

# Features - SRM UNIX File System Agent

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# Overview - SRM UNIX File System Agent

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## INTRODUCTION

The SRM UNIX File System Agent gathers statistics on the disk and file system assets attached to the local computer.

Data collected by the SRM UNIX File System Agent is summarized by many types of reports that may be further customized with user-selected filters and charts in the Report Manager.

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## WHAT IS SUPPORTED

The SRM UNIX File System Agent for UNIX File System support the file system types listed in the following table:

SUPPORTED FILE SYSTEM(S)	SRM UNIX FILE SYSTEM AGENT NAME
Extent 2 File System (ext2)	Linux
Extent 3 File System (ext3)	Linux
Hierarchical File System (HFS)	HP-UX
Journal File System (JFS)	AIX
Journal File System 2 (JFS2)	AIX
Reiser File System (reiserfs)	Linux
Unix File System (UFS)	All except AIX
VERITAS File System (VxFS)	HP-UX, Solaris, AIX
Virtual File Allocation Table (VFAT)	Linux
'X' File System (XFS)	Linux
Zettabyte File System (ZFS)	Solaris

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## SUPPORTED JOB TYPES FOR DATA COLLECTION

This agent supports two **job types** for data collection:

- Discovery
- Discovery and Analysis

### DISCOVERY JOB

This job collects basic information about disks, partitions, file systems, and shares that are present, their current sizes, and available free space. Collections using the Discovery Data Collection jobs require minimal processing on the UNIX client computer and may be run throughout the day. But a Discovery data collection will not provide all of the required data for some of the more detailed reports.

### DISCOVERY AND ANALYSIS

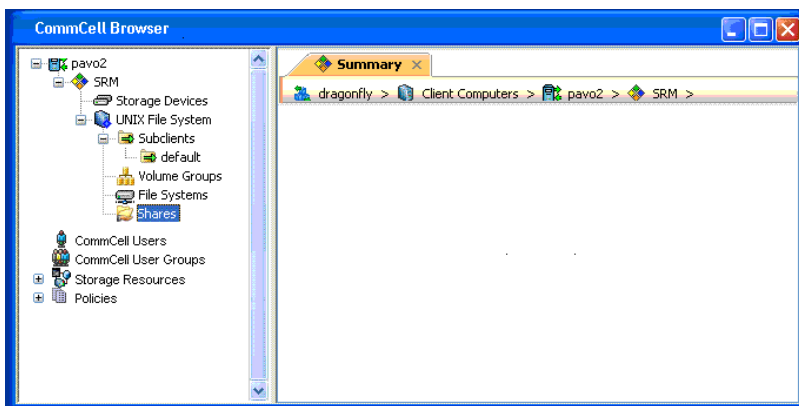
This job collects detailed file-level statistics, including information about file sizes, types, owners, and access and modification times. Collections using the Analysis Data Collection jobs should be run during off-peak hours because they require processing that is CPU- and disk-intensive on the UNIX client computer.

See Reports - SRM UNIX File System Agent to see which reports require Analysis level data collection.

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## TREE LEVEL IN SRM UNIX FILE SYSTEM AGENT

When the SRM UNIX File System Agent is installed, the following levels are automatically created in the CommCell Browser.



pavo2: Client

UNIX File System: Agent

default: Subclients

Storage Devices: Storage Devices

Volume Groups: This level displays volume groups information for the SRM UNIX File System Agent's client computer. Logical volumes associated with the client computer are populated under this level after completion of the first Data Collection operation. For more information, see SRM UNIX File System Agent Summaries.

File Systems: This level displays file systems information for the SRM UNIX File System Agent's client computer. UNIX files and directories associated with the client computer are populated under this level after completion of the first Data Collection operation. For more information, see SRM UNIX File System Agent Summaries.

Shares: This level displays shares related information for the SRM UNIX File System Agent's client computer. CIFS Shares associated with the client computer are populated under this level after completion of the first Data Collection operation. For more information, see SRM UNIX File System Agent Summaries.

## LICENSE REQUIREMENT

To perform a data collection operation using this Agent, you need a SRM UNIX File System Agent license, available in the SRM server. This license is consumed when you install the Agent. See License Administration for more details on license requirements.

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# System Requirements - SRM UNIX File System Agent

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

The following requirements are for the SRM UNIX File System Agent for UNIX file system.

OPERATING SYSTEM		PROCESSOR
<b>AIX</b>	AIX 6.1 64-bit	Power PC (Includes IBM System p)
	AIX 5.3 32-bit and 64-bit with technology level 7 (or higher) and runtime library xLC.rte 8.0.0.0 or higher Note that all AIX platforms support Logical Partitions (LPAR).	Power PC (Includes IBM System p)
<b>HP-UX</b>	HP-UX 11i v3 (11.31)	Itanium
	HP-UX 11i v3 (11.31)	PA-RISC
	HP-UX 11i v2 (11.23)	PA-RISC
	HP-UX 11i v2 (11.23)	Itanium
	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)	PA-RISC
<b>LINUX</b>	<b>DEBIAN</b>	
	Debian 5.x with glibc 2.7.x	Intel Pentium, x64 or compatible processors
	<b>MANDRIVA</b>	
	Mandriva Linux 2009 with glibc 2.9.x	Intel Pentium, x64 or compatible processors
	<b>RED HAT ENTERPRISE LINUX/CENTOS</b>	
	Red Hat Enterprise Linux/CentOS 4.x with a minimum of glibc 2.3.4	Intel Pentium, Itanium, x64 or compatible processors
	<b>SUSE LINUX (SLES)</b>	
	SuSE Linux 10.x with glibc 2.4.x	Intel Pentium, Itanium, x64 or compatible processors
	<b>UBUNTU</b>	
	Ubuntu 9.04	Intel Pentium, x64 or compatible processors
	Ubuntu 8.10	Intel Pentium, x64 or compatible processors
<b>SOLARIS</b>	Solaris 9	Sparc5 or higher recommended
	Solaris 10.x with a minimum of SunOS (Sparc) Patch 119963-14	Sparc5 or higher recommended

## CLUSTER - SUPPORT

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

For information on supported cluster types, see [Clustering - Support](#).

## HARD DRIVE

220 MB minimum of hard disk space for software

100 MB of additional hard disk space for log file growth

20 MB of temp space required for install or upgrade (where the `temp` folder resides)

## MEMORY

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

Swap space = 2\*RAM size

## SOLARIS ZONES/CONTAINERS SUPPORT

Data Protection of data residing on global and non-global zones is supported.

For a comprehensive list of supported components, see Unix Virtualization.

## AIX LPAR/WPAR SUPPORT

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

## PERIPHERALS

DVD-ROM drive

Network Interface Card

## MISCELLANEOUS

### NETWORK

TCP/IP Services configured on the computer.

The operating system must have been installed with at least the `user level software` option selected.

The SRM UNIX File System Agent for UNIX File System support the file system types listed in the following table:

SUPPORTED FILE SYSTEM(S)	SRM UNIX FILE SYSTEM AGENT NAME
Extent 2 File System (ext2)	Linux
Extent 3 File System (ext3)	Linux
Extent 3 File System (ext4)	Linux
Hierarchical File System (HFS)	HP-UX
Journal File System (JFS)	AIX
Journal File System 2 (JFS2)	AIX
Reiser File System (reiserfs)	Linux
Unix File System (UFS)	Solaris
VERITAS File System (VxFS)	HP-UX, Solaris, AIX
Virtual File Allocation Table (VFAT)	Linux
'X' File System (XFS)	Linux
Zettabyte File System (ZFS)	Solaris

### SELINUX

If you have SELinux enabled on the client computer, create the SELinux policy module as a root user before performing a backup. The SELinux Development package must be installed on the client.

To create an SELinux policy module, perform the following steps as user "root":

1. Create the following files in the `/usr/share/selinux/devel` directory:

File Name	Content of the File
<pre>&lt;directory&gt;/&lt;file_name&gt;.te</pre> <p>where:</p> <pre>&lt;directory&gt; is /usr/share/selinux/devel</pre> <p>&lt;file_name&gt; is the name of the Unix file, created to save the policy module statement. It is a good idea to use the same name for policy module and the file.</p> <p>For example: When you are creating a policy module for backup_IDA application, you can use the following file name: backup_IDA.te</p>	<p>The content of the file should be as follows:</p> <pre>policy_module(&lt;name&gt;,&lt;version&gt;)</pre> <pre>#####</pre> <p>where:</p> <p>&lt;name&gt; is the name of the policy module. You can give any unique name to the policy module, such as a process or application name.</p> <p>&lt;version&gt; is the version of the policy module. It can be any number, such as 1.0.0.</p> <p>For Example: While creating a policy module for the backup_IDA application, you can use the following content.</p> <pre>policy_module(backup_IDA,1.0.0)</pre>
<pre>&lt;directory&gt;/&lt;file_name&gt;.fc</pre> <p>where:</p> <pre>&lt;directory&gt; is /usr/share/selinux/devel</pre> <p>&lt;file_name&gt; is the name of the Unix file, created to save the policy module statement. It is a good idea to use the same</p>	<p>The content of the file should be as follows:</p> <p>Note that the following list of files is not exhaustive. If the process fails to launch, check <code>/var/log/messages</code>. Also, if required, add it to the following list of files.</p> <pre>/opt/&lt;software installation directory&gt;/Base/libCTreeWrapper.so -- gen_context (system_u:object_r:texrel_shlib_t,s0)</pre> <pre>/opt/&lt;software installation directory&gt;/Base/libCVMAGuiImplgso -- gen_context</pre>

<p>name for policy module and the file.</p> <p>For example: When you are creating a policy module for backup_IDA application, you can use the following file name: backup_IDA.fc</p>	<pre>(system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libdb2locale.so.1 -- gen_context (system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libdb2osse.so.1 -- gen_context (system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libDb2Sbt.so -- gen_context (system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libdb2trcapi.so.1 -- gen_context (system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libDrDatabase.so -- gen_context (system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libIndexing.so -- gen_context (system_u:object_r:texrel_shlib_t,s0) /opt/&lt;software installation directory&gt;/Base/libSnooper.so -- gen_context (system_u:object_r:texrel_shlib_t,s0)</pre>
--	--

2. Create the policy file from command line. Use the following command. Ensure that you give the following commands in the `/usr/share/selinux/devel` directory.

```
[root]# make backup_IDA.pp
Compiling targeted backup_IDA module
/usr/bin/checkmodule: loading policy configuration from tmp/backup_IDA.tmp
/usr/bin/checkmodule: policy configuration loaded
/usr/bin/checkmodule: writing binary representation (version 6) to tmp/backup_IDA.mod
Creating targeted backup_IDA.pp policy package
rm tmp/backup_IDA.mod tmp/backup_IDA.mod.fc
[root]# semodule -i backup_IDA.pp
[root]#
```

3. Execute the policy module. Use the following command:

```
[root]# restorecon -R /opt/<software installation directory>
```

SELinux is now configured to work with this application.

#### 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

# Install the SRM Unix File System Agent

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### Before You Begin

### Install Procedure

- Getting Started
- Select Components for Installation
- Base Software Installation
- Setup Complete

### Post-Install Considerations

## WHERE TO INSTALL

### INSTALLING ON A GLOBAL ZONE OR UNIX SERVER

Install the software directly on the computer hosting the global zone or the Unix Server that you wish to protect. Make sure the computer satisfies the minimum requirements specified in the System Requirements.

### INSTALLING ON A NON-GLOBAL ZONE

Install the software on each of the non-global zones where you have application data.

Verify that the computer in which you wish to install the software satisfies the minimum requirements specified in System Requirements - SRM Unix File System Agent.

It is recommended to install the software on the global zone to protect non-changing or static data on non-global zones. If the data is dynamic or contains application data, install the software on the non-global zone.

## INSTALL REQUIREMENTS

The SRM Unix File System Agent is installed on the computer from which the Agent collects data for reporting purposes. (This computer is referred to as the *Client* computer in this install procedure.)

The following procedure describes the steps involved in installing the SRM UNIX File System Agent. If you choose to install additional components simultaneously, refer to the appropriate procedures for installation requirements and steps specific to the component. Note that when you install multiple components, the sequence of the install steps may vary.

Review the following Install Requirements before installing the software:

### GENERAL

- Agents should be installed only after the CommServe and SRM Server has been installed in the CommCell. Also, keep in mind that the CommServe and SRM Server must be installed and running (on the same computer), before you can install the Agent.
- Close all applications and disable any programs that run automatically, including anti-virus, screen savers and operating system utilities. Some of the programs, including many anti-virus programs, may be running as a service. Stop and disable such services before you begin. You can re-enable them after the installation.
- Ensure there is an available license on the CommServe for the Agent.
- Verify that you have the software installation disc that is appropriate to the destination computer's operating system.  
Make sure that you have the latest software installation disc before you start to install the software. If you are not sure, contact your software provider.

### MULTI INSTANCING

- By utilizing the Multi Instancing feature, the same Agent and MediaAgent software can be installed on a computer multiple times, but not all components support Multi Instancing. This limitation can apply to the component you are installing, or to one already installed on the computer. Prior to installing multiple instances of a software component on the same computer, carefully review the information contained in Multi Instancing, and follow the instructions in the How to Use Multi Instancing section for the additional screens that will appear during the installation process.

### AGENT SPECIFIC

#### PACKAGE MANAGEMENT SYSTEMS

You can use the Red Hat Package Manager (RPM) package management system to install all Linux versions of the agent. Also, you can use the Advanced Packaging Tool (APT) package management system to install all Debian Linux versions of the agent. For step-by-step instructions, see Base Software Install for RPM Package Manager and Base Software Install for APT Package Manager.

### AIX

If you are installing on an AIX computer, and if you have a dual-layer DVD, be sure to issue the following command from the command line to mount the DVD:

```
/usr/sbin/mount -v 'cdrfs' -f'' -p'' -r'' /dev/cd0 /mnt
```

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## HP-UX

If you are installing on an HP-UX computer, you must manually mount the installation disc as described in Mount the Software Installation Disc.

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## RED HAT LINUX

Red Hat Linux will create an entry in the `/etc/hosts` file when it is first installed, in the following format:

```
<ip_address> <host name> localhost
```

For example, if the host name of your computer is `bluesky`, the entry will look something like this:

```
192.168.1.111 bluesky localhost
```

If you have not already done so, edit the `/etc/hosts` file. The edited entry should look like this:

```
127.0.0.1 localhost
```

Depending upon your environment, and using the above example again, you may also need an entry similar to this:

```
192.168.1.111 bluesky
```

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## UBUNTU LINUX

Before installing the software on Ubuntu Linux systems, be sure to install the `binutils` package by running the `apt-get install binutils` command as root.

## BEFORE YOU BEGIN

- Log on to the client as `root`.
- The install package requires `super-user` permissions to execute.

## INSTALL PROCEDURE

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### GETTING STARTED

1. If you are installing the software on a global zone or Unix Server, do the following: Place the software installation disc for the Unix platform into the disc drive.

You can also install the product using a disc drive mounted on another computer on the network.

- On Solaris, double-click the `cvpkgadd` program from the File Manager window.
- On other Unix platforms, open the Terminal window, navigate to the software installation disc and then enter `./cvpkgadd`.

If you are installing the software on a non-global zone, do the following:

- Mount the installation disc on the non-global zone.

```
mkdir <Non-Global Zone root location>/<Non-Global Zone local directory>
mount -F lofs <Global zone software Install Disc mount point> <Non-Global Zone root location>/<Non-Global Zone local directory>
```

Connect to Non-Global Zone terminal

- Run the following command from the Software Installation Disc:

```
./cvpkgadd
```

2. The product banner and other information is displayed.  
Press **Enter** to continue.
3. Read the license agreement. Type **y** and press **Enter** to continue.
4. Enter the number corresponding to the setup task you want to perform.

#### NOTES

- For Install data protection agents on this computer option, follow the steps described in this procedure.
- Advance options provide additional setup features such as record and play setup, creating a custom package and External Data Connector Agent software.

To create a custom package and for record and play setup, follow the steps described in Custom Package - Unix.

To install the External Data Connector Agent, follow the steps described in External Data Connector - Unix.

5. If your computer is 32-bit, 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]
```

```
This machine supports both 32 bit and 64 bit binaries. By default, we will install 32 bit binary set that has full
```



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

6. This prompt is displayed only when you are installing on AIX, HP-UX, Linux, or Solaris computers.

Press **Enter** to continue

**NOTES**

- When you install on non-clustered computer, you must select the number associated with the option **Install on a physical machine**.

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 number corresponding to the network interface that you wish to use as default, and then press **Enter** to continue.

**NOTES**

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

8. Specify the client name for the computer.

Press **Enter** to accept the default name and continue, or Enter a new client name for the computer and then press **Enter** to continue.

support for all the modules included in this package. Please note that 64 bit binary set currently only support limited modules.

- 1) All platforms (32 bit)
- 2) FS and MA only (64 bit)

Your choice: [1]

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 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]

**SELECT COMPONENTS FOR INSTALLATION**

9. Enter the number corresponding to the **CVGxSRM** module.

**NOTES**

- Your screen may look different from the example shown.
- Components that either have already been installed, or which cannot be installed, will not be shown.

Press **Enter** to continue.

Install Calypso on physical machine client.company.com

Select the Calypso module that you would like to install

- [ ] 1) Media Agent [1301] [CVGxMA]
  - [ ] 2) FileSystem IDA [1101] [CVGxIDA]
- >) >>>> NEXT PAGE >>>>>

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

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

**BASE SOFTWARE INSTALLATION**

10. If you wish to install the agent software for restore only, enter **Yes** and press **Enter** to continue. See Installing Restore Only Agents for more information.

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

Otherwise, accept **no**, press **Enter** to continue.

11. Type the appropriate number to install the latest software scripts and press **Enter** to continue.

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

**NOTES**

- Select **Download from the software provider website** to download the latest software scripts from your software provider website. Make sure you have internet connectivity when you are using this option.
- Select **Use the one in the installation media**, to install the software scripts from the disc or share from which the installation is 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.

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

12. Enter **Yes** to download and install the latest service packs and post packs from the software provider.

Keep Your Install Up to Date - Latest Service Pack  
Latest Service Pack provides extra functions and latest

**NOTES**

- Internet connectivity is required to download updates.
- This step is applicable for multi instancing.

Press **Enter** to continue.

13. Specify the location where you want to install the software.

**NOTES**

- The amount of free space required depends on the components selected for install, and may look different from the example shown.

Press **Enter** to accept the default path and continue, or Enter a path and then press **Enter** to continue.

Press **Enter** again to confirm the path.

14. Specify the location for the log files.

**NOTES**

- All the modules installed on the computer will store the log files in this directory.
- The amount of free space required depends on the components selected for install, and may look different from the example shown.

Press **Enter** to accept the default path and continue, or Enter a path and then press **Enter** to continue.

Press **Enter** again to confirm the path.

15. Indicate whether you would like to launch processes with inherent database access rights.

Press **Enter** to assign a new group, or Type **No** and then press **Enter** to continue.

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** to continue.

Press **Enter** again to continue.

For installs on a Solaris computer, proceed to the next step. Otherwise, skip to Setup Complete.

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**.

**NOTES**

- For more information about Network TCP Ports, see Network TCP Port Requirements.
- For more information about these services, see Services.
- If the port number you entered already exists, a message will be displayed `Port ### is already reserved in /etc/services. To work around this issue, enter different port number.`

18. If this computer and the CommServe is separated by a firewall, type **Yes** and then press **Enter** to continue.

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]  
Press <ENTER> to continue ...

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]

..

Calypso will be installed in /opt/calypso.  
Press ENTER to continue ...

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]

..

Calypso log files will be created in /var/log/calypso/Log\_Files.  
Press ENTER to continue ...

Most of Calypso 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.

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 Calypso processes, all temporary and configuration files will be created with -rw-rw-rw permissions.

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

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

Please enter the name of the group which will be assigned to all Calypso files and on behalf of which all Calypso 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: dba

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 "dba".  
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 : [8600]

Port Number for EvMgrC: [8602]

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

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

If you do not wish to configure the firewall services, type **No** and then press **Enter** to continue.

19. Type the name of the CommServe computer and press **Enter** to continue.

#### NOTES

- Ensure that the CommServe is accessible before typing the name; otherwise the installation will fail.
- If you enter a short name which resolves to the same IP address as the fully qualified CommServe name, you will be asked if you would prefer to use the fully qualified name.

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:

## SETUP COMPLETE

20. Press **Enter** to continue.

#### NOTES

- Schedules help ensure that the data protection operations for the Agent are automatically performed on a regular basis without user intervention. For more information, see Scheduling.

+-----+

#### IMPORTANT:

In addition to installing Calypso on this computer, you will also need to create a Job Schedule for each iDataAgent that has been installed on this client computer.

Job Schedules are required to allow the Calypso iDataAgents to perform automated backup and restore operations.

Job Schedule creation can be accomplished through the Calypso CommCell Console administration interface.

+-----+

Successfully installed CVGxSRM.  
Press ENTER to continue ...

21. This menu may be displayed only when you are installing on HP-UX, Linux, or Solaris computers. If this is the last package that you wish to install/upgrade, enter the number corresponding to the **Exit** option and then press **Enter** to continue.

#### NOTES

- Only modules that are not installed/upgraded appear in the list.
- Your screen may appear different from the example shown.
- If you are installing on AIX, FreeBSD, IRIX or Tru64 computers, if this module was the last possible module to install, you are automatically exited from the program. Otherwise, type the number for the **Exit** option and then press **Enter**. The installation is completed.

Select the Calypso module that you would like to install.

- 1) FileSystem iDataAgent
- 2) Exit

Module number: [1]

22. This prompt is displayed only when you are installing on HP-UX, Linux, or Solaris computers. Enter the number corresponding to the **Exit** option and then press **Enter** to continue.

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 stone.company.com.

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

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

Your choice: [1]

## POST-INSTALL CONSIDERATIONS

### GENERAL

Install post-release updates or Service Packs that may have been released after the release of the software. When you are installing a Service Pack, ensure that it is the same version as the one installed in the CommServe Server. Alternatively, you can enable Automatic Updates for quick and easy installation of updates in the CommCell component.

### AGENT SPECIFIC

- For the AIX, HP-UX, Linux and Solaris SRM Agents, a registry key is available to allow you to define where core files will be generated in the unlikely event of an application process crash. Generating core files in file systems other than root will help maintain system integrity. Refer to dCOREDIR for information about implementing this registry key.

- To run Backup or Data Collection job successfully when this Agent is installed on a freshly installed Linux computer that has SELinux enabled, set SELinux enforcing to 0 as `/usr/sbin/setenforce 0`.

# Install the SRM UNIX File System Agent - Clustered Environment

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#### Before You Begin

#### Install Procedure

- Getting Started
- Cluster Selection
- Select Components for Installation
- Base Software Installation
- Setup Complete

#### Post-Install Considerations

## INSTALL REQUIREMENTS

The SRM Unix File System Agent in a SRM Unix cluster is installed on the computer from which the Agent collects data for reporting purposes. (This computer is referred to as the *Client* computer in this install procedure.)

Verify that the computer in which you wish to install the software satisfies the minimum requirements specified in System Requirements - SRM Unix File System Agent.

The following procedure describes the steps involved in installing the SRM Unix File System Agent on a Unix Cluster. If you choose to install additional components simultaneously, refer to the appropriate procedures for installation requirements and steps specific to the component. Note that when you install multiple components, the sequence of the install steps may vary.

Review the following Install Requirements before installing the software:

### GENERAL

- Agents should be installed only after the CommServe and SRM Server has been installed in the CommCell. Also, keep in mind that the CommServe and SRM Server must be installed and running (on the same computer), before you can install the Agent.
- Close all applications and disable any programs that run automatically, including anti-virus, screen savers and operating system utilities. Some of the programs, including many anti-virus programs, may be running as a service. Stop and disable such services before you begin. You can re-enable them after the installation.
- Ensure there is an available license on the CommServe for the Agent.
- Verify that you have the software installation disc that is appropriate to the destination computer's operating system.

Make sure that you have the latest software installation disc before you start to install the software. If you are not sure, contact your software provider.

### MULTI INSTANCING

- By utilizing the Multi Instancing feature, the same Agent and MediaAgent software can be installed on a computer multiple times, but not all components support Multi Instancing. This limitation can apply to the component you are installing, or to one already installed on the computer. Prior to installing multiple instances of a software component on the same computer, carefully review the information contained in Multi Instancing, and follow the instructions in the How to Use Multi Instancing section for the additional screens that will appear during the installation process.

### PACKAGE MANAGEMENT SYSTEMS

You can use the Red Hat Package Manager (RPM) package management system to install all Linux versions of the agent. Also, you can use the Advanced Packaging Tool (APT) package management system to install all Debian Linux versions of the agent. For step-by-step instructions, see Base Software Install for RPM Package Manager and Base Software Install for APT Package Manager.

### AIX

If you are installing on an AIX computer, and if you have a dual-layer DVD, be sure to issue the following command from the command line to mount the DVD:

```
/usr/sbin/mount -v 'cdrfs' -f'' -p'' -r'' /dev/cd0 /mnt
```

### HP-UX

If you are installing on an HP-UX computer, you must manually mount the installation disc as described in Mount the Software Installation Disc.

### RED HAT LINUX

Red Hat Linux will create an entry in the `/etc/hosts` file when it is first installed, in the following format:

```
<ip_address> <host name> localhost
```

For example, if the host name of your computer is `bluesky`, the entry will look something like this:

```
192.168.1.111 bluesky localhost
```

If you have not already done so, edit the `/etc/hosts` file. The edited entry should look like this:

```
127.0.0.1 localhost
```

Depending upon your environment, and using the above example again, you may also need an entry similar to this:

```
192.168.1.111 bluesky
```

---

## SOLARIS

If you are installing the Solaris 10 version of the Solaris File System `/DataAgent`, be sure to install the `/DataAgent` on the global zone. This will allow you to back up file systems in both the global zone and the zone when you run backups for this `/DataAgent`.

---

## UBUNTU LINUX

Before installing the software on Ubuntu Linux systems, be sure to install the `binutils` package by running the `apt -get install binutils` command as root.

### BEFORE YOU BEGIN

- Log on to the client as `root`.
- The install package requires `super-user` permissions to execute.

### INSTALL PROCEDURE

---

#### GETTING STARTED

1. Place the software installation disc for the Unix platform into the disc drive.

You can also install the product using a disc drive mounted on another computer on the network.

- On Solaris, double-click the `cvpkgadd` program from the File Manager window.
- On other Unix platforms, open the Terminal window, navigate to the software installation disc and then enter `./cvpkgadd`.

2. The product banner and other information is displayed.

Press **Enter** to continue.

3. Read the license agreement. Type **y** and press **Enter** to continue.

4. Enter the number corresponding to the setup task you want to perform.

#### NOTES

- For Install data protection agents on this computer option, follow the steps described in this procedure.
- Advance options provide additional setup features such as record and play setup, creating a custom package and External Data Connector Agent software.

To create a custom package and for record and play setup, follow the steps described in Custom Package - Unix.

To install the External Data Connector Agent, follow the steps described in External Data Connector - Unix.

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

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

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]

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

- 1) All platforms (32 bit)
- 2) FS and MA only (64 bit)

Your choice: [1]

---

#### CLUSTER SELECTION

6. Type **2** and press **Enter** to install on a virtual machine.

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"

7. Type the name of the virtual machine that you want to configure or its corresponding IP address and press **Enter**.

here.

- 1) Install on a physical machine
- 2) Install on a virtual machine
- 3) Exit

Your choice: [1]

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

WARNING: You should follow this path ONLY if this host participates in a cluster and you really want to install Calypso on the virtual machine. This is NOT how most people will use Calypso.

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

Virtual Machine Host Name:

It looks like name "example.company.com" resolves to the same IP as "example". Generally, it's better to use longer name to address a host: less chances for name-to-IP resolution problems on CommServe or other IDA/MA.

Would you like to use fully qualified "example.company.com" instead of "example"?

Use longer "example.company.com" name? [yes]

8. This prompt appears if you entered the short form of the virtual machine host name in the previous step. If you want to use the long form of the host name, accept the **yes** default; if not, type **no**. Then press **Enter**.

9. Type the name of the virtual client and 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.

Virtual Machine Client Name: [hpuxmc1]

10. Specify the network interface that you want to associate with the physical machine and press **Enter**.

Even though it is a virtual machine that you are installing now, we still have to ask you to provide hostname and client name for the physical node.

#### NOTES

- This prompt appears only when the Unix File System iDataAgent is not installed on the physical node.

Network interfaces with the following IPs are available on your system. Please select the one that you want to be associated with Calypso physical machine. The interface should be static, and should not get disabled in case of cluster failover.

- 1) mackrel71
- 2) mackrel
- 3) mackrel1

Interface number: [1] 2

11. Enter a node name for the physical machine and press **Enter**.

Even though you are installing Calypso on a machine, we still need to ask you to provide a node name for the physical 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 Node Name: [mackrel]

## SELECT COMPONENTS FOR INSTALLATION

12. Enter the number corresponding to the **CVGxSRM** module.

#### NOTES

- Your screen may look different from the example shown.
- Components that either have already been installed, or which cannot be installed, will not be shown.

Press **Enter** to continue.

Install Calypso on physical machine client.company.com

Select the Calypso module that you would like to install

```
[ ] 1) Media Agent          [1301] [CVGxMA]
[ ] 2) FileSystem IDA      [1101] [CVGxIDA]
> ) >>>> NEXT PAGE >>>>>
```

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

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

## BASE SOFTWARE INSTALLATION

13. If you wish to install the agent software for restore only, enter **Yes** and press **Enter** to continue. See Installing Restore Only Agents for more information.

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

Otherwise, accept **no**, press **Enter** to continue.

14. Type the appropriate number to install the latest software scripts and press **Enter** to continue.

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

#### NOTES

- Select **Download from the software provider website** to download the latest software scripts from your software provider website.

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.

Make sure you have internet connectivity when you are using this option.

- Select **Use the one in the installation media**, to install the software scripts from the disc or share from which the installation is 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.

15. Enter **Yes** to download and install the latest service packs and post packs from the software provider.

**NOTES**

- Internet connectivity is required to download updates.
- This step is applicable for multi instancing.

Press **Enter** to continue.

16. Specify the location where you want to install the software.

**NOTES**

- The amount of free space required depends on the components selected for install, and may look different from the example shown.

Press **Enter** to accept the default path and continue, or Enter a path and then press **Enter** to continue.

Press **Enter** again to confirm the path.

17. Specify the location for the log files.

**NOTES**

- All the modules installed on the computer will store the log files in this directory.
- The amount of free space required depends on the components selected for install, and may look different from the example shown.

Press **Enter** to accept the default path and continue, or Enter a path and then press **Enter** to continue.

Press **Enter** again to confirm the path.

18. Indicate whether you would like to launch processes with inherent database access rights.

Press **Enter** to assign a new group, or Type **No** and then press **Enter** to continue.

19. 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** to continue.

Press **Enter** again to continue.

For installs on a Solaris computer, proceed to the next step. Otherwise, skip to Setup Complete.

20. Type a network TCP port number for the Communications Service (CVD) and press **Enter**.

Type a network TCP port number for the Client Event Manager Service (EvMgrC) and press **Enter**.

**NOTES**

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

```
Please specify where you want us to install Calypso binaries.
```

```
It must be a local directory and there should be at least 170MB 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]
```

```
..
```

```
Calypso will be installed in /opt/calypso.
Press ENTER to continue ...
```

```
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]
```

```
..
```

```
Calypso log files will be created in /var/log/calypso/Log_Files.
Press ENTER to continue ...
```

```
Most of Calypso 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 Calypso processes, all temporary and configuration files will be created with -rw-rw-rw permissions.
```

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

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

```
Please enter the name of the group which will be assigned to all Calypso files and on behalf of which all Calypso 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: dba
```

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 "dba".
```

```
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.
```



- For more information about Network TCP Ports, see Network TCP Port Requirements.
- For more information about these services, see Services.
- If the port number you entered already exists, a message will be displayed Port ### is already reserved in /etc/services. To work around this issue, enter different port number.

21. If this computer and the CommServe is separated by a firewall, type **Yes** and then press **Enter** to continue.

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

If you do not wish to configure the firewall services, type **No** and then press **Enter** to continue.

22. Type the name of the CommServe computer and press **Enter** to continue.

**NOTES**

- Ensure that the CommServe is accessible before typing the name; otherwise the installation will fail.
- If you enter a short name which resolves to the same IP address as the fully qualified CommServe name, you will be asked if you would prefer to use the fully qualified name.

Port Number for CVD : [8600]

Port Number for EvMgrC: [8602]

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:

**SETUP COMPLETE**

23. Press **Enter** to continue.

**NOTES**

- Schedules help ensure that the data protection operations for the Agent are automatically performed on a regular basis without user intervention. For more information, see Scheduling.

+-----+

**IMPORTANT:**

In addition to installing Calypso on this computer, you will also need to create a Job Schedule for each iDataAgent that has been installed on this client computer.

Job Schedules are required to allow the Calypso iDataAgents to perform automated backup and restore operations.

Job Schedule creation can be accomplished through the Calypso CommCell Console administration interface.

+-----+

Successfully installed CVGxSRM.  
Press ENTER to continue ...

24. If this is the last package that you wish to install/upgrade, enter the number corresponding to the **Exit** option and then press **Enter** to continue.

**NOTES**

- Only modules that are not installed/upgraded appear in the list.
- Your screen may appear different from the example shown.
- If you are installing on AIX, FreeBSD, IRIX or Tru64 computers, if this module was the last possible module to install, you are automatically exited from the program. Otherwise, type the number for the **Exit** option and then press **Enter**. The installation is completed.

Select the Calypso module that you would like to install.

- 1) FileSystem iDataAgent
- 2) Exit

Module number: [1]

25. This prompt is displayed only when you are installing on HP-UX, Linux, or Solaris computers. Enter the number corresponding to the **Exit** option and then press **Enter** to continue.

The installation is now complete.

Calypso is currently configured on virtual machine hpuxmcl.company.com.

Now you have an option of installing Calypso on physical machine, another virtual machine or you can add a new package to hpuxmcl.company.com.

- 1) Add a new package to hpuxmcl.company.com
- 2) Install Calypso on the physical machine
- 3) Install Calypso on another virtual machine
- 4) Exit

Your choice: [1]

**POST-INSTALL CONSIDERATIONS**

**GENERAL**

Install post-release updates or Service Packs that may have been released after the release of the software. When you are installing a Service Pack, ensure that it is the same version as the one installed in the CommServe Server. Alternatively, you can enable Automatic Updates for quick and easy installation of updates in the CommCell component.

**DATA COLLECTION FILTERS FOR UNIX FILE SYSTEMS**

For SRM Unix File System Agents that support the VERITAS Cluster File System (VxCFS), you can use the `sClusteredFSFilter` and the `sClusteredFSTypes` registry keys to filter non-clustered and clustered file systems from your data collection jobs. These registry settings can be used to prevent collecting multiple copies.

# SRM Data Collection

[Topics](#) | [How To](#) | [Troubleshoot](#) | [Related Topics](#)

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Overview

Scheduling Data Collection jobs

Considerations

Best Practices

- Solaris
  - NAS
  - Enabling Reverse Lookup
  - SharePoint
  - Oracle
- 

## OVERVIEW

After installing the SRM Server, the SRM Agent software must be installed on your selected client computers before you can collect data from them. When data collection is performed, this information populates the SQL database on the SRM Server's repository with current statistics, for the purpose of generating summaries and reports.

When you configure data collection for a client, from the SRM node you have the options of choosing which Agent(s) to use (if more than one is available on the client), the type of data collection to be performed (determined by selecting either an Analysis or Discovery Job Type), a Schedule Policy, and a start date. You can exclude volumes and directories from the data collection process for Subclients filters. You can also balance the collection load across different subclients, each with a different schedule policy.

Data collection jobs run automatically according to the parameters you have selected, and will appear in the Job Controller as a scheduled job. The system can also be configured to generate advisories, a brief text message describing an actual or potential problem and the suggested corrective action.

Reports and SRM Summaries viewed through the console are generated from the data collected and stored on the SRM Server. Schedule your first reports to run after your first data collection jobs have completed. Note that data collection and Report Generation jobs are scheduled independently, at different times and intervals. Thus, you can, for example, collect data nightly, hourly, or on-demand, but generate reports only once per week if desired.

---

## SCHEDULING DATA COLLECTION JOBS

Data Collection jobs can be scheduled to regularly collect data at specified intervals. Data Collection jobs can be scheduled from the SRM agent level in the CommCell Browser. In addition, Analysis Data Collection jobs can be scheduled for the individual subclients at the subclient level. When the Data Collection job is scheduled the job will be displayed in the Job Controller. After the successful completion of the Data Collection job, the client information is gathered at the SRM Server and the job status is shown as completed in the Job Controller. For more information on scheduling, see Scheduling. For step-by-step instructions on scheduling a Data Collection job see Run/Schedule Data Collection.

---

## CONSIDERATIONS

- Data Collection is not performed for mounted network drives, volumes, or directories. If you want to collect data for network file systems, install the appropriate SRM Agent on the local computer for those file systems.
- SRM Exchange Agent based Analysis Data Collection job will report storage groups only if the storage groups are mounted.
- For NAS Data Collection, all CIFS and NFS content will be included as content in the default subclient, unless some or all of it is specifically listed as content in a user-defined subclient.
- For NAS Data Collection, if subclient SubB is child of subclient SubA meaning that SubB's paths are contained in paths of SubA, then when collecting SubA none of the contained paths of SubB will be collected. Instead they will be collected by Data Collection of SubB.
- For NAS, data collection jobs are not supported for vfilers. If you enable data collection on a vfiler, then the data is not collected.
- For UNIX file systems, all mount points (comprised of a logical volume or partition) will be included as content in the default subclient, unless they are specifically listed as content in a user-defined subclient.  
Consider this example:
  - You have created a subclient named `sub1`.
  - You have defined a directory named `/mount_points` as contents for `sub1`.
  - Within `/mount_points` there are three mount points, `mnt1`, `mnt2`, and `mnt3`.

- Data will not be collected on those three mount points as part of `sub1`; instead, they are part of the content of the default subclient.
- To collect data on those mount points as part of `sub1`, you must specify each mount point, `/mount_points/mnt1`, `/mount_points/mnt2`, and `/mount_points/mnt3`, as content for `sub1`.
- If you would like to configure the SRM Exchange Agent for cross-domain mailbox access for data collection purposes, this can be accomplished by creating the `AdServerList` key in the registry.
- After adding, editing or removing a subclient, you must run an Analysis data collection job on all subclients associated with an agent for reports to reflect the changes.
- For the SRM Agent for SharePoint only - ensure that all necessary SharePoint services are running and that the configuration and content databases are online; otherwise, installation may appear successful, but a subsequent Data Collection will fail.
- For SRM Windows File System Agent, Summary pages may show different file count than the actual count as the Agent will skip junction points.
- Using the integrated File System Agent, if DDR or Snap Protect is selected as the backup method, SRM Data Collection will be skipped.
- For SRM Exchange Agents running with Exchange 2010, public folder object data is not collected when a Discovery and Analysis type data collection job is run.

## BEST PRACTICES

### SOLARIS

Ensure that the NFS client specifies the `soft` option when mounting NFS shares, or else data collection for NFS data will hang whenever the NFS server is down or not accessible. Also, increase the value for the `retrans` and `timeo` options; this will compensate for the `soft` option limiting the number of retries that the client can attempt to access the NFS server.

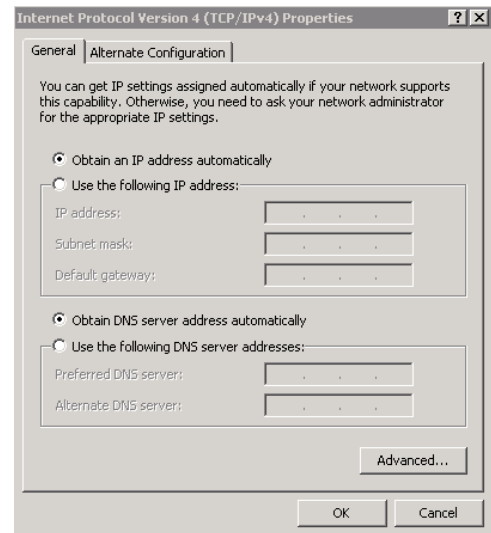
### NAS

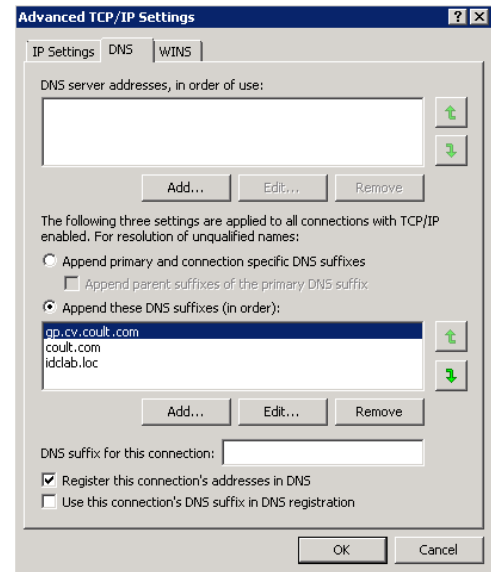
Configure NAS filer (including NetApp vFiler, EMC Celerra CIFS Servers and Data Movers) with DNS server in a way that reverse DNS lookup (from NAS filer to SRM NAS proxy) is resolved. If that is not the case then CIFS connection or NFS mount from SRM NAS proxy to NAS filer will fail.

### ENABLING REVERSE LOOKUP

Use the following steps to enable Reverse DNS lookup on a client computer:

- Logon to the computer as an Administrator.
  - Click **Start**, click **Control Panel** and then select **Network and Internet**.
  - Click **Network and Sharing Center**.
  - Under **Tasks**, Select **Manage network connections**.
  - Right-click the **Local Area Connection** icon, and then click **Properties**.
  - On the **Local Area Connection Properties** dialog box, select **Internet Protocol Version 4 (TCP/IPv4)**, and then click **Properties**.
  - If you have a DHCP Server in your network environment, then select **Obtain DNS server address automatically**. Else, select **Use the following DNS server addresses** and follow the below steps:
    - In the **Preferred DNS server** box, type the IP Address of the DNS server.
    - In the **Alternate DNS server** box, type the IP Address of the alternate DNS server.
- Click **Advanced**.
  - On the **Advanced TCP/IP Settings** dialog box, click the **DNS** tab.
  - Click **Append these DNS suffixes (in order)**.
  - Click **Add**, in the **Domain suffix** box, type the Domain suffix, and then click **Add**. Repeat this step to add all the DNS suffixes in order.
  - Click **OK**, and then click **OK**.
  - Click **OK**.





In case the DNS is not configured or not supported, then the client computer will not be able to perform IP/Name resolution and will not be able to communicate with the remote computers by using the host names. You can overcome this temporarily by adding the IP addresses and the fully qualified domain names in the host file of the client computer. It is not recommended to add Hosts file entries as these create communications control points that may impact other server operations and are difficult to maintain and manage. These should be used only as temporary solutions until the larger network or DNS issues can be resolved. You can use the following steps to add entries to the host file of the client computer with Windows operating system:

1. Logon to the computer as an Administrator.
2. Click **Start**, and then click **Run**.
3. In the **Open** box, type **drivers**, and then click **OK**.
4. Double-click **etc** folder, open **hosts** file with Notepad, and then type the IP address, the fully qualified domain name and the host name of the remote computer. You can add additional entries on separate lines. Save the `hosts` file after adding the entries.

Example:

```
172.32.xxx.xxx dbwin1.idclab.loc dbwin1
172.14.xxx.xxx dbwin2.idclab.loc dbwin2
```

Similarly, to enable reverse lookup on a remote computer, repeat step 1 through step 3 for adding IP address of the client computer in the `hosts` file of the remote computer.

For more information, see: [http://technet.microsoft.com/en-us/library/cc780585\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc780585(WS.10).aspx)

For a Unix computer, the entries should be added in the `host` file located under `etc` folder.

---

## SHAREPOINT

"Usage Analysis" must be enabled in SharePoint for SRM to collect data about hits, for those reports that include this information. Refer to Microsoft SharePoint documentation for information about enabling "Usage Analysis".

---

## ORACLE

Consider the following configuration items before running data collection from the Oracle Agent:

- Verify that Oracle databases are in OPEN status before running a data collection job.
- Verify that the Oracle databases are running properly, and that there are no database-related memory issues.
- Verify that the `shared_pool_size` parameter in the `init<SID>.ora` file is set to the maximum valid value so that SQL queries can run successfully for data collection.
- Data collection by the appropriate file system SRM Agent must be scheduled to occur *before* data collection by the SRM Oracle Agent.

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# SRM Data Collection - How To

[Topics](#) | [How To](#) | [Troubleshoot](#) | [Related Topics](#)

Run/Schedule a Data Collection Job for an SRM Instance, Agent or Subclient

Schedule Agentless SRM policies

---

## RUN/SCHEDULE A DATA COLLECTION JOB FOR AN SRM INSTANCE, AGENT OR SUBCLIENT

*Required Capability:* See Capabilities and Permitted Actions

▶ To run/schedule a Data Collection job for an SRM instance, agent or subclient:

1. From the CommCell Browser, right-click the SRM instance, agent or subclient, and then click **Data Collection** from the short-cut menu.
2. From the Schedule Data Collection Job dialog box, select the agent for which you want to run the Data Collection job from the **Agent** list. (This option is not applicable at the SRM agent and subclient levels.)
3. Choose the **Job Type**. (This option is not applicable at the SRM subclient level.)
  - If you select **Discovery**, basic information on file system assets is collected and minimal processing on the server is required.
  - If you select **Discovery and Analysis**, detailed statistics is collected and these jobs require more processing throughput on the server.
  - If you select **Discovery and Analysis**, and if the agent has more than one subclient, click the name of the subclient you want from the **Subclient** list. (This option is not applicable at the SRM subclient level.)
4. Choose **Schedule** or **Immediate** from the **Job Initiation** area.
5. Configure any other options as appropriate.
6. Click **OK**.

If you have selected the **Immediate** option, you can track the progress of the job from the **Job Controller** window.

For more information on Scheduling, see Scheduling.

---

## SCHEDULE AGENTLESS SRM POLICIES

*Required Capability:* See Capabilities and Permitted Actions

▶ To schedule an exiting SRM Agentless Policy:

1. From the CommCell Browser, expand **Policies** and select **Agentless SRM Policies**.
2. In the main window right-click the Policy that needs to be scheduled and click **Create Schedule**.
3. In the Job Initiation dialog box, choose **Immediate** or **Schedule**.



If you have selected the **Run Immediately** option, you can track the progress of the job from the **Job Controller** window.

4. Click **Configure** and select the required scheduling options.
5. Click **OK**.

For more information on Scheduling, see Scheduling.

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# SRM UNIX File System Agent Summaries

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Overview

Client Summaries

Agent Summaries

Subclient Summaries

Volume Group Summaries

File Systems Summaries

Shares Summaries

Storage Devices Summaries

---

## OVERVIEW

SRM UNIX File System Agent Summaries provide a concise view of the status of SRM UNIX File System entities in the CommCell Console. The status information includes the resource, memory, and CPU usage, as well as other resource-related information. Summary information is provided as images in the form of bar graphs and pie charts to provide a succinct snapshot of the statistical information. While viewing summary, data rows in tables can be sorted by any one of the columns listed in that summary.

When you select a SRM UNIX File System entity from the CommCell Console, its summary information appears in the main window. Each section can be expanded or collapsed as desired.

The following section describes the available summary types of SRM UNIX File System Agent at different levels in the CommCell Console:

---

## CLIENT SUMMARIES

Summary information at the client level shows statistical data for the following:

- **Software Instances**

The summary information for software instances displays details like Package, version and vendor name of all instances of the installed software.

- **Process Information**

The summary information for processes displays details like Image Name, PID, Session ID, CPU Time, CPU Usage, Memory Usage, User Name, etc for each process that runs on the client.

- **Services**

The summary information for services displays details like Name, State, Startup Type, and Log on information for each service that exists on the client.

## AGENT SUMMARIES

Summary information includes Properties and Advisories at the agent level. Advisory information includes severity level, the time stamp, and a brief description. For more information, see Advisories.

## SUBCLIENT SUMMARIES

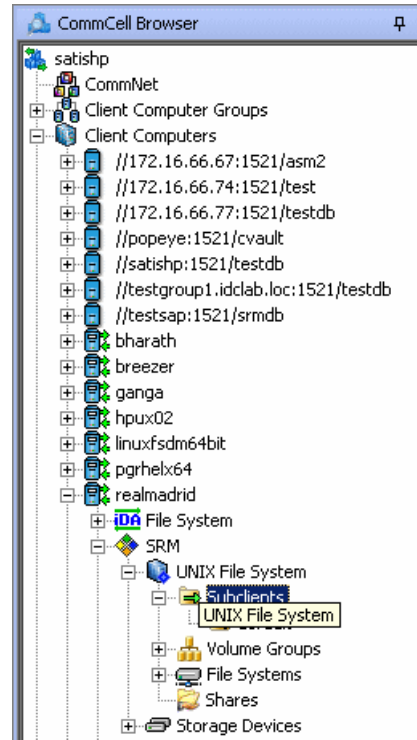
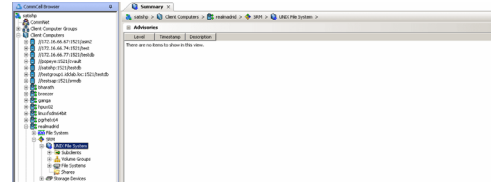
Summary at the subclient level include charts for **File System Usage by Subclient**. This chart displays details like Name, Average Tree Depth, Maximum Tree Depth, File Count, Directory Count, Average File Size, etc for the selected subclient.

However at the user defined or default Subclient level **Properties** showing physical information including name, state (enabled or disabled) last modification time and last analysis times, etc. are displayed along with Charts. The SRM UNIX File System Agent at this level displays charts for **File Distribution by Size**, **File Distribution by Type**, **File Distribution by Access Time** and **File Distribution by Modification Time**.

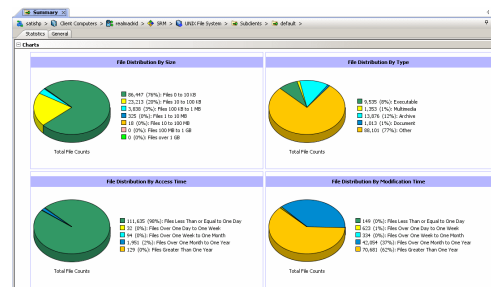
For more information on the Report Name associated with the displayed charts, see SRM UNIX File System Agent Reports.

1. From the CommCell Console, select the Client Computer with SRM UNIX File System Agent for which you want to view summaries.

- Expand **SRM** and select **UNIX File System**.



- The associated **Subclient Summary** will appear in the main window.

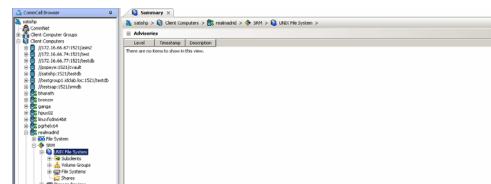


## VOLUME GROUP SUMMARIES

Summary information at the Volume Group level Charts include charts for **Current Capacity by Volume Group**. This chart displays detail like Name, Volume Group Manager, Capacity, Allocated Space, Unallocated Space, Access Mode, Logical Volume Count, Physical Volume Count, Physical Extent Count for the selected volume group. **Advisories** with severity level, the time stamp, and a brief description are also displayed along with charts at this level.

Each volume also displays Properties including physical information like Name, Volume Group Manager, Capacity, Allocated Space, etc. are displayed. Each volume in turn display charts for **Logical Volume Distribution by Size**. The volume level may also display Physical Devices and Logical Volumes if available.

- From the CommCell Console, select the Client Computer with SRM UNIX File System Agent for which you want to view summaries.

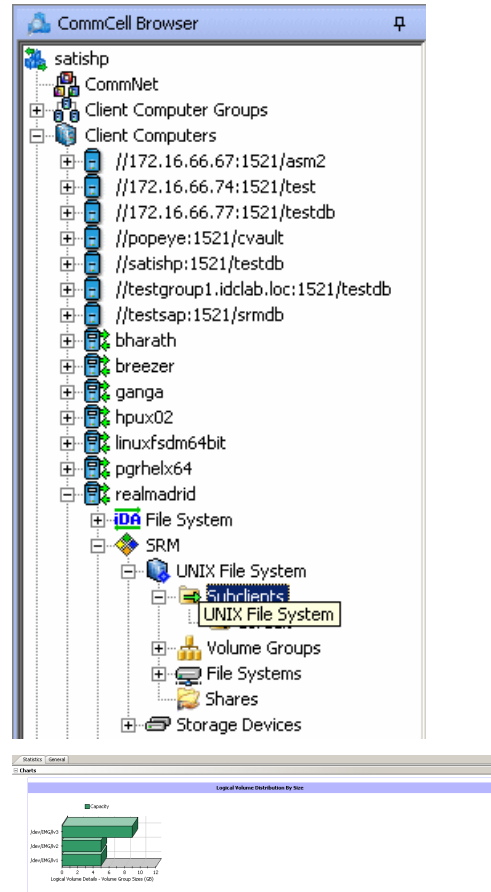


- Expand **SRM** and select **UNIX File System**, then select **Volume Group**.



You may also expand subclients node and alternatively select default or user defined subclient to view its summary.





3. The associated **Volume Group Summary** will appear in the main window.

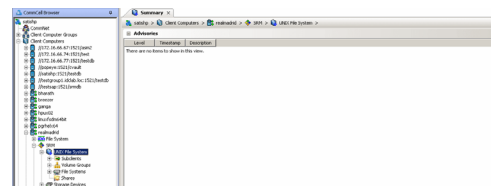
## FILE SYSTEMS SUMMARIES

Summary information at the File systems level include charts for **Current File System Usage** and **File System Capacity**. The **Current File System Usage** chart displays detail like Name, Type, Average Tree Depth, Maximum Tree Depth, File Count, Directory Count, Average File Size, Maximum File Size, Average Directory Count and Sparse File Count for the selected volume group. The **File System Capacity** chart displays detail like Name, Type, Mount Point, Used Space, Free Space, Capacity, Percent Used and Percent Free for the selected volume group.

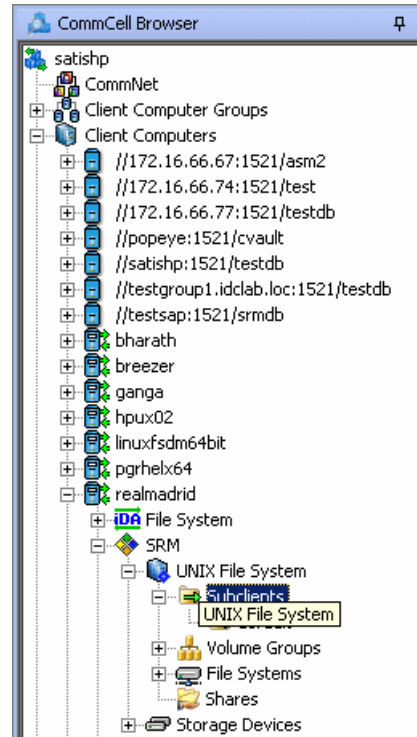
**Advisories** with severity level, the time stamp, and a brief description are also displayed along with charts at this level.

Each File System also displays **Properties** including physical information like Name, Type, Mount Point, Used Space, etc. Charts for **Usage History**, **File Distribution by Size**, **File Distribution by Type**, **File Distribution by Access Time**, **File Distribution by Modification Time** are available for each file system summary. The file system level may also display Physical Devices if available.

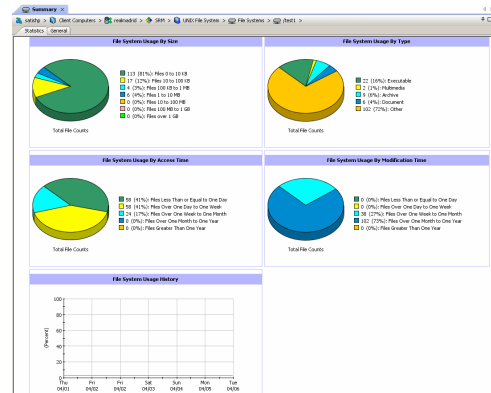
1. From the CommCell Console, select the Client Computer with SRM UNIX File System Agent for which you want to view summaries.
2. Expand **Agent** and select **File Systems**.



You may also expand File Systems node and alternatively select any File System to view its summary.



- The associated **File Systems Summary** will appear in the main window.



## SHARES SUMMARIES

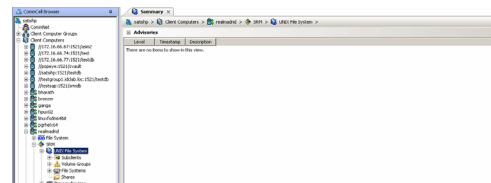
Summary information includes Advisories with severity level, the time stamp, and a brief description. The summary includes Name, Path and Used Space of the selected shares.

## STORAGE DEVICES SUMMARIES

Summary information at the Storage Devices level display charts for **Allocated vs. Unallocated space per disk** and **Partition Capacity**. The Charts show details like Name, Interface, Serial Number (S/N), Manufacturer, Block Count, Block Size etc for the selected Storage Device.

**Advisories** with severity level, the time stamp, and a brief description are also displayed along with charts at this level.

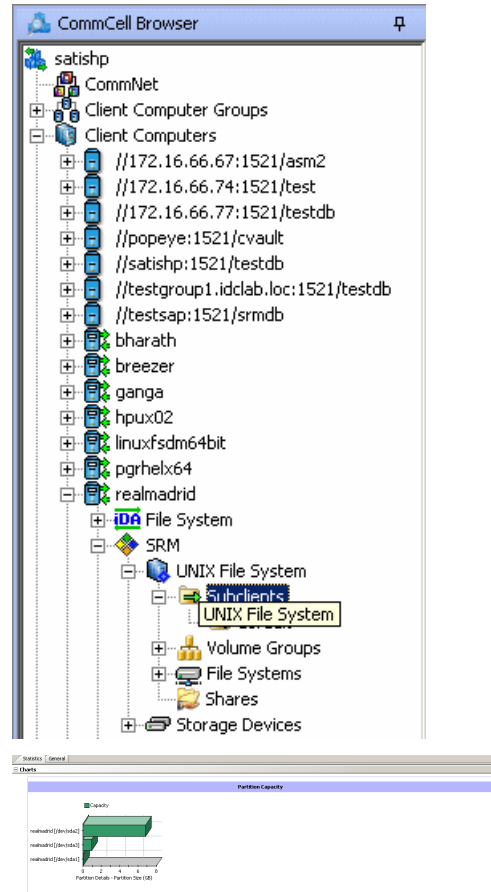
- From the CommCell Console, select the Client Computer with SRM UNIX File System Agent for which you want to view summaries.



- Expand **Agent** and select **Storage Devices**.



You may also expand Storage Devices node and alternatively select any storage device to view its summary.



3. The associated **Storage Devices Summary** will appear in the main window.

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# SRM Unix File System Reports

Topics | How To | Related Topics

SRM reports provide a sleek, versatile, and easy-to-use reporting framework that enables you to easily and effectively choose, view, and analyze vital data. Customized reporting is available through the selection of filter criteria (e.g., individual columns, specific clients, specific client computer groups, etc.) and filters as described in SRM Reports.

From the CommCell Console, the SRM Report Manager provides these types of reports:

- Computer Inventory
- Cost Analysis
- Applications

Initial templates are provided for each type (e.g., Cost History by Application, Capacity by File System, etc.) where columns have been preselected. The only requirement before generating and displaying the report is to specify one or more client computers. For most reports, a data collection job must also have been run prior to generating the report.

You must use a Windows MediaAgent to collect file level analytics. You cannot use a Unix MediaAgent to collect file level analytics.

Reports can be used as initial templates or customized by adding or removing columns in the templates or specifying additional Filter Criteria.

The table below lists the available report templates and the categories and columns that can be selected to configure a customized report. The table also shows the job types that are supported by each report.

| Category/Column          | Description                                                                                                           | SRM Unix File System Agent |                            |               |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------|---------------|
|                          |                                                                                                                       | Discovery Job              | Discovery and Analysis Job | Agentless SRM |
| <b>Client</b>            | Displays aspects of each client and their respective subclients on which the SRM Unix File System Agent is installed. |                            |                            |               |
| Client Computer Group    |                                                                                                                       | ✓                          | ✓                          |               |
| Collection Status        |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Collection Time          |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Computer                 |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Subclient                |                                                                                                                       | ✓                          | ✓                          | ✓             |
| <b>Client Properties</b> | Displays aspects of the client computer on which the SRM Unix File System Agent is installed.                         |                            |                            |               |
| Hostname                 |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Memory                   |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Operating System         |                                                                                                                       | ✓                          | ✓                          | ✓             |
| OS Vendor                |                                                                                                                       | ✓                          | ✓                          | ✓             |
| OS Version               |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Processors               |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Service Pack             |                                                                                                                       | ✓                          | ✓                          | ✓             |
| SP Version               |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Time Zone                |                                                                                                                       | ✓                          | ✓                          | ✓             |
| <b>Disk Details</b>      | Displays aspects of physical disks (e.g., capacity, partitions, space, etc.)                                          |                            |                            |               |
| Allocated Space          |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Block Size               |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Blocks                   |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Capacity                 |                                                                                                                       | ✓                          | ✓                          | ✓             |
| Cost Category            |                                                                                                                       | ✓                          | ✓                          |               |

|                                                           |                                                                                                                                                                         |   |   |   |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| Grown Defects                                             |                                                                                                                                                                         | ✓ | ✓ |   |
| Interface Type                                            |                                                                                                                                                                         | ✓ | ✓ |   |
| Manufacturer                                              |                                                                                                                                                                         | ✓ | ✓ |   |
| Model                                                     |                                                                                                                                                                         | ✓ | ✓ |   |
| Partitions                                                |                                                                                                                                                                         | ✓ | ✓ |   |
| Primary Defects                                           |                                                                                                                                                                         | ✓ | ✓ |   |
| Serial Number                                             |                                                                                                                                                                         | ✓ | ✓ |   |
| Total Defects                                             |                                                                                                                                                                         | ✓ | ✓ |   |
| Unallocated Space                                         |                                                                                                                                                                         | ✓ | ✓ | ✓ |
| <b>Disk Usage History</b>                                 | Displays how physical disks have been used for a given time period. Useful for trending purposes and to identify disks that are likely to fail soon.                    |   |   |   |
| As Of                                                     |                                                                                                                                                                         |   | ✓ |   |
| Grown Defects                                             |                                                                                                                                                                         |   | ✓ |   |
| Primary Defects                                           |                                                                                                                                                                         |   | ✓ |   |
| Total Defects                                             |                                                                                                                                                                         |   | ✓ |   |
| <b>File System Details</b>                                | Displays file system statistics such as space capacity and file inodes that store information on files (e.g., user and group ownership, access mode, and type of file). |   |   |   |
| Free Inodes                                               |                                                                                                                                                                         |   | ✓ |   |
| Total Inodes                                              |                                                                                                                                                                         |   | ✓ |   |
| Used Inodes                                               |                                                                                                                                                                         |   | ✓ |   |
| <b>File System File Distribution by Access Time</b>       | Displays the time at which the file was last accessed, read or written to.                                                                                              |   |   |   |
| Average File Size                                         |                                                                                                                                                                         |   | ✓ |   |
| Files                                                     |                                                                                                                                                                         |   | ✓ |   |
| Total File Size                                           |                                                                                                                                                                         |   | ✓ |   |
| Type                                                      |                                                                                                                                                                         |   | ✓ |   |
| <b>File System File Distribution by Change Time</b>       | Displays time that the inode information (permissions, name, etc., the metadata, as it were) was last modified.                                                         |   |   |   |
| Average File Size                                         |                                                                                                                                                                         |   | ✓ |   |
| Files                                                     |                                                                                                                                                                         |   | ✓ |   |
| Total File Size                                           |                                                                                                                                                                         |   | ✓ |   |
| Type                                                      |                                                                                                                                                                         |   | ✓ |   |
| <b>File System File Distribution by Modification Time</b> | Displays the last time the actual <b>contents</b> of the file were last modified.                                                                                       |   |   |   |
| Average File Size                                         |                                                                                                                                                                         |   | ✓ |   |
| Files                                                     |                                                                                                                                                                         |   | ✓ |   |
| Total File Size                                           |                                                                                                                                                                         |   | ✓ |   |
| Type                                                      |                                                                                                                                                                         |   | ✓ |   |
| <b>File System File Distribution by Size</b>              | Displays the file distribution of the file system on the basis of size.                                                                                                 |   |   |   |
| Average File Size                                         |                                                                                                                                                                         |   | ✓ |   |
| Files                                                     |                                                                                                                                                                         |   | ✓ |   |
| Total File Size                                           |                                                                                                                                                                         |   | ✓ |   |
| Type                                                      |                                                                                                                                                                         |   | ✓ |   |
| <b>File System File Distribution by Type</b>              | Displays the file distribution of the file system on the basis of file type.                                                                                            |   |   |   |
|                                                           |                                                                                                                                                                         |   |   |   |

|                                  |                                                                                                                                             |   |   |   |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| Average File Size                |                                                                                                                                             |   | ✓ |   |
| Files                            |                                                                                                                                             |   | ✓ |   |
| Total File Size                  |                                                                                                                                             |   | ✓ |   |
| Type                             |                                                                                                                                             |   | ✓ |   |
| <b>File System Usage</b>         | Displays aspects of files per extension and storage requirements.                                                                           |   |   |   |
| Average File Size                |                                                                                                                                             |   | ✓ |   |
| Average Files per Directory      |                                                                                                                                             |   | ✓ |   |
| Average Tree Depth               |                                                                                                                                             |   | ✓ |   |
| Block Devices                    |                                                                                                                                             |   | ✓ |   |
| Character Devices                |                                                                                                                                             |   | ✓ |   |
| FIFO Files                       |                                                                                                                                             |   | ✓ |   |
| Max File Size                    |                                                                                                                                             |   | ✓ |   |
| Maximum Tree Depth               |                                                                                                                                             |   | ✓ |   |
| Sparse File Count                |                                                                                                                                             |   | ✓ |   |
| Symbolic Link Files              |                                                                                                                                             |   | ✓ |   |
| Total Directories                |                                                                                                                                             |   | ✓ |   |
| Total Files                      |                                                                                                                                             |   | ✓ |   |
| <b>File System Usage History</b> | Displays overall file system statistics. Useful for trending purposes.                                                                      |   |   |   |
| As Of                            |                                                                                                                                             |   | ✓ | ✓ |
| Percent Used                     |                                                                                                                                             |   | ✓ | ✓ |
| Used Space                       |                                                                                                                                             |   | ✓ | ✓ |
| <b>File by Extension</b>         | Displays aspects of files per extension and storage requirements.                                                                           |   |   |   |
| Average File Size                | ✓                                                                                                                                           | ✓ |   |   |
| Extension                        | ✓                                                                                                                                           | ✓ |   |   |
| Files                            | ✓                                                                                                                                           | ✓ |   |   |
| Max File Size                    | ✓                                                                                                                                           | ✓ |   |   |
| Total File Size                  | ✓                                                                                                                                           | ✓ |   |   |
| <b>Host Files</b>                | Displays aspects of files that provide name resolution of host names with their corresponding IP address.                                   |   |   |   |
| Accessed                         | ✓                                                                                                                                           | ✓ |   |   |
| Changed                          | ✓                                                                                                                                           | ✓ |   |   |
| Group                            | ✓                                                                                                                                           | ✓ |   |   |
| Modified                         | ✓                                                                                                                                           | ✓ |   |   |
| Name                             | ✓                                                                                                                                           | ✓ |   |   |
| Owner                            | ✓                                                                                                                                           | ✓ |   |   |
| Size                             | ✓                                                                                                                                           | ✓ |   |   |
| <b>Junk Files</b>                | Displays files in each file system that contain "junk" (e.g., core files, HTML files, swap files). Useful for investigation and/or removal. |   |   |   |
| Accessed                         | ✓                                                                                                                                           | ✓ |   |   |
| Changed                          | ✓                                                                                                                                           | ✓ |   |   |
| Full Path                        | ✓                                                                                                                                           | ✓ |   |   |
| Group                            | ✓                                                                                                                                           | ✓ |   |   |
| Modified                         | ✓                                                                                                                                           | ✓ |   |   |
| Owner                            | ✓                                                                                                                                           | ✓ |   |   |
|                                  | ✓                                                                                                                                           | ✓ |   |   |

|                                    |                                                                                                                                                                                              |   |   |   |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| Size                               |                                                                                                                                                                                              |   |   |   |
| <b>Largest Files</b>               | Displays the top 10 largest files (by default), as per the category selected. However the value can be changed to any number using the Top 'N' Category for SRM Reports Manager.             |   |   |   |
| Largest Files Accessed             |                                                                                                                                                                                              |   | ✓ |   |
| Largest Files Created              |                                                                                                                                                                                              |   | ✓ |   |
| Largest Files Group                |                                                                                                                                                                                              |   | ✓ |   |
| Largest Files Modified             |                                                                                                                                                                                              |   | ✓ |   |
| Largest Files Owner                |                                                                                                                                                                                              |   | ✓ |   |
| Largest Files Size                 |                                                                                                                                                                                              |   | ✓ |   |
| Largest Files Full Path            |                                                                                                                                                                                              |   | ✓ |   |
| <b>Least Recently Used Files</b>   | Displays the top 10 least recently used files (by default), as per the category selected. However the value can be changed to any number using the Top 'N' Category for SRM Reports Manager. |   |   |   |
| Least Recently Used File Accessed  |                                                                                                                                                                                              |   | ✓ |   |
| Least Recently Used File Created   |                                                                                                                                                                                              |   | ✓ |   |
| Least Recently Used File Group     |                                                                                                                                                                                              |   | ✓ |   |
| Least Recently Used File Modified  |                                                                                                                                                                                              |   | ✓ |   |
| Least Recently Used File Owner     |                                                                                                                                                                                              |   | ✓ |   |
| Least Recently Used File Size      |                                                                                                                                                                                              |   | ✓ |   |
| Least Recently Used File Full Path |                                                                                                                                                                                              |   |   |   |
| <b>Logical Volume Details</b>      | Displays detail about the Logical volumes as per the category selected.                                                                                                                      |   |   |   |
| Access Mode                        |                                                                                                                                                                                              |   | ✓ | ✓ |
| Capacity                           |                                                                                                                                                                                              |   | ✓ | ✓ |
| Cost Category                      |                                                                                                                                                                                              |   | ✓ | ✓ |
| Extent Sizes                       |                                                                                                                                                                                              |   | ✓ | ✓ |
| Free Space                         |                                                                                                                                                                                              |   | ✓ |   |
| Name                               |                                                                                                                                                                                              |   | ✓ | ✓ |
| Status                             |                                                                                                                                                                                              |   | ✓ |   |
| Type                               |                                                                                                                                                                                              |   | ✓ | ✓ |
| Used Space                         |                                                                                                                                                                                              |   | ✓ | ✓ |
| <b>NFS Exports</b>                 | (Network File System) Specifies the file system that have been made shareable and the machines that will have access to that file system.                                                    |   |   |   |
| NFS Options                        |                                                                                                                                                                                              |   | ✓ | ✓ |
| NFS Path Name                      |                                                                                                                                                                                              |   | ✓ | ✓ |
| <b>Partition Details</b>           | Summarizes aspects of each partition of the file system.                                                                                                                                     |   |   |   |
| Blocks                             |                                                                                                                                                                                              |   | ✓ | ✓ |
| Capacity                           |                                                                                                                                                                                              |   | ✓ | ✓ |
| Type                               |                                                                                                                                                                                              |   | ✓ | ✓ |
| <b>Process Information</b>         | Displays process information on how efficiently data is processed by the CPU (e.g., IO Reads, IO Writes, Memory Usage, etc.)                                                                 |   |   |   |
| Base Priority                      |                                                                                                                                                                                              | ✓ |   |   |
| Collection Time                    |                                                                                                                                                                                              | ✓ |   |   |
| CPU Time                           |                                                                                                                                                                                              | ✓ |   | ✓ |
| CPU Usage                          |                                                                                                                                                                                              | ✓ |   |   |
| GDI Objects                        |                                                                                                                                                                                              | ✓ |   |   |

|                               |                                                                                                                                                                                                       |   |   |   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| Handles                       |                                                                                                                                                                                                       | ✓ |   |   |
| IO Other                      |                                                                                                                                                                                                       | ✓ |   |   |
| IO Other Bytes                |                                                                                                                                                                                                       | ✓ |   |   |
| IO Read Bytes                 |                                                                                                                                                                                                       | ✓ |   |   |
| IO Reads                      |                                                                                                                                                                                                       | ✓ |   |   |
| IO Write Bytes                |                                                                                                                                                                                                       | ✓ |   |   |
| IO Writes                     |                                                                                                                                                                                                       | ✓ |   |   |
| Memory Usage                  |                                                                                                                                                                                                       | ✓ |   |   |
| Memory Usage Delta            |                                                                                                                                                                                                       | ✓ |   |   |
| Page Faults                   |                                                                                                                                                                                                       | ✓ |   |   |
| Page Faults Delta             |                                                                                                                                                                                                       | ✓ |   |   |
| Peak memory Usage             |                                                                                                                                                                                                       | ✓ |   |   |
| PID                           |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Process Name                  |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Session ID                    |                                                                                                                                                                                                       | ✓ |   |   |
| Threads                       |                                                                                                                                                                                                       | ✓ |   |   |
| User Name                     |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Virtual Memory Size           |                                                                                                                                                                                                       | ✓ |   | ✓ |
| <b>Prohibited Files</b>       | Displays aspects of files that are not allowed (or forbidden) in the UNIX file system                                                                                                                 |   |   |   |
| Accessed                      |                                                                                                                                                                                                       |   | ✓ |   |
| Changed                       |                                                                                                                                                                                                       |   | ✓ |   |
| Full Path                     |                                                                                                                                                                                                       |   | ✓ |   |
| Group                         |                                                                                                                                                                                                       |   | ✓ |   |
| Modified                      |                                                                                                                                                                                                       |   | ✓ |   |
| Owner                         |                                                                                                                                                                                                       |   | ✓ |   |
| Size                          |                                                                                                                                                                                                       |   | ✓ |   |
| <b>Resource Usage History</b> | Displays how computer resources (e.g., disk, memory, CPU, etc.) have been used for a given time period. Useful for trending purposes and to identify computer resources that are likely to fail soon. |   |   |   |
| As Of                         |                                                                                                                                                                                                       | ✓ |   | ✓ |
| CPU Utilization               |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Disk Free                     |                                                                                                                                                                                                       | ✓ |   |   |
| Disk Percent Free             |                                                                                                                                                                                                       | ✓ |   |   |
| Disk Percent Used             |                                                                                                                                                                                                       | ✓ |   |   |
| Disk Total                    |                                                                                                                                                                                                       | ✓ |   |   |
| Disk Used                     |                                                                                                                                                                                                       | ✓ |   |   |
| Memory Free                   |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Memory Percent Free           |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Memory Percent Used           |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Memory Total                  |                                                                                                                                                                                                       | ✓ |   | ✓ |
| Memory Used                   |                                                                                                                                                                                                       | ✓ |   | ✓ |
| <b>SGID Files</b>             | (Set Group ID) Displays aspects of group files in each file system. Useful to manage group permissions on these files for security purposes.                                                          |   |   |   |
| Accessed                      |                                                                                                                                                                                                       |   | ✓ |   |
| Changed                       |                                                                                                                                                                                                       |   | ✓ |   |



|                                                         |                                                                                                                        |  |   |  |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|---|--|
| Group                                                   |                                                                                                                        |  | ✓ |  |
| Modified                                                |                                                                                                                        |  | ✓ |  |
| Name                                                    |                                                                                                                        |  | ✓ |  |
| Owner                                                   |                                                                                                                        |  | ✓ |  |
| Size                                                    |                                                                                                                        |  | ✓ |  |
| <b>Subclient File Distribution by Access Time</b>       | Displays the time at which the file per subclient was last accessed, read or written to.                               |  |   |  |
| Average File Size                                       |                                                                                                                        |  | ✓ |  |
| Files                                                   |                                                                                                                        |  | ✓ |  |
| Total File Size                                         |                                                                                                                        |  | ✓ |  |
| Type                                                    |                                                                                                                        |  | ✓ |  |
| <b>Subclient File Distribution by Change Time</b>       | Displays time that the inode information (permissions, name, etc., the metadata, as it were) was last modified.        |  |   |  |
| Average File Size                                       |                                                                                                                        |  | ✓ |  |
| Files                                                   |                                                                                                                        |  | ✓ |  |
| Total File Size                                         |                                                                                                                        |  | ✓ |  |
| Type                                                    |                                                                                                                        |  | ✓ |  |
| <b>Subclient File Distribution by Modification Time</b> | Displays the last time the actual <i>contents</i> of the file per subclient were last modified.                        |  |   |  |
| Average File Size                                       |                                                                                                                        |  | ✓ |  |
| Files                                                   |                                                                                                                        |  | ✓ |  |
| Total File Size                                         |                                                                                                                        |  | ✓ |  |
| Type                                                    |                                                                                                                        |  | ✓ |  |
| <b>Subclient File Distribution by Size</b>              | Displays the file distribution of the subclient on the basis of size.                                                  |  |   |  |
| Average File Size                                       |                                                                                                                        |  | ✓ |  |
| Files                                                   |                                                                                                                        |  | ✓ |  |
| Total File Size                                         |                                                                                                                        |  | ✓ |  |
| Type                                                    |                                                                                                                        |  | ✓ |  |
| <b>Subclient File Distribution by Type</b>              | Displays the file distribution of the subclient on the basis of file type.                                             |  |   |  |
| Average File Size                                       |                                                                                                                        |  | ✓ |  |
| Files                                                   |                                                                                                                        |  | ✓ |  |
| Total File Size                                         |                                                                                                                        |  | ✓ |  |
| Type                                                    |                                                                                                                        |  | ✓ |  |
| <b>Subclient Usage</b>                                  | Displays Calypso subclient (the logical entity that uniquely defines a unit of data on a client computer) information. |  |   |  |
| Average File Size                                       |                                                                                                                        |  | ✓ |  |
| Average Files per Directory                             |                                                                                                                        |  | ✓ |  |
| Average Tree Depth                                      |                                                                                                                        |  | ✓ |  |
| Maximum File Size                                       |                                                                                                                        |  | ✓ |  |
| Maximum Tree Depth                                      |                                                                                                                        |  | ✓ |  |
| Sparse File Count                                       |                                                                                                                        |  | ✓ |  |
| Subclient Block Devices                                 |                                                                                                                        |  | ✓ |  |
| Subclient Character Devices                             |                                                                                                                        |  | ✓ |  |
| Subclient FIFO Files                                    |                                                                                                                        |  | ✓ |  |
| Subclient Symbolic Link Files                           |                                                                                                                        |  | ✓ |  |
| Total Directories                                       |                                                                                                                        |  | ✓ |  |
| Total Files                                             |                                                                                                                        |  | ✓ |  |

|                                 |                                                                                                                                            |  |   |   |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|---|---|
| <b>SUID Files</b>               | (Set User ID) Displays aspects of user files in each file system. Useful to manage group permissions on these files for security purposes. |  |   |   |
| Accessed                        |                                                                                                                                            |  | ✓ |   |
| Changed                         |                                                                                                                                            |  | ✓ |   |
| Group                           |                                                                                                                                            |  | ✓ |   |
| Modified                        |                                                                                                                                            |  | ✓ |   |
| Name                            |                                                                                                                                            |  | ✓ |   |
| Owner                           |                                                                                                                                            |  | ✓ |   |
| Size                            |                                                                                                                                            |  | ✓ |   |
| <b>UNIX Entities</b>            | Displays overall aspects per each computer selected (e.g., partition, volume, etc.)                                                        |  |   |   |
| Disk                            |                                                                                                                                            |  | ✓ | ✓ |
| File System                     |                                                                                                                                            |  | ✓ | ✓ |
| Partition                       |                                                                                                                                            |  | ✓ | ✓ |
| Volume                          |                                                                                                                                            |  | ✓ | ✓ |
| <b>User Group Usage</b>         | Displays file size details (average, maximum, total) created per user group.                                                               |  |   |   |
| Average File Size               |                                                                                                                                            |  | ✓ |   |
| Files                           |                                                                                                                                            |  | ✓ |   |
| GID                             |                                                                                                                                            |  | ✓ |   |
| Maximum File Size               |                                                                                                                                            |  | ✓ |   |
| Total File Size                 |                                                                                                                                            |  | ✓ |   |
| User Group Name                 |                                                                                                                                            |  | ✓ |   |
| <b>User Group Violations</b>    | Displays Disk Space (disk space) violations per user to help enforce corporate storage usage policies.                                     |  |   |   |
| Disk Space Hard Limit           |                                                                                                                                            |  | ✓ | ✓ |
| Disk Space Soft Limit           |                                                                                                                                            |  | ✓ | ✓ |
| Use Group File Count Hard Limit |                                                                                                                                            |  | ✓ | ✓ |
| Use Group File Count Soft Limit |                                                                                                                                            |  | ✓ | ✓ |
| Use Group Files Violation       |                                                                                                                                            |  | ✓ | ✓ |
| User Group Name                 |                                                                                                                                            |  | ✓ | ✓ |
| Violation - Used Space          |                                                                                                                                            |  | ✓ | ✓ |
| Violation GID                   |                                                                                                                                            |  | ✓ |   |
| <b>User Usage</b>               | Displays a summary of files used and their size (average, maximum, total) per user name.                                                   |  |   |   |
| Average File Size               |                                                                                                                                            |  | ✓ |   |
| Files                           |                                                                                                                                            |  | ✓ |   |
| Maximum File Size               |                                                                                                                                            |  | ✓ |   |
| Total File Size                 |                                                                                                                                            |  | ✓ |   |
| UID                             |                                                                                                                                            |  | ✓ |   |
| User Name                       |                                                                                                                                            |  | ✓ |   |
| <b>User Violations</b>          | Displays quota violations per user to help enforce corporate storage usage policies.                                                       |  |   |   |
| Disk Space Hard Limit           |                                                                                                                                            |  | ✓ | ✓ |
| Disk Space Soft Limit           |                                                                                                                                            |  | ✓ | ✓ |
| User File Count Hard Limit      |                                                                                                                                            |  | ✓ | ✓ |
| User File Count Soft Limit      |                                                                                                                                            |  | ✓ | ✓ |
|                                 |                                                                                                                                            |  | ✓ | ✓ |

|                                     |                                                                                                                                                             |   |   |   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| User Files Violation                |                                                                                                                                                             |   |   |   |
| User Name                           |                                                                                                                                                             |   | ✓ | ✓ |
| Violation - Used Space              |                                                                                                                                                             |   | ✓ | ✓ |
| Violation UID                       |                                                                                                                                                             |   | ✓ |   |
| <b>Volume Group Details</b>         | Displays details about Volume Groups on the basis of category selected.                                                                                     |   |   |   |
| Access Mode                         |                                                                                                                                                             |   | ✓ | ✓ |
| Allocated Space                     |                                                                                                                                                             |   | ✓ | ✓ |
| Free Physical Extents               |                                                                                                                                                             |   | ✓ | ✓ |
| Free Space                          |                                                                                                                                                             |   | ✓ | ✓ |
| Group Name                          |                                                                                                                                                             |   | ✓ | ✓ |
| Group Type                          |                                                                                                                                                             |   | ✓ | ✓ |
| Logical Volumes                     |                                                                                                                                                             |   | ✓ | ✓ |
| Maximum Logical Volumes             |                                                                                                                                                             |   | ✓ | ✓ |
| Maximum Physical Volumes            |                                                                                                                                                             |   | ✓ | ✓ |
| Physical Extent Size                |                                                                                                                                                             |   | ✓ | ✓ |
| Physical Volumes                    |                                                                                                                                                             |   | ✓ | ✓ |
| Total Physical Extents              |                                                                                                                                                             |   | ✓ | ✓ |
| Unallocated Space                   |                                                                                                                                                             |   | ✓ | ✓ |
| Used Physical Extents               |                                                                                                                                                             |   | ✓ | ✓ |
| Volume Group Capacity               |                                                                                                                                                             |   | ✓ | ✓ |
| Volume Group File System Free Space |                                                                                                                                                             |   | ✓ | ✓ |
| Volume Group File System Used Space |                                                                                                                                                             |   | ✓ | ✓ |
| Volume Group Status                 |                                                                                                                                                             |   | ✓ |   |
| <b>Volume Group Disk Details</b>    | Displays details about Volume Groups Disks on the basis of category selected.                                                                               |   |   |   |
| Allocated Space                     |                                                                                                                                                             | ✓ | ✓ | ✓ |
| Block Size                          |                                                                                                                                                             | ✓ | ✓ | ✓ |
| Blocks                              |                                                                                                                                                             | ✓ | ✓ | ✓ |
| Capacity                            |                                                                                                                                                             | ✓ | ✓ | ✓ |
| Group Name                          |                                                                                                                                                             | ✓ | ✓ | ✓ |
| Grown Defects                       |                                                                                                                                                             | ✓ | ✓ |   |
| Interface Type                      |                                                                                                                                                             | ✓ | ✓ |   |
| Manufacturer                        |                                                                                                                                                             | ✓ | ✓ |   |
| Model                               |                                                                                                                                                             | ✓ | ✓ |   |
| Partitions                          |                                                                                                                                                             | ✓ | ✓ | ✓ |
| Primary Defects                     |                                                                                                                                                             | ✓ | ✓ |   |
| Serial Number                       |                                                                                                                                                             | ✓ | ✓ |   |
| Total Defects                       |                                                                                                                                                             | ✓ | ✓ |   |
| Unallocated Space                   |                                                                                                                                                             | ✓ | ✓ | ✓ |
| <b>Volume Group Usage History</b>   | Displays how volume groups have been used for a given time period. Useful for trending purposes and to identify volume groups that are likely to fail soon. |   |   |   |
| As Of                               |                                                                                                                                                             |   | ✓ | ✓ |
| Group Name                          |                                                                                                                                                             |   | ✓ | ✓ |
| Volume Group File System Used Space |                                                                                                                                                             |   | ✓ | ✓ |
|                                     | Displays aspects of files that possess write and execute                                                                                                    |   |   |   |

|                                      |                                                                                                                    |  |   |  |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------|--|---|--|
| <b>Writable and Executable Files</b> | permissions in each file system. Useful to manage group and user permissions on these files for security purposes. |  |   |  |
| Accessed                             |                                                                                                                    |  | ✓ |  |
| Changed                              |                                                                                                                    |  | ✓ |  |
| Group                                |                                                                                                                    |  | ✓ |  |
| Modified                             |                                                                                                                    |  | ✓ |  |
| Name                                 |                                                                                                                    |  | ✓ |  |
| Owner                                |                                                                                                                    |  | ✓ |  |
| Size                                 |                                                                                                                    |  | ✓ |  |

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## SRM Unix File System Reports - How To

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[Display, Run, or Schedule a Report Manager Report](#)

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[Top 'N' Category Counts for Reports](#)

[Configure IIS for Windows Server 2008](#)

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### RUN, SCHEDULE, OR SAVE A SRM REPORT MANAGER REPORT

#### Before You Begin

*Required Capability:* Capabilities and Permitted Actions

▶ To generate, save, or schedule an SRM Report Manager Report:

1. In the **CommCell Browser**, expand **Reports** and then **SRM Report Manager**, click a report type.
2. Select one or more **Client Computers** or **Client Computer Groups** from the **Client Selection** tab. This is a required step.
3. Click the **Column Selection** tab, select a **Category** and then one or more **Available** category/columns and click on **Add**.

To remove a previously selected category, click on the selected filter from **Selected** column and click **Remove**.

**Remove All** will remove all previously selected categories for the reports.

4. Click the **Report Options** tab and configure these settings in the report:
  - From the **General** tab set **Select Time Range** and **Include Trending options**.

These two options apply to history charts.

For all reports, the **Maximum number of Bar Points Per Chart** may be increased or decreased from the default value of 10 and **Draw All Bar Points or Lines** option may be selected. The default of 100 rows to output may be increased or decreased by specifying a number in **Limit number of rows to output**. The default of 5000 rows per page may be increased or decreased by specifying the desired number in **Limit number of rows per page**.

- Click the **Advanced Options** tab and set the **Data Size Unit** for the Table and/or Chart (GB, MB, etc.). Also, the **Output Locale** may be changed from the default that is English. The ordering of the report may be changed by moving columns in **Set Sorting Order of Rows to Return**.
5. Optionally, click the **Get SQL Query** tab to generate the query for the filter criteria specified. This will display the SQL query that will be used to get the data and generate the report. The query that is displayed is Read-only and can be used in a third-party SQL application, such as SQL Server Management Studio.
  6. Choose one of these options to generate the report:
    - Click **Run** to generate the report immediately and view the results in the CommCell Console.

- Click **Schedule** to generate and schedule the report on a daily, weekly, monthly, yearly, or even one time basis. Specify the report language (see Languages - Support for the list of languages supported in Reports), format (HTML, EXCEL, PDF), and location. Optionally, notifications can be configured so the report can be emailed, sent to an SNMP trap, or RSS feed.

When scheduling, patterns can also be applied to the report so it runs on a specific time, repeated every so many days, or run for a particular number of times. Some reports allow enabling Forecasting by specifying default trending interval and number of data points on which the trending interval is based. For more information on trending, see Forecasting.

- Click **Save As...** to save the report filter criteria, schedule information, notifications to a template so it can be used to generate a report at a later date. All report templates are saved under **My Reports**.

---

## FILE TYPE CATEGORIES FOR REPORTS

*Required Capability:* Capabilities and Permitted Actions

▶ To configure file type categories for reports:

1. In the **CommCell Browser** expand **Reports** and right-click **SRM Report Manager** and select **File Type Categories**.
2. In the Configure File Categories dialog box:
  - Select the agent for which you want to configure File Categories.
  - Select a **File Category** to add, delete, or edit associated extensions.
    - To add an extension, type the new extension, and click **Add** to save it.
    - To delete an extension, select it from the list, and click **Delete**.
    - To edit an extension, select it from the list, make the changes, then click **Edit** to save your changes.
  - Optionally, click **Reset** to return all categories to their default configuration (see Default File Categories).
3. Click **OK** to save your changes and close the Configure File Categories dialog box. You can also click **Apply** to save any changes to the current Agent configuration, and then repeat this procedure from step 2 to configure File Categories for other agents.

---

## TIME CATEGORIES FOR REPORTS

*Required Capability:* Capabilities and Permitted Actions

▶ To configure Time Categories for reports:

1. In the **CommCell Browser** expand **Reports** and right-click **SRM Report Manager** and select **Time Categories**.
2. In the Configure Time Categories dialog box, select an Agent for which you want to modify Time Categories.
3. For each Interval:
  - Specify a Name for each custom Time Category.
  - Select the minimum number of days in the time range, or select **None**.
  - Select the maximum number of days in the time range, or select **Unlimited**.
4. Click **OK** to save your changes and close the Configure Time Categories dialog box, or click **Apply** to save your changes for the currently selected Agent, and repeat this procedure from Step 2 to configure Time Categories for other Agents.

---

## TOP 'N' CATEGORY COUNTS FOR REPORTS

*Required Capability:* Capabilities and Permitted Actions

▶ To configure category counts for Top 'N' reports:

1. In the **CommCell Browser** expand **Reports** and right-click **SRM Report Manager** and select **Top 'N' Categories**.
2. In the Configure Top 'N' Category Counts dialog box, change the count for each Agent for which you want to modify the Category Count in reports.
3. Click **OK** to save your changes and close the Configure Top 'N' Category Counts dialog box.

---

## CONFIGURE IIS FOR WINDOWS SERVER 2008

*Required Capability:* Capabilities and Permitted Actions

▶ To configure IIS and enable appropriate roles for Windows Server 2008:

1. Click **Start**, and then click **Server Manager**.
2. In **Server Manager**, right click **Roles**, and then click **Add roles**. The **Add Roles Wizard** window is displayed.
3. In the **Add Roles Wizard**, click **Server Roles**.
4. Select the **Web Server (IIS)** check box from Server Roles, and click **Next** to continue.

When the **Web Server (IIS)** check box is selected, the **File Server** check box is automatically selected due to role dependency.

5. On the **Role Services** page, expand **Common HTTP Features**, and select the following check boxes:
  - o Static Content
  - o Default Document
  - o Directory Browsing
  - o HTTP Errors
  - o HTTP Redirection
6. Expand **Application Development**, and select the **ASP.NET**, **ASP**, and **CGI** check boxes.

If you are prompted to add required role services, click **OK**.

7. Expand **Security**, and select the **Basic Authentication** and **Windows Authentication** check boxes.
8. Expand **Management Tools**, expand **IIS 6 Management Capability**, and select the following check boxes:
  - o IIS Metabase Compatibility
  - o IIS 6 WMI Compatibility
  - o IIS 6 Scripting Tools
  - o IIS 6 Management Console
9. Click **Next**, and then click **Install**.

---

## SAVE A REPORT TEMPLATE

*Required Capability:* Capabilities and Permitted Actions

▶ To save a report template:

1. In the **CommCell Browser**, expand **Reports** and then select **SRM Report Manager** and select a report type.  
The specified Report Window will appear.
  2. At the top of the window, click **Save As...**
  3. In the Save Template dialog box, enter the name of the report and click **OK** to exit the screen.  
The report template name displays in the **My Reports** node of the CommCell Browser.
-

# Admin Job History

[Topics](#) | [How To](#) | [Related Topics](#)

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The **Admin Job History Filter** dialog box allows you to view detailed, historical information about the following administration job types:

- All
- Data Aging
- Export Media
- Auxiliary Copy
- Inventory
- Disaster Recovery Backup
- Data Verification
- Offline Content Indexing
- Erase Media
- Erase Backup/Archived Data
- Drive Validation
- Drive Cleaning
- Stamp Media
- Install Updates
- Download Updates
- Disk Library Maintenance
- SRM Reports
- Information Management

Once chosen, your filter options are then displayed in the Admin Job History window. From this window you can view more detailed information such as the:

- Details of the administration job.
- Events of the administration job.
- Log files of the administration job.

For information on Job Details displayed in the Job History, see [Viewing Job Information](#).

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## Admin Job History - How To

[Topics](#) | [How To](#) | [Related Topics](#)

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[View Admin Job History](#)

[View Job History Details](#)

[View the Events of a Job History](#)

[Viewing the Log Files of a Job History](#)

[Resubmit an Admin Job](#)

---

### VIEW ADMIN JOB HISTORY

*Required Capability:* See [Capabilities and Permitted Actions](#)

 To view admin job history:

1. From the CommCell Browser, right-click the CommServe, click **View**, and then click **Admin Job History**.
2. From the Admin Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
3. The Admin Job History dialog box displays with the specified filter options.
4. Click **Close**.

## VIEW JOB HISTORY DETAILS

*Required Capability:* See Capabilities and Permitted Actions

▶ To view the details of a job history:

1. From the CommCell Browser, right-click the entity (e.g., subclient, client computer, etc.) whose job history you want to view, click **View**, and then click job history.
2. From the Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
3. From the Data Management Job History window, right-click the job whose job details you want to view, and then click **View Job Details**.
4. The Job Details dialog box appears, displaying detailed job history in General, Details, Phase Details and Attempts tabs for the selected job.
5. Click **OK**.



If viewing the details of a job with a pending or failed status, the **Reason for Job Delay** field will contain an Error Code, which, if clicked, will launch the customer support website displaying troubleshooting article(s) related to the specific issue.

---

## VIEW THE EVENTS OF A JOB HISTORY

*Required Capability:* See Capabilities and Permitted Actions

▶ To view the events associated with a job:

1. From the CommCell Browser, right-click the entity (e.g., subclient, client computer, etc.) whose job history you want to view, click **View**, and then click **Job History**.
  2. From the Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
  3. From the Data Management Job History window, right-click the job whose job details you want to view, and then click **View Events**.
  4. The All Found Events window gets displayed. If no events were found for the back up, a message is displayed to that effect.
  5. Click **Close**.
- 

## VIEW THE LOG FILES OF A JOB HISTORY

*Required Capability:* See Capabilities and Permitted Actions

▶ To view the log files of a Job History:

1. From the CommCell Browser, right-click the entity whose job history you want to view, and then click to view a job history.
  2. From the job history filter window select the filter options, if any, that you want to apply, and then click **OK**.
  3. From the job history window, right-click the job whose log files you want to view, and then click **View Logs**.
  4. The contents of the log file related to the selected job history are displayed in the **Log File for Job n** window.
- 

## RESUBMIT AN ADMIN JOB

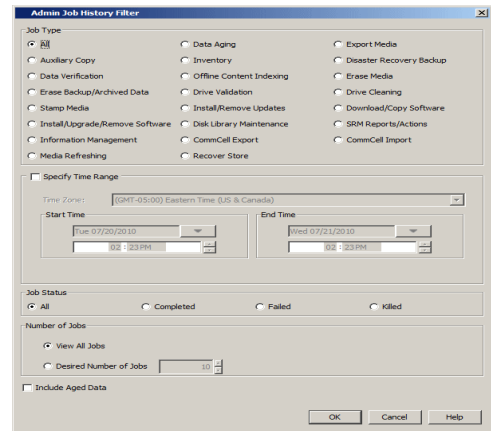
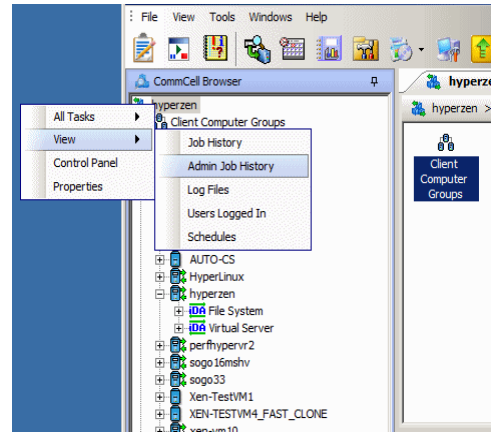
*Required Capability:* See Capabilities and Permitted Actions

▶ To resubmit an admin job:

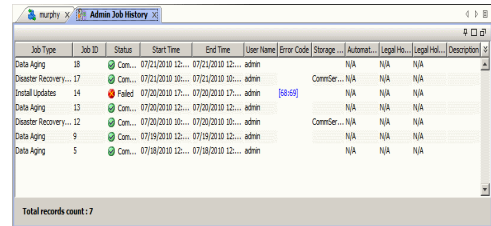
1. From the CommCell Browser, right-click the CommServe, click **View**, and then click **Admin Job History**.



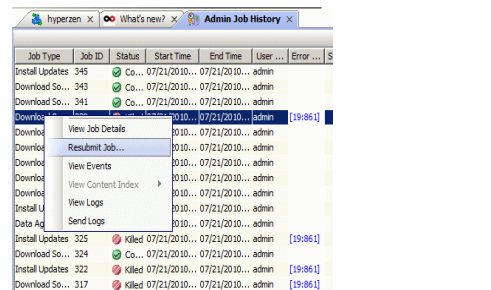
- From the Admin Job History Filter dialog box, select the filter options that you want to apply and click **OK**.



- The Admin Job History window displays with the specified filter options.

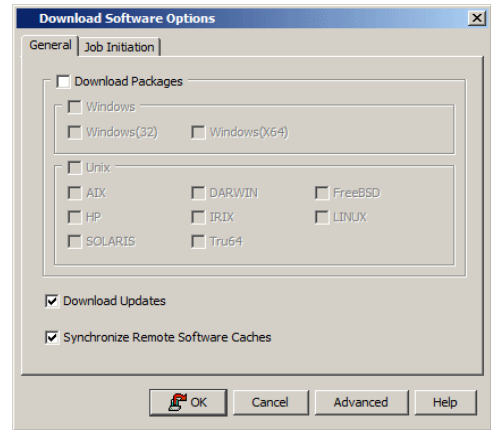


- Right-click on any job (e.g., Download Software), and select **Resubmit**.

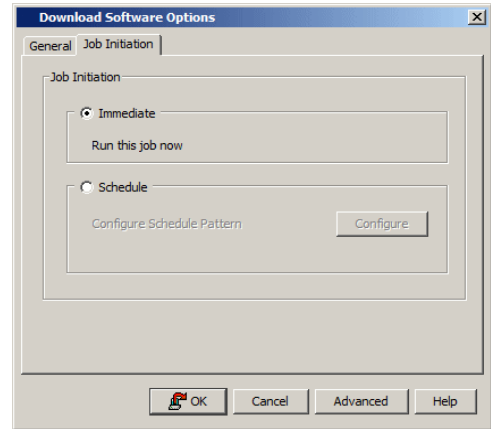


- Select the job options appropriate for the job you want to restart.

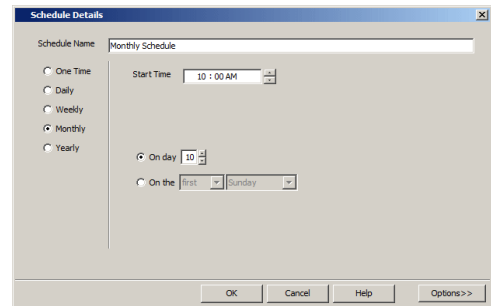
- If you need to run the backup operation immediately, select **Immediate** from the **Job Initiation** tab. Go to step 11.



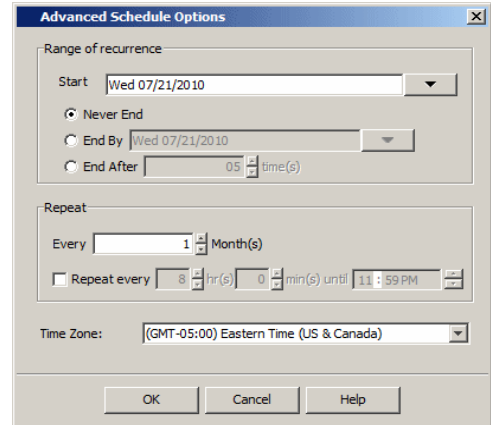
- If you need to schedule the restore operation, select **Schedule** from the Job Initiation tab and click **Configure**.
- From the **Schedule Details** dialog box that appears, select the appropriate scheduling options.  
Click **Options** to view the Advanced Schedule Options dialog box.



- From the **Advanced Schedule Options** dialog box:
    - Range of recurrence:** Specify the date on which you want this schedule to take effect.
    - Repeat:** Select the value for which you want to run the job repeatedly on the day in which the job is scheduled to run.
    - Time Zone:** Select a specific time zone from which the job schedule time will be based.
- Click **OK** to close the **Advanced Schedule Options** dialog box.



- Click **OK** to close the **Schedule Details** window.
- Click **OK** to close the job restart window.



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# SRM Data Collection Job History

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The **Data Collection History Filter** dialog box allows you view detailed, historical information about data collection jobs for the selected SRM entity. Data collection jobs run automatically according to the parameters you have selected, and appear in the Job Controller as a scheduled job. After the successful completion of the Data Collection job, the client information is gathered at the SRM Server and the job status is shown as completed in the Job Controller.

For information on Job Details displayed in the Job History, see [Viewing Job Information](#).

Once chosen, your filter options are then displayed in the Data Collection Job History Window of the SRM entity. From this window you can view more detailed information such as:

- Viewing the Events of a Job History
  - Viewing the Log Files of a Job History
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## SRM Data Collection Job History - How To

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[View Job History Details](#)

[View the Events of a Job History](#)

[View the Log Files of a Job History](#)

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### VIEW JOB HISTORY DETAILS

*Required Capability:* See Capabilities and Permitted Actions

▶ To view the details of a job history:

1. From the CommCell Browser, right-click the entity (e.g., subclient, client computer, etc.) whose job history you want to view, click **View**, and then click job history.
2. From the Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
3. From the Data Management Job History window, right-click the job whose job details you want to view, and then click **View Job Details**.
4. The Job Details dialog box appears, displaying detailed job history in General, Details, Phase Details and Attempts tabs for the selected job.
5. Click **OK**.



If viewing the details of a job with a pending or failed status, the **Reason for Job Delay** field will contain an Error Code, which, if clicked, will launch the customer support website displaying troubleshooting article(s) related to the specific issue.

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### VIEW THE EVENTS OF A JOB HISTORY

*Required Capability:* See Capabilities and Permitted Actions

▶ To view the events associated with a job:

1. From the CommCell Browser, right-click the entity (e.g., subclient, client computer, etc.) whose job history you want to view, click **View**, and then click **Job History**.
  2. From the Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
  3. From the Data Management Job History window, right-click the job whose job details you want to view, and then click **View Events**.
  4. The All Found Events window gets displayed. If no events were found for the back up, a message is displayed to that effect.
  5. Click **Close**.
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### VIEW THE LOG FILES OF A JOB HISTORY

*Required Capability:* See Capabilities and Permitted Actions

▶ To view the log files of a Job History:

1. From the CommCell Browser, right-click the entity whose job history you want to view, and then click to view a job history.
  2. From the job history filter window select the filter options, if any, that you want to apply, and then click **OK**.
  3. From the job history window, right-click the job whose log files you want to view, and then click **View Logs**.
  4. The contents of the log file related to the selected job history are displayed in the **Log File for Job *n*** window.
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