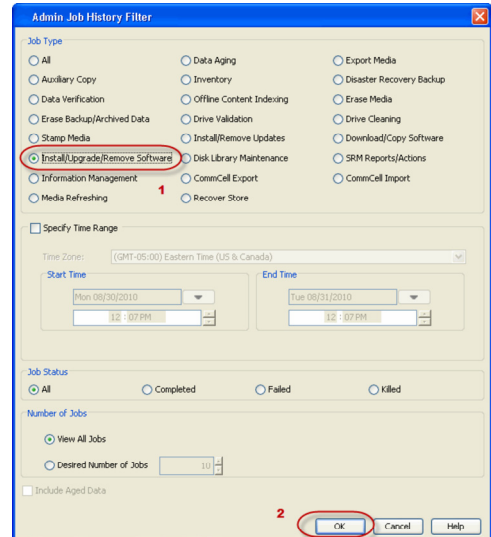
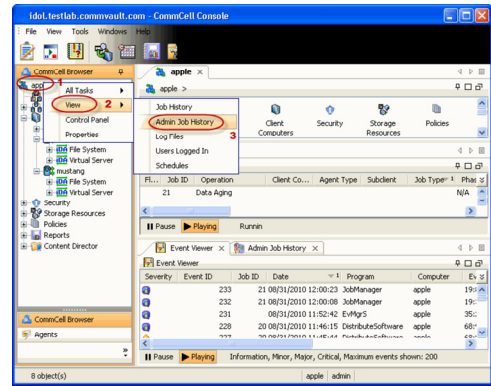


14. Once the job is complete, right-click the **CommServe** computer, click **View** and then



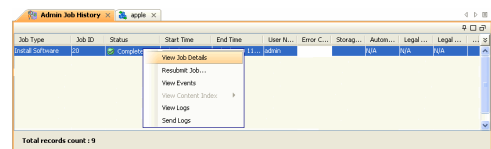
click **Admin Job History**.

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



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

- Items that succeeded during the job
- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job



Configuration - 1-Touch for Solaris

Deployment Configuration Recovery Troubleshooting

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Basic Configuration

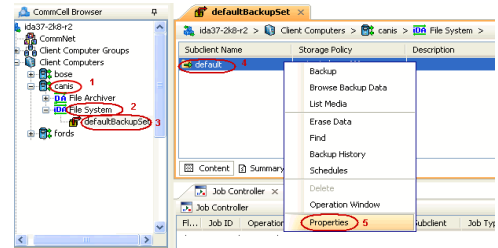
- Enable 1-Touch
- Perform a Backup

BASIC CONFIGURATION

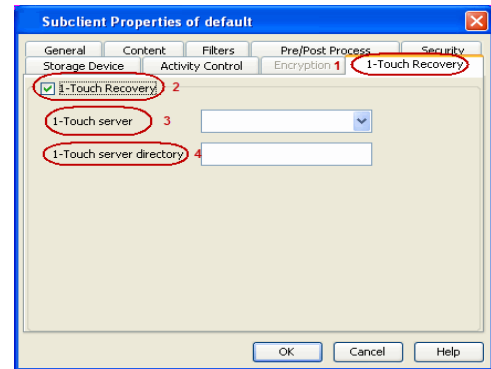
ENABLE 1-TOUCH

After you install the File System iDataAgent, follow the steps given below to enable the 1-Touch for the default subclient :

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



- Click **1-Touch Recovery** tab.
 - Select **1-Touch Recovery**.
 - Select the **1-Touch Server** from the list.
 - Enter the path to the **1-Touch server Directory**.
 - Click **OK**.

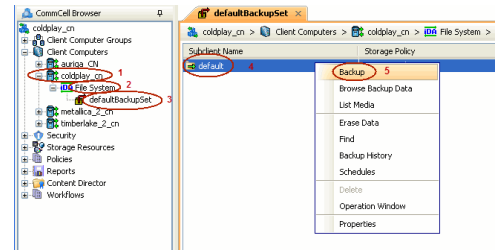


If the 1-Touch client host ID (MAC address) has changed since the most recent 1-Touch backup, be sure to update the client's Ethernet address within the `/etc/ethers` file on the 1-Touch server. Otherwise, you will not be able to boot the 1-Touch client.

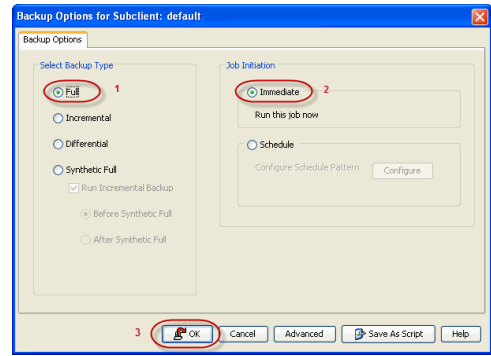
PERFORM A BACKUP

After you enable 1-Touch, perform backups of the default subclient periodically to capture any changes in the client system configuration. Before recovering a client, ensure that you have run at least one full backup of the default subclient.

- From the CommCell Console, navigate to **<Client> | File System iDataAgent | defaultBackupSet**.
 - Right-click the subclient, and click **Backup**.

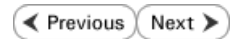


- Select **Full**.
 - Select **Immediate**.
 - Click **OK**.



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

ID	Job ID	Operation	Client Co.	Agent Type	Subclient	Job Type	Phase	Storage	MediaAgent	Status	Progress	Errors
8819		Archiver	hpurd	Linux File S...	FSM	Full	Archive	scantosa...	scantosa4	Pending	7%	Network
10109		Snap Backup	carter	Linux File S...	hpwr_2nd	Full	Backup	scantosa...	scantosa4	Running	100%	
2124		Snap Backup	del4baw01	ADSI File Sy...	hd_jvm	Full	Backup	scantosa...	scantosa4	Suspended	100%	
8491		Snap Backup	carter	Linux File S...	carter_krve	Full	Archive Index	DDP_RMG...	carter	Waiting	100%	No Resource
9074		Archive	del4baw01	Linux File S...	FSM	Full	Archive	scantosa...	scantosa4	Waiting	100%	No Resource
9101		Backup	carter	ADSI File Sy...	SEI	Full	Backup	hpwr_2nd	scantosa4	Waiting	100%	No Resource
9235		Backup	del4baw01	Documentar...	PTI	Full	Full Text In...	scantosa...	scantosa4	Waiting	100%	No Resource
9257		Backup	del4baw01	Documentar...	Dot	Full	Storage Ar...	scantosa...	scantosa4	Waiting	100%	No Resource
10000		Backup	area	HPSS File ...	default	Full	Backup	hpwr_2nd	scantosa4	Waiting	100%	No Resource
10184		Backup	del4baw01	Documentar...	default	Full	Database B...	scantosa...	scantosa4	Waiting	100%	No Resource
10186		Backup	del4baw01	Documentar...	Local	Full	Storage Ar...	scantosa...	scantosa4	Waiting	100%	No Resource
2065		Assemble Copy	del4baw01	Documentar...	Local	Full	Assemble C...	scantosa...	scantosa4	Waiting	100%	No Resource
9114		Disaster Recovery Backup				Full	Backup	CarterGen...	scantosa4	Waiting	100%	



Recovery - 1-Touch for Solaris

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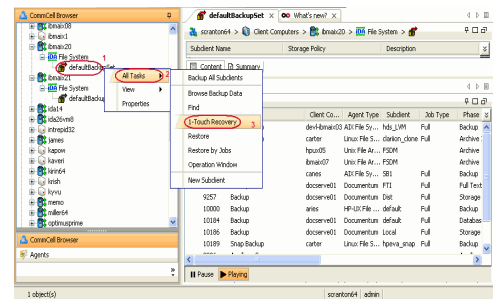
Basic Recovery

Advanced Recovery

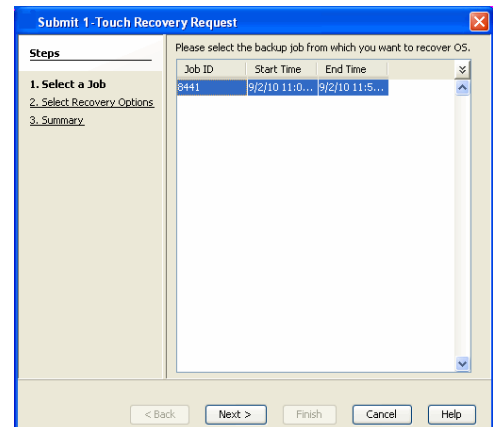
- Global File System Recovery
- Restoring Data Backed Up Before a Specific Date
- Changing the Priority of the Restore Job
- Starting the Restore Job in Suspended State
- Restoring From a Copy Precedence
- Restoring From a specific Data Path

BASIC RECOVERY

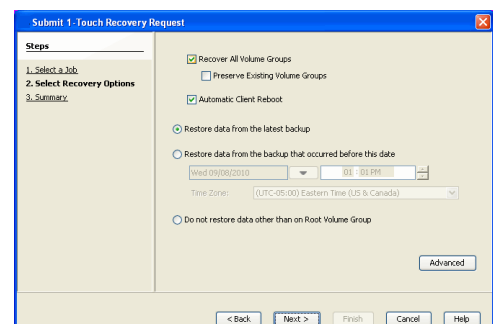
1. Login to CommCell Console using CommCell credentials.
 - Do not use domain credentials to login to CommCell. The single sign on is not supported for 1-Touch feature.
2.
 - From the CommCell Console, navigate to <Client> | File System | DataAgent | defaultBackupSet.
 - Right-click the **Default Backup Set** and click **All Tasks | 1-Touch Recovery**.



3.
 - Select the backup job for recovering the operating system.
 - Click **Next**.

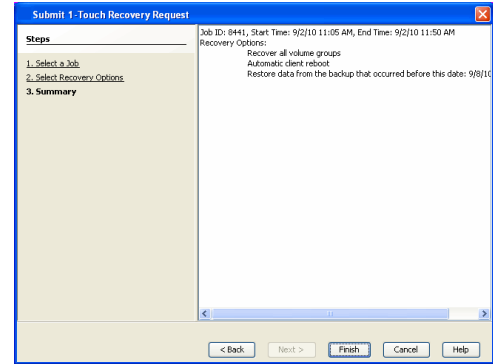


4. Click **Next**.



5.
 - Review the recovery options.

- Click **Finish**.



5.
 - Connect the client to network and switch on the power.
 - At the boot prompt of the affected client, enter one of the following commands:
 - Give the following command to start the basic recovery of essential OS file systems. For example: `/, /opt, /usr, /var`.


```
boot net - w recover u=<user_id> p=<passwd>
```
 - Give the following command to start recovery of OS and replaced disks:


```
boot net - w recover newfs-changed-drives u=<user_id> p=<passwd>
```
 - Give the following command to recover all partitioned disks and created file systems, regardless of their state:


```
boot net - w recover newfs-all u=<user_id> p=<passwd>
```

Here `<user_id>` is Commcell console user id and `<passwd>` is Commcell console password.

`w` is optional to Solaris install method to skip starting X window session.

This step starts the 1-Touch. All logging output for the recovery is redirected to the console and a file under the `/tmp` directory.
 - Press **Enter** to start the automatic restore. After the restore complete, the system will reboot.

ADVANCED RECOVERY OPTIONS

GLOBAL FILE SYSTEM RECOVERY

The global file system makes all files across a cluster equally accessible and visible to all nodes. The Global File System will not be recovered during the 1-Touch recovery of a single node from the cluster. During the full system recovery, if the Global File System is not available, start the Global File System recovery.

1. Ensure that the file system type is same as the previous global file system.
2. Start the Global File System restore from the node that served as the Global File System controller at the time of the last 1-Touch backup.
3. The 1-Touch restore directory contains the Global File System disk recovery commands. For example:

- Use the following command to recover the Global File System volume group using VERITAS Volume Manager


```
<jump start directory>/<client>/galaxy/iDataAgent/systemrecovery/disks/vxvm.vxmake.oracle_dg
```

or

- Use the following command to recover the Global File System volume group using Solaris Volume Manager

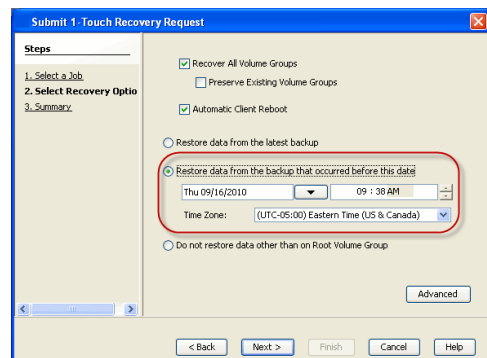

```
<jump start directory>/<client>/galaxy/iDataAgent/systemrecovery/disks/lvm.mk.commands
```

RESTORING DATA BACKED UP BEFORE A SPECIFIC DATE

You can perform a point-in-time restore of the system state. You can recover data from a backup that occurred before the specified date and time.

1. From the CommCell Console, navigate to **<Client> | File System iDataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.

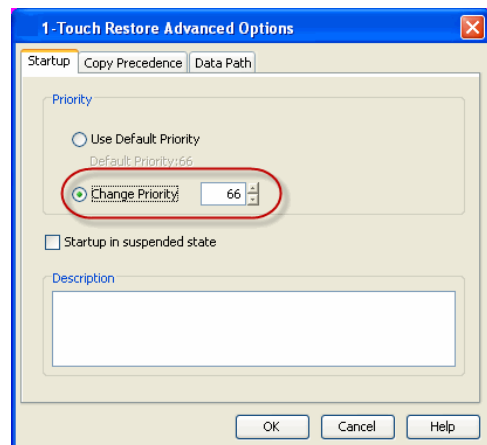
4. Click **Restore data from the backup that occurred before this date.**
5. Enter date and time.
6. Select a **Time Zone.**
7. Click **Next.**
8. Click **Finish.**



CHANGING THE PRIORITY OF THE RESTORE JOB

You can increase the priority of a restore job. If you want to perform the 1-Touch recovery on a high priority, follow the steps given below:

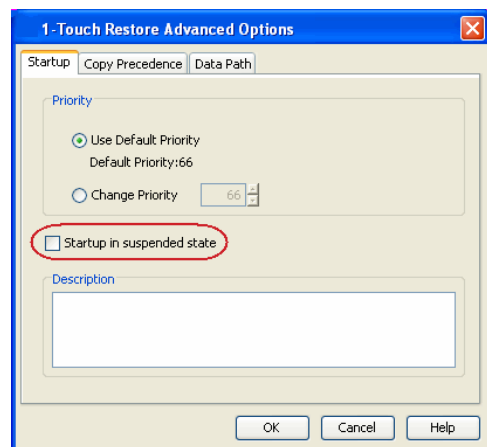
1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet.**
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery.**
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options.**
4. Click **Advanced.**
5. Click **Change Priority.**
6. Enter the priority number between 0 to 999. Lower the number, higher the priority.
7. Click **Ok.**
8. Click **Next.**
9. Click **Finish.**



STARTING THE RESTORE JOB IN SUSPENDED STATE

If there are multiple jobs running simultaneously on the CommServe, you can hold the restore job on suspended state. Once the CommServe is freed up, you can resume the restore job from the **Job Controller** window.

1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet.**
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery.**
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options.**
4. Click **Advanced.**
5. Click **Startup in suspended state**
6. Click **Ok.**
7. Click **Next.**
8. Click **Finish.**

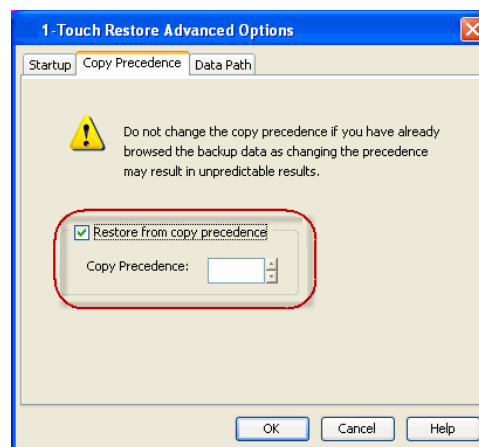


RESTORING DATA FROM A COPY PRECEDENCE

By default, 1-Touch recovery will restore the data from the primary copy. But if you want to restore data from a particular storage policy copy, you can specify the copy precedence.

1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet.**
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery.**

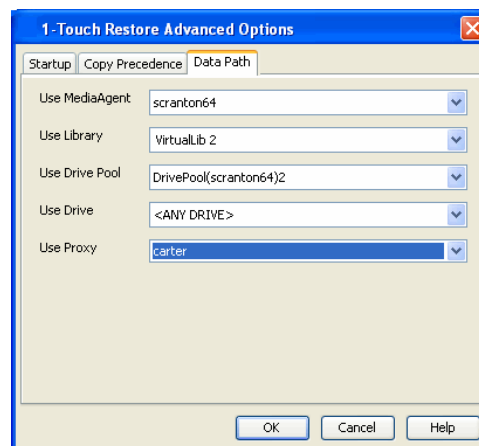
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Copy Precedence**.
6. Click **Restore from copy precedence**.
7. Enter the copy precedence number.
8. Click **Ok**.
9. Click **Next**.
10. Click **Finish**.



RESTORING DATA FROM A SPECIFIC DATA PATH

If you want to restore the data from a specific location on a MediaAgent, you can specify the data path as follows:

1. From the CommCell Console, navigate to **<Client> | File System |DataAgent | defaultBackupSet**.
2. Right-click the **defaultBackupSet** and click **All Tasks | 1-Touch Recovery**.
3. In the **Submit 1-Touch Recovery Request** dialog box, click **Select Recovery Options**.
4. Click **Advanced**.
5. Click **Data Path**.
6. Select the following to specify the data path:
 - o **Use MediaAgent**
 - o **Use Library**
 - o **Use Drive Pool**
 - o **Use Drive**
 - o **Use Proxy**
7. Click **Ok**.
8. Click **Next**.
9. Click **Finish**.



Troubleshooting - 1-Touch for Solaris

Deployment Configuration Recovery Troubleshooting

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The following section provides information on some of the troubleshooting scenarios related to 1-Touch Recovery:

PROBLEM/ERROR	SOLUTION
<p>The client is unable to boot.</p>	<p>To debug boot problems, use the snoop and truss commands.</p> <p>The 1-Touch client updates the <code>sr.log</code> log files on both the client and the 1-Touch server. If a 1-Touch client backup completed successfully and is somehow failing to boot, be sure to check the <code>sr.log</code> on the 1-Touch server for any warning.</p> <p>If you are using a different 1-Touch server than that was used previously, remove the client's name from the database of the previous 1-Touch server. Otherwise, the client will not be able to boot off the network because both servers will respond to the client's RARP request. To do this, from the Tools directory, run the <code>./rm_install_client <clientname></code> command.</p> <p>For DHCP clients, run the following commands:</p> <ul style="list-style-type: none"> • <code>./rm_install_client <platform name></code> • <code>./rm_install_client <ethernet address></code> • <code>./rm_install_client -f <boot file name></code> <p>Sometimes, the RARP, bootparams and tftp daemons fail to re-read network information pertaining to the 1-Touch client. In such cases, you may have to restart the daemons.</p>
<pre>Error: execution of 'format -d c0t3d0 -f /tmp/fmtinput -s' failed Exiting to shell... # # format -d c0t3d0 -f /tmp/fmtinput -s Warning: error writing VTOC. DIOCTL_RWCMD: I/O error Warning: error reading backup label. Warning: no backup labels Label failed.</pre>	<p>You may get this error during phase 2 of 1-Touch recovery. The error message appears in the <code>recoverlog</code> file. This log file is located in the <code>/tmp</code> directory of the system. You get this error because Operating System does not recognize one of the disk drives. To resolve this issue, add information about the correct disk type of the unrecognized disks in the <code>format.dat</code> file. The <code>format.dat</code> file can be located where jumpstart server is installed. For example, it can be located at: <code><jumpstart_root>/Solaris*/Tools/Boot/etc/format.dat</code></p>

◀ Previous Next ▶

System Requirements - 1-Touch

AIX	HP-UX	Linux	Solaris	Windows
-----	-------	-------	---------	---------

The following are the requirements for 1-Touch on Windows:

1-TOUCH SERVER

WINDOWS 7

Microsoft Windows 7 32-bit and x64 Editions

WINDOWS SERVER 2003

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

WINDOWS SERVER 2008 R2

Microsoft Windows Server 2008 R2 x64 Editions*

*Core Editions not supported

WINDOWS SERVER 2008

Microsoft Windows Server 2008 32-bit and x64 Editions*

*Core Editions not supported

WINDOWS VISTA

Microsoft Windows Vista 32-bit and x64 Editions

WINDOWS XP

Microsoft Windows XP Professional 32-bit and x64 Editions

CLIENT

WINDOWS 7

Microsoft Windows 7 32-bit and x64 Editions

WINDOWS SERVER 2003

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

WINDOWS SERVER 2008 R2

Microsoft Windows Server 2008 R2 x64 Editions

WINDOWS SERVER 2008

Microsoft Windows Server 2008 32-bit and x64 Editions

WINDOWS VISTA

Microsoft Windows Vista 32-bit and x64 Editions

WINDOWS XP

Microsoft Windows XP Professional 32-bit and x64 Editions

HARD DRIVE

7 GB minimum of hard disk space for installing the software.

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

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

The RAM size of the client must be two times the size of the **Live CD**. The size of the **Live CD** can vary depending on the processor type and drivers added to the image. The default size is approximately 1 GB. You can verify the size. The 1-Touch ISO image is located at:

SystemRecovery\Images\Windows 32-bit\BOOT_IMAGE\ISO\sources

SystemRecovery\Images\Windows x64\BOOT_IMAGE\ISO\sources

MEMORY

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

PROCESSOR

All Windows-compatible processors supported

PERIPHERALS

A CD-ROM drive or ability to boot from an ISO image file is required to boot the 1-Touch client for recovery.
No server is required for 9.0

NOTES

CLIENT

- Ensure that the TCP/IP Services are configured on the computer before performing the backup.
- 1-Touch recovery is supported for systems which boot from SAN or the recovery of SAN attached disks.
- 1-Touch recovery is not supported if the system partition of the client computer is located on the FAT 32 volume.
- You must use a wired internet connection to recover a laptop.
- Use Disaster Recovery to recover a CommServe. You cannot recover a CommServe using the 1-Touch recovery.
- In a dual boot system, the operating system that is used while performing the backup will be recovered during 1-Touch recovery. You cannot recover both the operating systems.
- Ensure that windows is not installed on the drive other than C:\. The unattended installation of windows on a drive other than C:\ is not supported. You cannot perform the Online or Offline Restore when windows is installed on a drive other than C:\
- 1-Touch does not support recovery of disks managed by Veritas Volume Manager due to inconsistent results with VDS.
- 1-Touch does not support recovery of disks that has BitLocker Encryption.
- To recover a Windows XP Client, you must perform the Online Restore.
- 1-Touch recovery of Windows XP clients is not supported if multilingual user interface (MUI) is other than English language. If MUI is English, you can perform the Online restore. The Offline and Non-interactive restores are not supported for Windows XP clients.
- Ensure that the client does not have multiple active partitions. You cannot perform Offline recovery if the client has multiple active partitions.

DISCLAIMER

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

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

Deployment - 1-Touch for Windows

Deployment | Configuration | Recovery | Troubleshooting | FAQ

◀ Previous Next ▶

TABLE OF CONTENTS

1-Touch Recovery allows you to recover the entire computer system without installing the Operating system or any other software.

Perform the following to enable 1-Touch Recovery:

Install 1-Touch Server Software

Setup a Remote Software Cache

Configure a Remote Software Cache For 1-Touch Server

Download and Install Software Updates on 1-Touch Server

Apply Updates in 1-Touch Server Cache to 1-Touch Live CD Boot image

Install Windows File System iDataAgent on the Client Computer

BEFORE YOU BEGIN

Download Software Packages

Download the latest software package to perform the install.

Software Installation Discs

The software package is also available on the software installation discs.

System Requirements for 1-Touch Server and Client

Verify that the computer in which you wish to install the 1-Touch Software satisfies the System Requirements.

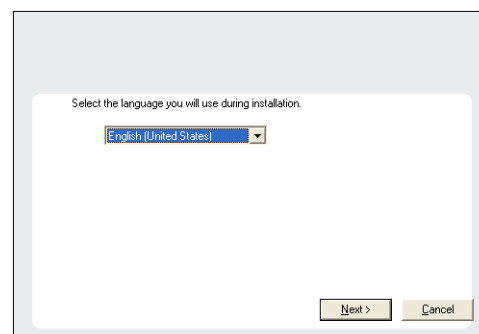
Overview

Provides comprehensive information about 1-Touch feature

INSTALL THE 1-TOUCH SERVER SOFTWARE

Install 1-Touch Server software on the computer that satisfies the minimum system requirements. This computer is referred as the 1-Touch Server.

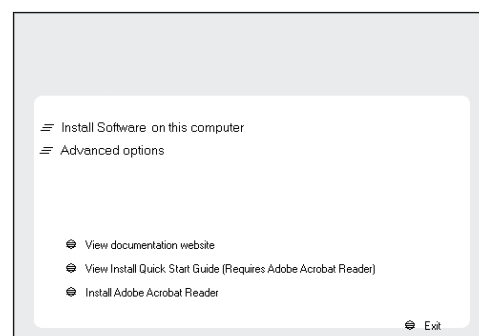
1. Run **Setup.exe** from the **Software Installation Disc** on the computer that satisfies the minimum system requirements.
2. Select the required language.
Click **Next**.



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

NOTES

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



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

- Expand **Client Modules | Backup & Recovery | File System** and select **1-Touch Server**.

Click **Next**.

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

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

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

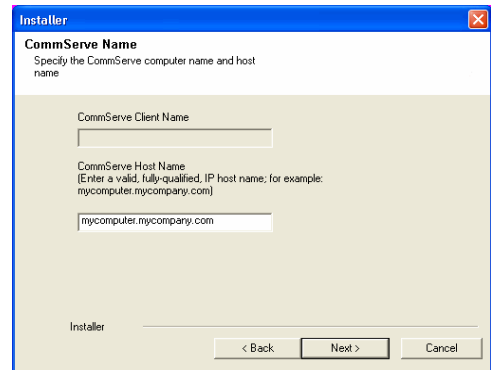
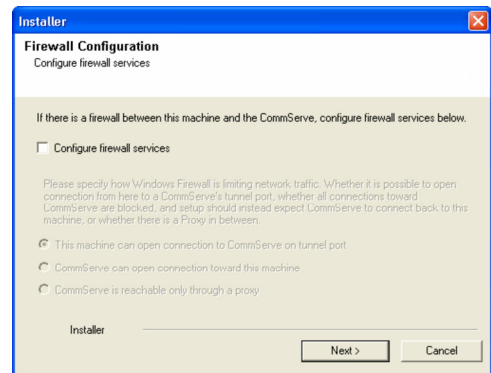
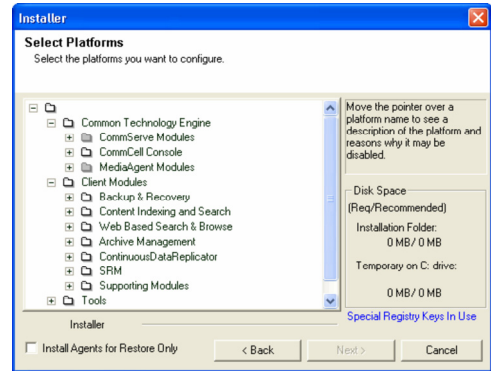
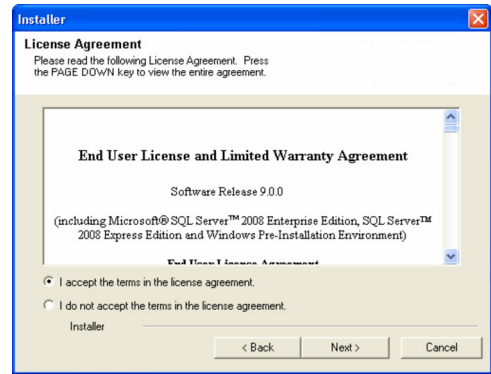
- Enter the fully qualified domain name of the **CommServe Host Name**.

Click **Next**.

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

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

- Click **Next**.



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**.

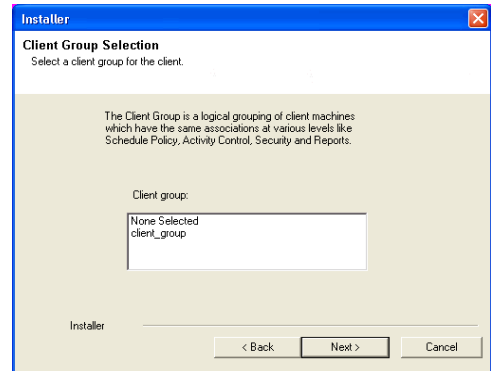
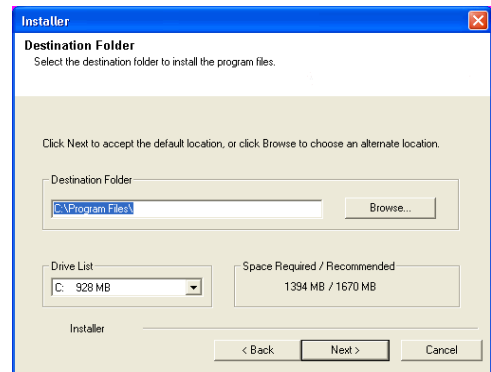
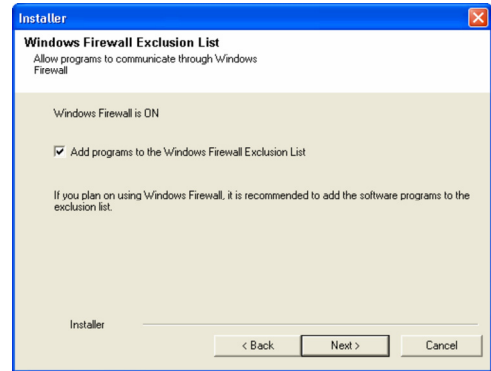
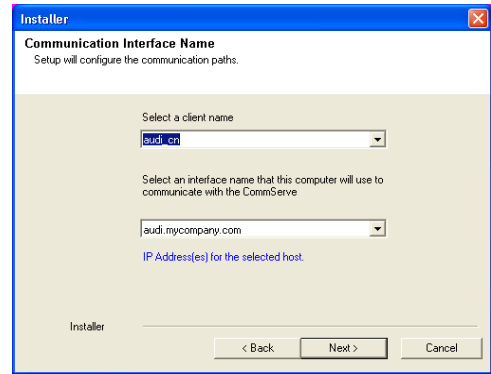
- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:

/ : * ? " < > | #

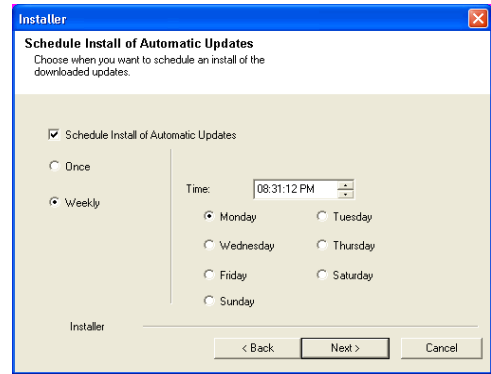
It is recommended that you use alphanumeric characters only.

11. Click **Next**.

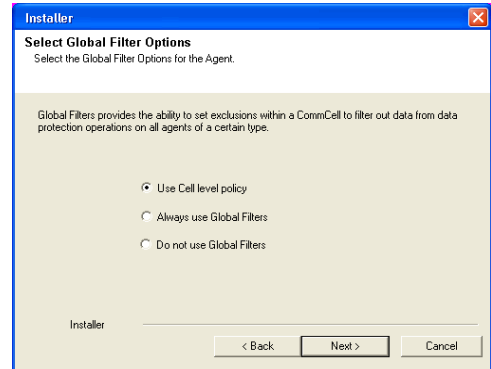
12. Click **Next**.



13. Click **Next**.



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



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

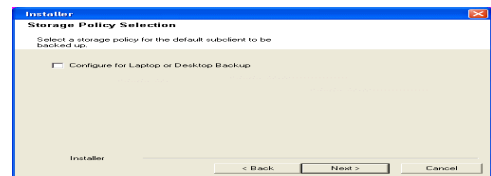
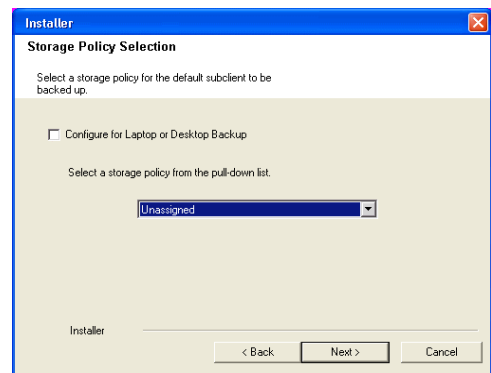
You can create the Storage Policy later in step 20.

15. Enter the path for 1-Touch Server distribution folder.
Click **Next**.

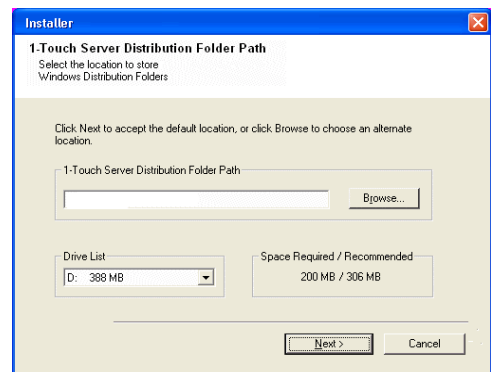
NOTES

This folder will contain the following:

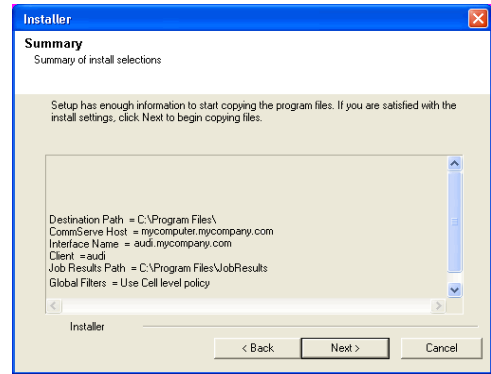
- Client Files share - It will contain client files and folders selected for recovery.
- Image share - It will contain the files, required to deploy the File System iDataAgent. It will also contain a `boot_image` folder with **1touchBoot.iso** for burning a bootable CD-ROM
- WINDIST folder- It will contain shares housing the Microsoft Windows Distribution folders



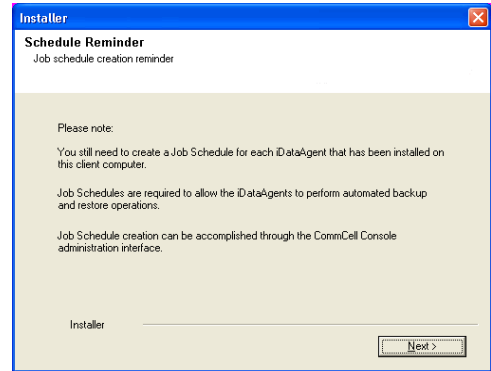
16. Click **Next**.



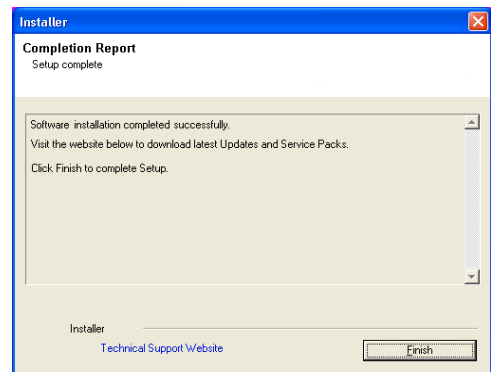
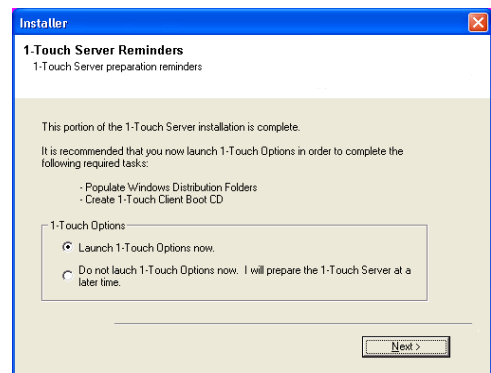
17. Click **Next**.



18. Select **Do not launch 1-Touch Options now. I will prepare the 1-Touch Server at a later time.**
Click **Next**.



19. Click **Finish**.

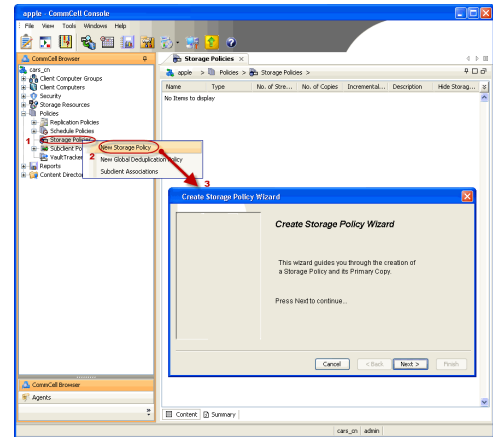


If you already have a storage policy selected in step 14, click the **Next** button available on the bottom of the page to proceed to the **Configuration** section.
If you do not have Storage Policy created, continue with the following step.

20. 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.



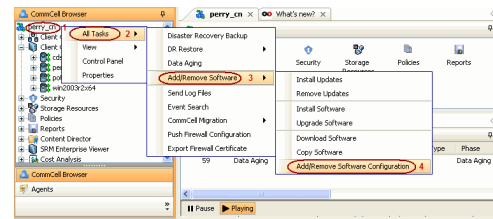
SETUP A REMOTE SOFTWARE CACHE

The 1-Touch server will be used to create the 1-Touch Live CD required for 1-Touch recovery. The 1-Touch Live CD boots the client computer and and installs Bull Calypso on the client computer during 1-Touch recovery. You must download and install all the latest updates for Bull Calypso and WinPE on the 1-Touch server.

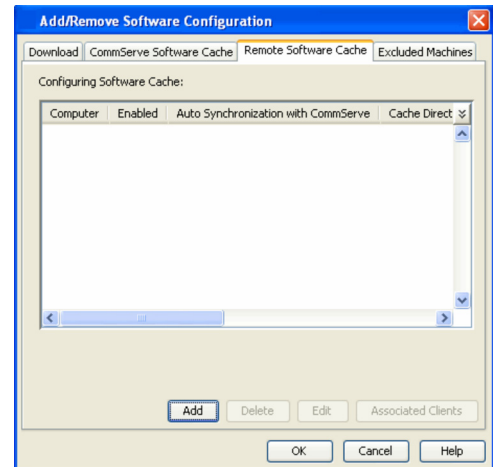
CONFIGURE A REMOTE CACHE FOR 1-TOUCH SERVER

When the 1-Touch Server software is not installed on a CommServe, you must configure a remote cache for the 1-Touch server. A remote cache will store all the updates for 1-Touch Server software, Windows File System iDataAgent and WinPE. You can skip this configuration if 1-Touch server is installed on the CommServe.

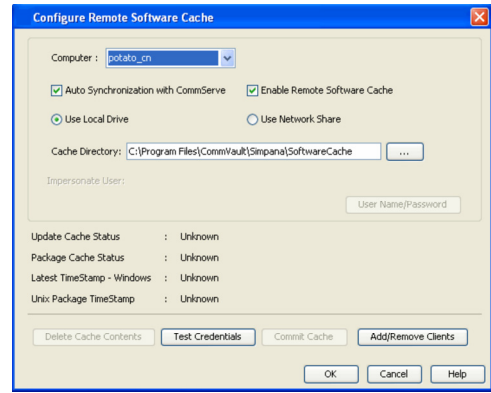
1. From the CommCell Console, right click the CommServe computer and click **All Tasks | Add/Remove Software | Add/Remove Software Configuration**.



2.
 - Select **Remote Software Cache** tab
 - Click **Add**.



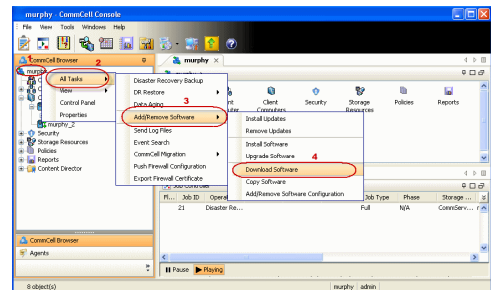
3.
 - Select the client **Computer**.
 - Click **Enable Remote Software Cache**.
 - Enter the path to **Cache Directory**.
 - Click **OK**.



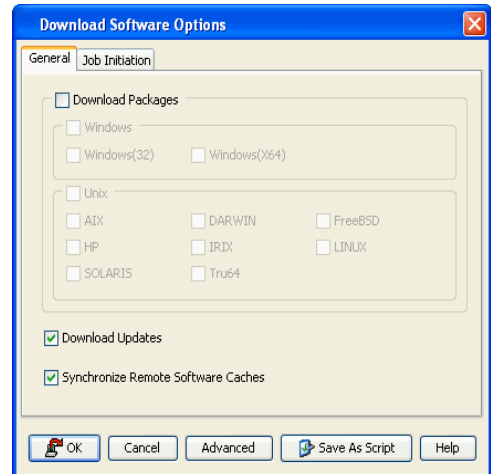
DOWNLOAD AND INSTALL UPDATES ON 1-TOUCH SERVER

Before creating the 1-Touch Live CD, download all the software updates for 1-Touch Server software, Windows File System iDataAgent and WinPE.

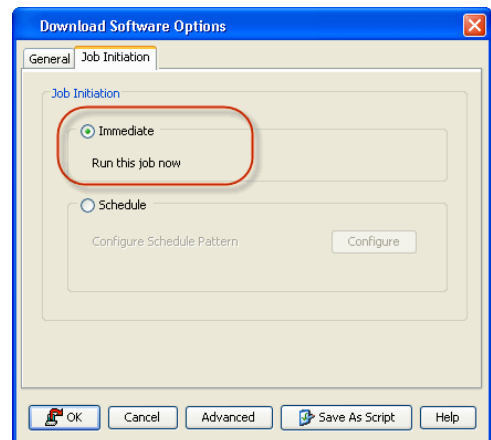
- From the CommCell Browser, right-click on the CommServe computer node, and click **All Tasks -> Add/Remove Software -> Download Software**.



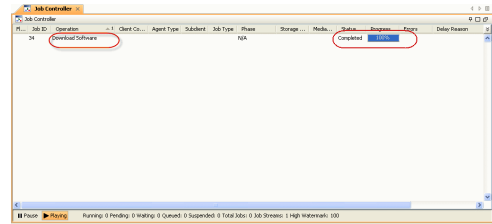
- Click **OK**.



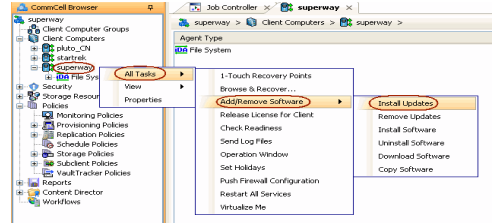
- Click **Job Initiation** tab.
 - By default **Immediate** option is selected.
 - Click **OK**.



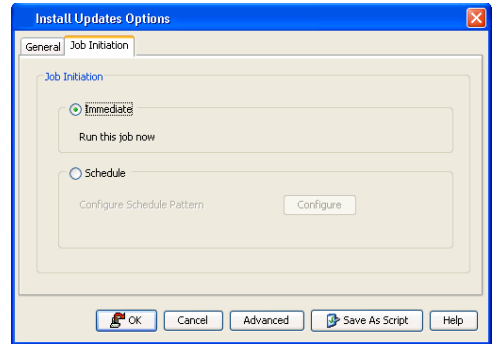
- You can track the progress of the job from the **Job Controller** window. The software updates are stored automatically in the CommServe Cache and 1-Touch Server cache.



- From the CommCell Browser, right-click on the 1-Touch Server computer node, and click **All Tasks -> Add/Remove Software -> Install Updates**



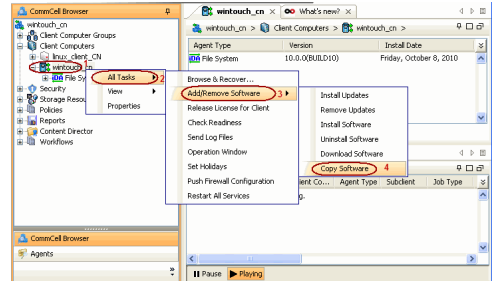
- Click **Job Initiation** tab.
 - By default **Immediate** option is selected.
 - Click **OK**.



APPLY UPDATES IN 1-TOUCH SERVER CACHE TO 1-TOUCH LIVE CD BOOT IMAGE

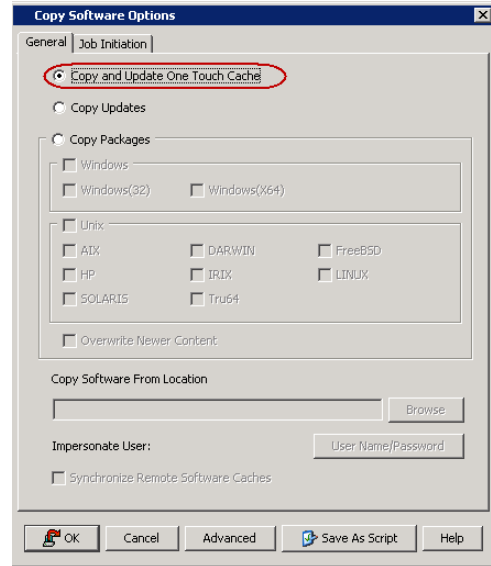
Follow the steps given below to mount the **1-Touch Live** CD and apply the software updates to the ISO:

- From the CommCell Console, navigate to **<Client Computers> | <1-Touch Server>**.
 - Right-click and click **All Tasks | Add/Remove Software | Copy Software**.



- Select **Copy and Update One Touch Cache**.
 - Click **OK**.

All the software updates are copied to 1-Touch server cache and then integrated with 1-Touch ISO for each type of processor.



INSTALL WINDOWS FILE SYSTEM /DATAAGENT ON THE CLIENT COMPUTER

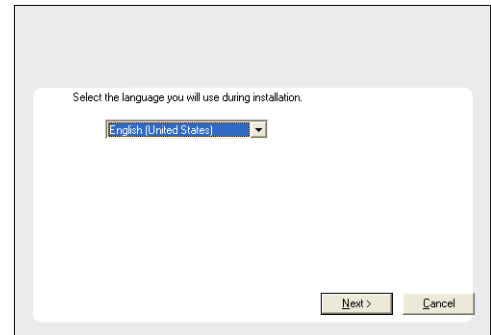
Install Windows File System /DataAgent on the computers that satisfies the minimum system requirements. The computer is referred as the 1-Touch Client.

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

- Method 1: Interactive Install - to install directly on client computer.
- Method 2: Install Software from CommCell Console - to install remotely on a client computer.

INTERACTIVE INSTALL

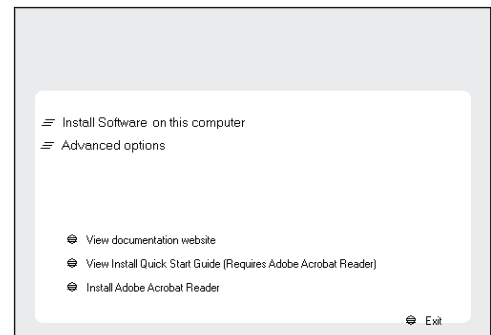
1. Run **Setup.exe** from the **Software Installation Disc** on the computer that satisfies the minimum system requirements.
2. Select the required language.
Click **Next**.



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

NOTES

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



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

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

Click **Next**.

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

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

11. Verify the default location for software installation.

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

Click **Next**.

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

/ : * ? " < > | #

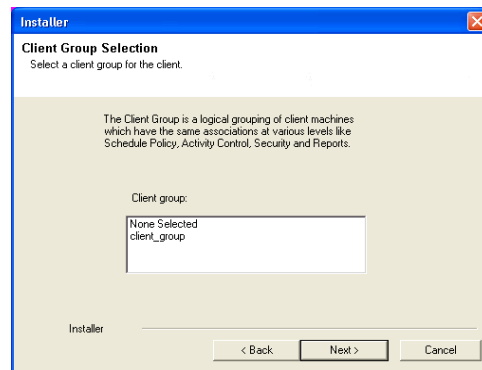
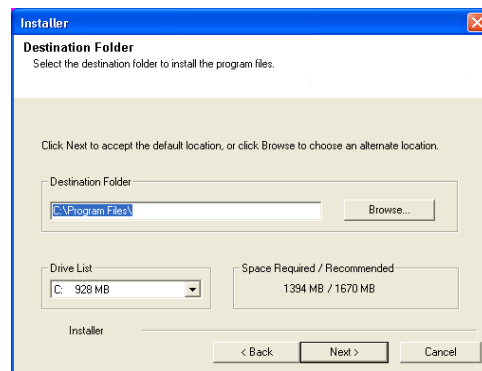
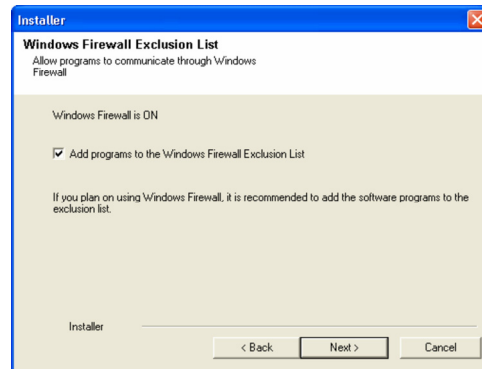
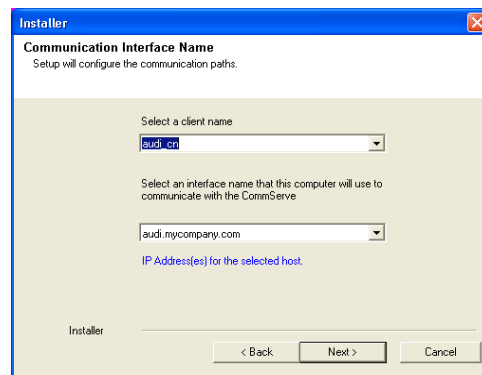
It is recommended that you use alphanumeric characters only.

12. Select a Client Group from the list.

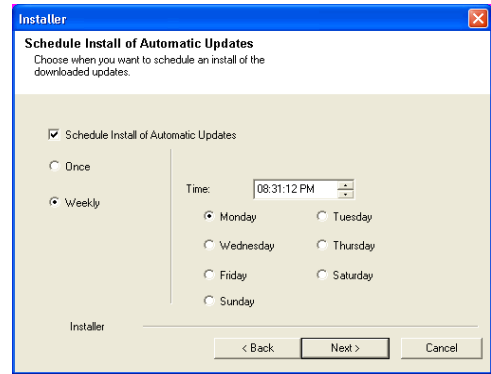
Click **Next**.

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

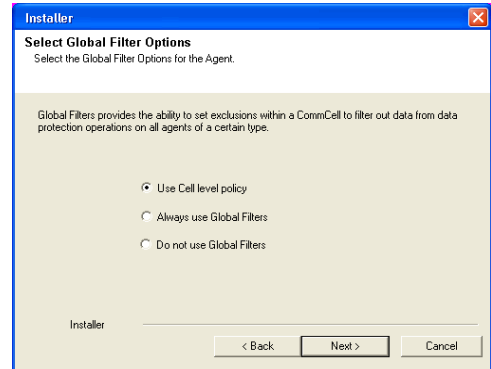
13. Click **Next**.



14. Click **Next**.



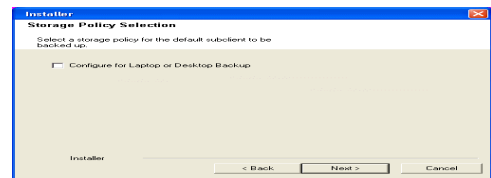
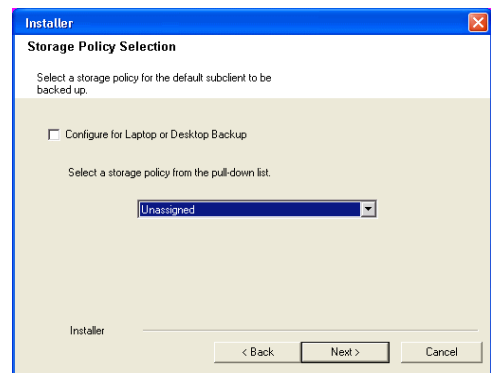
15. Select a **Storage Policy**.
Click **Next**.



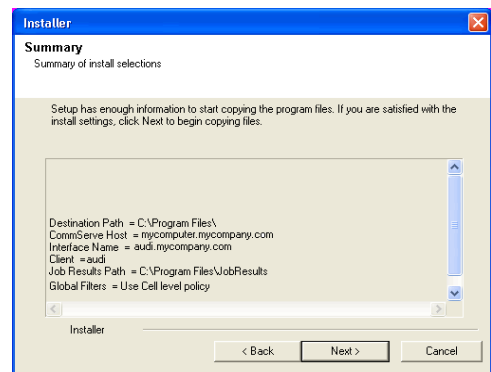
If you do not have Storage Policy created, this message will be displayed.
Click **OK**.

You can create the Storage Policy later in step 19.

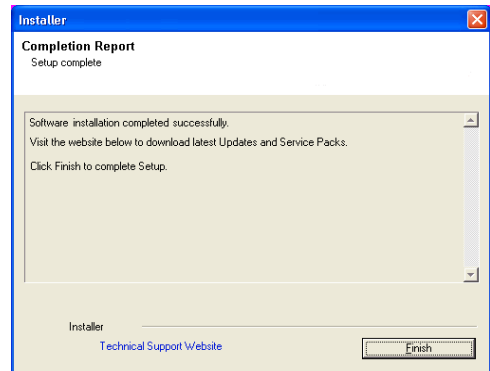
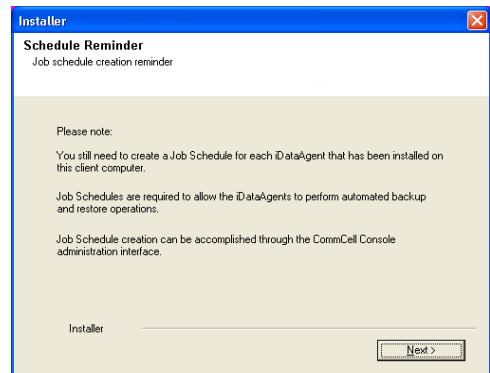
16. Click **Next**.



17. Click **Next**.



- Click **Finish**.

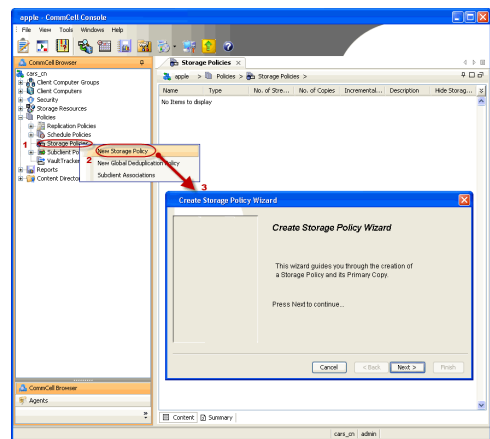


If you already have a storage policy selected in step 15, click the **Next** button available on the bottom of the page to proceed to the **Configuration** section.

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

- Create a Storage Policy:

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

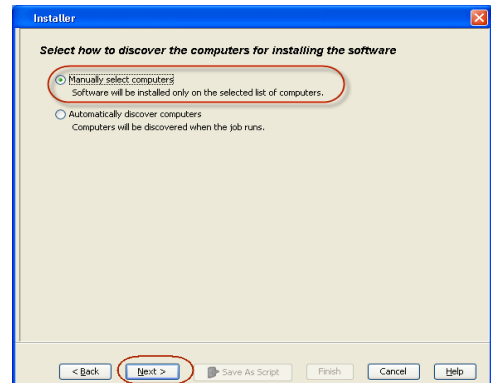
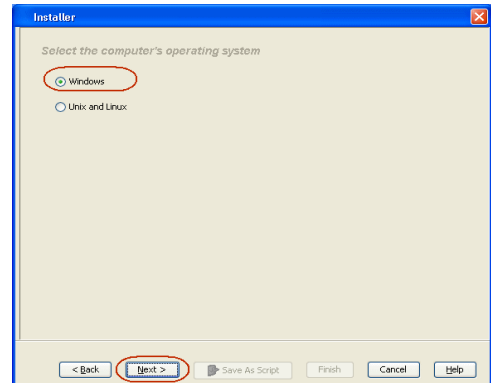
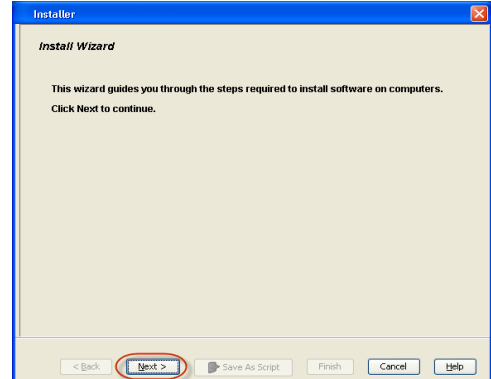
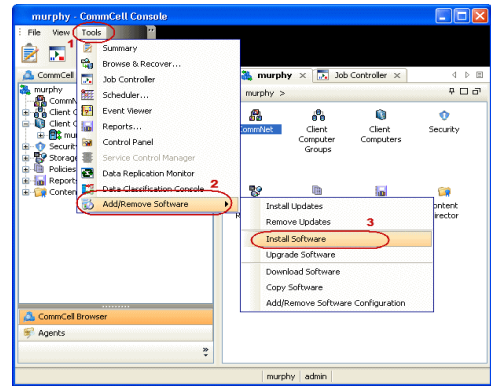
- From the CommCell Browser, select **Tools | Add/Remove Software | Install Software**.

2. Click **Next**.

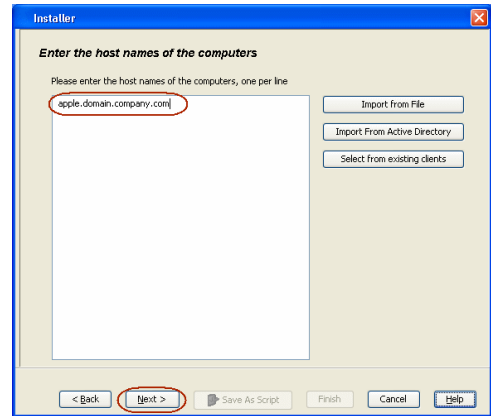
3. Select **Windows**.
Click **Next**.

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

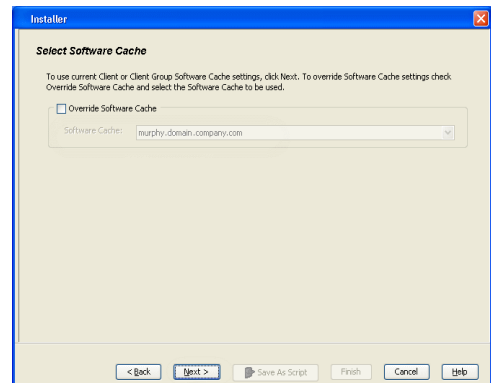
5. Enter the fully qualified domain name of the computer in which you wish to install.
For example: apple.domain.company.com
Click **Next**.



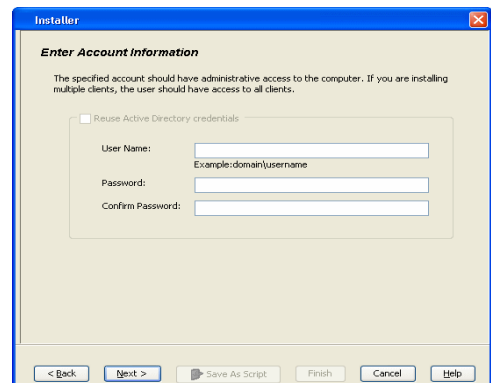
6. Click **Next**.



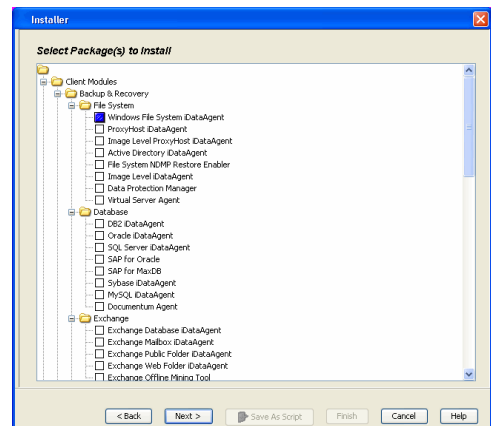
7. Specify **UserName** and **Password**.
Click **Next**.



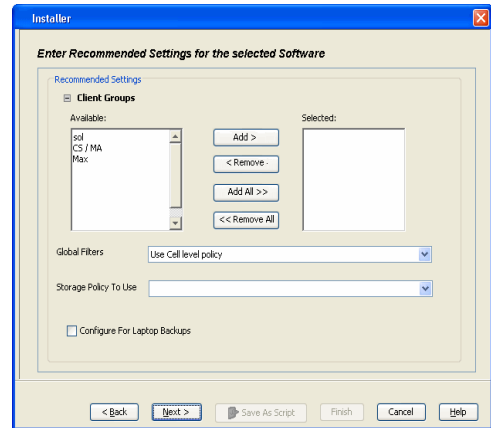
8. Select **Windows File System iDataAgent**.
Click **Next**.



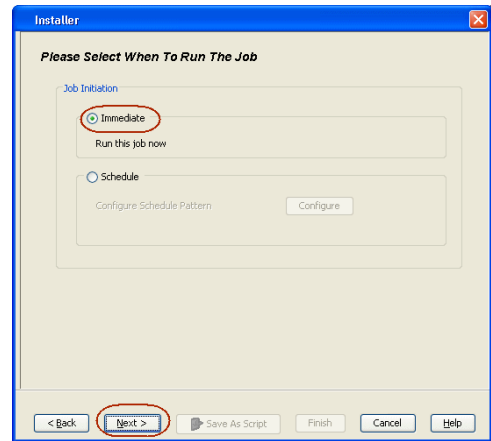
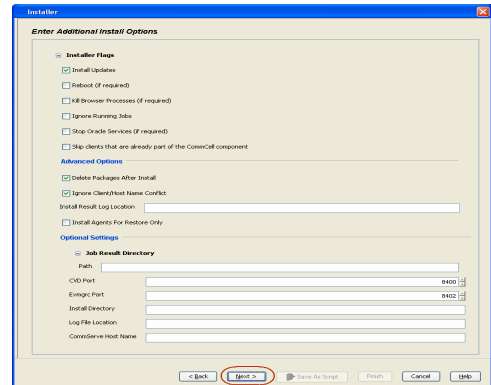
9. Click **Next**.



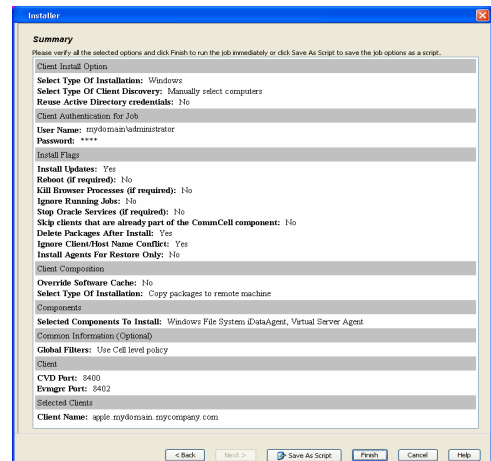
10. Click **Next**.



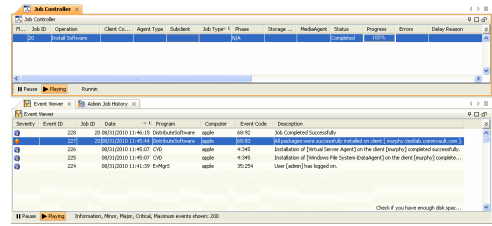
11. Select **Immediate**.
Click **Next**.



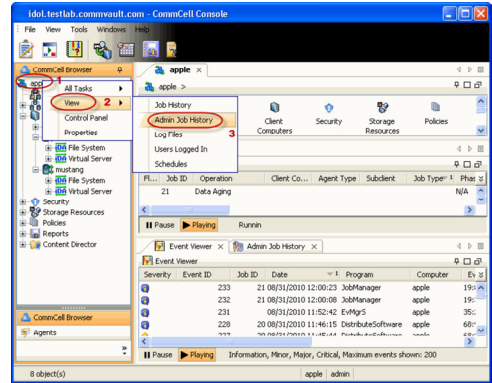
12. Click **Finish**.



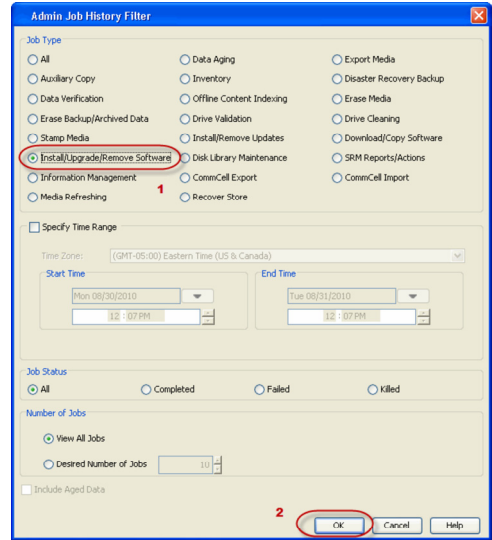
13. You can track the progress of the job from the **Job Controller** or **Event Viewer** window.



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

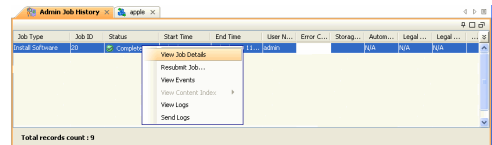


15. Select **Install/Upgrade/Remove Software**.
Click **OK**.



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

- Items that succeeded during the job
- Items that failed during the job
- Details of the job
- Events of the job
- Log files of the job



Configuration - 1-Touch for Windows

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- Create a Checklist

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- Manage Windows Drivers
- Manage Windows Distribution Shares, Service Packs and Hot Fixes
- Create an Answer File

Additional Options

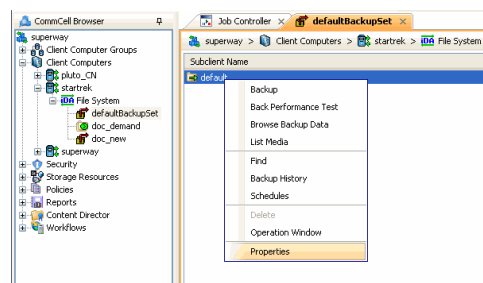
- Creating an Answer File for iSCSI Disk Restore

BASIC CONFIGURATION

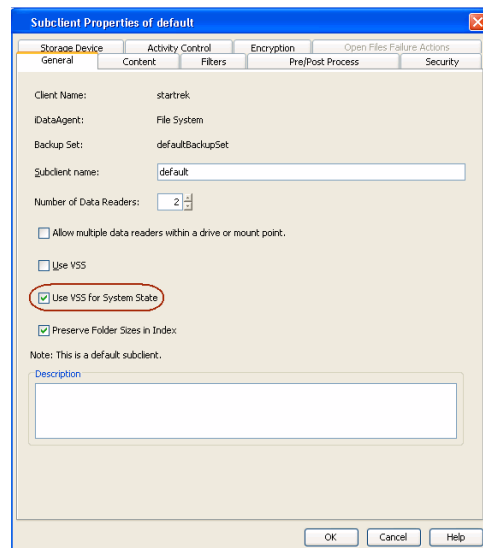
ENABLE 1-TOUCH BACKUP

The windows system state backup includes all the information required for 1-Touch recovery. Follow the steps given below to ensure that the system state data is included in a subclient:

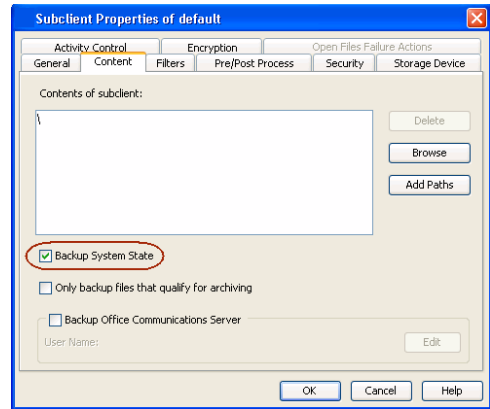
- From the CommCell Console, navigate to <Client> | **File System iDataAgent | defaultBackupSet.**
 - Right-click the default subclient, and click **Properties.**



- Click the **General** tab.
 - Ensure that **Use VSS for System State** check box is selected.



- Click the **Content** tab.
 - Ensure that the **Backup System State** check box is selected.



You can use any subclient to backup the system state data. However, if you want to perform the non interactive restore, use the default subclient to back up the system state data.

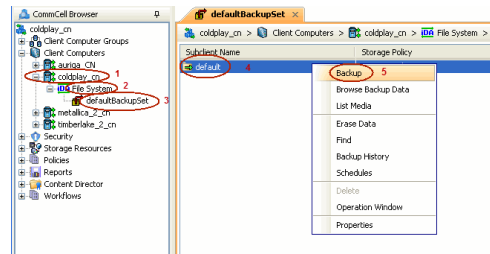
PERFORM A BACKUP OF 1-TOUCH CLIENT

Before recovering a client, ensure that you have run at least one full backup for the subclient that contains the system state data.

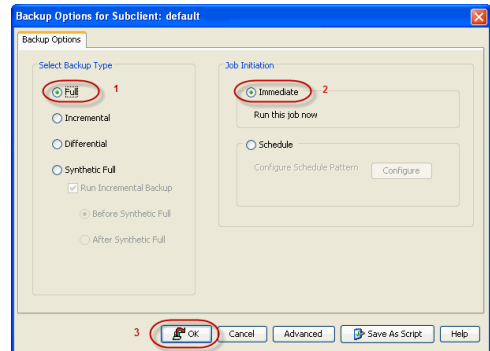
If you are performing backup of a Windows 7 client, ensure that the Administrator account is enabled. You cannot perform the Offline restore if administrator account is not enabled while performing the backup.

Follow the steps given below to perform a full backup:

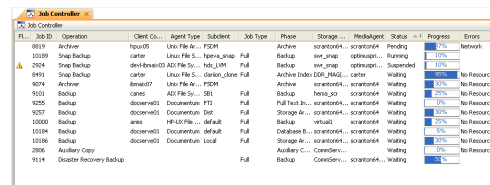
- From the CommCell Console, navigate to <Client> | **File System iDataAgent | defaultBackupSet.**
 - Right-click the subclient, and click **Backup.**



- Select **Full.**
 - Select **Immediate.**
 - Click **OK.**



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



CREATE A CHECKLIST

If you want to perform an Online Restore or an Interactive Restore, ensure that you have all the required client information before starting the a restore. Create a checklist that contains the following client information:

REQUIRED INFORMATION	HOW TO FIND IT
CommCell Credentials	

	<ol style="list-style-type: none"> 1. Invoke the CommCell Console on the client computer 2. Note down the username and password to login to CommServe from CommCell Console.
Windows Credentials	<ol style="list-style-type: none"> 1. Login to 1-Touch server. 2. Note down username and password.
Network Adapters and Drivers	<ol style="list-style-type: none"> 1. Click Start Programs Accessories System Information. 2. In the System Information dialog box, click Components Network Adapter. 3. Note down the Network Adapter and Drivers information.
Mass Storage Drivers	<ol style="list-style-type: none"> 1. Click Start Programs Accessories System Information. 2. In the System Information dialog box, click Software Environment System Drivers. 3. Note down the driver information.
CommServe Host Name	<ol style="list-style-type: none"> 1. From the CommCell Console, navigate to <Client>. 2. Right click the <Client> and click Properties. 3. Select General tab. 4. Note down the CommServe HostName.
CommServe IP Address	<ol style="list-style-type: none"> 1. Login to CommServe using the administrator login and password. 2. Invoke the Command Prompt. 3. Type <code>ipconfig</code>
Windows License Key	Refer to the License document. Note down the string of 25 letters on the license document.

CONFIGURATION FOR ONLINE RESTORE

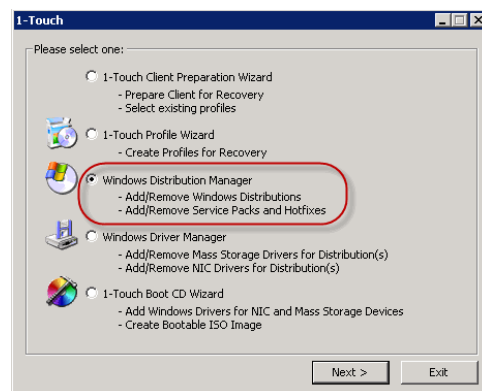
If you are not planning to perform an online restore, skip the following steps and go to **Recovery** section. Follow the steps given below before starting an Online restore:

MANAGE WINDOWS DISTRIBUTION SHARES, SERVICE PACKS, AND HOT FIXES

Check if all the required Windows Distribution Shares are available on the 1-Touch Server. Also, ensure that all the service packs and hot fixes are integrated with the distribution share.

If required, you can add the Windows Distribution Shares. You will need the installation CD and the License Key for the appropriate version of the Windows operating system.

1. Login to 1-Touch Server.
2. Click **Start | Programs | Bull Calypso | Calypso | 1-Touch**.
3. Click **Windows Distribution Manager**.



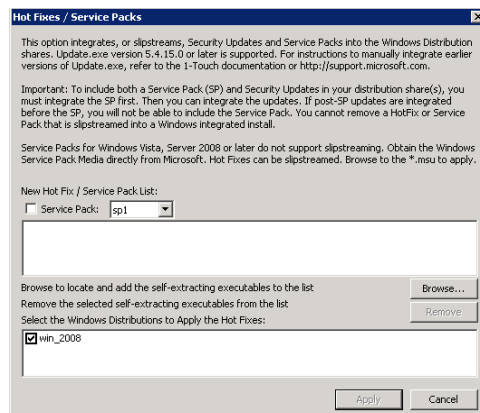
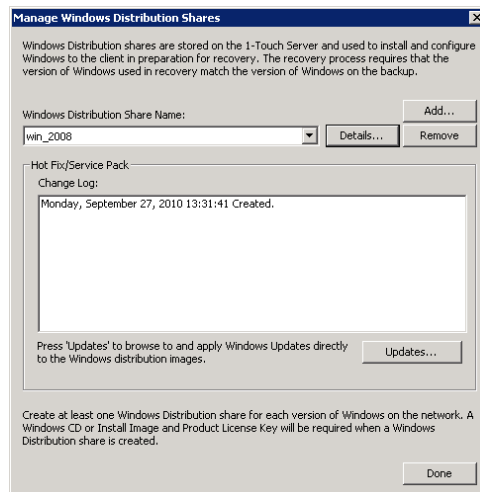
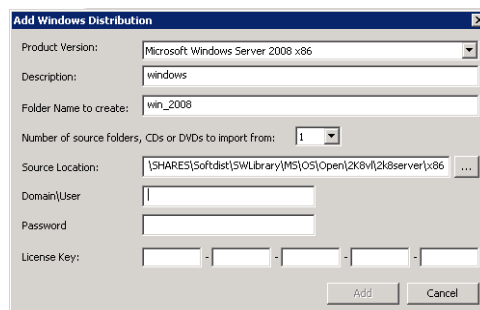
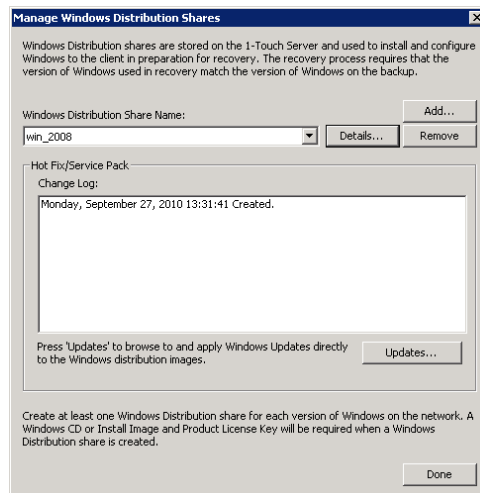
4. Click **Add**.

5.
 - Select the **Product Version**.
 - Enter the **Folder name to create** a new windows distribution share.
 - Enter the **Number of source folders, CDs, DVDs to import from**.
 - Enter **Source Location**.
 - Enter the **User name and Password**.
 - Enter the **License Key**.
 - Click **Add**.

This distribution share will be available for selection in the **1-Touch Client Preparation Wizard**.

6.
 - Review the Hotfixes and service packs change log.
 - Select the unrequired Hotfixes and service packs from the list and click **Remove**.
 - Click **Update** to apply Windows Updates to a Windows Distribution Share.

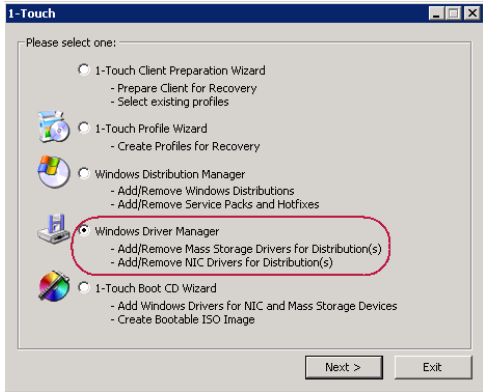
7.
 - Browse to the appropriate Hotfixes or service packs from the list
 - Click the Windows Distributions to which you want to apply these Hotfixes or service packs.
 - Click **Apply**.
 - Click **Done**.
 - Removing a Hotfix or service pack from the list of available Hotfixes does not remove the Hotfix from the Windows Distribution to which it has been applied.
 - Once a service pack or Hotfix is applied/slipstreamed to a Windows Distribution, it cannot be removed.
 - The option to integrate, or slipstream, Security Updates and Service Packs into Windows distribution shares supports Update.exe 5.4.15.0 or any later version.
 - When integrating Updates in your distribution shares, be sure to integrate the Service Pack first.



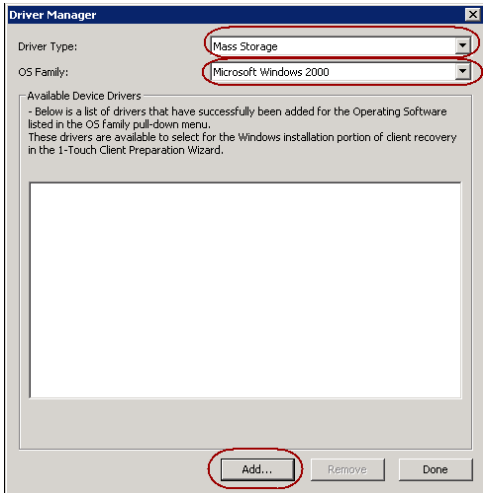
MANAGE WINDOWS DRIVERS

Check if all the required mass storage and network adapter drivers are available on 1-Touch Server. Add the required drivers.

1. Login to 1-Touch Server.
2. Click **Start | Programs | Bull Calypso | Calypso | 1-Touch**
3. Click **Windows Driver Manager**.

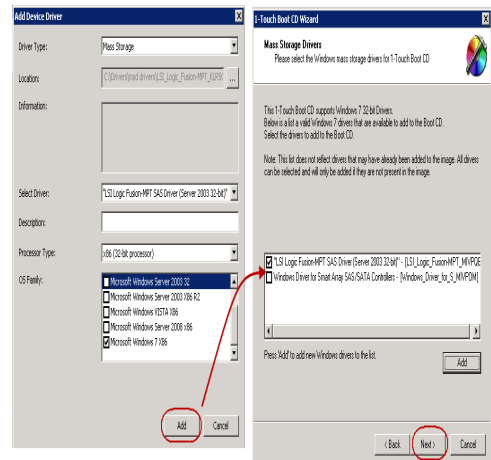


4.
 - Select the **Driver Type**.
 - Select the **OS Family**.
 - Review the list of available drivers for the selected operating system.
 - Click **Add** to add any additional drivers.



- Select the **Driver Type** from the list.
- Browse to the **Location** where drivers are stored.
- **Select Driver** from the list of available drivers.
- Select a **Processor Type** from the list.
- Select the **OS Family**.
- Click **OK**.

These drivers will be available for selection in the **1-Touch Client Preparation Wizard**.



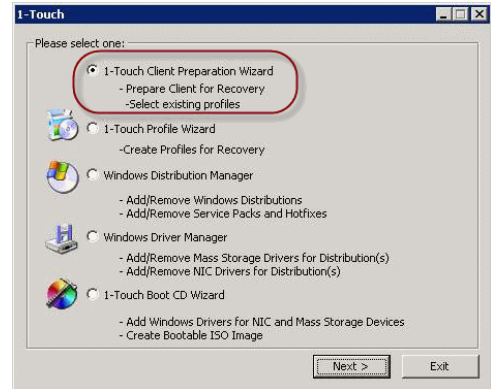
- If third-party mass storage drivers are needed, use standard vendor-supplied Windows drivers.
- You can use the RIS version or the native version of the Mass Storage Driver for 1-Touch Recovery.
- The drivers must be compatible to Windows version on the client that is being recovered.

CREATE AN ANSWER FILE

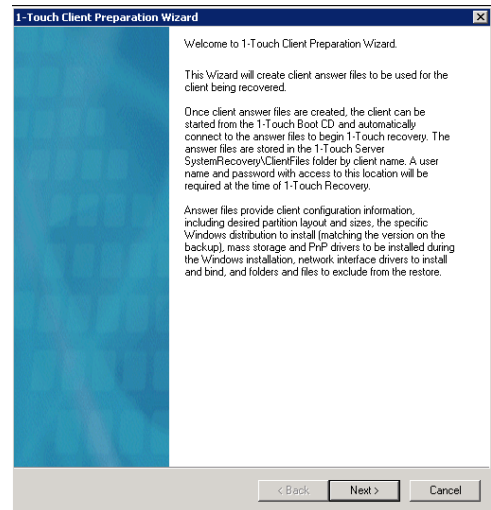
When you have all drivers and windows distribution shares ready on the 1-Touch server, create an answer file. You can also create an answer file after you boot

the client.

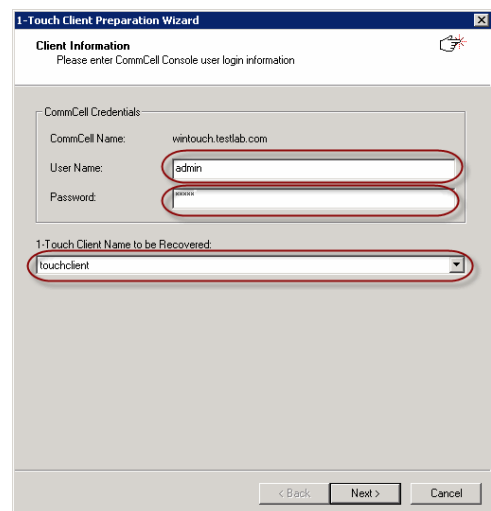
1. Login to 1-Touch Server.
2. Click **Start | Programs | Bull Calypso | Calypso | 1-Touch.**
3.
 - Select **1-Touch Client Preparation Wizard.**
 - Click **Next.**



4. Click **Next.**



5.
 - Enter **CommCell User Name.**
 - Enter **CommCell Password.**
 - Select the client for which you want to create the answer file.
 - Click **Next.**



6. Click **Next.**

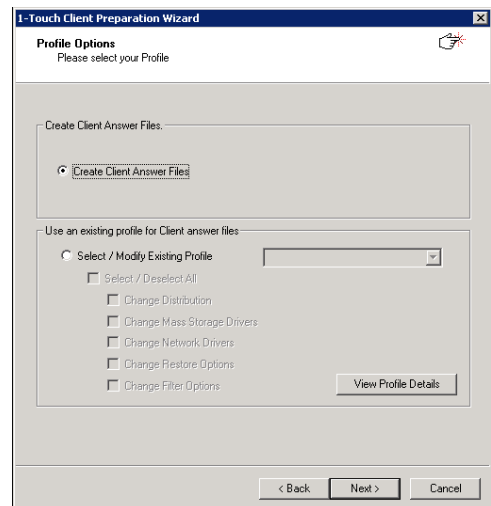
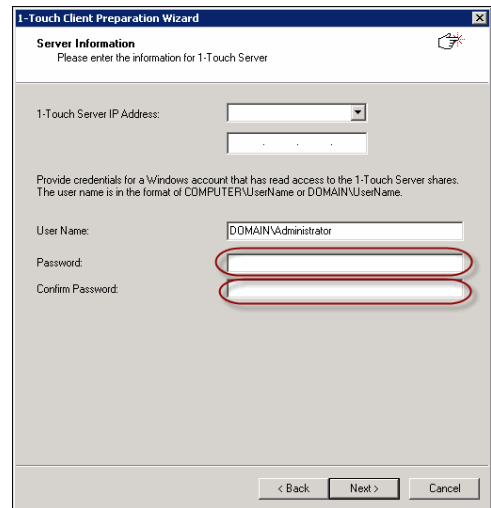
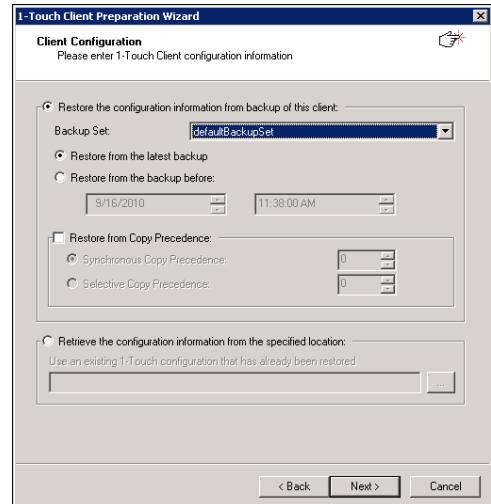
7. Enter the Windows User name and Password for 1-Touch Server.

Do not use the following characters in the password: { , | , } , ~ .

If the password contains any of these characters, create a new user and enter the new User Name and Password.

8. Click **Next**.

9.
 - Select Windows Distribution **Share Name** from the list of available shares.
 - Click **Next**.



- 10.
- Select the **primary mass storage driver** from the list.
 - Select all the mass storage drivers necessary for installing the operating system.

If you are performing Cross Hardware Restore, select the mass storage drivers for the computer where you are recovering.

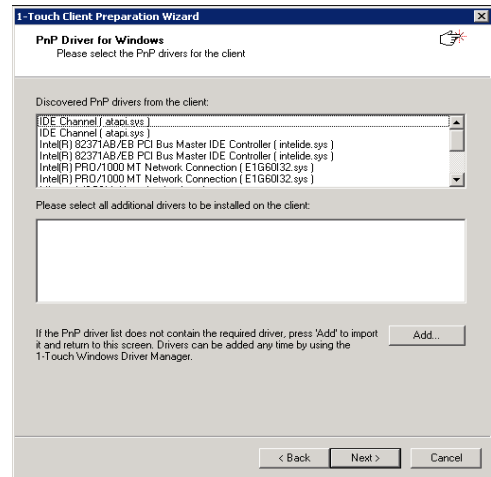
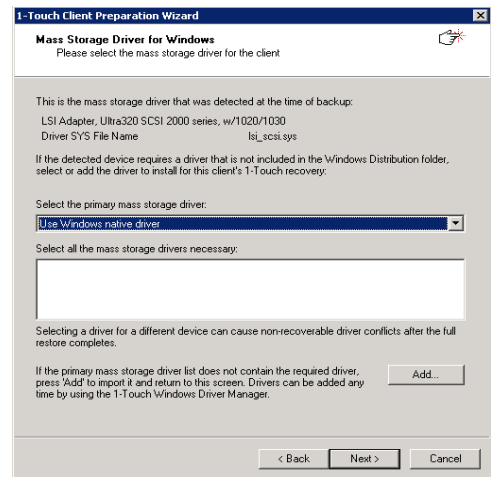
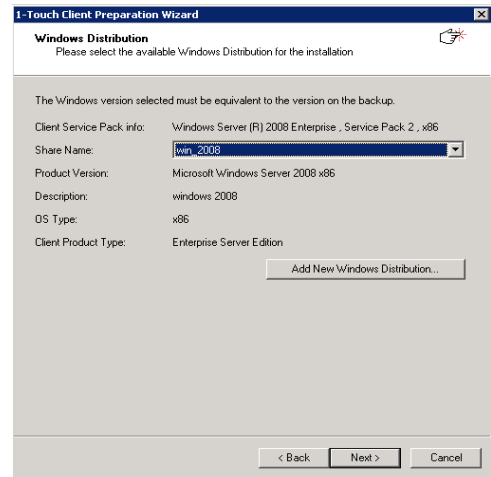
- Click **Next**.

- 11.
- Select **PnP Drivers for the Client**. The PnP Drivers will be used while installing the operating system.
 - Click **Next**.

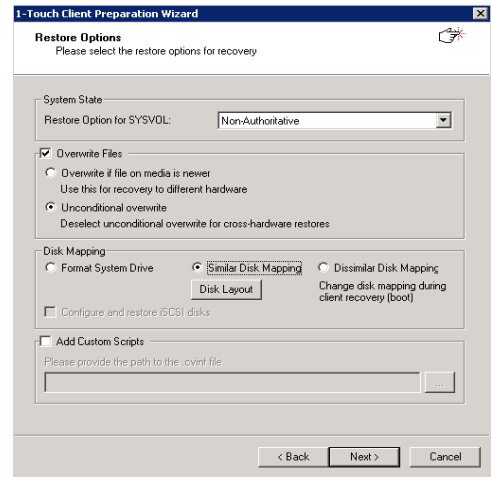
12. Click **Next**.

Select **Dissimilar Disk Mapping** if the computer where you are performing the restore has different disk configuration from the client that was backed up.

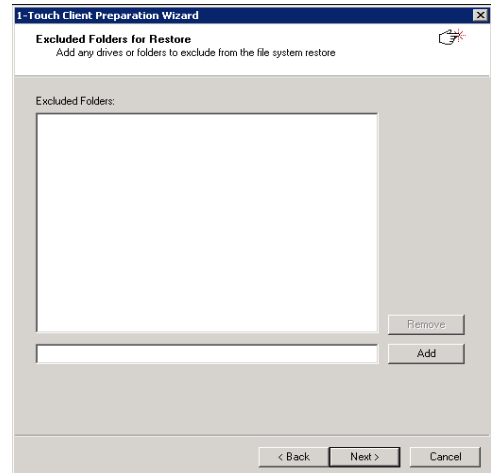
If the client computer has iSCSI disk, select the **Configure and restore iSCSI disks** check box.



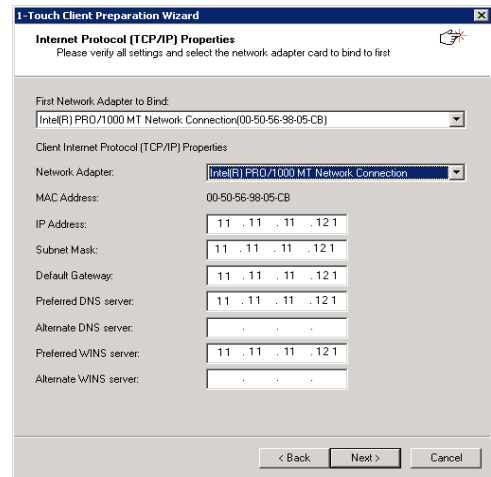
- 13.
- If you want to exclude any folder or driver from the full system restore, enter the path of the folder or driver and click **Add**.
 - Click **Next**.



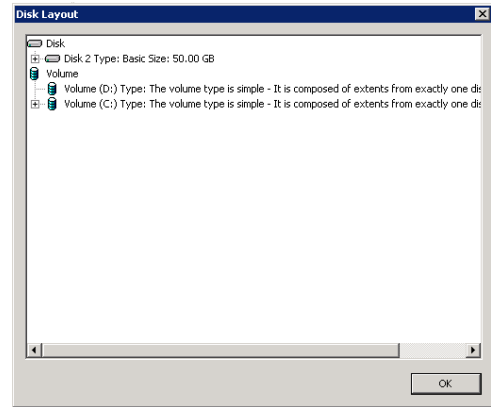
- 14.
- Select the **Network Adapter to Bind**.
 - Click **Next**.



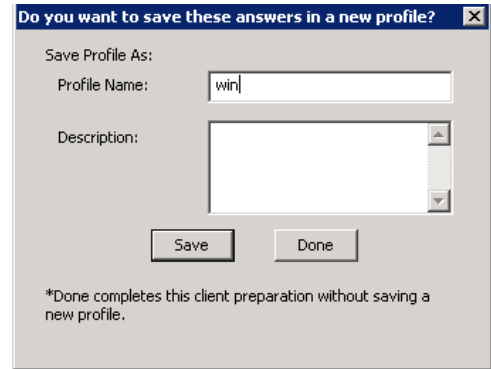
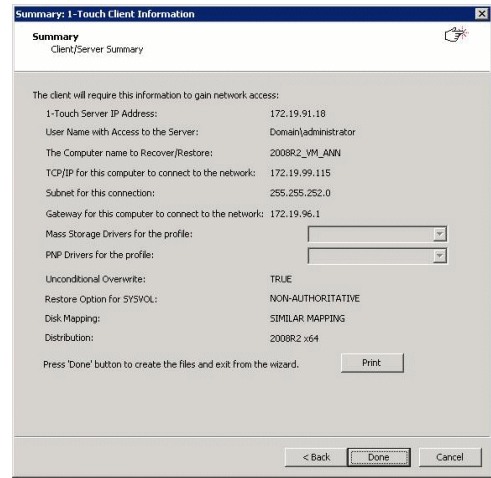
- 15.
- Click **Next**.



16.
 - Review the summary of the client answer file.
 - Click **Done** to save the answer file.



17.
 - Enter the name of a Client Profile
 - Click **Save** to save the client preparation as a client profile.
 - Click **Done** to save the client preparation as a client answer file. It is saved on the 1-Touch server in the `SystemRecovery\Client Files` folder.



ADDITIONAL OPTIONS

CREATING AN ANSWER FILE FOR ISCSI DISKS RESTORE

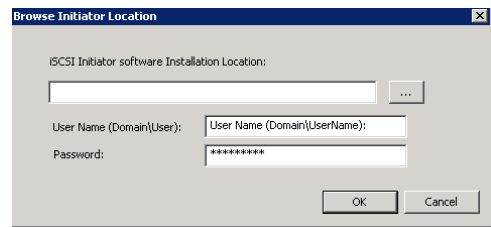
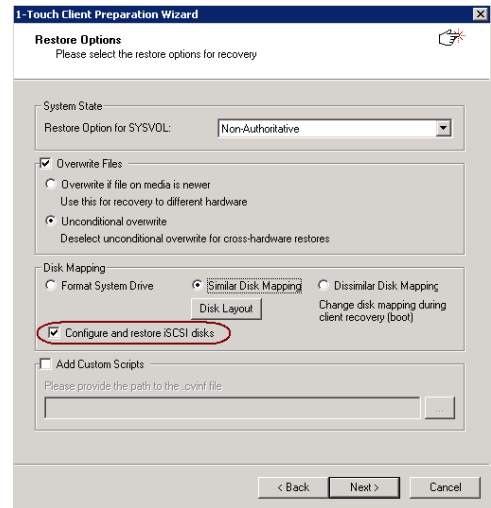
If the client computer is using iSCSI disks, follow the steps given below while creating an answer file:

1. Ensure that you have selected the **Configure and restore iSCSI** disks check box while creating the answer file for the client.

3. If you are restoring Windows 2003 computer, provide the following details:

- Location of the iSCSI Initiator Installation File.
- User name and password for the location where iSCSI Initiator Installation File is stored.

You must perform an Online Restore if you are restoring a client that has iSCSI disks. For more information, refer Online Restore.



Recovery - 1-Touch for Windows

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Dissimilar Disk Restore

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- Offline Interactive Restore
- Online Restore

Cross Hardware Similar Disk Restore

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- Offline Interactive Restore
- Online Restore

Cross Hardware Dissimilar Disk Restore

- Offline Non Interactive Restore
- Offline Interactive Restore
- Online Restore

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- Changing the Client Configuration During an Offline Non-Interactive Restore
- Using an USB Drive Instead of a Live CD
- Cluster Recovery
- Configuring WINS and DNS during Interactive Offline Restore
- Restore the Teaming Network Adapters

PREREQUISITES

- Users must have CommCell administrative privileges to perform 1-Touch recovery.
- Disable authentication for Agent installation using the following steps:
 1. Log on to the CommServe.
 2. Right-click the <CommServe> and click the **Security** tab.
 3. Disable **Require Authentication for Agent Installation** check box.
 4. Click **OK**.

CREATE A LIVE CD

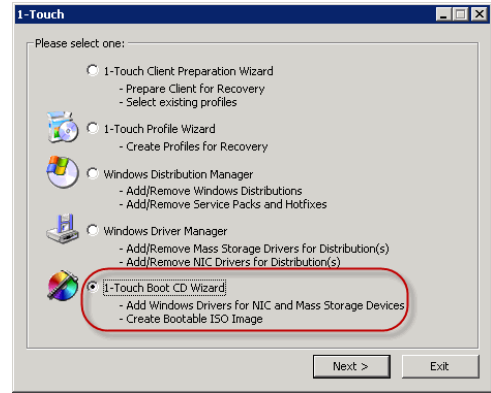
A Live CD will be required to boot the client. You can create a Live CD image using 1-Touch Wizard on 1-Touch server. Before creating a Live CD image, consider the following prerequisites:

- All the software updates for 1-Touch Server software, Windows File System iDataAgent and WinPE are downloaded to remote cache on 1-Touch server and applied to 1-Touch Live CD. For more information refer to Download and Install Updates on 1-Touch Server.

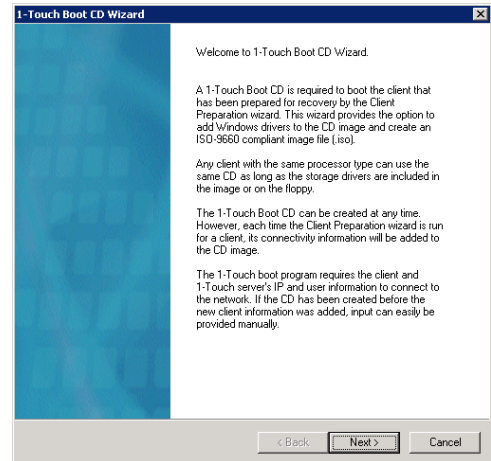
Follow the steps given below to create a Live CD:

1. Login to 1-Touch Server.
2. Click **Start | Programs | Bull Calypso | Calypso | 1-Touch**.
3. Click **1-Touch Boot CD Wizard**.

4. Click **Next**.

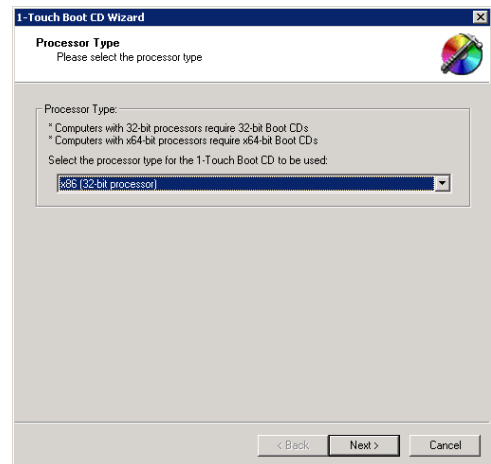


5. Select the processor type from the list. The processor type must match with the processor of the computer where you are restoring the client.



6. By default Mass Storage Drivers for Windows 7 WINPE are automatically added to the boot CD. The mass storage drivers are required by the Boot CD to connect to primary mass storage device. Click **Next** and go to step 8.

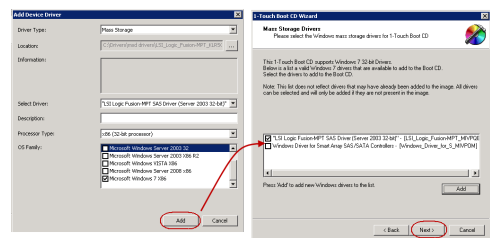
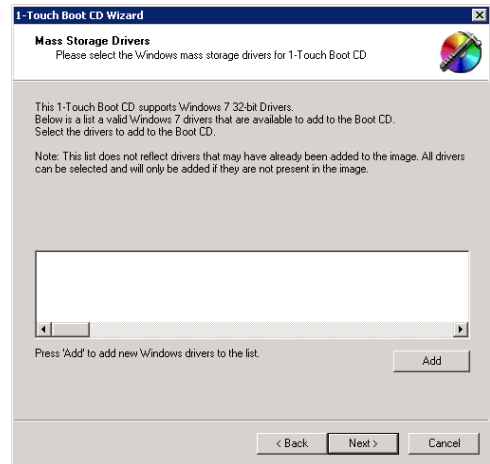
If you want to add any additional drivers to the boot CD, click **Add** and continue to next step.



7. Skip this step if you do not want to add any Mass Storage Drivers to the list.
 - Select **Mass Storage** from the **Driver Type** list.
 - Browse to the **Location** where .oem files are stored and select the required file.
 - Select a **Processor Type** from the list.
 - In the **OS Family** list, select **Windows 7**.
 - Click **Add**.
 - The list of **Mass Storage Drivers** displays the newly added driver.
 - Select the drivers from the list which you want to add to the boot CD. You can select multiple drivers.
 - Click **Next**.

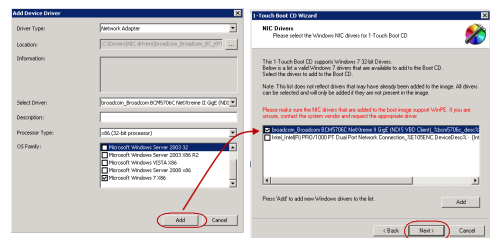
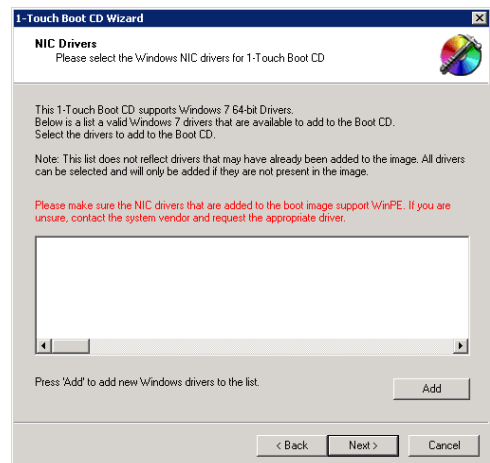
8. By default NIC Drivers for Windows 7 WINPE are automatically added to the boot CD. The NIC drivers are required by the ISO to connect with the network. Click **Next** and go to step 10.

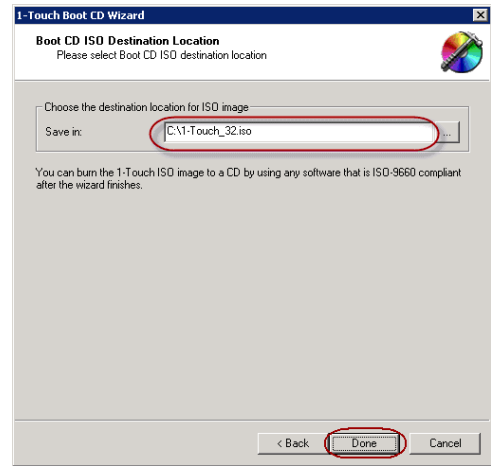
If you want to add any additional drivers to the list, click **Add** and continue to next step.



9. Skip this step if you do not want to add any NIC Drivers.
 - Select **Network Adapter** from the **Driver Type** list.
 - Browse to the **Location** where .inf files are stored and select the required file.
 - **Select Driver** from the list of available drivers.
 - Select a **Processor Type** from the list.
 - In the **OS Family** list, select **Windows 7**.
 - Click **Add**.
 - The list of **NIC Drivers** displays the newly added driver.
 - Select the drivers from the list which you want to add to the boot CD. You can select multiple drivers.
 - Click **Next**.

10.
 - Enter the location to save the ISO image.
 - Click **Done**.





11. Create a **Live CD** using the ISO.

1-Touch clients may have different types of operating systems and processors. You must create a Live CD for each type of processor. Ensure that you have all the latest software updates included in the **Live CD**. Learn more....

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SIMILAR DISK RESTORE

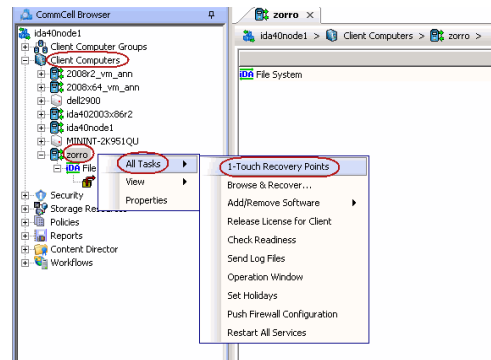
When you are restoring to a computer which has the same hardware and disk configuration as that of the backed up computer, use one of the following methods to perform the restore:

OFFLINE NON-INTERACTIVE RESTORE

Use this method when you do not want to provide the client information during the restore. When you backup the client, the client information is stored as a client configuration.

This is a offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

1. Create a 1-Touch Live CD.
2.
 - From the CommCell Console, navigate to **<Client>**
 - Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**

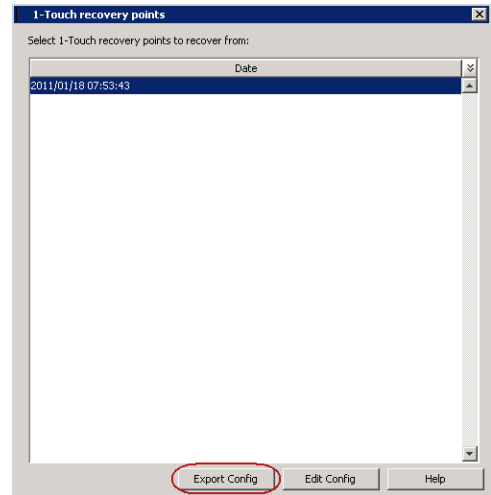


3.
 - Select the most recent client configuration to create a response file.

A new client configuration is generated when you make any changes in the client network configuration and then perform a full backup.

 - Click **Export Config**.

4.
 - Enter the credentials used to login to CommCell Console.
 - Click **OK**.



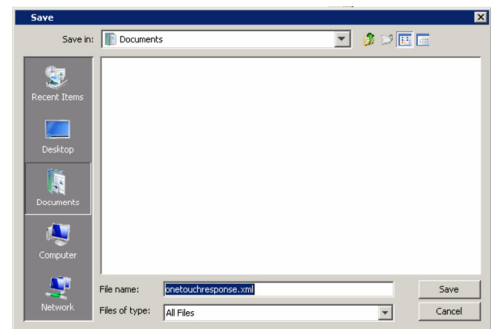
5. Save the response file as onetouchresponse.xml.

By default, the response file is saved in the My documents folder on the computer that is running the CommCell Console.

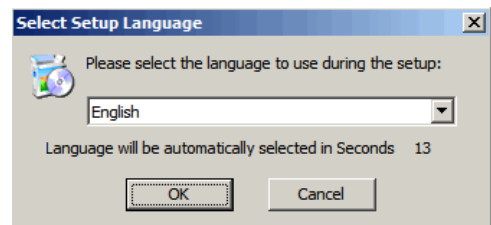


6. Copy the response file to a USB drive or a removable disk or a network location.
7. Connect the USB drive or the removable disk to the client that you want recover.

If you want to use a network location to access the response file during the restore, follow the steps given in Accessing the Response File From an UNC Path During a Non-Interactive Restore.

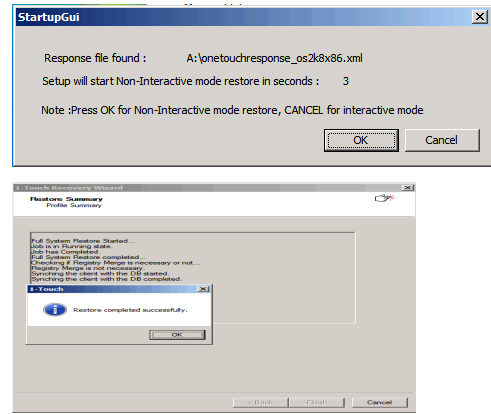


8. Use the 1-Touch **Live CD** to boot the client.
9.
 - Select the language from the list
 - Click **OK**.



10. Click **OK** to start the full system restore.

10.
 - Click **OK**.
 - Remove the **Live CD** and restart the computer.

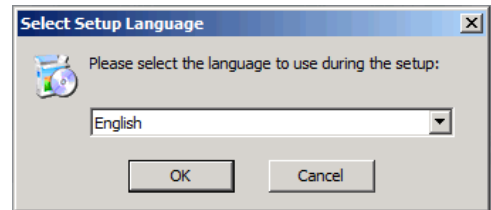


OFFLINE INTERACTIVE RESTORE

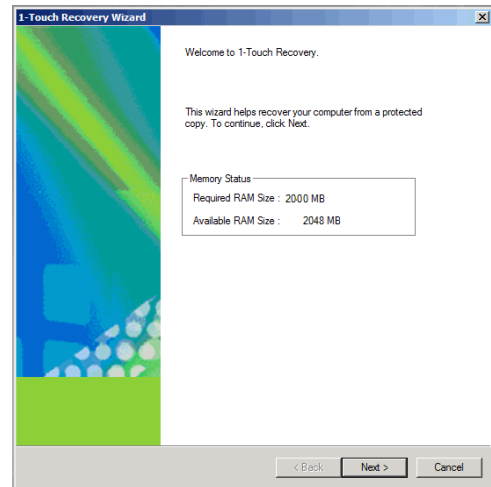
Use this method when you want to specify the client configuration information during the restore.

This is a offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

1. Create 1-Touch Live CD
Use the 1-Touch **Live CD** to boot the client.
2.
 - Select the language from the list
 - Click **OK**.

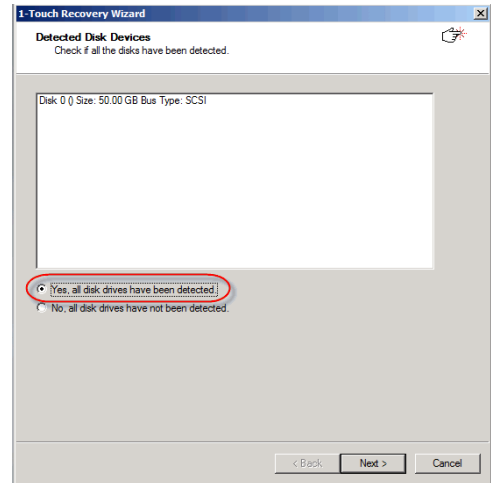


3. Click **Next**.

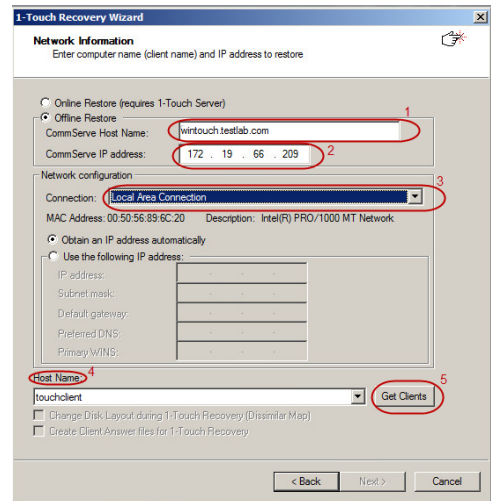


4. Click **Yes** if all disk devices are detected.

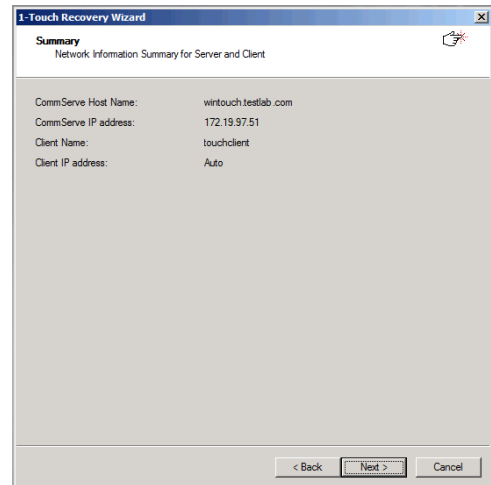
5.
 - Enter **CommServe Host Name**.
 - Enter **CommServe IP address**.
 - Select the Network Connection from the **Connection** drop-down combo box.
 - Click **Get Clients**.
 - Select client **Host Name** from the list.
 - Click **Next**.

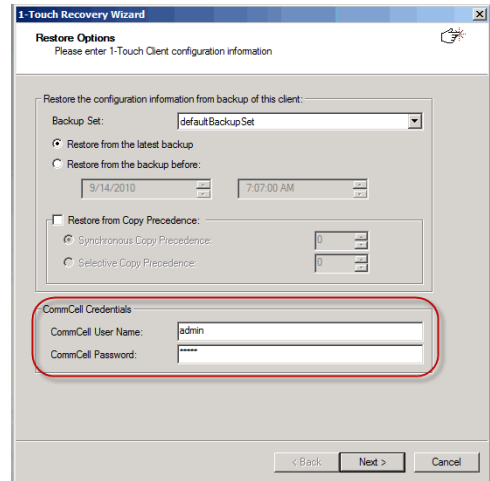


6.
 - Review network information for CommServe and restored client.
 - Click **Next**.

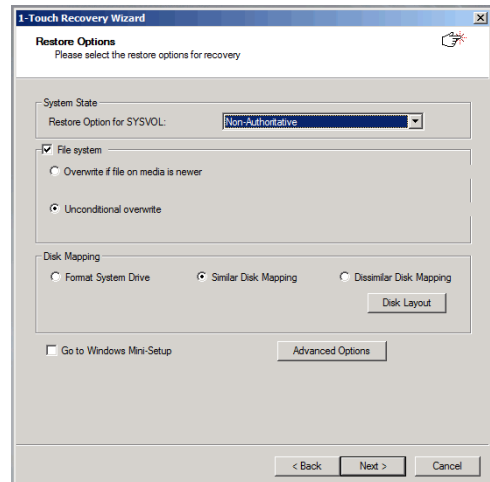


7.
 - Enter **CommCell User Name**.
 - Enter **CommCell Password**. Enter the credentials that are used to login to CommCell from the client.
 - Click **Next**.



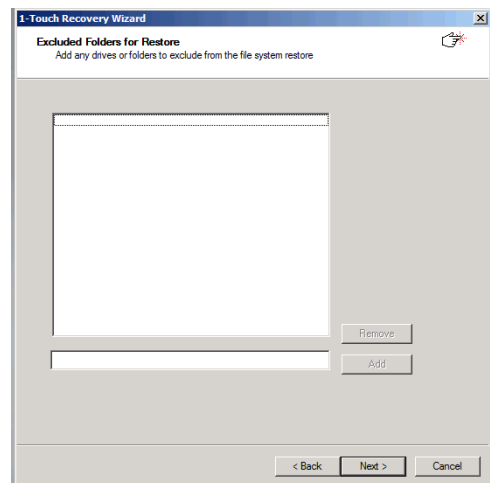


8. Click **Next**.



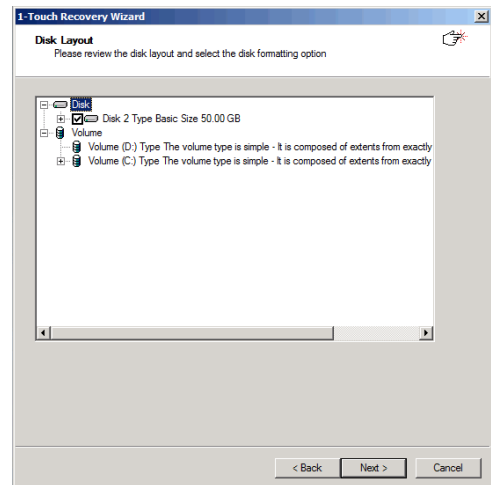
9. Click **Next**.

If you want to exclude any folder or driver from the full system restore, enter the path of the folder or driver and click **Add**.



10. Click **Next**.

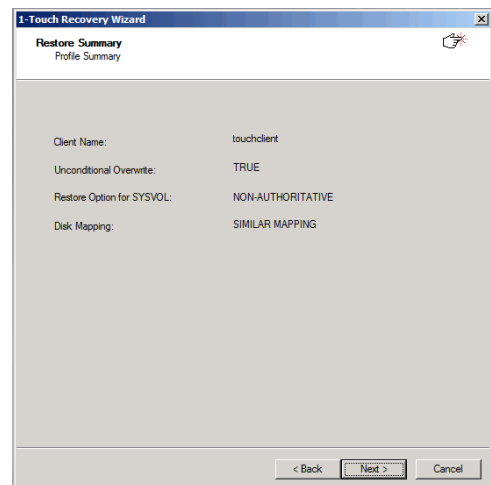
11. Click **Next**.



12. Click **OK**.

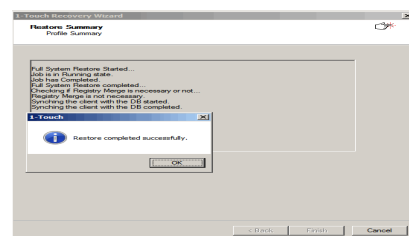
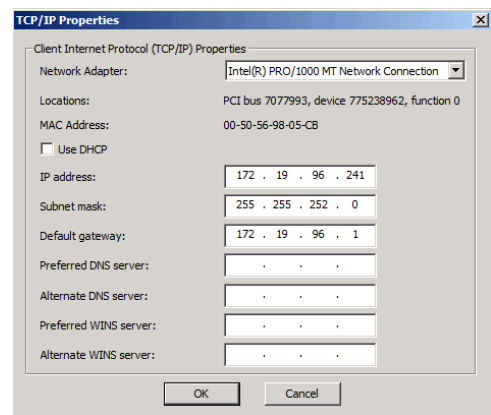
The TCP/IP Properties of the client captured during the backup are displayed. If the target computer has different IP, change the TCP/IP Properties or click **Use DHCP** to use DHCP instead of static IP address.

The full system restore starts.



- 13.
- Click **OK**.
 - Click **Finish**.
 - Remove the **Live CD** and restart the computer.

After you click **Finish**, the computer may reboot one or more times.

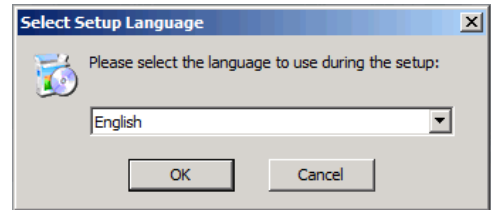


ONLINE RESTORE

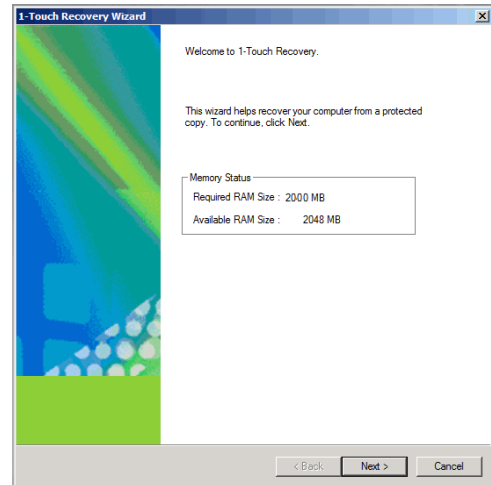
Perform the Online Restore to reinstall the operating system on the client. The Windows Distribution Shares and Drivers available on 1-Touch Server are used to reinstall the operating system.

1. Login to 1-Touch Server and create Answer File for the 1-Touch Client. For more information, go to Creating an Answer File.
2. Create 1-Touch Live CD.
Use 1-Touch **Live CD** to boot the client.

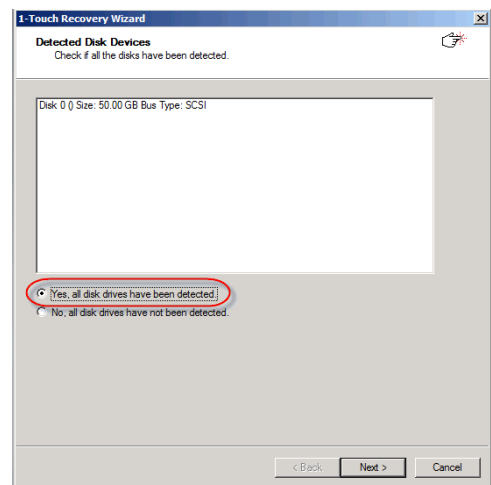
3.
 - Select the language from the list
 - Click **OK**.



4. Click **Next**.



5. Click **Yes** if all disk devices are detected.



6.
 - Select **Online Restore**.
 - Enter the **Client Name**.

If the client answer file is not created on 1-Touch Server, select **Create Client Answer files for 1-Touch Recovery** and follow the steps described in Creating an Answer File.

 - Click **Next**.

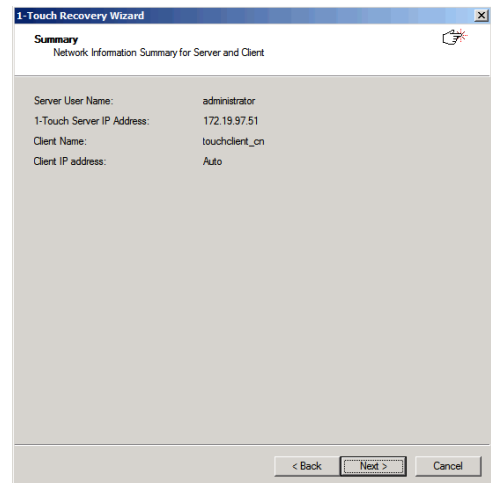
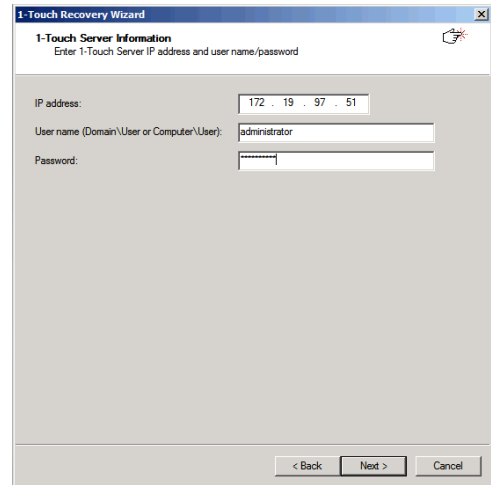
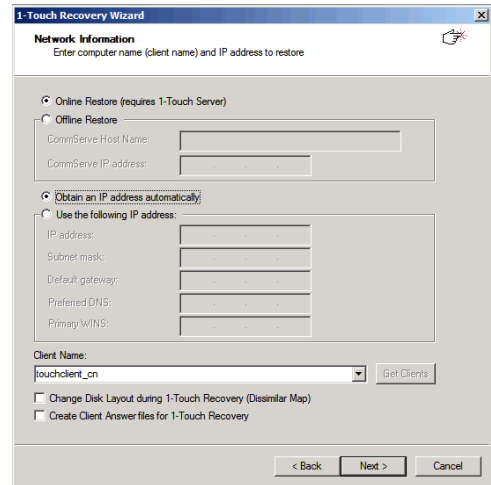
7.
 - Enter **IP Address** of the **1-Touch Server** where the client answer file is available.
 - Enter the **User name** and **Password** for the 1-Touch Server.
 - Click **Next**.

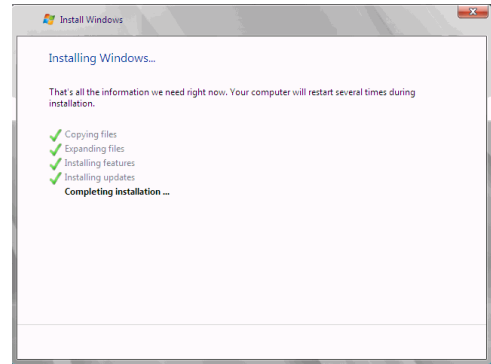
8. Click **Next**.

8. Reboot the computer after the windows installation completes.

During the Windows installation process of a 1-Touch Recovery, the Windows Administrator password is set as 1Touch. Upon completion of the 1-Touch Recovery, the Administrator's original password will be restored from the backup.

After the windows installation completes, the computer may reboot one or more times.





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DISSIMILAR DISK RESTORE

Perform a Dissimilar Disk Restore, when the computer where you are restoring, satisfies the following criteria:

- The hardware configuration of the computer is same as backed up computer
- The disk configuration of the computer is different than the backed up computer

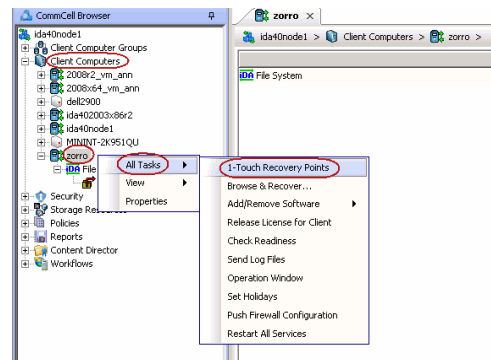
Use one of the following methods to perform the restore.

OFFLINE NON INTERACTIVE RESTORE

Use this method when you do not want to provide the client information during the restore. When you backup the client, the client information is stored as a client configuration.

This is a offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

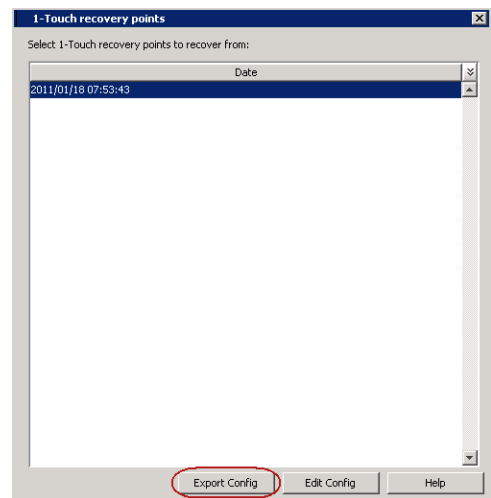
1. Create a 1-Touch Live CD.
2.
 - From the CommCell Console, navigate to <Client>
 - Right-click the <Client> and click **All Tasks | 1-Touch Recovery Point**



3.
 - Select the most recent client configuration to create a response file.

A new client configuration is generated when you make any changes in the client network configuration and then perform a full backup.

 - Click **Export Config**.



4.
 - Enter the credentials used to login to CommCell Console.

- Click **OK**.

5. Save the response file as `onetouchresponse.xml`.

By default, the response file is saved in the `My documents` folder on the computer that is running the CommCell Console.

6. Copy the response file to a USB drive or a removable disk or a network location.

7. Connect the USB drive or the removable disk to the client that you want recover.

If you want to use a network location to access the response file during the restore, follow the steps given in *Accessing the Response File From an UNC Path During a Non-Interactive Restore*.

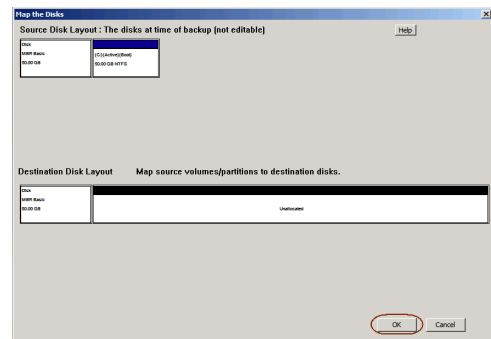
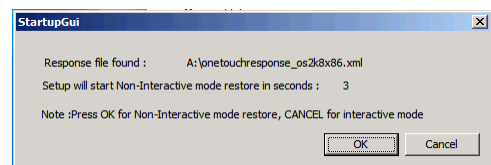
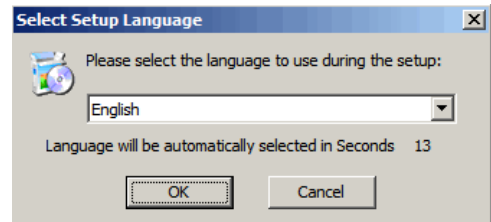
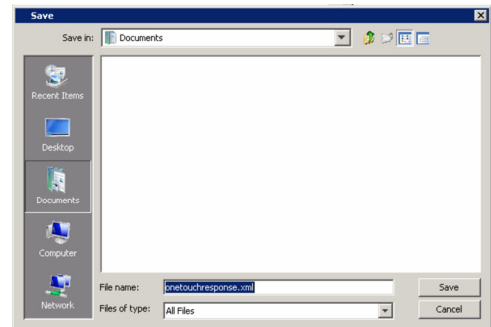
8. Use the 1-Touch **Live CD** to boot the client.

- 9.
- Select the language from the list
 - Click **OK**.

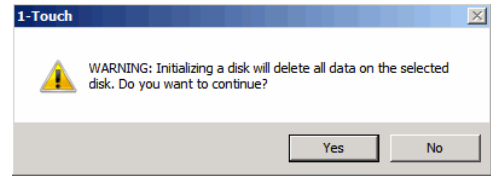
10. Click **OK** to start the full system restore.

- 11.
- Review the **Source Disk Layout** and **Destination Disk Layout**.
 - Right-click a disk from **Destination Disk Layout** and select the disk type that you want to assign to the destination disk.
 - Click **OK** to start the disk initialization process.

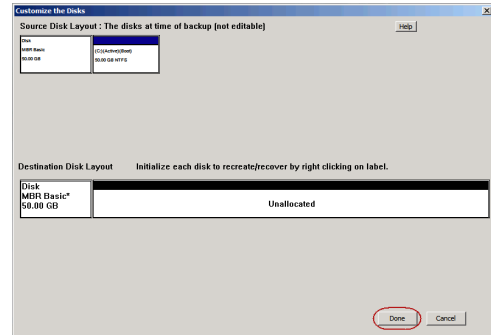
12. Click **Yes**.



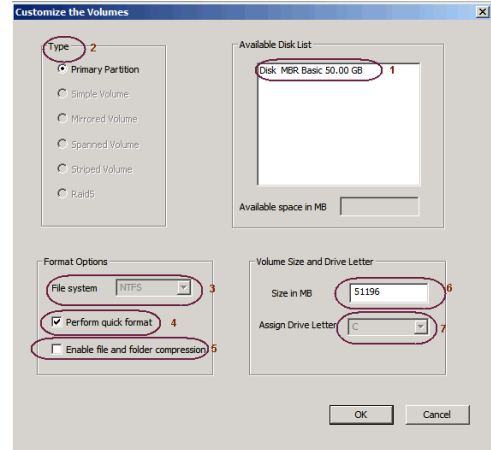
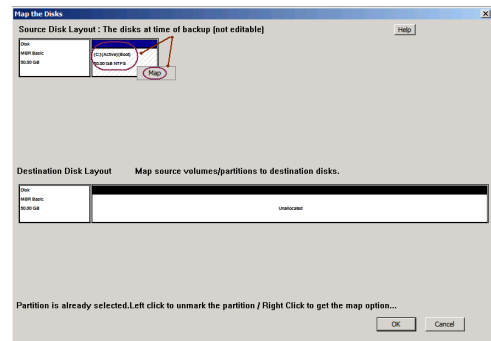
- 13.
- Repeat the steps 11 and 12 to clean all the required disks from the **Destination Disk Layout**.
 - Click **Done** after all disks are initialized.



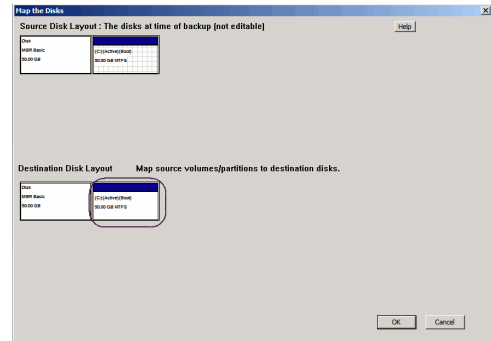
- 14.
- Right-click the disk from the **Source Disk Layout** that you want to map with a destination disk.
 - Select **Map**.



- 15.
- Select a destination disk from the the **Available Disk List** to map with the selected source disk .
 - Select the Partition **Type**.
 - Select the **File system**.
 - Click **Perform quick format** if you want to format the selected disk.
 - Click **Enable file and folder compression** to enable the file system compression for the selected disk.
 - Enter the Volume **Size**.
 - Select a **Drive Letter** to assign it to the selected volume.
 - Click **OK**.

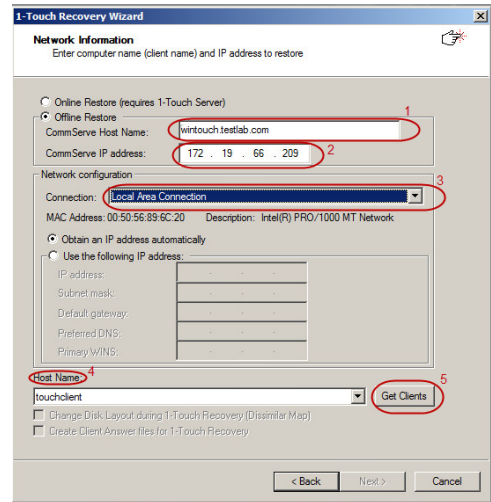


- 16.
- Review the **Destination Disk Layout**.
 - Click **OK** to start full system restore.

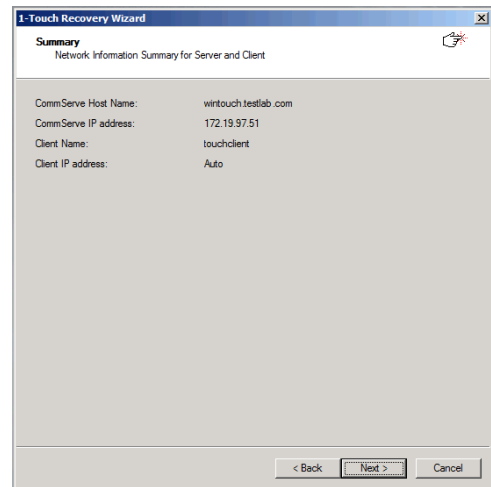


- 17.
- Click **OK**.
 - Remove the **Live CD** and restart the computer.

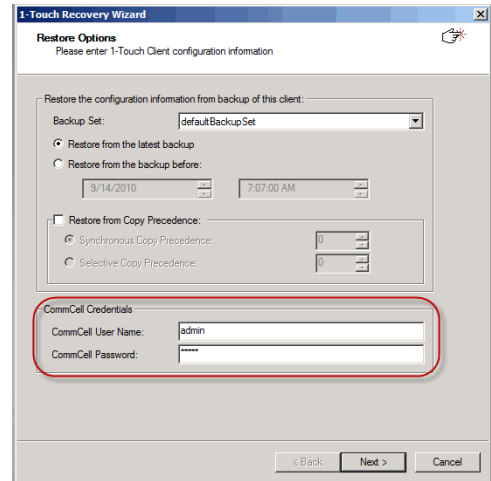
- Click **Get Clients**.
- Select client **Host Name** from the list.
- Click **Next**.



- 6.
- Review network information for CommServe and restored client.
 - Click **Next**.



- 7.
- Enter **CommCell User Name**.
 - Enter **CommCell Password**. Enter the credentials that are used to login to CommCell from the client.
 - Click **Next**.



- 8.
- Ensure that **Dissimilar Disk Mapping** is selected.
 - Click **Next**.

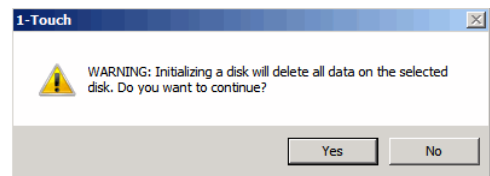
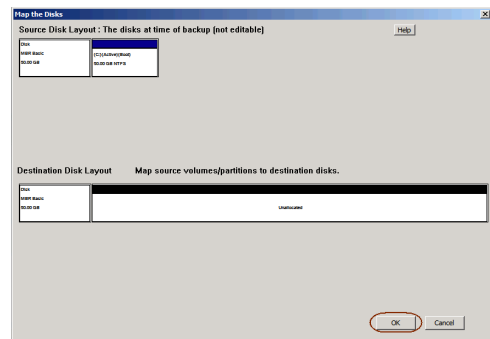
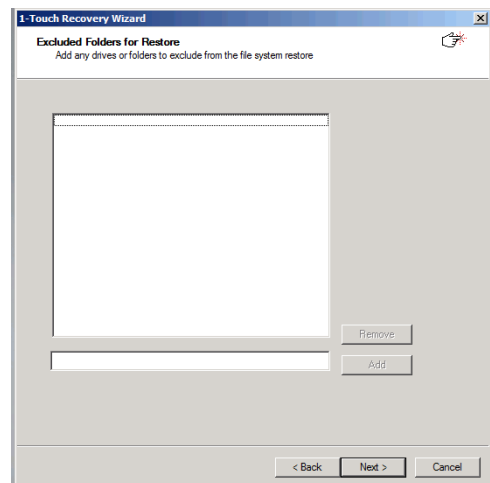
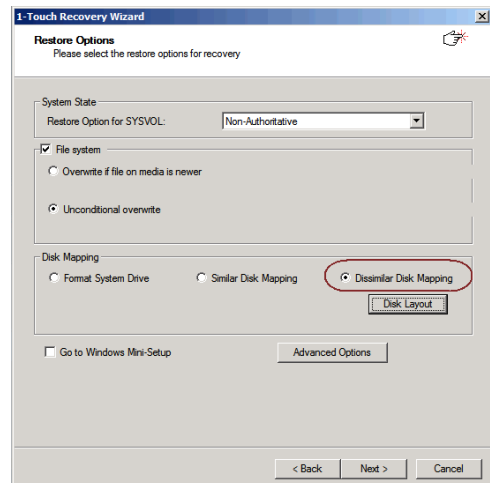
9. Click **Next**.

If you want to exclude any folder or driver from the full system restore, enter the path of the folder or driver and click **Add**.

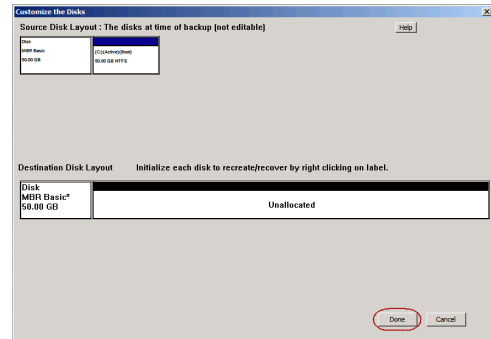
- 10.
- Review the **Source Disk Layout** and **Destination Disk Layout**.
 - Right-click a disk from **Destination Disk Layout** and select the disk type that you want to assign to the destination disk.
 - Click **OK** to start the disk initialization process.

11. Click **Yes**.

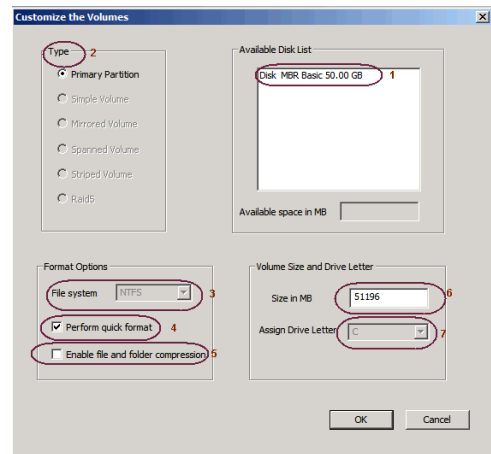
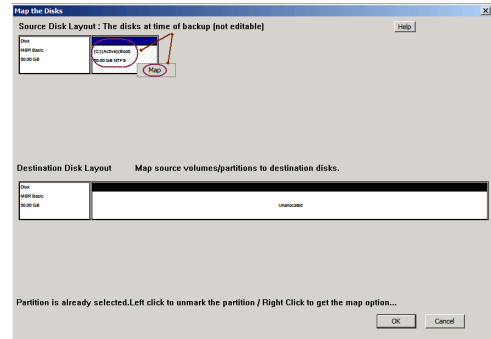
- 12.
- Repeat the steps 9 and 10 to clean all the required disks from the **Destination Disk Layout**.
 - Click **Done** after all disks are initialized.



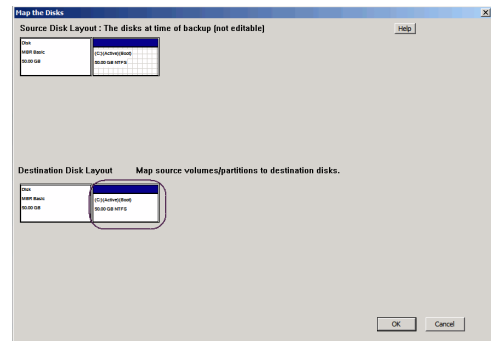
13.
 - Right-click the disk from the **Source Disk Layout** that you want to map with a destination disk.
 - Select **Map**.



14.
 - Select a destination disk from the the **Available Disk List** to map with the selected source disk .
 - Select the Partition **Type**.
 - Select the **File system**.
 - Click **Perform quick format** if you want to format the selected disk.
 - Click **Enable file and folder compression** to enable the file system compression for the selected disk.
 - Enter the Volume **Size**.
 - Select a **Drive Letter** to assign it to the selected volume.
 - Click **OK**.



15.
 - Review the **Destination Disk Layout**.
 - Click **OK** to start full system restore.

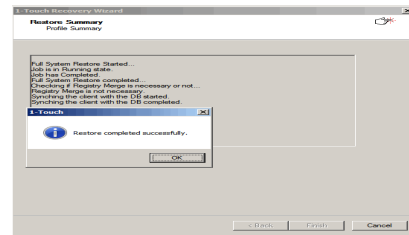
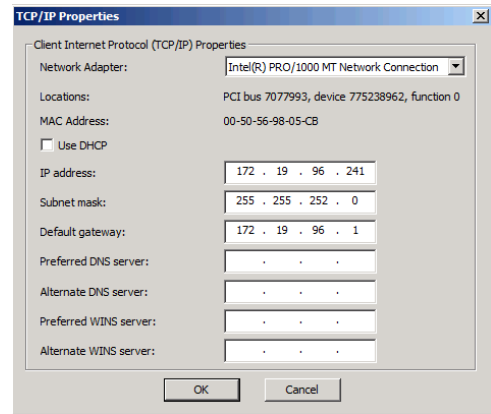


16. Click **OK**.

The TCP/IP Properties of the client captured during the backup are displayed. If the target computer has different IP, change the TCP/IP Properties or click **Use DHCP** to use DHCP instead of static IP address.

The full system restore starts.

17.
 - Click **OK**.
 - Remove the **Live CD** and restart the computer.

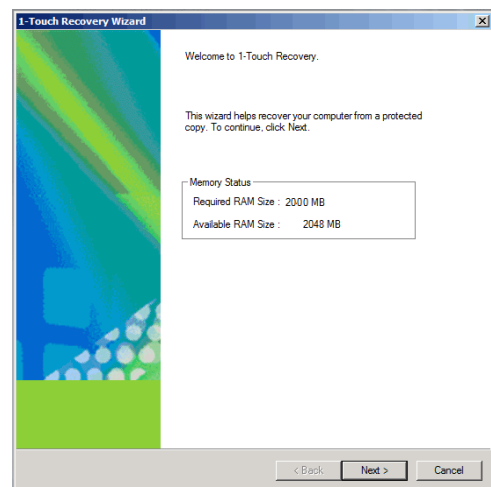
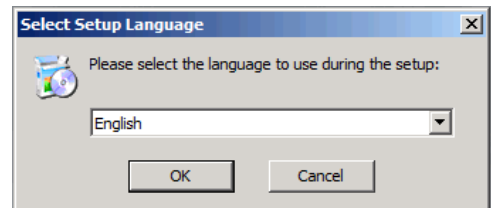


ONLINE RESTORE

Perform the Online Restore to reinstall the operating system on the client. The Windows Distribution Shares and Drivers available on 1-Touch Server are used to reinstall the operating system.

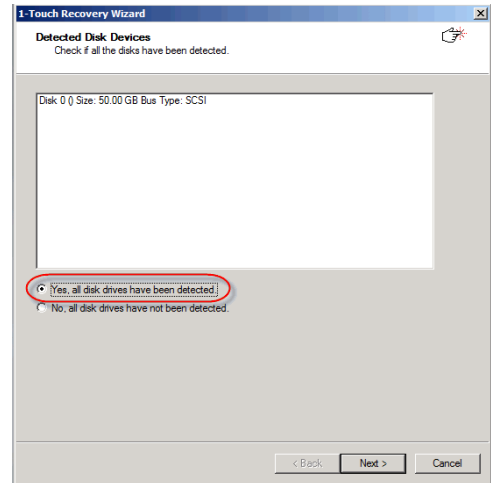
Ensure that you have selected **Dissimilar Disk Mapping** Restore Option while creating the answer file.

1. Login to 1-Touch Server and create Answer File for the 1-Touch Client. For more information, go to [Creating an Answer File](#).
2. Create 1-Touch Live CD.
Use 1-Touch **Live CD** to boot the client.
3.
 - Select the language from the list
 - Click **OK**.
4. Click **Next**.

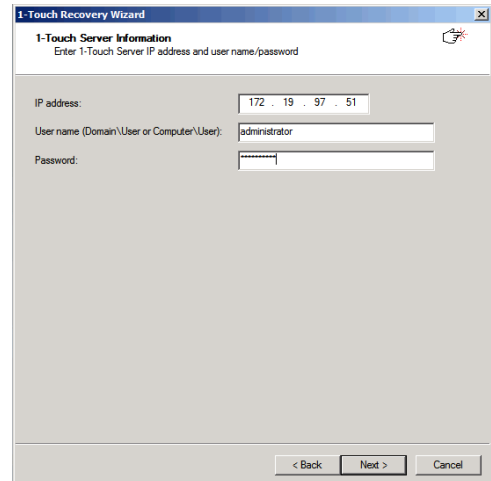
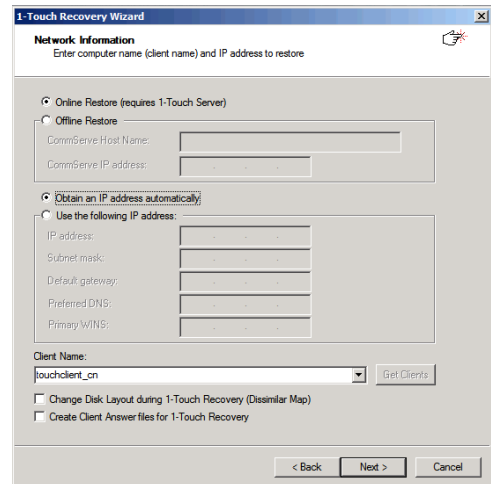


5. Click **Yes** if all disk devices are detected.

6.
 - Select **Online Restore**.
 - Enter the **Client Name**.
 If the client answer file is not created on 1-Touch Server, select **Create Client Answer files for 1-Touch Recovery** and follow the steps described in Creating an Answer File.
 - Click **Next**.

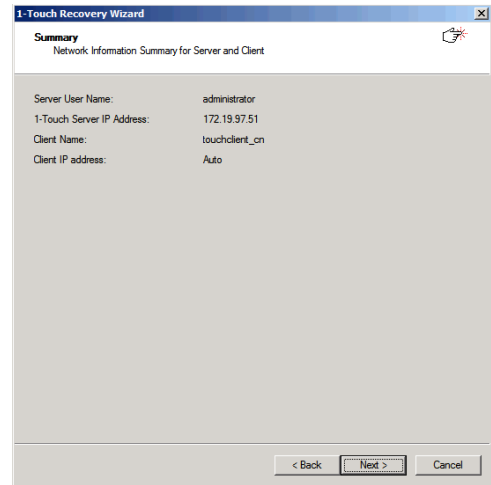


7.
 - Enter **IP Address** of the **1-Touch Server** where the client answer file is available.
 - Enter the **User name** and **Password** for the 1-Touch Server.
 - Click **Next**.

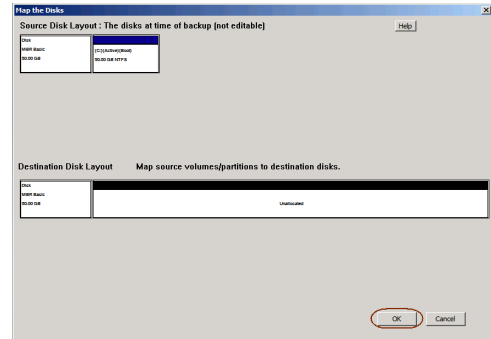


8. Click **Next**.

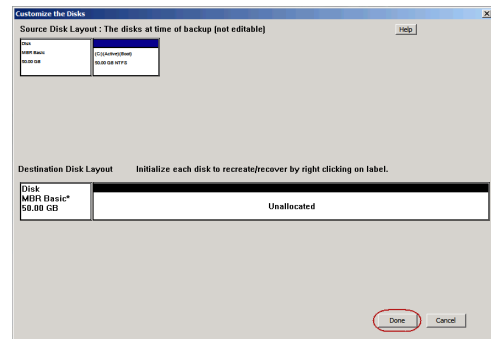
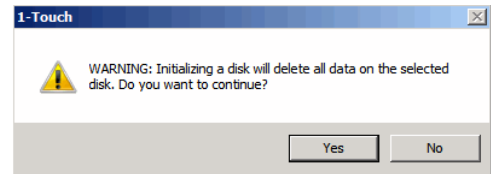
- 9.
- Review the **Source Disk Layout** and **Destination Disk Layout**.
 - Right-click a disk from **Destination Disk Layout** and select the disk type that you want to assign to the destination disk.
 - Click **OK** to start the disk initialization process.



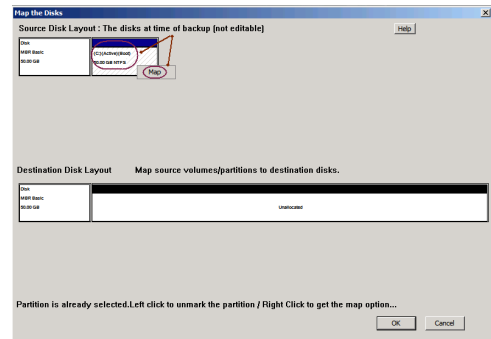
10. Click **Yes**.



- 11.
- Repeat steps 9 and 10 to clean all the required disks from the **Destination Disk Layout**.
 - Click **Done** to start the disk cleaning.



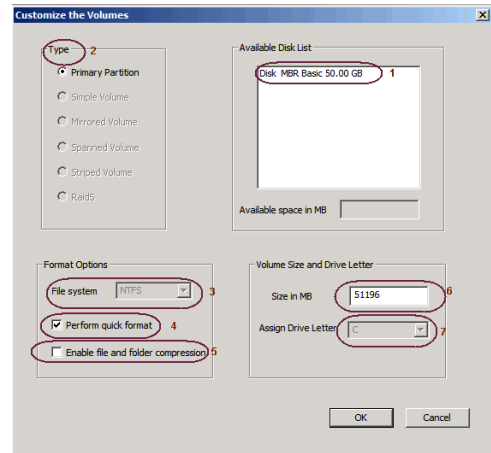
- 12.
- Right-click the disk from the **Source Disk Layout** that you want to map with a destination disk.
 - Select **Map**.



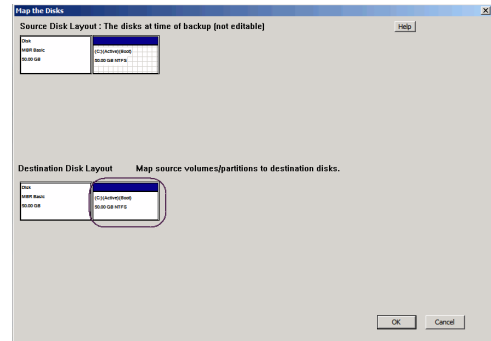
- 13.
- Select a destination disk from the the **Available Disk List** to map with the

selected source disk .

- Select the Partition **Type**.
- Select the **File system**.
- Click **Perform quick format** if you want to format the selected disk.
- Click **Enable file and folder compression** to enable the file system compression for the selected disk.
- Enter the Volume **Size**.
- Select a **Drive Letter** to assign it to the selected volume.
- Click **OK**.



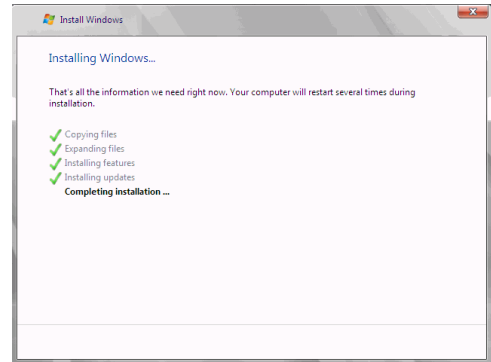
- 14.
- Review the **Destination Disk Layout**.
 - Click **OK** to start recovery of the destination disk.



15. Reboot the computer after the windows installation completes.

After the windows installation completes, the computer may reboot one or more times.

During the Windows installation process of a 1-Touch Recovery, the Windows Administrator password is set as 1Touch. Upon completion of the 1-Touch Recovery, the Administrator's original password will be restored from the backup.



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CROSS HARDWARE SIMILAR DISK RESTORE

When a target system has different hardware than the backed up system, perform the Cross Hardware restore. If the backed up system is still running the Calypso services, stop the services before performing the cross hardware restore.

Use one of the following methods to perform the restore.

OFFLINE NON INTERACTIVE RESTORE

Use this method when you do not want to provide the client information during the restore. When you backup the client, the client information is stored as a client configuration.

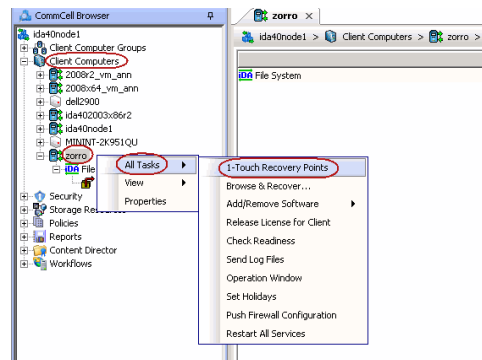
This is an offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

PREREQUISITES

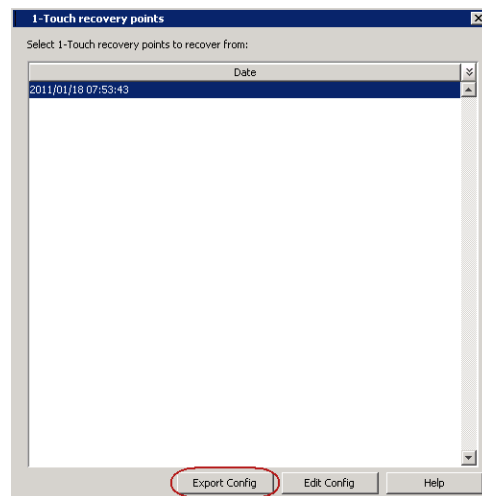
Copy all the required Mass Storage Drivers and NIC Drivers to a network location. For example: If the target system requires Adaptec Ultra160 mass storage driver, then copy the driver.inf for Adaptec Ultra160 to a network location.

1. Create a 1-Touch Live CD.
2.
 - From the CommCell Console, navigate to **<Client>**

- Right-click the <Client> and click **All Tasks | 1-Touch Recovery Point**



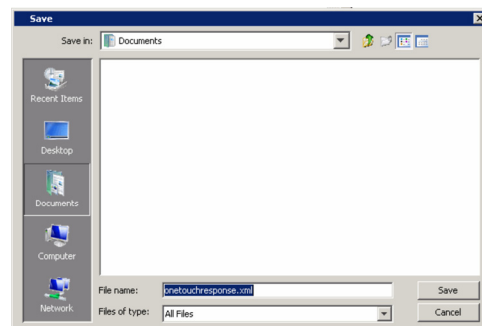
- Select the most recent client configuration to create a response file.
A new client configuration is generated when you make any changes in the client network configuration and then perform a full backup.
 - Click **Export Config**.



- Enter the credentials used to login to CommCell Console.
 - Click **OK**.



- Save the response file as `onetouchresponse.xml`.
By default, the response file is saved in the `My documents` folder on the computer that is running the CommCell Console.



- Copy the response file to a USB drive or a removable disk or a network location.
- Connect the USB drive or the removable disk to the client that you want recover.
If you want to use a network location to access the response file during the restore, follow the steps given in *Accessing the Response File From an UNC Path During a Non-Interactive Restore*.
- Use the 1-Touch **Live CD** to boot the client.

9.
 - Select the language from the list
 - Click **OK**.

10. Click **OK** to start the full system restore.

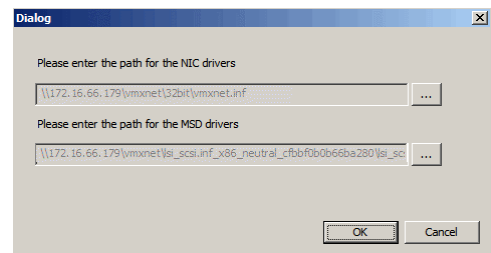
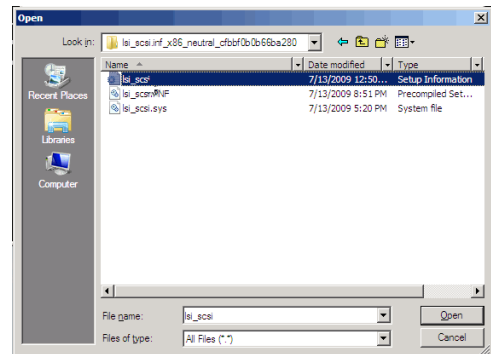
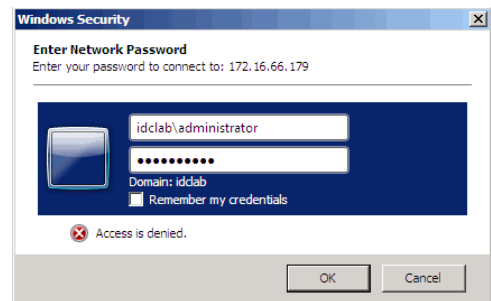
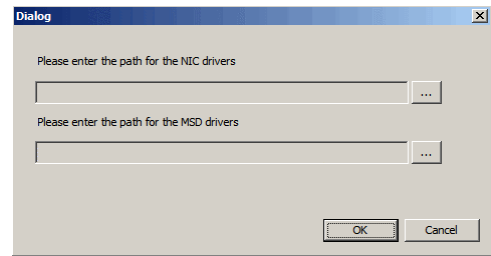
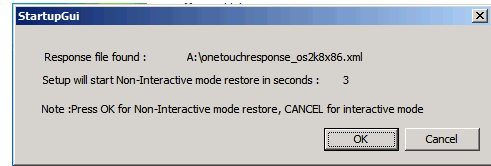
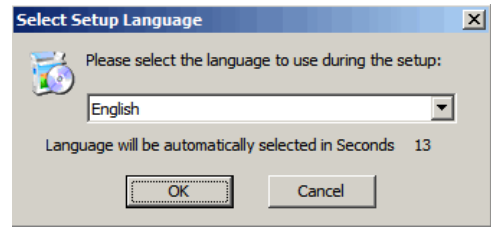
11.
 - Enter a UNC path to the `.inf` file for the mass storage drivers.
 The third party Mass Storage drivers are required to locate the boot disk when restarting the computer. You must provide the path to `.inf` file for the mass storage drivers.
 - You can provide the path to `.inf` file for the NIC drivers now or you can provide it after the system restarts.
 - It is recommended that you install the latest hardware drivers after the restore completes.

12. Enter the password to access the network location where drivers are stored.

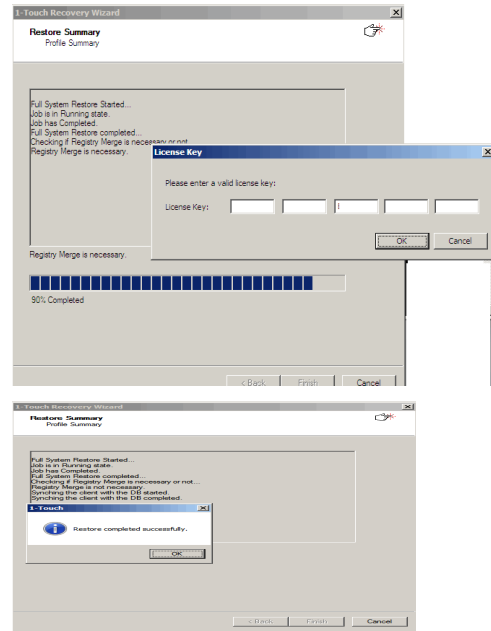
13.
 - Select file(s) required to install the drivers.
 - Click **Open**.

14. Click **OK**.

15.
 - Enter the valid license key for the restored Windows Operating System. Refer to the check list in the Configuration section.
 - Click **OK**.



16.
 - Click **OK**.
 - Remove the **Live CD** and restart the computer.



OFFLINE INTERACTIVE RESTORE

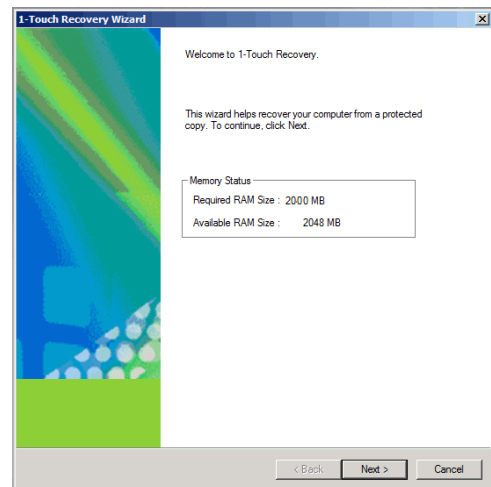
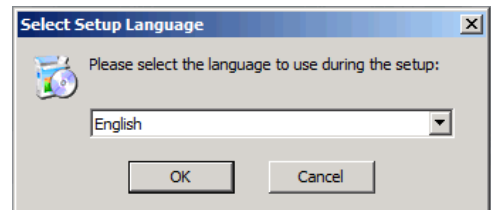
Use this method when you want to specify the client configuration information during the restore.

This is a offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

PREREQUISITES

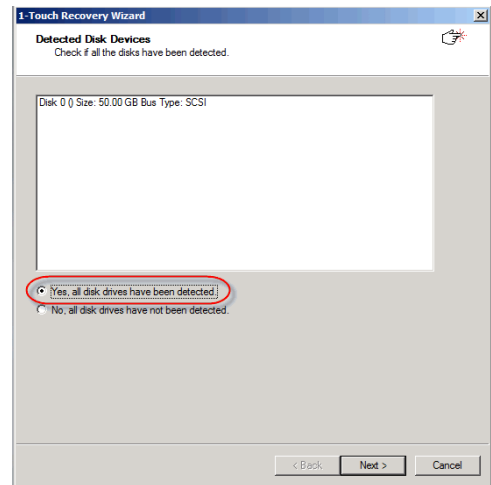
Copy all the required Mass Storage Drivers and NIC Drivers to a network location. For example: If the target system requires Adaptec Ultra160 mass storage driver, then copy the `driver.inf` for Adaptec Ultra160 to a network location.

1. Create 1-Touch Live CD
Use the 1-Touch **Live CD** to boot the client.
2.
 - Select the language from the list
 - Click **OK**.
3. Click **Next**.

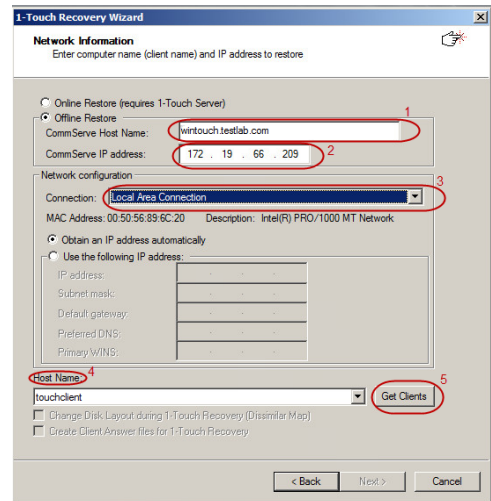


4. Click **Yes** if all disk devices are detected.

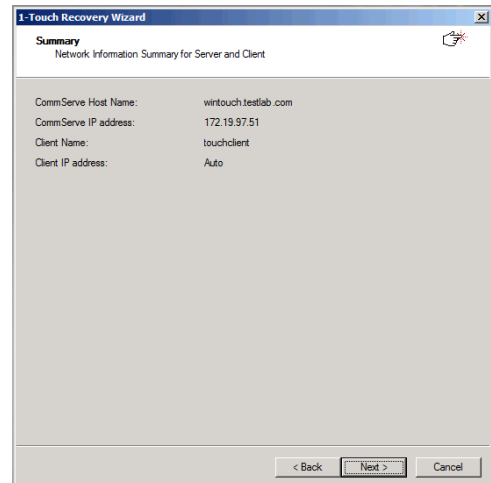
5.
 - Enter **CommServe Host Name**.
 - Enter **CommServe IP address**.
 - Select the Network Connection from the **Connection** drop-down combo box.
 - Click **Get Clients**.
 - Select client **Host Name** from the list.
 - Click **Next**.

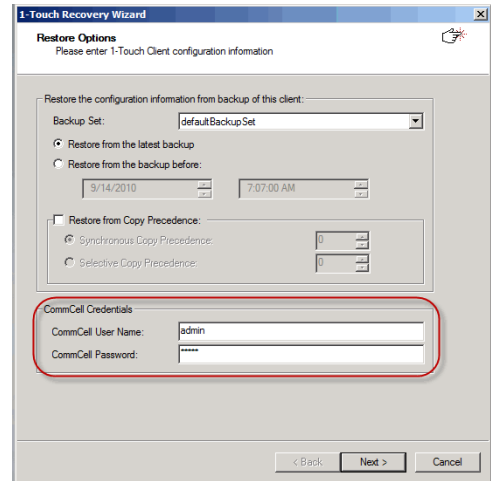


6.
 - Review network information for CommServe and restored client.
 - Click **Next**.



7.
 - Enter **CommCell User Name**.
 - Enter **CommCell Password**. Enter the credentials that are used to login to CommCell from the client.
 - Click **Next**.

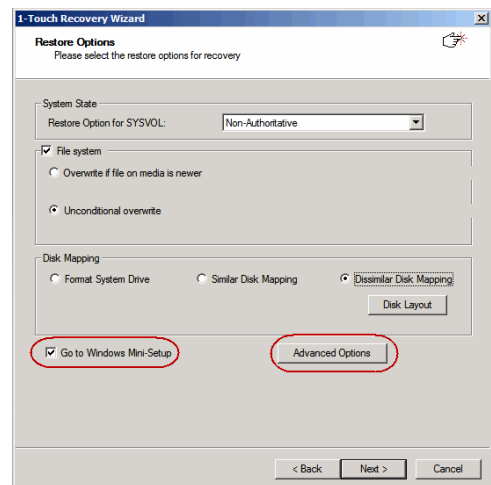




- 8.
- Ensure that the **Go to Windows Mini-Setup** is selected. This option is selected by default when the restored computer has different mouse, keyboard, disk configuration, network interface card, or processor than that of the backed up computer.

The mini-setup wizard runs after the restore. This wizard configures network settings and installs the required drivers. You need to provide the credentials for the domain in which you want to add the restored computer.

- Click **Advanced Options**.

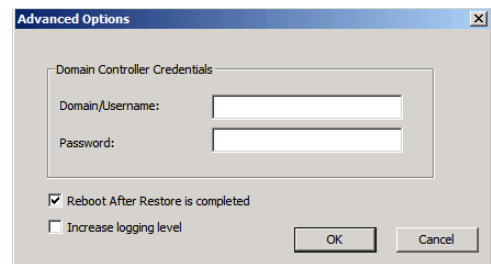


- 9.
- Enter the **Username** and **Password** for the domain in which you want to add the restored computer.
 - Ensure that the **Reboot After Restore is completed** is selected.
 - Click **OK**.

Select the **Increase logging level** option if you want to increase the logging level of windows and **Calypso** logs. The increased logging level gives you more information for troubleshooting.

After the restore, you may want to review the system state for troubleshooting. Do not select the **Reboot After Restore is completed** option if you want to review the system state.

10. Click **Next**.



11. Click **OK**.

The TCP/IP Properties of the client captured during the backup are displayed. If the target computer has different IP, change the TCP/IP Properties or click **Use DHCP** to use DHCP instead of static IP address.

The full system restore starts.

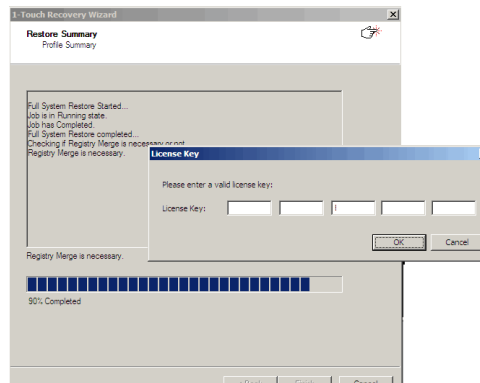
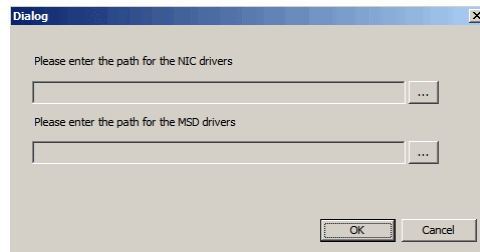
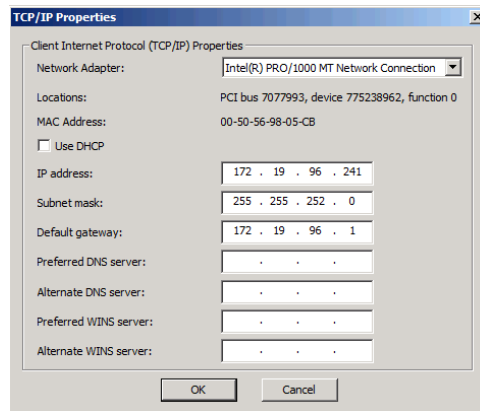
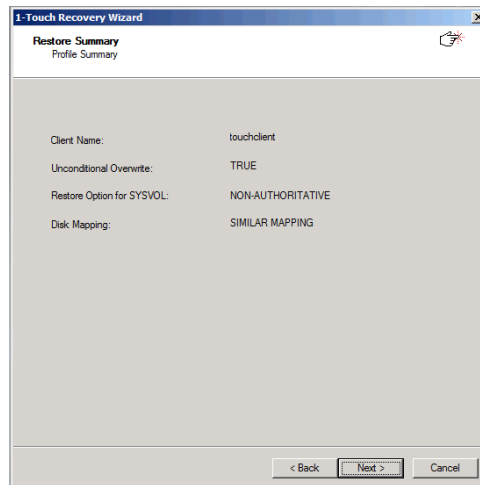
12.
 - Enter a UNC path to the `.inf` file for the mass storage drivers.

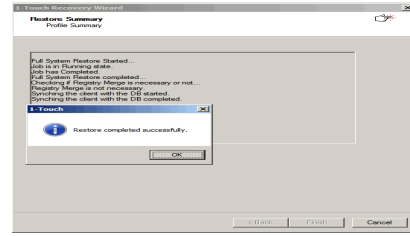
The third party Mass Storage drivers are required to locate the boot disk when restarting the computer. You must provide the path to `.inf` file for the mass storage drivers.

 - You can provide the path to `.inf` file for the NIC drivers now or you can provide it after the system restarts.
 - It is recommended that you install the latest hardware drivers after the restore completes.
13.
 - Enter the valid license key for the restored Windows Operating System. Refer to the check list in the Configuration section.
 - Click **OK**.

14. Click **OK**.

Windows Mini-Setup Wizard configures the network settings and installs required drivers. This process may take few minutes. The computer may reboot one or more times.





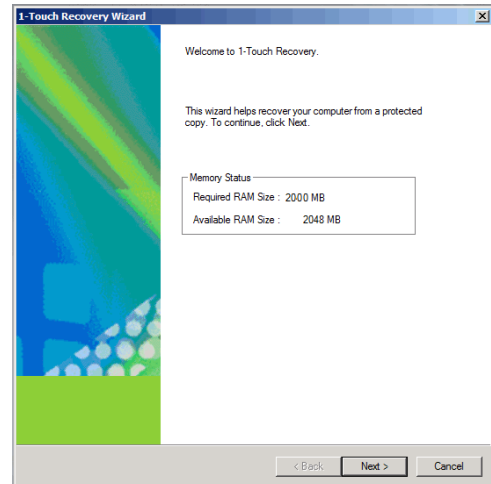
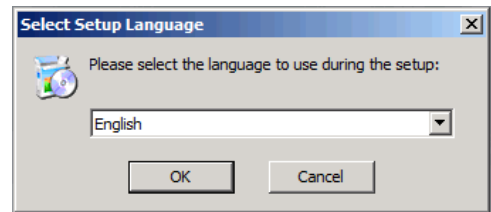
ONLINE RESTORE

Perform the Online Restore to reinstall the operating system on the client. The Windows Distribution Shares and Drivers available on 1-Touch Server are used to reinstall the operating system.

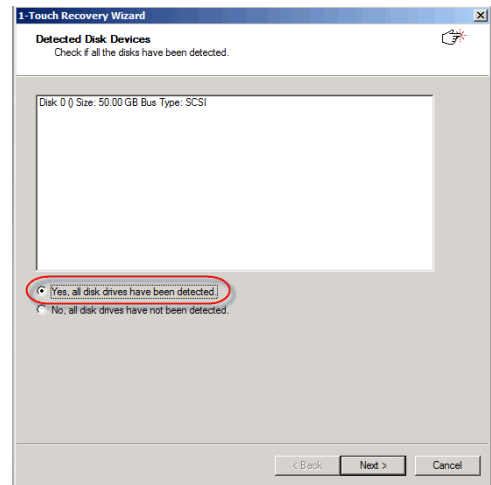
PREREQUISITES

Make sure that the required mass storage and NIC drivers are included in the answer file.

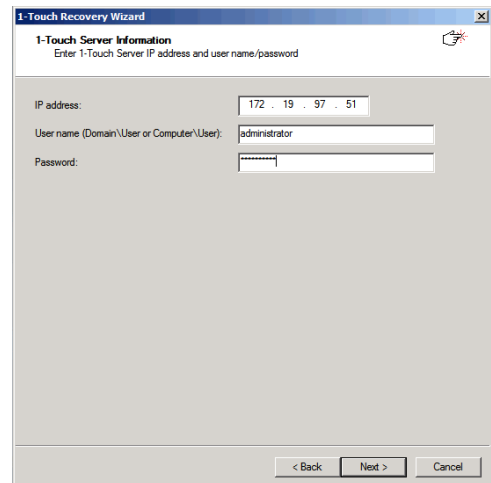
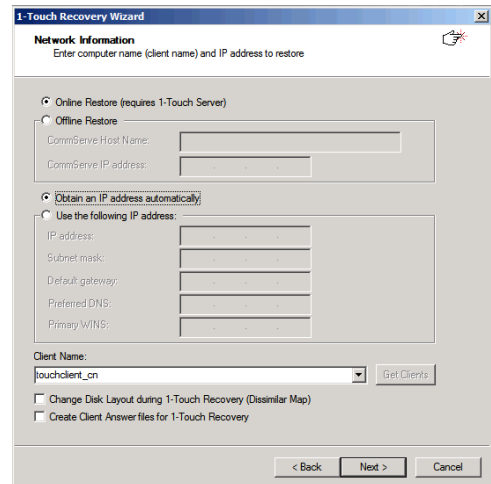
1. Login to 1-Touch Server and create Answer File for the 1-Touch Client. For more information, go to [Creating an Answer File](#).
2. Create 1-Touch Live CD.
Use 1-Touch **Live CD** to boot the client.
3.
 - Select the language from the list
 - Click **OK**.
4. Click **Next**.
5. Click **Yes** if all disk devices are detected.



6.
 - Select **Online Restore**.
 - Enter the **Client Name**.
 If the client answer file is not created on 1-Touch Server, select **Create Client Answer files for 1-Touch Recovery** and follow the steps described in Creating an Answer File.
 - Click **Next**.



7.
 - Enter **IP Address** of the **1-Touch Server** where the client answer file is available.
 - Enter the **User name** and **Password** for the 1-Touch Server.
 - Click **Next**.



8. Click **Next**.

7. Check the TCP/IP and Display Adapter configurations. Use the Client Checklist to check the configuration.

If they are incorrect, perform the following steps:

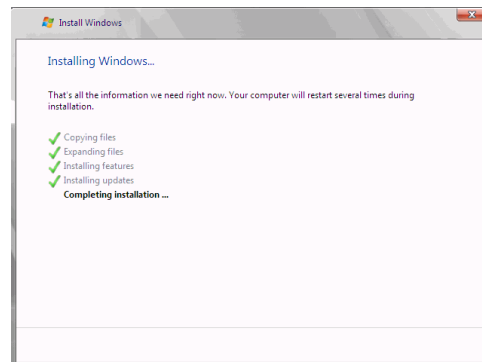
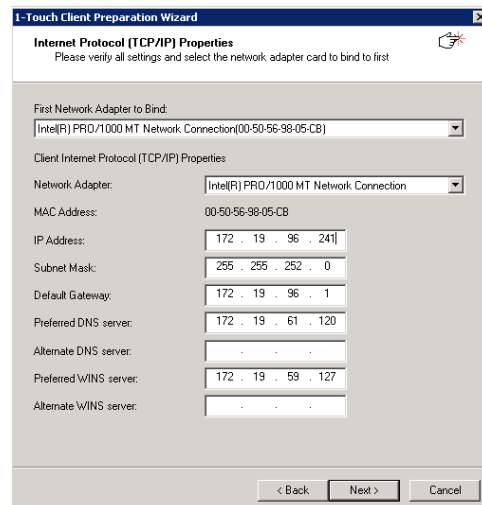
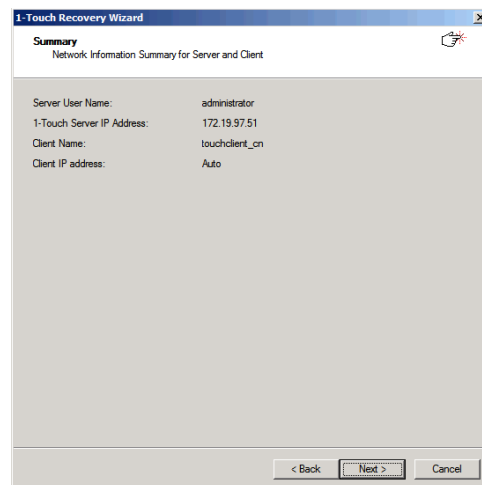
- Re-install the appropriate Network Interface Card drivers.
- Uninstall the Network Adapters and Display Adapters using the Hardware Uninstall Wizard or Windows Device Manager.
- Restart the computer.
- Reconfigure the TCP/IP and Display Adapter settings.

9.

- Reboot the computer after the windows installation completes.

During the Windows installation process of a 1-Touch Recovery, the Windows Administrator password is set as 1Touch. Upon completion of the 1-Touch Recovery, the Administrator's original password will be restored from the backup.

After the windows installation completes, the computer may reboot one or more times.



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CROSS HARDWARE DISSIMILAR DISK RESTORE

When a target system has different hardware and the different disk configuration than the backed up system, perform the Cross Hardware Dissimilar Disk restore. If the backed up system is still running the Calypso services, stop the services before performing the cross hardware restore.

Use one of the following methods to perform the restore.

OFFLINE NON INTERACTIVE RESTORE

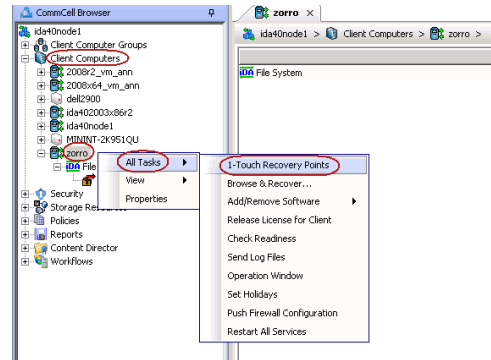
Use this method when you do not want to provide the client information during the restore. When you backup the client, the client information is stored as a client configuration.

This is a offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

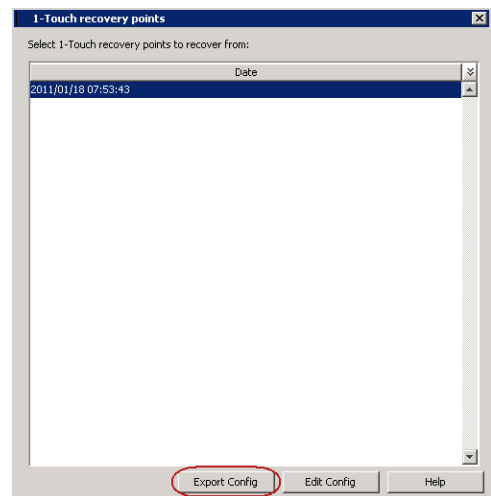
PREREQUISITE

Copy all the required Mass Storage Drivers and NIC Drivers to a network location. For example: If the target system requires Adaptec Ultra160 mass storage driver, then copy the driver.inf for Adaptec Ultra160 to a network location.

1. Create a 1-Touch Live CD.
2.
 - From the CommCell Console, navigate to <Client>
 - Right-click the <Client> and click **All Tasks | 1-Touch Recovery Point**



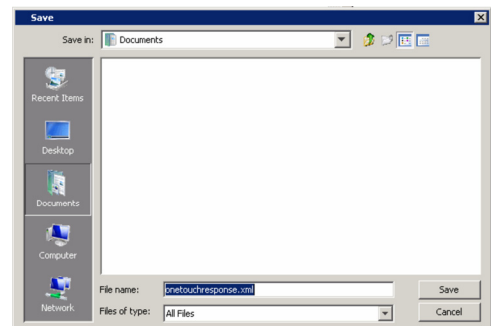
3.
 - Select the most recent client configuration to create a response file.
A new client configuration is generated when you make any changes in the client network configuration and then perform a full backup.
 - Click **Export Config**.



4.
 - Enter the credentials used to login to CommCell Console.
 - Click **OK**.



5. Save the response file as onetouchresponse.xml.
By default, the response file is saved in the My documents folder on the computer that is running the CommCell Console.



6. Copy the response file to a USB drive or a removable disk or a network location.

7. Connect the USB drive or the removable disk to the client that you want recover.
 If you want to use a network location to access the response file during the restore, follow the steps given in *Accessing the Response File From an UNC Path During a Non-Interactive Restore*.

8. Use the 1-Touch **Live CD** to boot the client.

- 9.
- Select the language from the list
 - Click **OK**.

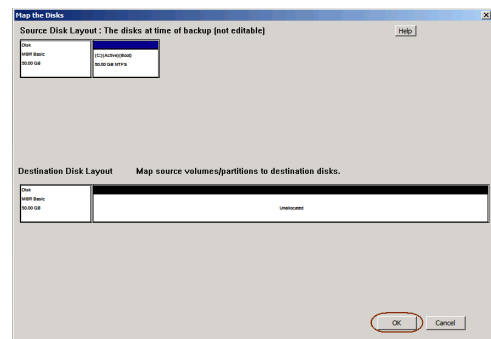
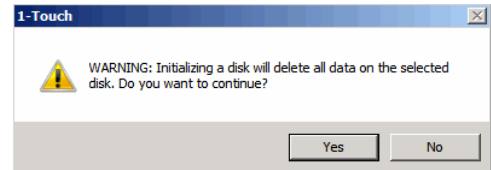
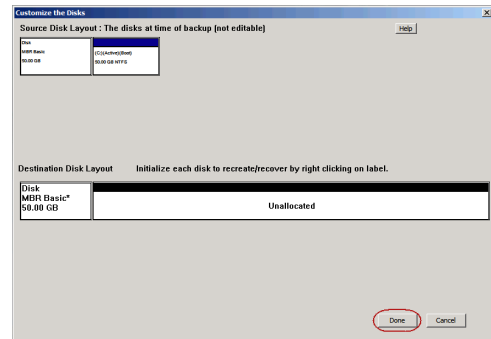
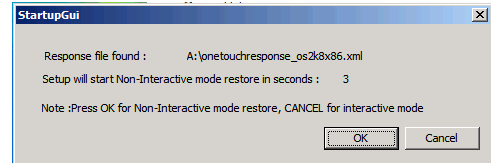
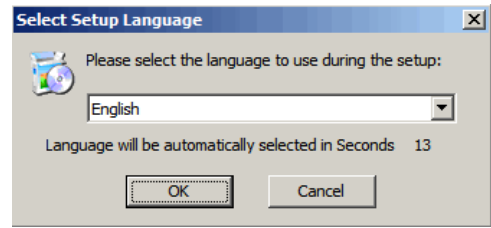
10. Click **OK** to start the full system restore.

- 10.
- Review the **Source Disk Layout** and **Destination Disk Layout**.
 - Right-click a disk from **Destination Disk Layout** and select the disk type that you want to assign to the destination disk.

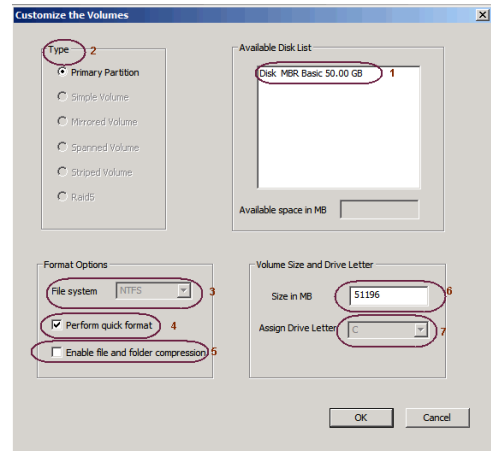
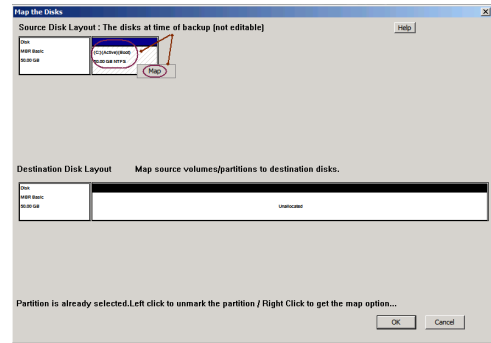
11. Click **Yes**.

- 12.
- Repeat steps 10 and 11 to clean all the required disks from the **Destination Disk Layout**.
 - Click **Done** after all disks are initialized.

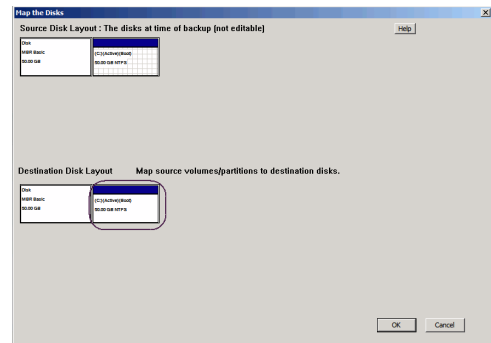
- 13.
- Right-click the disk from the **Source Disk Layout** that you want to map with a destination disk.
 - Select **Map**.



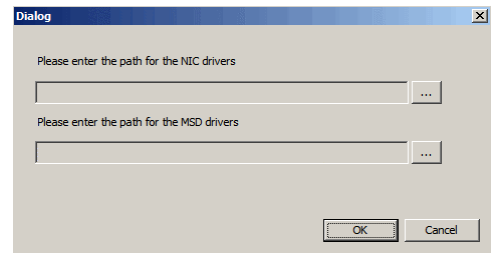
- 14.
- Select a destination disk from the the **Available Disk List** to map with the selected source disk .
 - Select the Partition **Type**.
 - Select the **File system**.
 - Click **Perform quick format** if you want to format the selected disk.
 - Click **Enable file and folder compression** to enable the file system compression for the selected disk.
 - Enter the Volume **Size**.
 - Select a **Drive Letter** to assign it to the selected volume.
 - Click **OK**.



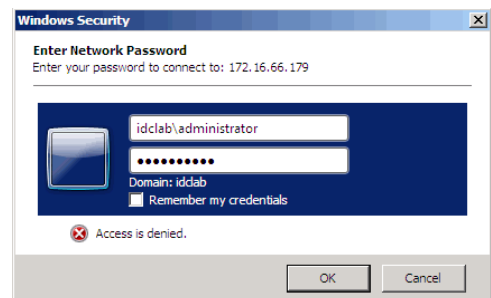
- 15.
- Review the **Destination Disk Layout**.
 - Click **OK** to start recovery of the destination disk.



- 16.
- Enter a UNC path to the .inf file for the mass storage drivers.
The third party Mass Storage drivers are required to locate the boot disk when restarting the computer. You must provide the path to .inf file for the mass storage drivers.
 - You can provide the path to .inf file for the NIC drivers now or you can provide it after the system restarts.
 - It is recommended that you install the latest hardware drivers after the restore completes.



- 17.
- Enter the password to access the network location where drivers are stored.



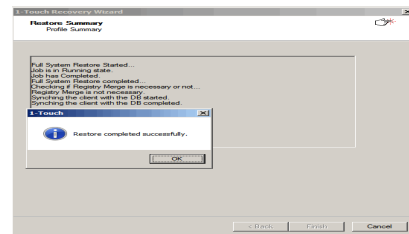
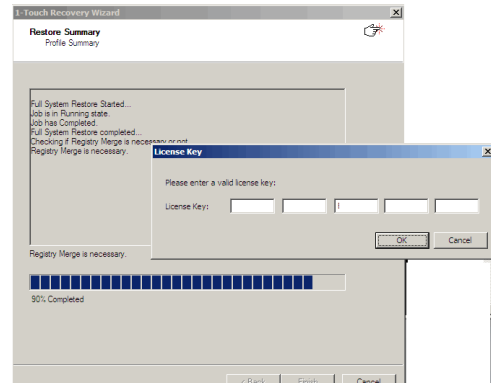
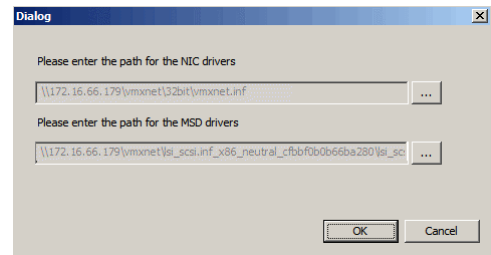
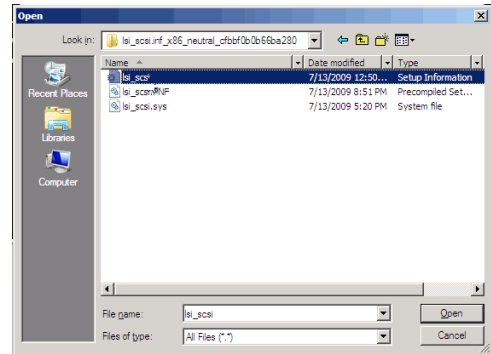
- 18.
- Select file(s) to install the drivers.

- Click **Open**.

19. Click **OK**.

- 20.
- Enter the valid license key for the restored Windows Operating System. Refer to the check list in the Configuration section.
 - Click **OK**.

- 21.
- Click **OK**.
 - Remove the **Live CD** and restart the computer.



OFFLINE INTERACTIVE RESTORE

Use this method when you want to specify the client configuration information during the restore.

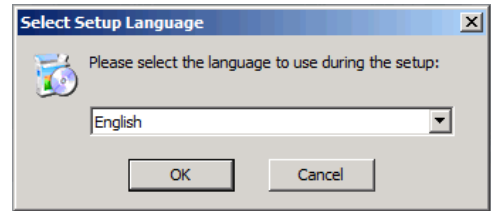
This is an offline recovery method to restore the operating system. It does not require connection with 1-Touch Server.

PREREQUISITE

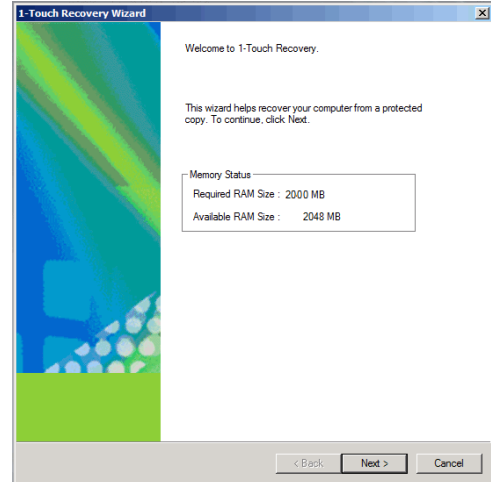
Copy all the required Mass Storage Drivers and NIC Drivers to a network location. For example: If the target system requires Adaptec Ultra160 mass storage driver, then copy the driver.inf for Adaptec Ultra160 to a network location.

1. Create 1-Touch Live CD
Use the 1-Touch **Live CD** to boot the client.
2.
 - Select the language from the list
 - Click **OK**.

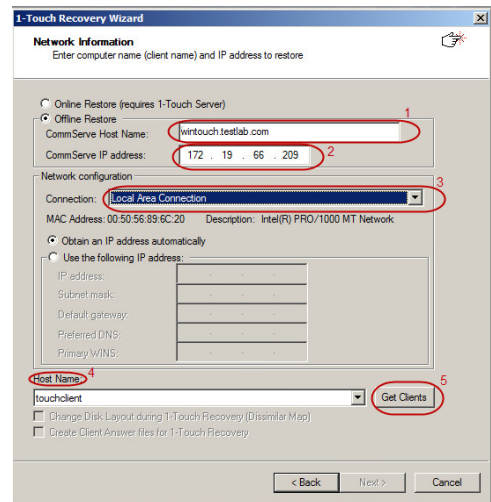
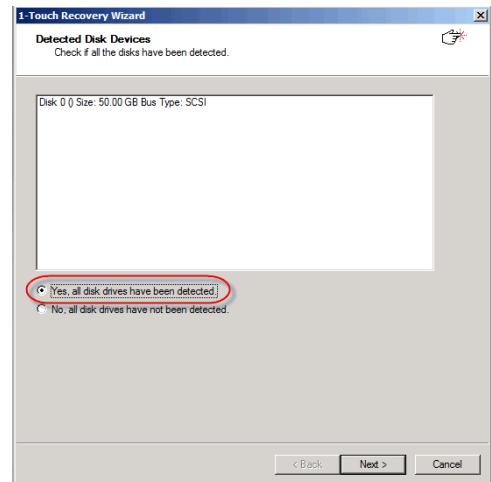
3. Click **Next**.



4. Click **Yes** if all disk devices are detected.

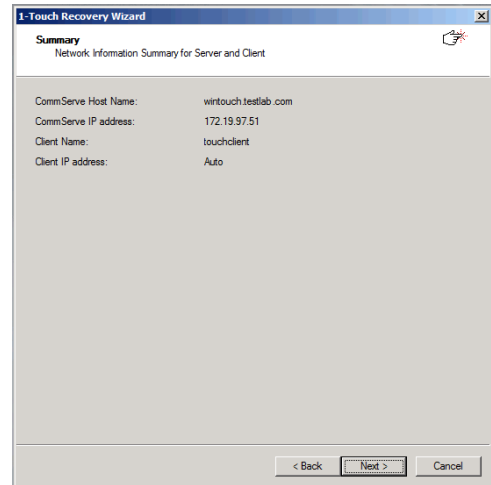


- 5.
- Enter **CommServe Host Name**.
 - Enter **CommServe IP address**.
 - Select the Network Connection from the **Connection** drop-down combo box.
 - Click **Get Clients**.
 - Select client **Host Name** from the list.
 - Click **Next**.

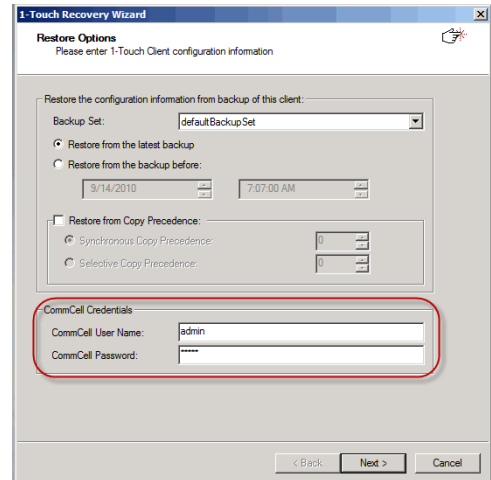


6. Review network information for CommServe and restored client.

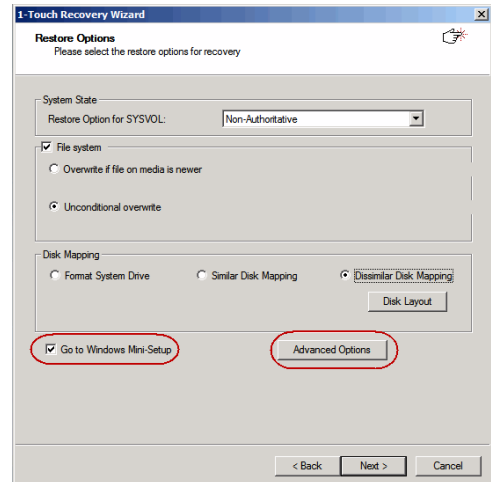
- Click **Next**.



- 7.
- Enter **CommCell User Name**.
 - Enter **CommCell Password**. Enter the credentials that are used to login to CommCell from the client.
 - Click **Next**.



- 8.
- Ensure that the **Go to Windows Mini-Setup** check box is selected. This option is selected by default when the restored computer has different mouse, keyboard, disk configuration, network interface card, or processor than that of the backed up computer.
The mini-setup wizard runs after the Offline Restore. This wizard configures network settings and installs the required drivers. You need to provide the credentials for the domain in which you want to add the restored computer.
 - Ensure that the **Dissimilar Disk Mapping** is selected.
 - Click **Advanced Options**.



- 9.
- Enter the **Username** and **Password** for the domain in which you want to add the restored computer.
 - Ensure that the **Reboot After Restore is completed** is selected.
 - Click **OK**.

Select the **Increase logging level** option if you want to increase the logging level of windows and **Calypso** logs. The increased logging level gives you more information for troubleshooting.

After the restore, you may want to review the system state for troubleshooting. Do not select the **Reboot After Restore is completed** option if you want to review the system state.

10. Click **Next**.

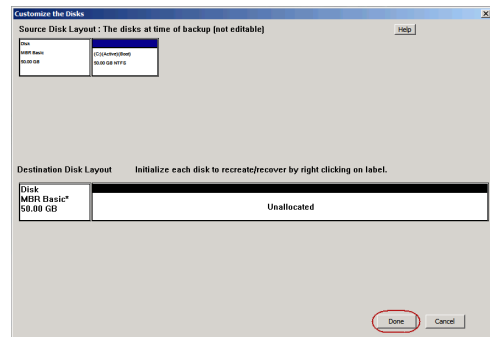
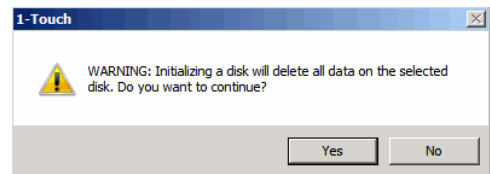
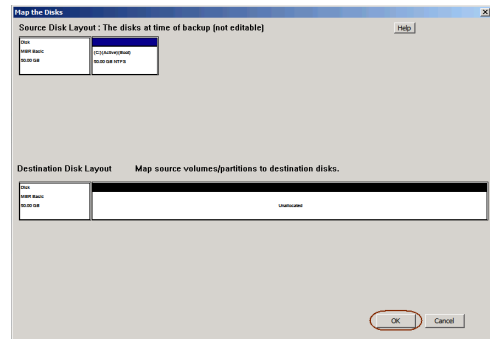
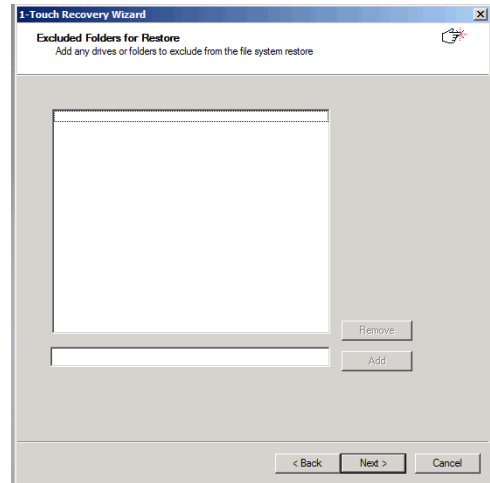
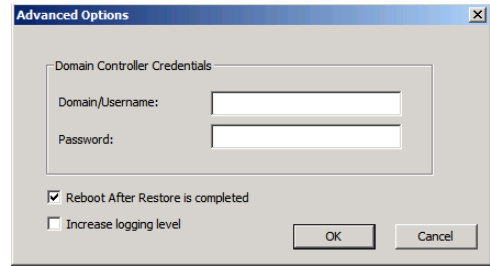
If you want to exclude any folder or driver from the full system restore, enter the path of the folder or driver and click **Add**.

- 11.
- Review the **Source Disk Layout** and **Destination Disk Layout**.
 - Right-click a disk from **Destination Disk Layout** to initialize the disk and select the disk type that you want to assign to the destination disk.

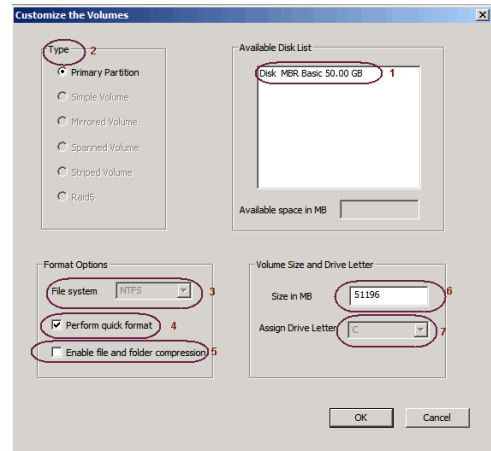
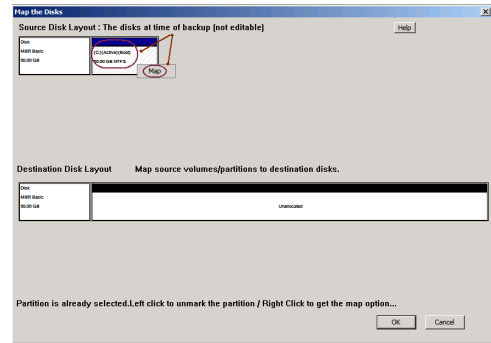
12. Click **Yes**.

- 13.
- Repeat steps 11 and 12 to clean all the required disks from the **Destination Disk Layout**.
 - Click **Done** after all disks are initialized.

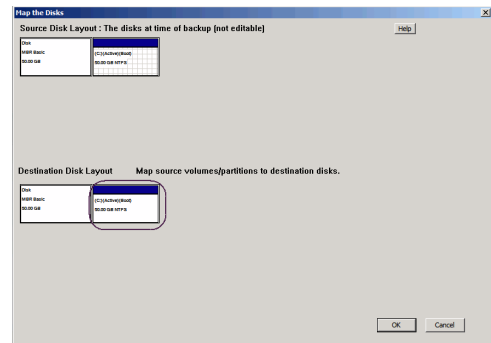
- 14.
- Right-click the disk from the **Source Disk Layout** that you want to map with a destination disk.
 - Select **Map**.



15.
 - Select a destination disk from the the **Available Disk List** to map with the selected source disk .
 - Select the Partition **Type**.
 - Select the **File system**.
 - Click **Perform quick format** if you want to format the selected disk.
 - Click **Enable file and folder compression** to enable the file system compression for the selected disk.
 - Enter the Volume **Size**.
 - Select a **Drive Letter** to assign it to the selected volume.
 - Click **OK**.



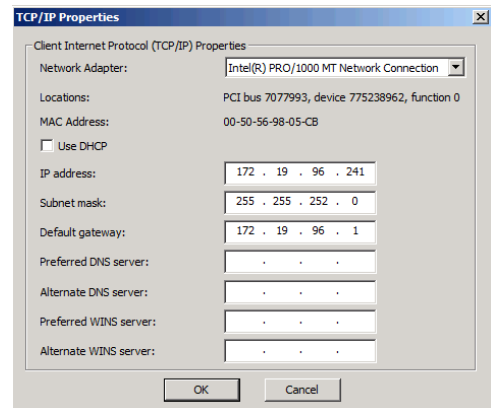
16.
 - Review the **Destination Disk Layout**.
 - Click **OK** to start recovery of the destination disk.



17. Click **OK**.

The TCP/IP Properties of the client captured during the backup are displayed. If the target computer has different IP, change the TCP/IP Properties or click **Use DHCP** to use DHCP instead of static IP address.

The full system restore starts.

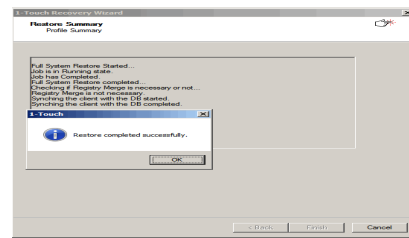
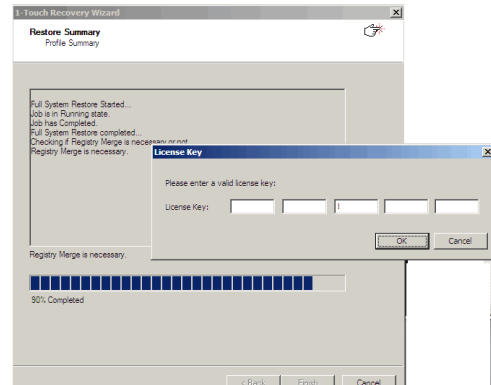
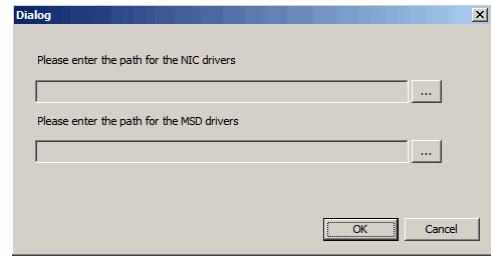


18.
 - Enter a UNC path to the `.inf` file for the mass storage drivers.
 The third party Mass Storage drivers are required to locate the boot disk when restarting the computer. You must provide the path to `.inf` file for the mass storage drivers.
 - You can provide the path to `.inf` file for the NIC drivers now or you can provide it after the system restarts.

- It is recommended that you install the latest hardware drivers after the restore completes.

- 19.
- Enter the valid license key for the restored Windows Operating System. Refer to the check list in the Configuration section.
 - Click **OK**.

- 20.
- Click **OK**.
 - Remove the **Live CD** and restart the computer.



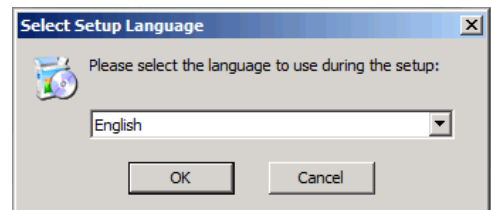
ONLINE RESTORE

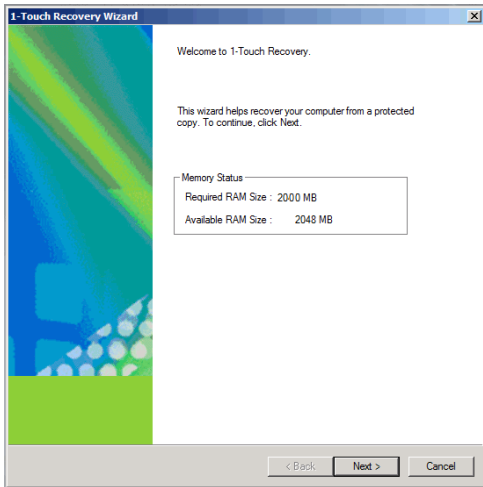
Perform the Online Restore to reinstall the operating system on the client. The Windows Distribution Shares and Drivers available on 1-Touch Server are used to reinstall the operating system.

PREREQUISITE

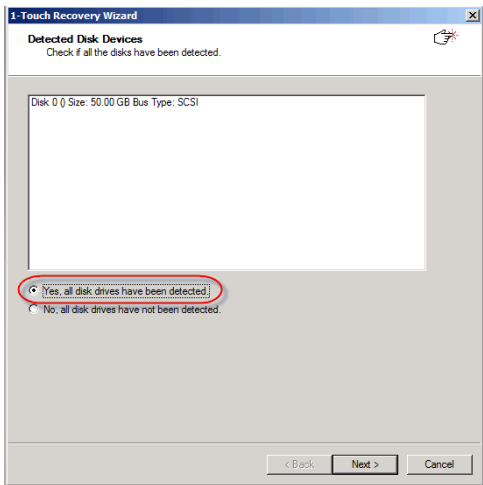
Make sure that the Dissimilar Disk Restore Option is selected and all the required mass storage and NIC drivers are selected while creating the answer file.

1. Login to 1-Touch Server and create Answer File for the 1-Touch Client. For more information, go to Creating an Answer File.
2. Create 1-Touch Live CD.
Use 1-Touch **Live CD** to boot the client.
3.
 - Select the language from the list
 - Click **OK**.
4. Click **Next**.





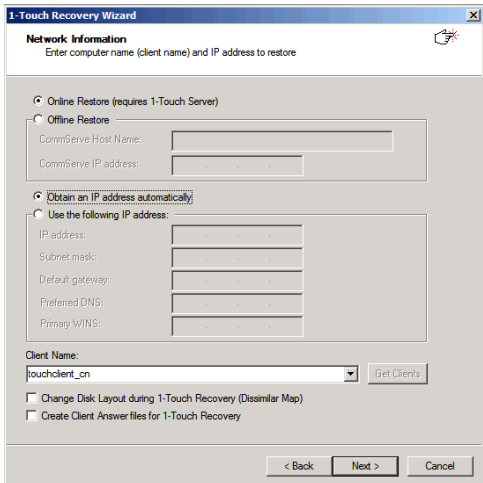
5. Click **Yes** if all disk devices are detected.



- 6.
- Select **Online Restore**.
 - Enter the **Client Name**.

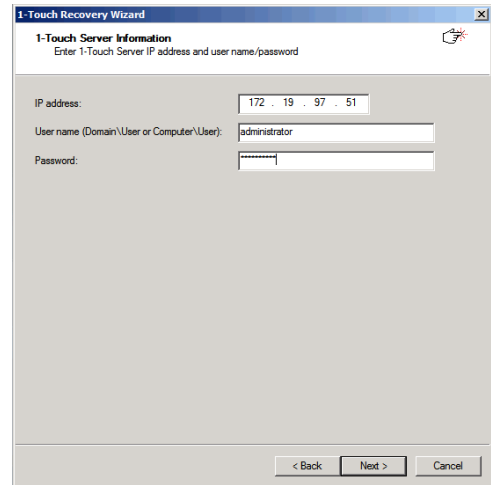
If the client answer file is not created on 1-Touch Server, select **Create Client Answer files for 1-Touch Recovery** and follow the steps described in Creating an Answer File.

- Click **Next**.



- 7.
- Enter **IP Address** of the **1-Touch Server** where the client answer file is available.
 - Enter the **User name** and **Password** for the 1-Touch Server.
 - Click **Next**.

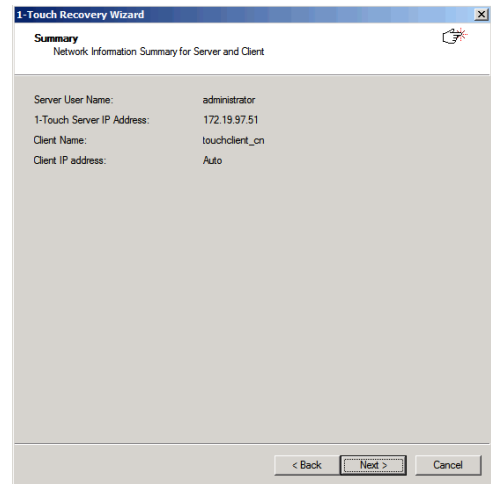
8. Click **Next**.



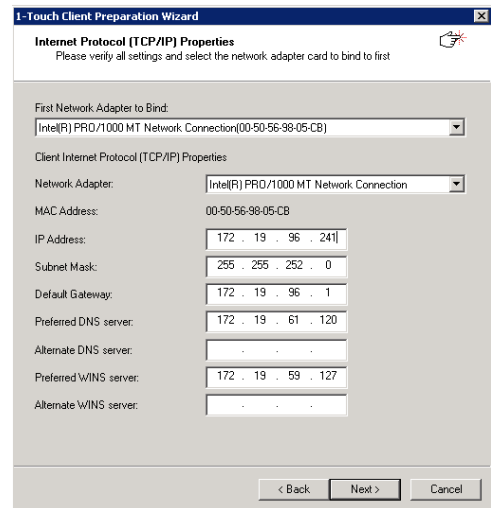
9. Check the TCP/IP and Display Adapter configurations. Use the Client Checklist to check the configuration.

If they are incorrect, perform the following steps:

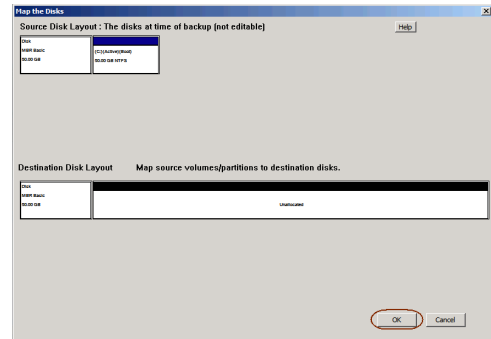
- Re-install the appropriate Network Interface Card drivers.
- Uninstall the Network Adapters and Display Adapters using the Hardware Uninstall Wizard or Windows Device Manager.
- Restart the computer.
- Reconfigure the TCP/IP and Display Adapter settings.



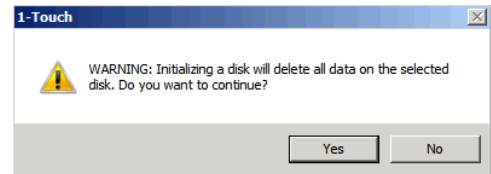
10. ● Review the **Source Disk Layout** and **Destination Disk Layout**.
 ● Right-click a disk from **Destination Disk Layout** and select the disk type that you want to assign to the destination disk.



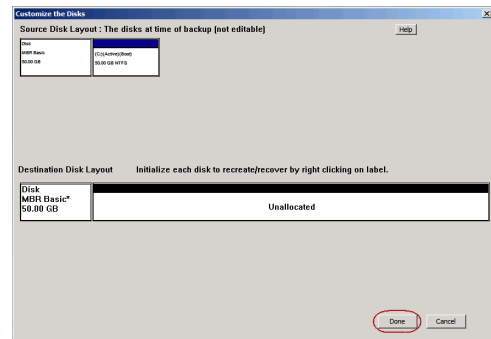
11. Click **Yes**.



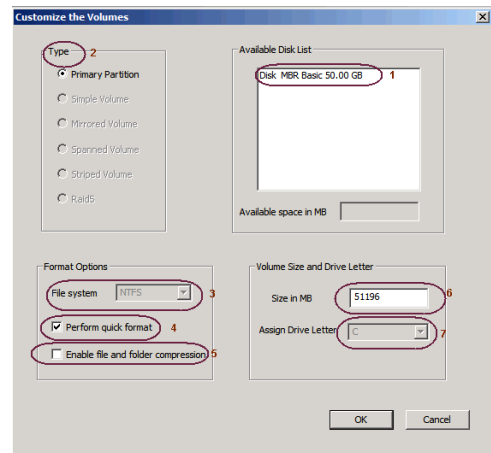
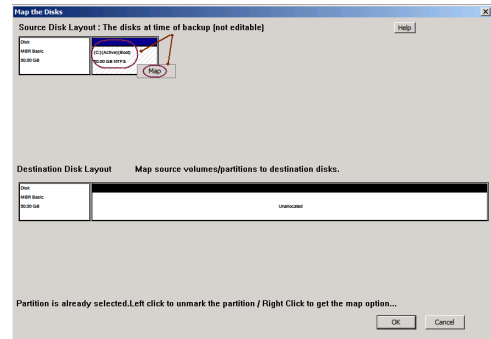
- 12.
- Repeat steps 10 and 11 to clean all the required disks from the **Destination Disk Layout**.
 - Click **Done** to start the disk cleaning.



- 12.
- Right-click the disk from the **Source Disk Layout** that you want to map with a destination disk.
 - Select **Map**.



- 13.
- Select a destination disk from the the **Available Disk List** to map with the selected source disk .
 - Select the Partition **Type**.
 - Select the **File system**.
 - Click **Perform quick format** if you want to format the selected disk.
 - Click **Enable file and folder compression** to enable the file system compression for the selected disk.
 - Enter the Volume **Size**.
 - Select a **Drive Letter** to assign it to the selected volume.
 - Click **OK**.

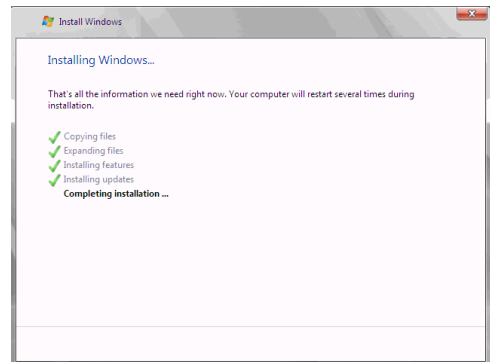
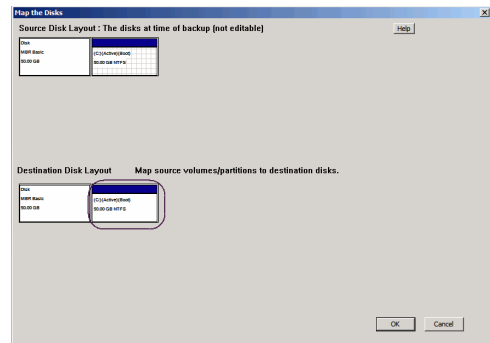


- 14.
- Review the **Destination Disk Layout**.
 - Click **OK** to start recovery of the destination disk.

15.
 - Reboot the computer after the windows installation completes.

During the Windows installation process of a 1-Touch Recovery, the Windows Administrator password is set as 1Touch. Upon completion of the 1-Touch Recovery, the Administrator's original password will be restored from the backup.

After the windows installation completes, the computer may reboot one or more times.

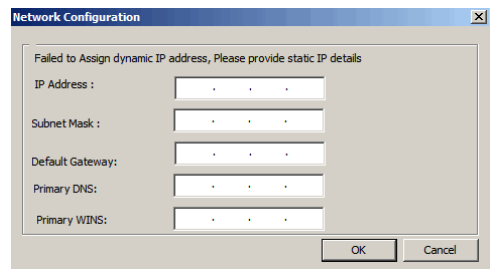
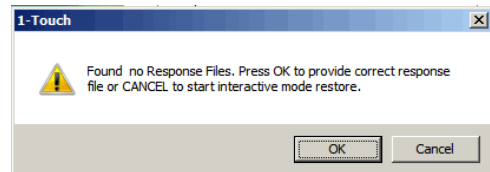
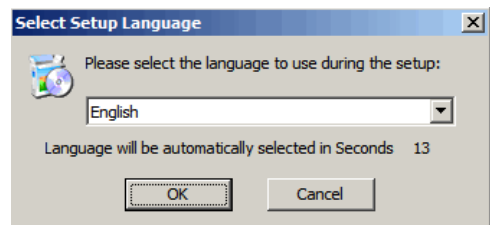


ADDITIONAL OPTIONS

ACCESSING THE RESPONSE FILE FROM AN UNC PATH DURING AN OFFLINE NON-INTERACTIVE RESTORE

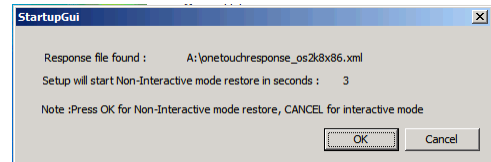
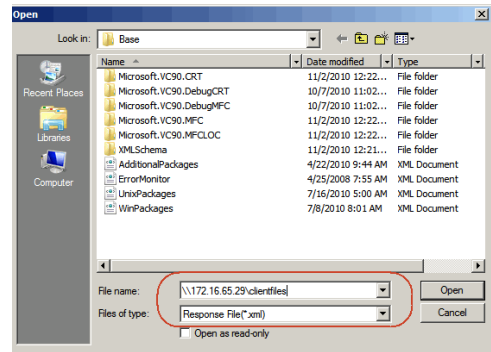
You can access the recovery response file from a network location during the non-interactive restore. Follow the steps give below to perform the non-interactive restore when the recovery response file is stored in a network location:

1. Boot the client using the 1-Touch Live CD.
2.
 - Select the language from the list
 - Click **OK**.
3. Click **OK**.
A temporary DHCP IP will be assigned automatically to the client that you are recovering.
4. If the temporary DHCP IP is not assigned automatically, you have to provide the Static IP, Subnet Mask Default Gateway, Primary DNS and WINS.
5. Enter the UNC path of the location where the response file is located and click **OK**.
The permanent IP address of the client will be the IP address that is stored in the



response file.

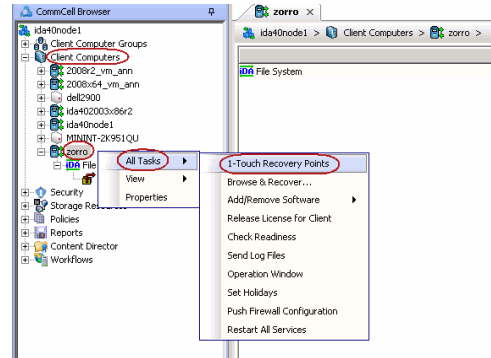
10. Click **OK** to start the full system restore.



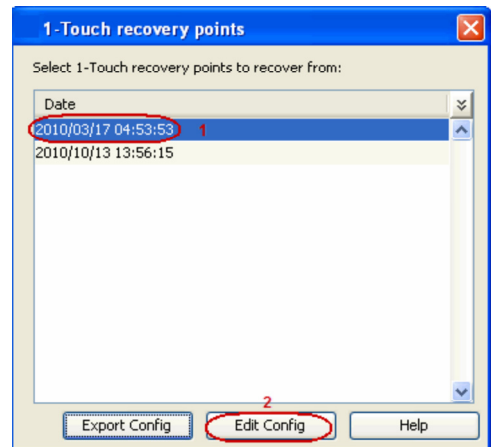
CHANGING THE CLIENT CONFIGURATION DURING AN OFFLINE NON-INTERACTIVE RESTORE

During a non-interactive restore, follow the steps given below to change the client configuration:

1.
 - From the CommCell Console, navigate to **<Client>**
 - Right-click the **<Client>** and click **All Tasks | 1-Touch Recovery Point**



2.
 - Select a client configuration.
 - Click **Edit Config**.



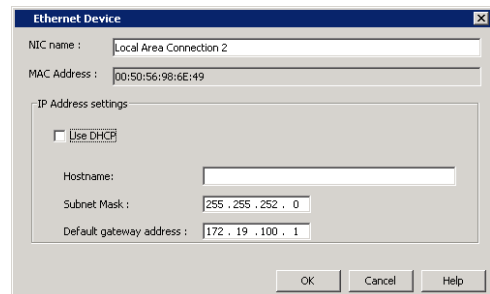
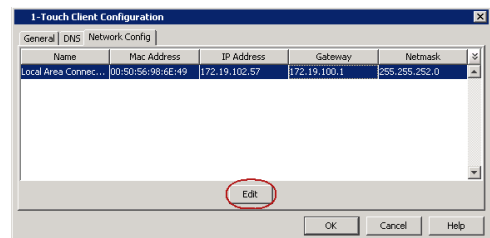
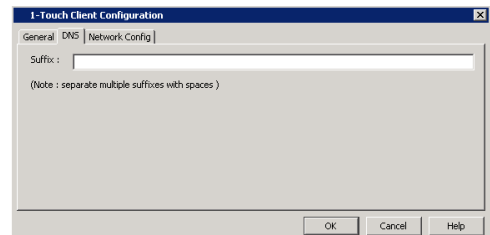
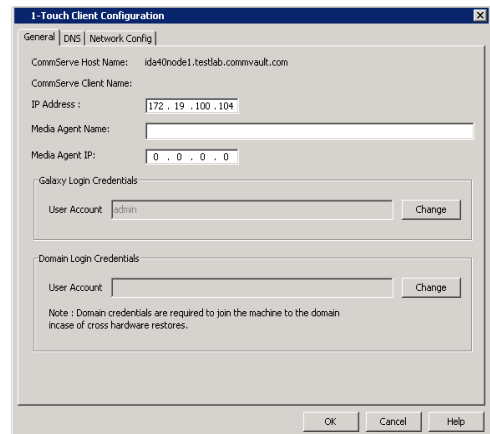
3.
 - Enter the CommServe IP address.
 - Enter the hostname and IP address of the MediaAgent that is used to backup the client.
 - Click **Change** and enter the CommCell Console credentials.
 - Click **Change** and enter the **Domain Login** Credentials.
 - Click **OK**.

4.
 - Click **DNS** tab.
 - Enter domain name server suffix for the network where client will be recovered.

5.
 - Click **Network Config** tab.
 - Select an interface to change the network configuration of the client.
 - Click **Edit**.

6.
 - Enter the IP address and network details of the network where client will be recovered.
 - Click **OK**.

7. Click **OK** to save the updated client configuration.



USING AN USB DRIVE INSTEAD OF LIVE CD

You can use an USB drive to boot the client. Follow the steps given below to create an USB drive for booting the client:

1. Connect the USB drive with the computer where you have stored the 1-Touch ISO image.
2. Open the Command Prompt and enter the following commands:

```
DISKPART
lis disk
```

3. Identify the disk number of the USB drive that you want to use to boot the client and enter the following commands:

```
sel <disk number>
clean
create partition primary
select partition 1
```



```

active

format fs=ntfs quick

assign

exit

```

4. Copy the `bootsect.exe` from Boot folder of Win7 distribution to one of the following location:
 - For Windows X64 clients: `SystemRecovery\Images\Windows_x64\BOOT_IMAGE\ISO\boot`
 - For Windows 32-bit clients: `SystemRecovery\Images\Windows_32\BOOT_IMAGE\ISO\boot`
5. Using the command prompt, navigate to the above location and enter following command:


```
BOOTSECT.EXE/NT60 <assigned drive letter for USB drive>:
```
6. Copy the content in ISO folder (`SystemRecovery\Images\Windows_32-bit\BOOT_IMAGE\ISO`) to USB Drive.
7. Connect the USB drive to the client that you want to boot.
8. Change the BIOS Settings on the client to boot from the USB drive.

CLUSTER RECOVERY

If all nodes the cluster are down, offline recovery is not supported for the first or primary node recovery. Perform the **Online Restore** to recover the first node in a cluster. Once the cluster starts, remaining nodes can be recovered using offline or online recovery process.

Perform the 1-Touch recovery of the Windows Server 2003 and 2008 cluster as follows:

1. Perform the **Online Restore** of the active node. The active node is the the node that has the quorum disk. The cluster services become available when the quorum disk is restored.
2. Perform the Interactive or Non-Interactive Restore to recover the passive nodes in the cluster.
 - If the restored node shows unavailable in the cluster, evict and add the restored node.
 - Do not perform the authoritative restore when you are performing Offline Restore.
 - After you complete the Online or Offline Restore, do not start the authoritative restore before performing a full backup.
 - For Windows Server 2003, start the command prompt, go to the `<install directory>\base` folder and enter the following command:

```
authorutil.exe -cluster
```

RESTORE PROGRAM FILES FOR THE VIRTUAL SERVER

The cluster uses the following resources:

- Bull Calypso Communications Service
- Bull Calypso Client Event Manager

The program files required to start and run these resources must be restored to the virtual server's disk. You will need to restore the data to each virtual server using the Full System Restore of the Microsoft Windows File System *iDataAgent* restore. For more information, go to Restore Program Files for Virtual Server.

CONFIGURING WINS AND DNS DURING INTERACTIVE RESTORE

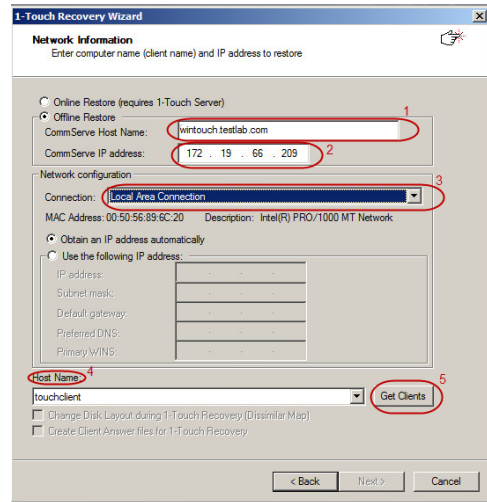
When the client computer and CommServe are in the same domain, DNS will be used for name resolution between client computer and CommServe.

WINS will be used for name resolution in the following scenarios:

- CommServe and Client computer are in different networks.
- CommServe is registered in a workgroup

During the Interactive Restore, you can configure the WINS as follows:

1. In the 1-Touch Client Recovery wizard, select **Offline Restore**.
2. Enter **CommSeve Host Name** and **IP Address**.
3. Select the Network Connection from the **Connection** drop-down combo box.
4. Select **Use the following IP address**.
5. Enter **IP address**, **Subnet mask**, **Default gateway**.
6. Enter the **DNS** in which CommServe is registered.
7. Enter the **Primary WINS**.
8. Click **Get Clients** to connect with CommServe and get the list of clients.

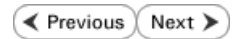


RESTORE THE TEAMING NETWORK ADAPTERS

To restore the teaming network adapter:

1. Uninstall the teaming software.
2. Restart the computer.
3. Install the teaming software to restore the teaming net.

Back to Top



Troubleshooting - 1-Touch for Windows

Deployment Configuration Recovery Troubleshooting FAQ

◀ Previous Next ▶

The following section provides information on some of the troubleshooting scenarios related to 1-Touch Recovery:

SYMPTOM/ERROR	SOLUTION
<p>A full system restore of a Microsoft Windows 2008 Server requires the administrator to provide the product license key. This message will appear on the Windows login screen after a full system recovery from a backup that contained an activated product key:</p> <p>An unauthorized change was made to Windows. You must retype your Windows Server Product Key to activate the license.</p>	<p>Provide the activated product key again in order to log in to the recovered client.</p>
<p>When you attempt to integrate a service pack into a Windows Distribution folder for a processor type, X64, IA64, etc. that does not match the version of the 1-Touch Server, the following message will appear:</p> <p>update.exe is valid, but is for a machine type other than the current machine</p>	<ol style="list-style-type: none"> Copy the Windows folder, CD-ROM or DVD to a directory. For example, from the Windows CD-ROM, copy *.* C:\winXP. Download, copy and extract the Windows Service Pack executable to the same directory. For example: copy xpsp2.exe c:\winXPSP2 c:\winXPSP2 \xpsp2.exe /u /x:C:\winXPSP2. This will extract the i386 folder into C:\winXPSP2 Update/integrate the Windows Directory with the Service Pack. For example: cd winXPSP2\UPDATES c:\winXPSP2 \UPDATES\update.exe /s:C:\winXP The slipstreamed service pack distribution can now be imported to the 1-Touch Server using the Windows Distribution.
<p>For Windows 2000, the system state restore fails.</p>	<p>If Hotfix KB828741 is in the backup, it must be applied to the target. Slipstream this fix into the Windows 2000 Distribution folder.</p> <p>Refer to KB828741 or Microsoft Security Bulletin MS04-012, "Cumulative Update for Microsoft RPC/DCOM (828741)" at http://www.microsoft.com/technet/security/bulletin/ms04-012.msp.</p>
<p>Failure during Windows Server 2003 Cluster Recovery</p>	<p>When the cluster disks are repartitioned, a failure message may appear because the disk GUIDs for the quorum have been changed.</p> <ol style="list-style-type: none"> View the System Event Log. If you see Event ID 1034 in the System Event Log, refer to the KB 305793 and KB 280425 in the Microsoft Knowledge Base articles on http://support.microsoft.com/.
<p>Windows Installation Fails for Systems using HP OEM NIC</p>	<p>For Systems using the HP OEM NIC, when boot the client using the 1-Touch Live CD, a pop-up will indicate that the network interface cards found in the computer are different from those found at backup time. This error message appears, if the backup has captured the team virtual MAC address that was set by teaming. It is a software-generated MAC address and not an actual address.</p> <ol style="list-style-type: none"> Verify or provide the correct MAC address to the NICs found in the computer. This will update the Windows unattend.txt file. Copy the updated %1-Touch Server%\ClientFiles%\%ClientName%\unattend.txt file to the %1-Touch Server%\ClientFiles%\%ClientName%\%\$OEM%\OnetouchTmp folder. Perform the Online Restore.
<p>During the mini setup stage the following error message appears:</p> <p>Windows could not complete the installation. To install Windows on this computer, restart the installation.</p>	<ol style="list-style-type: none"> Open Command Prompt Navigate to %systemdrive%\Windows\PantherF. Open diagerr.xml file. Ensure that the diagerr.xml file displays the following error message: EnableLocalUserAccount: Unable to enable local account [Administrator]; status = 0x8c5 Perform the administrator backup of the client. The mini-setup fails during the offline restore because only the administrator can run the mini-setup. Perform the offline restore.
<p>During the installation of Windows 2003, the following error appears:</p> <p>Error loading operating system.</p>	<p>Update the BIOS of the target computer</p> <p>OR</p> <ol style="list-style-type: none"> Start the Windows Distribution Manager on the 1-Touch Server. Apply the following Microsoft Hotfix:

	WindowsServer2003-KB931761-x86-ENU.exe
Windows Management Instrumentation (WMI) Service are not recovered after an Interactive or Non-interactive restore.	<p>The WMI services cannot be restored using the Interactive or Non-interactive restore method if the VSS is not enabled before performing the system state backup. For more information about enabling VSS for system state backup, refer to Configuring System State Backups.</p> <p>To restore WMI services, browse the default subclient and select WMI from the System State. For more information about Browse and Restore method, refer to Getting Started - Windows File System Restore.</p>
Interactive Restore fails if you manually reboot the client after the Calypso install.	<p>After the Calypso install, the client IP address is added to the CommServe database and when you initiate the Interactive Restore with the same IP address and hostname, the restore fails. Follow the steps given below before starting the interactive restore:</p> <ol style="list-style-type: none"> 1. From the CommCell Browser, navigate to Client Computers. 2. Identify and right-click the client and select All Tasks Release License. 3. Right-click the client and select All Tasks Delete. 4. Start the Interactive Restore.
<p>When you performing an online restore for a client that has Calypso 8.0 version, you may get the following error:</p> <p>Qlogin: Error 9x103: Invalid Login/Password. Logon Failed.</p>	<p>When you are recovering the 8.0 client, you must provide the CommCell Console username and password in the answer file. The single signon feature is not available for 8.0 clients and the user account credentials of the domain cannot be used during the Online Restore. Follow the steps given below to avoid this error:</p> <ol style="list-style-type: none"> 1. Before starting the recovery of an 8.0 client, create a CommCell user account with an administrative privileges. 2. From the 1-Touch Server, create an answer file for the client and enter the CommCell username and password. 3. Perform the Online Restore using the modified answer file.
<p>During the Offline Restore the CommCell Console displays the following message:</p> <p>Please check the Windows Server service. Windows share permissions will not be backed up or restored. [[2114] The Server service is not started.</p>	<p>This message appears because Windows is not running on the target computer. The Share permissions will be restored automatically during the Offline Restore. You can ignore this error message.</p>
Distributed Component Object Model (DCOM) component appears disabled after the 1-Touch restore of the client computer.	<p>Run the following command from the command prompt on the client computer after 1-Touch restore is complete:</p> <pre>%windir%\system32\msdtc.exe -resetLog</pre>
Microsoft Distributed Transaction Coordinator (DTC) Service does not start after 1-Touch Recovery.	<p>Follow the steps given below to restart the Microsoft Distributed Transaction Coordinator (DTC) Service:</p> <ol style="list-style-type: none"> 1. Navigate to the following folder: <pre>%SystemRoot%\System32\Dtclog</pre> <p>If the <code>Dtclog</code> folder does not exist, create the folder.</p> 2. Check if a <code>Msdtc.log</code> file exists and rename it to <code>Msdtc.old</code>. 3. Create a new <code>Msdtc.log</code> file using Notepad and save it at the following location: <pre>%SystemRoot%\System32\Dtclog</pre> 4. Open the command prompt and enter the following command: <pre>msdtc -resetlog</pre>
1-Touch Client does not reboot automatically after the full system restore.	<p>If the client computer has 2 disks, the disk drive numbers may not correspond as expected during the full system restore. As a result, the system disk will be restored as a second disk and client computer fails to reboot. For more information about issues in disk enumeration, refer to http://support.microsoft.com/kb/937251.</p> <p>Change the order of the disks from the BIOS Settings after the restore completes.</p>
Full System Restore goes to pending state during 1-Touch Recovery of Windows XP SP2.	<p>If the 1-Touch client has Windows XP Service Pack 2 (SP2) installed on it, Windows Firewall is turned on by default. A full <code>iDataAgent</code> Restore job will go to a pending state if the client firewall is turned on.</p> <p>When the job state goes to pending perform the following:</p> <ol style="list-style-type: none"> 1. On the command line, type CTRL+C and press Enter. 2. Turn off the firewall on the client. 3. Resume the job from the CommCell Console. <p>The restore operation will recover the firewall settings from the backup data.</p> <p>You can view the firewall settings on the client computer:</p> <ol style="list-style-type: none"> 1. Click Start and then click Control Panel. 2. In the Control Panel, click Windows Security Center and then click Windows Firewall.
Windows File System <code>iDataAgent</code> install fails during the Online Restore	<p>The Online Restore process installs the Windows File System <code>iDataAgent</code> software in silent mode, and a silent mode install of this <code>iDataAgent</code> supports only the defined default port numbers.</p> <p>If the Windows File System <code>iDataAgent</code> software was installed on the client using port numbers other than the default port numbers (8400, 8402), the silent install of this <code>iDataAgent</code> may fail.</p>

	<p>If this occurs, install the Windows File System iDataAgent software and run fullida.bat on the client to continue with the recovery. The fullida.bat is located in C:\onetouchtemp\ folder on the client computer.</p>
<p>While creating Live CD, you may get following error: Could not contact server, AttachPreInstall failed.</p>	<p>This error appears because the network card without an IP has got more priority in the 1-Touch server. Follow the steps given below to change the priority of the NIC card:</p> <ol style="list-style-type: none"> 1. Click Start Run. 2. Type <code>ncpa.cpl</code> and then click OK. You can see the available connections in the LAN and High-Speed Internet section of the Network Connections window. 3. On the Advanced menu, click Advanced Settings, and then click the Adapters and Bindings tab. 4. In the Connections area, select the connection that you want to move higher in the list. 5. Use the arrow buttons to move the connection.
<p>1-Touch Restore Fails with the following Error: Windows returned no error string for error 8004240f</p>	<p>You will get this error when a new partition cannot be created on the unused space on a disk. Ensure that the specified partition size is smaller than the current partition size. You can manually decrease the size during disk creation by selecting the Dissimilar Disk Mapping option.</p> <p>For more information refer to following links:</p> <ul style="list-style-type: none"> • Dissimilar Disk Mapping - Dissimilar Disk Restore • VDS Errors - http://msdn.microsoft.com/en-us/library/dd208031.aspx

Frequently Asked Questions - 1-Touch Windows

Deployment Configuration Recovery Troubleshooting FAQ

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CAN I CONVERT A CLIENT COMPUTER INTO A VIRTUAL MACHINE?

Yes. When a CommServe is connected to an ESX server, you can convert a physical machine (computer) into a virtual machine using the 1-Touch backup data. You can also modify the hardware and network configuration of the client while converting it into a virtual machine. For more information, refer to Virtualize Me - Getting Started.

CAN I CONVERT A VIRTUAL MACHINE INTO A PHYSICAL MACHINE?

Yes. Follow the steps given below to convert a virtual machine into a physical machine:

1. Ensure that you have enabled 1-Touch backup on the virtual machine and you have performed at least one full backup.
2. Create a response file for the virtual machine and perform the Non-Interactive Restore using the response file.

For more information about creating response file for a Windows machine, refer to Non-Interactive Restore.

For more information about creating response file for a Linux machine, refer to Non-Interactive Restore.

During Non interactive restore, copy the response file on a USB drive and connect the USB drive to a physical machine.

HOW TO ADD 1-TOUCH ISO IMAGE TO A PXE SERVER

1. Create the 1-Touch ISO image using the **1-Touch Boot CD Wizard**.
2. Configure the PXE Server and add the 1-TOUCH ISO image to it.
3. Use a remote monitoring console to start the client and select a PXE boot.
4. Change the CMOS boot sequence to boot from the hard disk.
5. Perform the Offline or Online Restore.
6. Once the restore completes, set the CMOS back to PXE or the preferred boot method.

HOW TO ADD THE BROADCOM NETXTREME II DRIVER TO AN ANSWER FILE

1. Gather the following Broadcom Netxtreme II NIC drivers:
 - `bxnd52x.sys` (for the Windows install)
 - `bxvbdx.sys` (for the Windows install)
 - `b06nd51x.sys` (for the 1-Touch boot CD and RIS Driver)
2. Add any Mass Storage Drivers needed for the Windows installation to the answer file. For example: `percsas.sys` or `mraid32.sys`.
3. Add the following NIC Drivers to the answer file:
 - `BXBVD.INF`
 - `BXND.INF`

4. Create a batch file with the following contents for the NetxTremeII driver:

```
c:\onetouchtmp\netset c:\onetouchtmp\unattend.txt
```

When you run this batch file, NetxTremeII driver will be able to set static IP addresses during installation

5. Create a master batch file that contains the following batch file names and paths:

```
Master.bat:
```

```
Call "C:\OneTouchTmp\netxtremeII2.bat"
```

```
Call "C:\OneTouchTmp\mapshare.bat"
```

```
Call "C:\OneTouchTmp\afterBoot.bat"
```

6. Add the name and path of the master batch file in the `unattend.txt` file located at `Clientfiles\%clientname%`. The contents of the `unattend.txt` file will look as follows:

```
[GuiRunOnce]
```

```
Command0="C:\OneTouchTmp\MASTER.bat"
```

7. Copy the following files to `Clientfiles\%clientname%\OEM\$1\OneTouchTmp:`

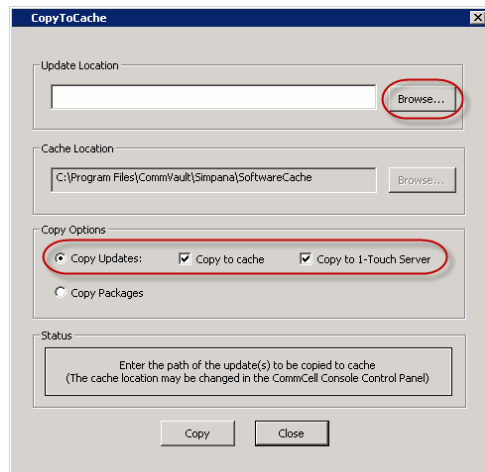
- netXtremeII2.bat
- netset.exe (provided by Microsoft)
- unattend.txt (from Clientfiles\%Clientname%)

8. Add NetXtreme II RIS driver (B06ND.INF) to the 1-Touch ISO image.

When you are importing the RIS driver to the Boot CD Image, remove any Broadcom non-RIS drivers from the image. Otherwise, the non-RIS driver will be found at the boot and it will not connect.

HOW CAN I MANUALLY ADD SOFTWARE UPDATES TO 1-TOUCH SERVER CACHE?

1. Login to 1-Touch Server.
2. Navigate to <software_install_directory>/Base/
3. Double-click CopyToCache.exe.
4. Enter or **Browse** to the location where updates are available.
5. Select **Copy to Cache** to copy the updates to CommServe Updates Cache
6. Select **Copy to 1-Touch** to copy the updates to 1-Touch Server Updates Cache.
7. Click **Copy** to start the copying process.



AFTER PERFORMING 1-TOUCH BACKUP, I UPGRADED THE CALYPSO VERSION. CAN I USE THE BACKUP PERFORMED BEFORE THE UPGRADE FOR 1-TOUCH RECOVERY?

If the Calypso version or update level on the client computer is different from that for the Calypso software on the backup date, then consider the following before performing the 1-Touch recovery:

- Online Restore – You must exclude the Calypso folder while performing the Online Restore. This will prevent any older versions of the binaries from being restored.
- Interactive Restore – You must perform the backup on the client computer after the upgrade and then perform the Interactive Restore.

CAN I USE CLIENT PREPARATION WIZARD TO ADD SERVICE PACKS TO WINDOWS VISTA AND WINDOWS 2008?

No. You cannot add service packs to Windows Vista and Windows 2008 using Client Preparation Wizard. For unsupported deployment scenarios, Microsoft KB recommends to obtain the Windows Service Pack media directly from Microsoft. Refer to <http://support.microsoft.com/default.aspx/kb/951035/>

CAN I INSTALL WINDOWS ON ANY DRIVE OF THE CLIENT COMPUTER?

1-Touch recovery may fail if the client computer has following configurations:

- Windows XP or Windows 2003 is installed on a drive other than the C drive.
- Drive letters up to and including Windows drive are not in order. For example:

```
C:, E:\Windows; D:
```

```
C:, F:, G:\Windows
```

- Drive letters up to and including the Windows (boot) drive are in order, but one letter is assigned to the installation disk drive. For example:

```
C:, D:(Installation Disk); E:\Windows\
```

- Drive letters up to and including the Windows (boot) drive are in order, but Windows is installed on a disk other than the first disk that is controlled by a second disk controller. For example:

```
d1 controller1 C:, D:, E:,
```

```
d2 controller2 F:\Windows
```

A maximum of 19 partitions per computer can be used. Also, drive letters W:, X:, Y:, and Z: must not be assigned within the computer.

CAN I PERFORM 1-TOUCH RECOVERY OF A WINDOWS XP CLIENT WHICH HAS DYNAMIC DISKS?

You can perform the 1-Touch recovery of the Windows XP client if the system disk is not a dynamic disk. If the system drive is on a dynamic disk, perform one of the following:

- Select Recreate all disks option during 1-Touch Recovery. This option will recreate and restore the disk type as basic. All simple volumes on the disk will be created as basic partitions.
- Select Dissimilar Disk Mapping option during 1-Touch Recovery. Initialize the disk and map the partitions and disk as basic. The data will restore to a basic disk.

After the 1-Touch recovery is complete, the data is restored and the computer is restarted, use Disk Manager in Windows to manually convert the basic disk to dynamic. Basic partitions will be converted to simple once the disk is converted from basic to dynamic.

1-Touch recovery is not supported if the dynamic system disk has additional RAID volumes on the system disk. RAID volumes must be mapped as basic partitions after converting system disks to dynamic disks.

CAN I SELECT FORMAT SYSTEM DRIVE OPTION DURING ONLINE OR INTERACTIVE RESTORE?

You can select the **Format System Drive** option during the Online or Interactive Restore. Before selection this option, ensure that Calypso is installed on the system drive. If Calypso is installed on any drive other than the system drive, select the **Similar Disk Mapping** or **Dissimilar Disk Mapping** option.

CAN I PERFORM 1-TOUCH RECOVERY IF THE CLIENT AND THE COMMSERVE ARE SEPARATED BY A FIREWALL?

No. You cannot perform 1-Touch Recovery (Interactive, Non-Interactive, or Online Restore) when firewall is configured between the client and the CommServe.

CAN I PERFORM 1-TOUCH RECOVERY IF THERE IS A PORT RESTRICTION BETWEEN THE CLIENT AND THE MEDIAAGENT?

No. You cannot perform 1-Touch Recovery (Interactive, Non-Interactive, or Online Restore) when there is a port restriction between the client computer and the MediaAgent.

CAN I PERFORM 1-TOUCH RECOVERY OF A CLIENT COMPUTER WITH UEFI?

No. 1-Touch Recovery is not supported if the client computer is configured with UEFI or EFI BIOS.

CAN I PERFORM 1-TOUCH RECOVERY OF THE DATA WHICH IS ENCRYPTED USING THE MCAFEE ENDPOINT ENCRYPTION?

No. If the data on a client computer is encrypted using the McAfee Endpoint Encryption, 1-Touch recovery is not supported.

WHICH SUBCLIENT CAN BE USED TO PERFORM THE BACKUP OF THE MACHINE?

If you want to perform the non-interactive restore, you must use default subclient in the default backupset to perform the 1-Touch or system state backup of the client computer. Any other subclient or backup set is not supported for Non-Interactive Restore.

