Features - SRM NetWare Proxy Agent

TABLE OF CONTENTS

Overview - SRM NetWare Proxy Agent

Topics | Related Topics

- Introduction
- What is Supported
- Supported Job Types for Data Collection
  - Discovery Job
  - Discovery and Analysis Job
- Tree Level in SRM NetWare Proxy Agent
- Configuration Considerations
- License Requirement

INTRODUCTION

The SRM NetWare Proxy Agent gathers statistics on the disk and file system assets locally attached to a given NetWare Server.

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

For the SRM NetWare Agent, the agent software is installed on a proxy client. For more information on installing the proxy client, see Deployment - SRM NetWare Agent. Once the installation is complete, the agent and the NetWare server information must be configured from the client level or the proxy agent level in the CommCell Console. For step-by-step instructions see, Add NetWare Server.

WHAT IS SUPPORTED

The SRM NetWare Proxy Agent for NetWare File System supports the following file system types:

- NSS

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 level job require minimal processing on the File System server and may be run throughout the day. But a Discovery level job would not provide meaningful data in some of the extensive reports.

DISCOVERY AND ANALYSIS JOB

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

See Reports - SRM NetWare Proxy Agent to see which reports require Analysis level data collection.

TREE LEVEL IN SRM NETWARE PROXY AGENT

When the SRM NetWare Proxy Agent is installed, the following levels are automatically created in the CommCell Browser.
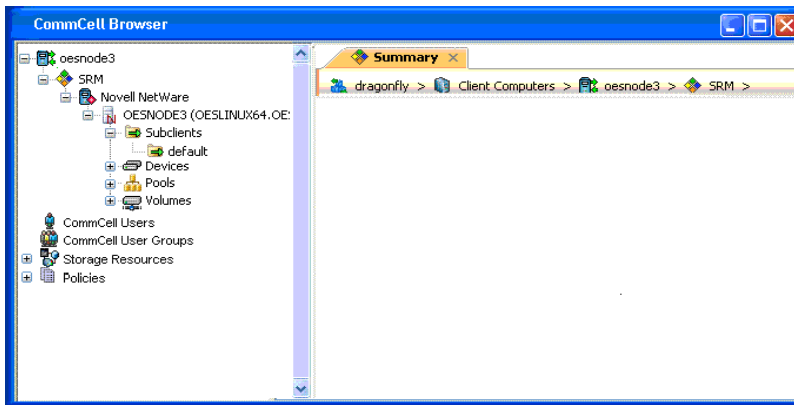
`oesnode3:`	Client
`Novell Netware:`	Agent
`Subclients:`	This level appears when a NetWare Server is added to the SRM Netware Proxy Agent. For more information, see Subclients.
`Devices:`	This level appears when a NetWare Server is added to the SRM Netware Proxy Agent. Devices associated with the NetWare Server are populated under this level after completion of the first Data Collection operation. For more information, see SRM NetWare Proxy Agent Summaries.
`Pools:`	This level appears when a NetWare Server is added to the SRM Netware Proxy Agent. Pools associated with the NetWare Server are populated under this level after completion of the first Data Collection operation. For more information, see SRM NetWare Proxy Agent Summaries.
`Volumes:`	This level appears when a NetWare Server is added to the SRM Netware Proxy Agent. Volumes associated with the NetWare Server are populated under this level after completion of the first Data Collection operation. For more information, see SRM NetWare Proxy Agent Summaries.

CONFIGURATION CONSIDERATIONS

Consider the following configuration requirements prior to using the SRM NetWare Proxy Agent:

- The SRM NetWare Proxy Agent supports a maximum of 255 nested directories. Any nested directories beyond this limit will be skipped during data collection.

LICENSE REQUIREMENT

To perform a data collection operation using this Agent, you need a `SRM NetWare Agent` license, available on the SRM server. The license is consumed when this component is configured on the client computer. See License Administration for more details on license requirements.

Back to Top

System Requirements - SRM NetWare Proxy Agent

System Requirements	Supported Features

The SRM NetWare Proxy Agent for NetWare File System is installed on a computer that can access the NetWare Server for which you wish to perform data collection. The following requirements are for the SRM NetWare Proxy Agent for NetWare File System.

PROXY AGENT

NOVELL CLIENT

Novell Client version 4.91 SP4 and SP5 with the following operating system versions:

- Microsoft Windows XP Professional 32-bit Editions
- Microsoft Windows Server 2003 32-bit Editions with a minimum of Service Pack 1

NOVELL OPERATING SYSTEMS

Data can be collected from a NetWare server with the following Operating System:

- NetWare 6.5 with Support Pack 6, 7 and 8
- Novell OES2 Linux up to SP2 (SLES 10 SP3) 32-bit and 64-bit

PROCESSOR

All Windows-compatible processors supported

CLUSTER SUPPORT

See Clustering - Support

MEMORY

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

HARD DISK

104 MB minimum of hard disk space for software/ 148 MB recommended

30 MB of additional hard disk space for log file growth

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

PERIPHERALS

DVD-ROM drive

Network Interface Card

MISCELLANEOUS

TCP/IP Services configured on the computer.

These requirements are in addition to the disk requirements set for the operating system.

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 NetWare Proxy Agent

TABLE OF CONTENTS

INSTALL REQUIREMENTS

The following procedure describes the steps involved in installing the SRM NetWare Proxy Agent. SRM NetWare Agent is installed as a proxy Agent on a separate computer than the NetWare File System. The proxy Agent can only be installed on supported Windows platforms. It is remotely installed from a Novell Client computer to the NetWare Server(s).

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

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.

● If the CommServe® Server, MediaAgent and/or Clients across firewall(s), then the SRM NetWare Proxy Agent must be on the same side of the firewall as the NetWare server.

BEFORE YOU BEGIN

● From a Novell client, log on to the NetWare server you want to install as a user with Supervisor rights or use an account that has Read/Write/Modify/Erase/Create/File Scan rights to the SYS:SYSTEM directory.

INSTALL PROCEDURE

GETTING STARTED

1. Place the Software Installation Disc for the Windows platform into the disc drive.

   After a few seconds, the installation program is launched.

   If the installation program does not launch automatically:

   ● Click the **Start** button on the Windows task bar, and then click **Run**.
   ● Browse to the installation disc drive, select **Setup.exe**, click **Open**, then click **OK**.

   NOTES

   ● If you are installing on Windows Server Core editions, mount to Software Installation Disc through command line, go to the **AMD64** folder and run **Setup.exe**.

2. Choose the language you want to use during installation. Click the down arrow and select the desired language from the drop-down list, and click **Next** to continue.
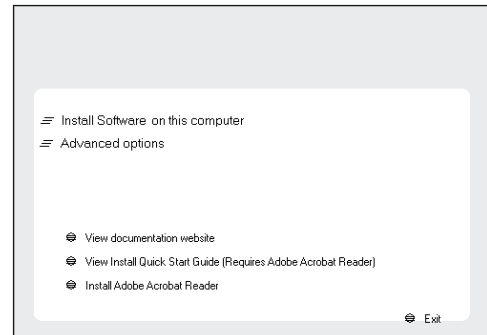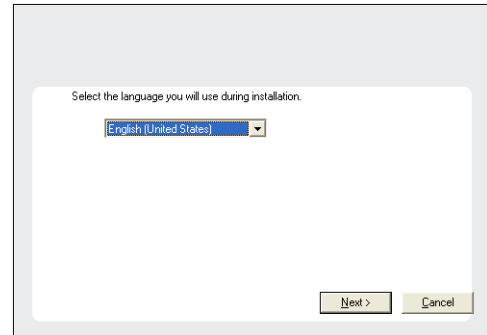
3. Select the option to install software on this computer.

   NOTES

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

4. Read the license agreement, then select **I accept the terms in the license agreement**.

   Click **Next** to continue.

## SELECT COMPONENTS FOR INSTALLATION

5. Select the component(s) to install.

   NOTES

   ● Your screen may look different from the example shown.
   ● Components that either have already been installed, or which cannot be installed, will be dimmed. Hover over the component for additional details.
   ● If you wish to install the agent software for restore only, select **Install Agents for Restore Only** checkbox. See Installing Restore Only Agents for more information.
   ● The **Special Registry Keys In Use** field will be highlighted when `GalaxyInstallerFlags` registry key is enabled. Move the mouse pointer over this field to see a list of registry keys that have been created in this computer.

   Click **Next** to continue.

   To install the SRM NetWare Proxy Agent, expand the `SRM` folder and then select `SRM NetWare Proxy Agent`.
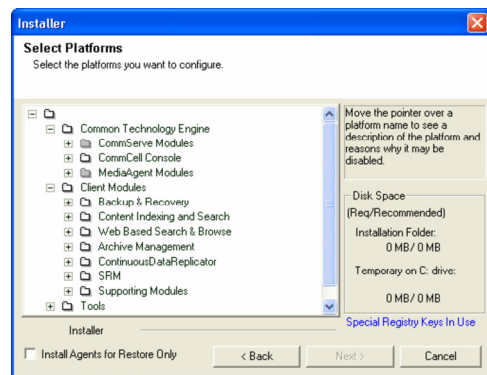
CONFIGURATION OF OTHER INSTALLATION OPTIONS

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

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

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

7. Enter the fully qualified domain name of the CommServe Host Name. This should be TCP/IP network name. e.g., computer.company.com.

NOTES

- The CommServe client name is the name of the computer. This field is automatically populated.
- Do not use space and the following characters when specifying a new name for the CommServe Host Name:

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

- If a computer has already been installed, this screen will not be displayed; instead the installer will use the same Server Name as previously specified.
- If you do not specify the CommServe Host Name, a window will be prompted to continue in decouple mode. Click **Yes** to continue to Decoupled Install. Click **No** to specify a CommServe Name and continue with the installation.

Click **Next** to continue.

8. Enter the **username** and **password** associated with an external domain user account or a CommCell user account to authorize the installation of this agent.

NOTES

- This window will be displayed when the **Require Authentication for Agent Installation** option is selected in the **CommCell Properties**. For more information, see Authentication for Agent Installs.

Click **Next** to continue.

9. Enter the following:

- The local (NetBIOS) name of the client computer.
- The TCP/IP IP host name of the NIC that the client computer must use to communicate with the CommServe Server.

NOTES

- Do not use spaces when specifying a new name for the Client.
- The default network interface name of the client computer is displayed if the computer has only one network interface. If the computer has multiple network interfaces, enter the interface name that is preferred for communication with the CommServe Server.
- If a component has already been installed, this screen will not be displayed; instead, the install program will use the same name as previously specified.

Click **Next** to continue.

10. Select **Add programs to the Windows Firewall Exclusion List**, if you wish to add CommCell programs and services to the Windows Firewall Exclusion List.
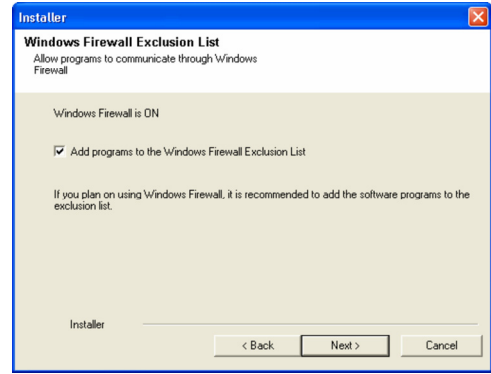
NOTES:

- If Windows Firewall is enabled on the computer, this option is selected by default and must be enabled to proceed with the installation.
- If Windows Firewall is disabled on the computer, you can select this option to add the programs and services to enabled CommCell operations across the firewall, if the firewall is enabled at a later time.
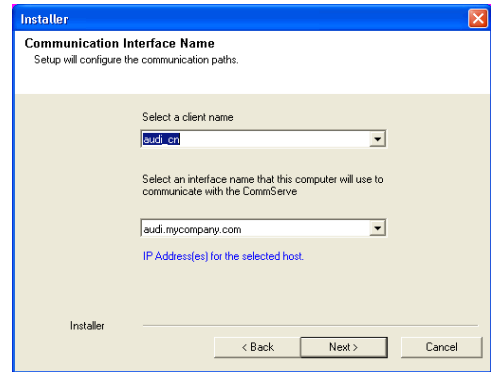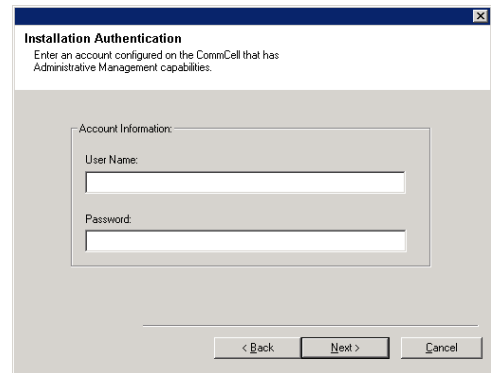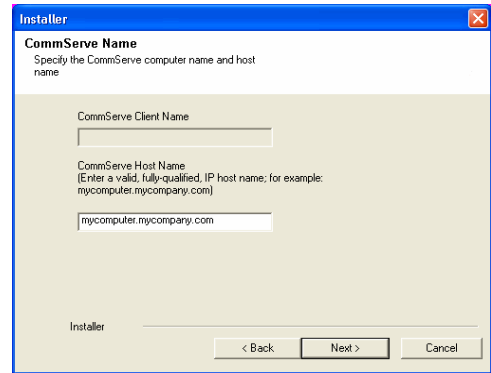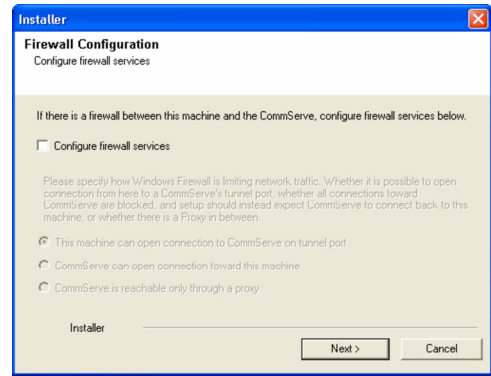
You can either select this option during install or add the programs and services after installation. For adding the programs and services after installation, see Configure Windows Firewall to Allow CommCell Communication.
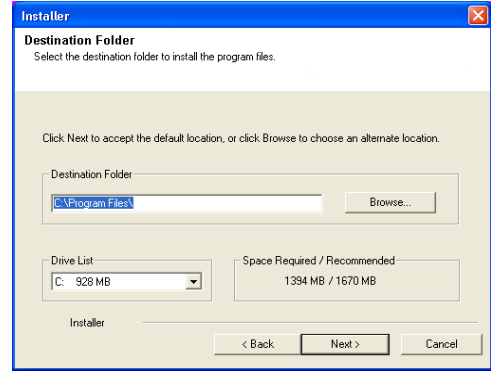
Click **Next** to continue.

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

NOTES

- Do not install the software to a mapped network drive.
- Do not use the following characters when specifying the destination path:
  / : * ? " < > | #
  It is recommended that you use alphanumeric characters only.
- If you intend to install other components on this computer, the selected installation directory will be automatically used for that software as well.
- If a component is already installed in this computer, this screen may not be displayed. The software will be automatically installed in the same location that was previously specified.

Click **Browse** to change directories.
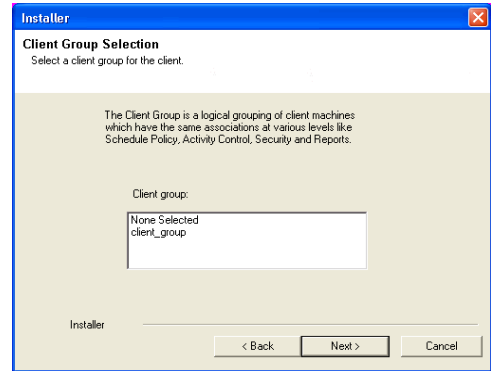
Click **Next** to continue.

CLIENT GROUP SELECTION

12. Select a Client Group from the list.

Click **Next** to continue.

NOTES

- This screen will be displayed if Client Groups are configured in the CommCell Console. For more information, see Client Computer Groups.

SCHEDULE AUTOMATIC UPDATE

13. If necessary, select this option to schedule an automatic installation of software updates.

NOTES

- Schedule Install of Automatic Updates allows automatic installation of the necessary software updates on the computer on a single or weekly basis. If you do not select this option, you can schedule these updates later from the CommCell Console.
- To avoid conflict, do not schedule the automatic installation of software updates to occur at the same time as the automatic FTP downloading of software updates.
- If a component has already been installed, this screen will not be displayed; instead, the installer will use the same option as previously specified.

Click **Next** to continue.
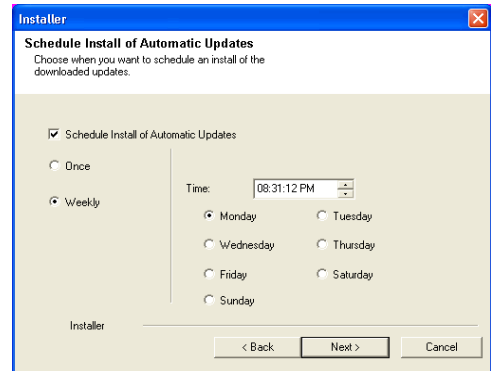
VERIFY SUMMARY OF INSTALL OPTIONS

14. Verify the summary of selected options.

NOTES

- The **Summary** on your screen should reflect the components you selected for install, and may look different from the example shown.

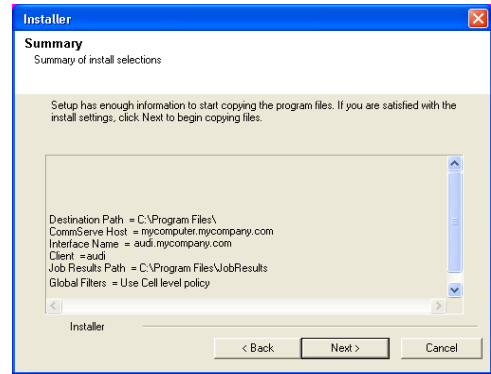Click **Next** to continue or **Back** to change any of the options.

The install program now starts copying the software to the computer. This step may take several minutes to complete.

15. The System Reboot message may be displayed. If so, select one of the following:

- **Reboot Now**
  If this option is displayed without the **Skip Reboot** option, the install program has found files required by the software that are in use and need to be replaced. If **Reboot Now** is displayed without the **Skip Reboot** option, reboot the computer at this point. The install program will automatically continue after the reboot.
- **Exit Setup**
  If you want to exit the install program, click **Exit Setup**.
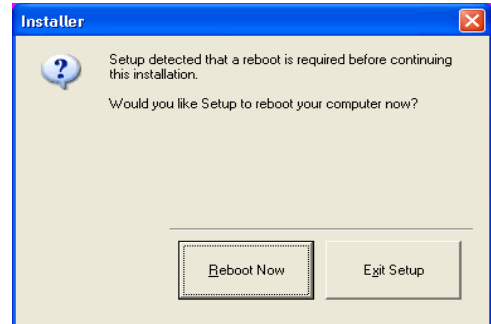
SETUP COMPLETE

16. Click **Next** 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.
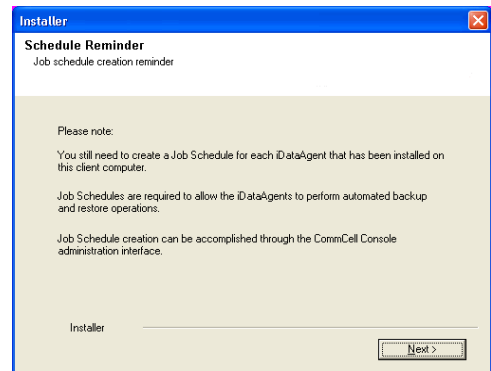
17. Setup displays the successfully installed components.

NOTES

- The **Setup Complete** message displayed on your screen will reflect the components you installed, and may look different from the example shown.
- If you install an Agent with the CommCell Console open, you need to refresh the CommCell Console (F5) to see the new Agents.
- If **Reboot Now** button is displayed make sure to reboot the computer before performing any other operations from the computer.

Click **Finish** to close the install program.

The installation is now complete.
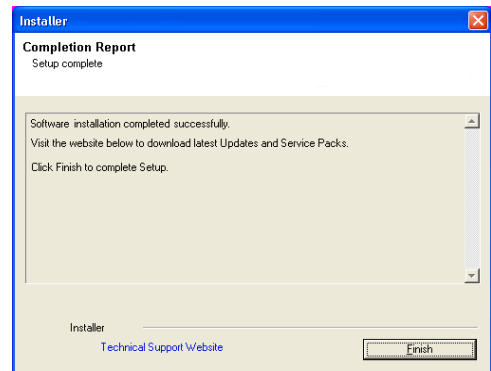
POST-INSTALL CONSIDERATIONS

GENERAL

- Review Install Considerations after installing the software.
- 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.

SRM Data Collection

Topics | How To | Troubleshoot | Related Topics

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:

1.
- 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 Version4 (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.

2.
- 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**.
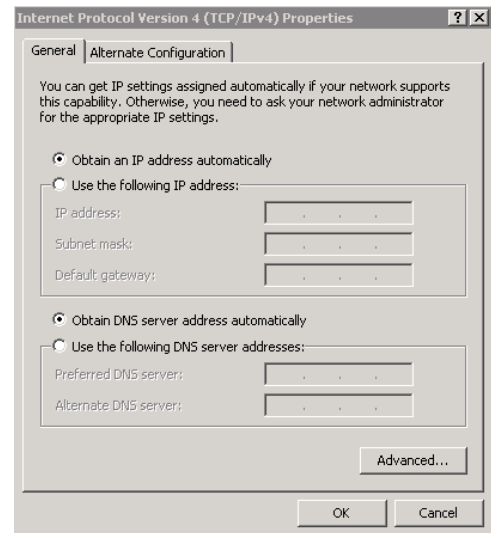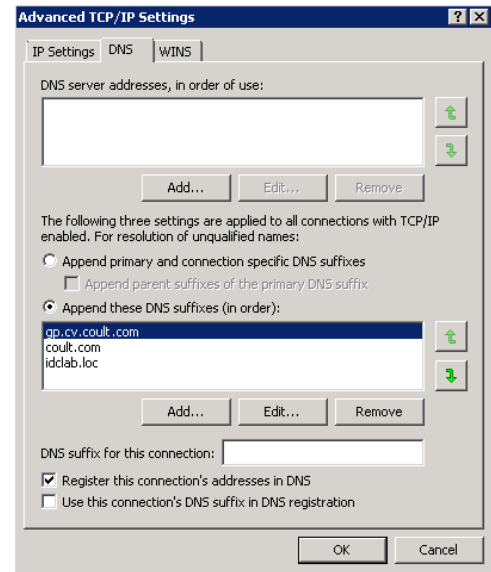
In case the DNS is not configured or not supported, then the client computer will not be able to perform IP/Name resolution and will not be able to communicate with the remote computers by using the host names. You can overcome this temporarily by adding the IP addresses and the fully qualified domain 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

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.

Back to Top

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.)

    o   If you select **Discovery**, basic information on file system assets is collected and minimal processing on the server is required.

    o   If you select **Discovery and Analysis**, detailed statistics is collected and these jobs require more processing throughput on the server.

    o   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.

SRM NetWare Proxy Agent Summaries

Overview

Client Summaries

Agent Summaries

Subclient Summaries

Devices Summaries

Pools Summaries

Volume Summaries

OVERVIEW

SRM NetWare Proxy Agent Summaries provide a concise view of the status of SRM NetWare Proxy Agent 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 NetWare Proxy Agent 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 NetWare Proxy 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 Advisories at the agent level. Advisory information includes severity level, the time stamp, and a brief description.

SUBCLIENT SUMMARIES

Summary at the subclient level include charts for **NetWare Volume Usage by 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 NetWare Proxy 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**.

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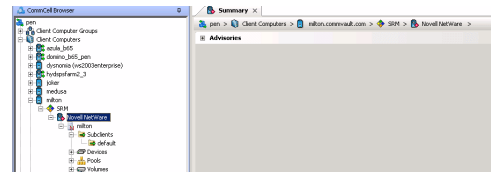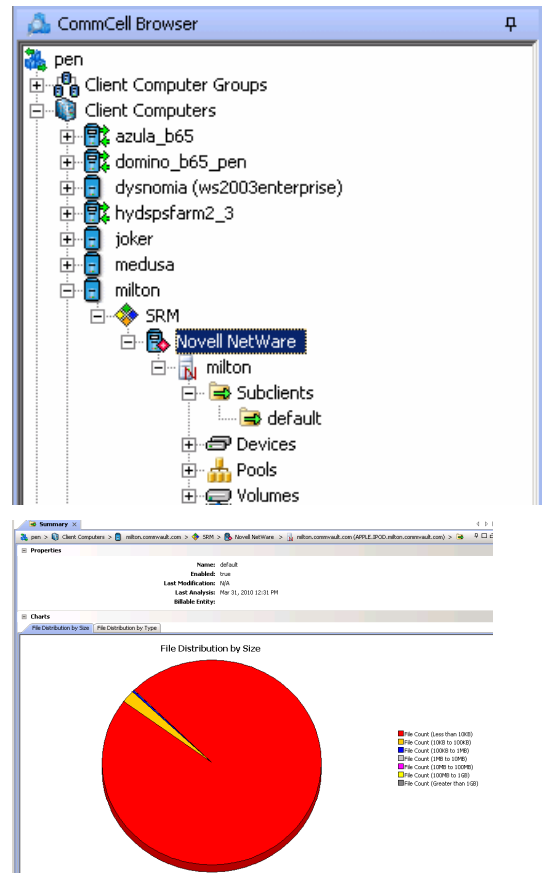

2. Expand **SRM,** select **Novell NetWare** and expand **Instances**, then select **Subclients**.

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

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

DEVICES SUMMARIES

The SRM NetWare Proxy Agent displays charts for **Storage Capacity per NetWare Device** and **Storage Capacity per Partition**. Each Device displays Properties including physical information like Name, Sector Count, Sector Size, Capacity, etc. The device level may also display Physical devices if available.

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

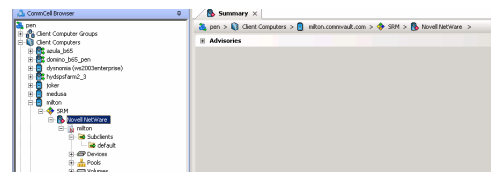2.   Expand **SRM,** select **Novell NetWare** and expand **Instances**, then select **Devices**.
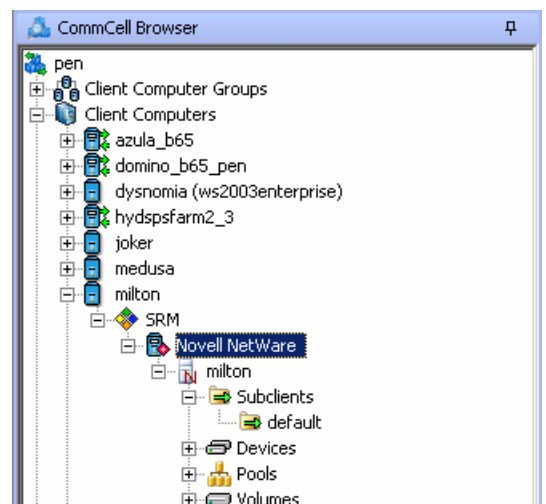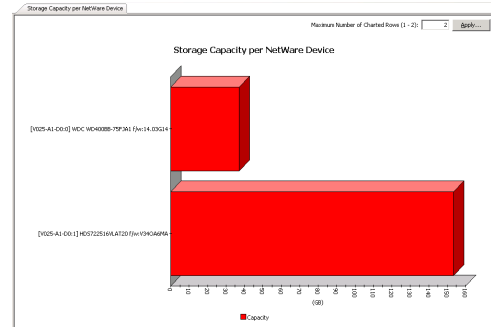

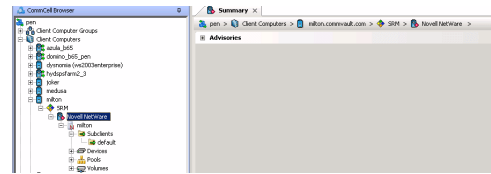3.   The associated **Devices Summary** will appear in the main window.

POOLS SUMMARIES

The SRM NetWare Proxy Agent displays charts for **Storage Pool Capacity**. Each pool also displays Properties including physical information like Name, Used Space, Free Space, Cost Category, etc. **Advisories** with severity level, the time stamp, and a brief description are also displayed along with charts at this level.

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

2. Expand **SRM,** select **Novell NetWare** and expand **Instances**, then select **Pools**.

3. The associated **Pools Summary** will appear in the main window.
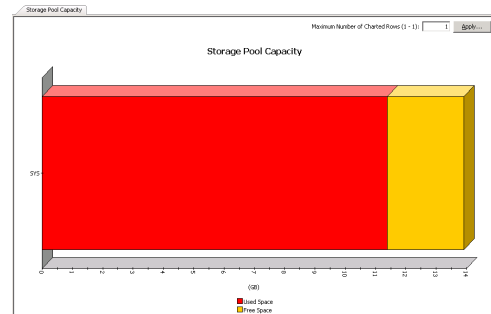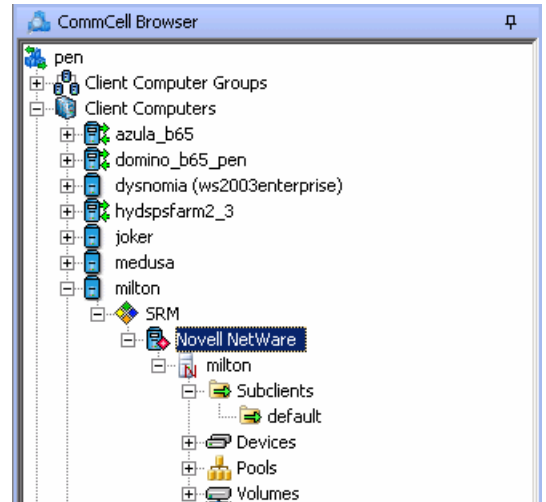
VOLUME SUMMARIES

Summary information at the Volume level include charts for **Storage Usage per NetWare Volume.**

Each volume also displays Properties including physical information like Name, NDS Location, Status, Used Space, etc. Advisories: Advisory information including severity level, time stamp, and a brief description is also displayed. Unique charts that include statistics, tabular data, and images such as bar graphs on the basis of **Usage History**, **File Distribution by Size**, **File Distribution by Type**, **File Distribution by Access Time**, **File Distribution by Modification Time** are displayed. The volume level may also display Physical devices if available.

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

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

2. Expand **SRM,** select **Novell NetWare** and expand **Instances**, then select **Volume**.

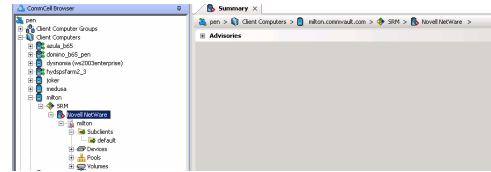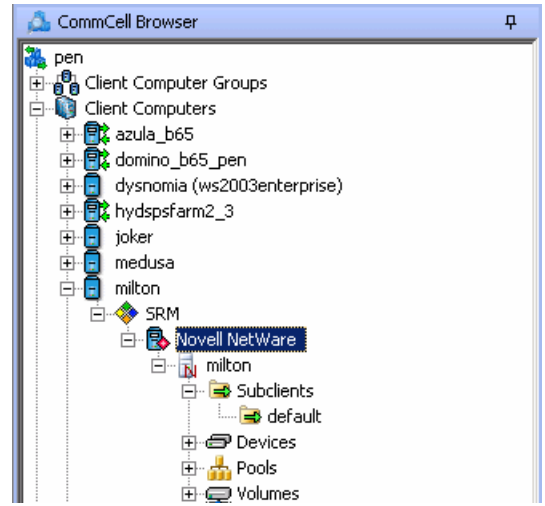3. The associated **Volume Summary** will appear in the main window.
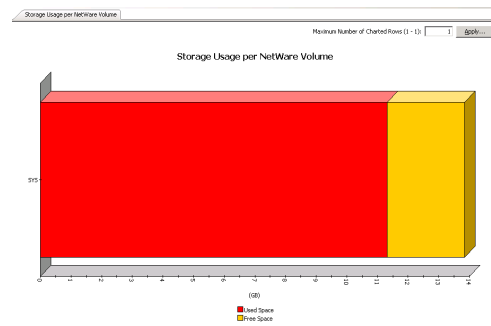
Back to Top

SRM NetWare 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.

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

This following table lists:

- The category/columns that can be selected.
- A description of the category.
- For each type of data collection job, if data is collected for the column, it is marked with a ✔. Running an Analysis Job may be required to produce complete and accurate data. An Analysis Job also includes the data collected by a Discovery Job.
- Agentless SRM reports always require Discovery Job during data collection.

For step-by-step instructions on generating reports, see Display, Run, or Schedule a Report Manager Report for step-by-step instructions.

Category/Column	Description	SRM Netware Agent		Agentless SRM
		Discovery Job	Analysis Job	Discovery Job
Client Properties	Displays aspects of the client computer on which the SRM NetWare File System Agent is installed.			
Hostname		✔		
Memory		✔		
Operating System		✔		
OS Vendor		✔		
OS Version		✔		
Processors		✔		
Service Pack		✔		
SP Version		✔		
Time Zone		✔		
Exchange PST Stats	Displays aspects of PST (personal storage) files created by Microsoft Outlook.			
Average File Size			✔	
File Count			✔	
Maximum File Size			✔	
Total File Size			✔	
File Distribution by User	Displays aspects of files distributed by users to help identify the major consumers of storage for capacity management and planning purposes.			
Name			✔	
File Extensions	Displays aspects of files per extension.			
			✔	

Feature	Description			
Average File Size				
Extension			✔	
File Count			✔	
Maximum File Size			✔	
Total File Size			✔	
NetWare Entities	Displays overall aspects per each computer selected (e.g., computer name, host group, etc.)			
Host Group		✔	✔	
Computer		✔	✔	
Pool		✔	✔	
Server		✔	✔	
Subclient Name		✔	✔	
Volume		✔	✔	
Partition	Summarizes aspects of each partition in the file system.			
Device		✔	✔	
Device Capacity		✔	✔	
Device ID		✔	✔	
Device Sector Size		✔	✔	
Label		✔	✔	
Number of Device Sectors		✔	✔	
Number of Partition Sectors		✔	✔	
Partition ID		✔	✔	
Partition		✔	✔	
Starting Sector		✔	✔	
Total Size		✔	✔	
Type		✔	✔	
Pool	Displays attributes characterized by pool in order to monitor pool space usage.			
% Free		✔	✔	
% Used		✔	✔	
Attributes		✔	✔	
Free Space		✔	✔	
State		✔	✔	
Total Space		✔	✔	
Used Space		✔	✔	
Prohibited Files	Displays aspects of files that are not allowed (or forbidden) in the NetWare file system.			
Accessed			✔	
Created			✔	
Modified			✔	
Name			✔	
Size			✔	
Server	Displays aspects of servers in the NetWare file system to help manage server disk space usage.			
% Free		✔	✔	
		✔	✔	

Feature	Description			
% Used				
Free Space		✔	✔	
Total Space		✔	✔	
Used Space		✔	✔	
Version		✔	✔	
Server Capacity History	Displays historical view of space on each NetWare Server that is attached to a particular client.			
% Free		✔	✔	
% Used		✔	✔	
As Of		✔	✔	
Free Space		✔	✔	
Total Space		✔	✔	
Used Space		✔	✔	
Subclient Client Usage	Displays file system space utilization, on a per subclient basis, as well as the number of files and directories on each volume.			
Directory Count			✔	
File Count			✔	
Total File Size			✔	
TopN Reports	The category count can be specified for reports of the top 'N', such as the Largest File report, affecting the number of entries to be displayed, e.g., top 10, top 20, etc. This parameter is specified separately for each Agent with Top 'N' reports, so that you can, for instance see the top 50 in all such reports for Windows, and the top 10 for UNIX reports.			
Largest File Accessed			✔	
Largest File Created			✔	
Largest File Modified			✔	
Largest File Name			✔	
Largest File Size			✔	
Least Recently Used File Accessed			✔	
Least Recently Used File Created			✔	
Least Recently Used File Size			✔	
Least Recently Used File Modified			✔	
Least Recently Used File Name			✔	
Oldest File Accessed			✔	
Oldest File Created			✔	
Oldest File Modified			✔	
Oldest File Name			✔	
Oldest File Size			✔	
User Details	Displays information of each NetWare User by computer to help plan and manage the allocation of disk space and file systems.			
Created		✔	✔	
Exceeded		✔	✔	
Name		✔	✔	
Quota Volume		✔	✔	
Space Limit		✔	✔	

Space Used		✔	✔	
Volume	Summarizes aspects of volume (a single accessible storage area with a single file system) to help identify heavy disk consumers for capacity management and planning purposes.			
Block Size		✔	✔	
Compressed Deleted Files		✔	✔	
Compressed Files		✔	✔	
Compressed Size		✔	✔	
Deleted Files		✔	✔	
Freeable Size		✔	✔	
NDS Location		✔	✔	
Non-freeable Size		✔	✔	
Quota Size		✔	✔	
Read Ahead Size		✔	✔	
State		✔	✔	
Total Files		✔	✔	
Total Objects		✔	✔	
Uncompressed Files		✔	✔	
Used Space		✔	✔	
User Name		✔	✔	
Volume Capacity History	Displays historical view of space on each volume that is attached to a particular client.			
% Free		✔	✔	
% Used		✔	✔	
As Of		✔	✔	
Free Space		✔	✔	
Total Space		✔	✔	
Used Space		✔	✔	

Back to Top

SRM NetWare File System Reports - How To

Topics | How To | Related Topics

Display, Run, or Schedule a Report Manager Report

File Categories for Reports

Time Categories for Reports

Top 'N' Category Counts for Reports

Configure IIS for Windows Server 2008

Save a Report Template

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:
   - Static Content
   - Default Document
   - Directory Browsing
   - HTTP Errors
   - 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:
   - IIS Metabase Compatibility
   - IIS 6 WMI Compatibility
   - IIS 6 Scripting Tools
   - 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

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.

Back to Top

Admin Job History - How To

Topics | How To | Related Topics

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 where 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.
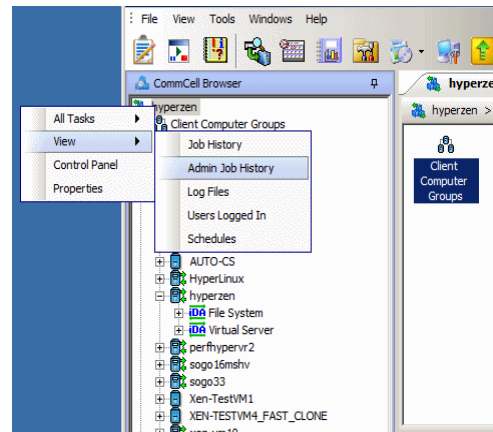
RESUBMIT AN ADMIN JOB

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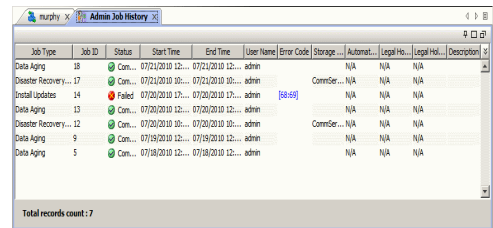
2. From the Admin Job History Filter dialog box, select the filter options that you want to apply and click **OK**.
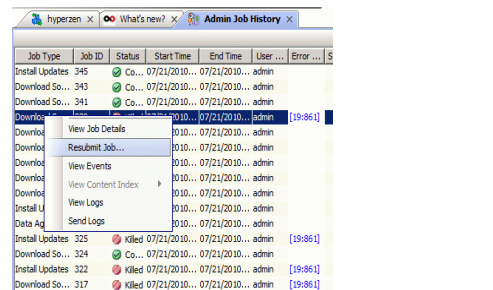

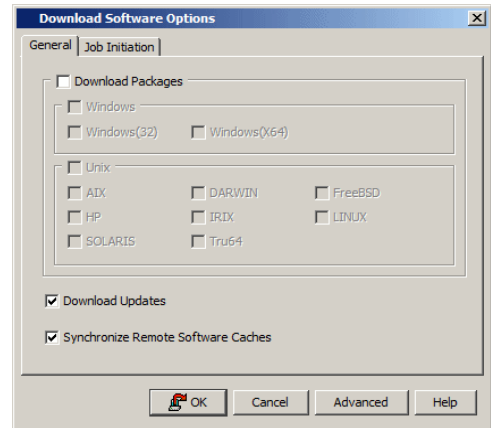3. The Admin Job History window displays with the specified filter options.
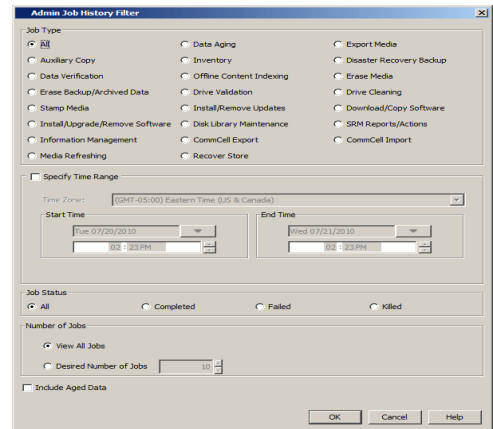
4. Right-click on any job (e.g., Download Software), and select **Resubmit**.

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

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


7. If you need to schedule the restore operation, select **Schedule** from the Job Initiation tab and click **Configure**.

8. From the **Schedule Details** dialog box that appears, select the appropriate scheduling options.

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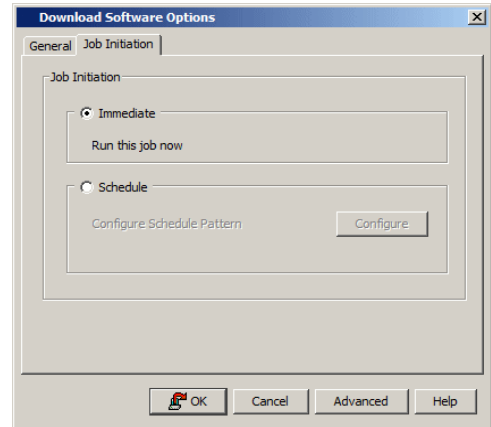
9. From the **Advanced Schedule Options** dialog box:
    - **Range of recurrence**: Specify the date on which you want this schedule to take effect.
    - **Repeat**: Select the value for which you want to run the job repeatedly on the day in which the job is scheduled to run.
    - **Time Zone**: Select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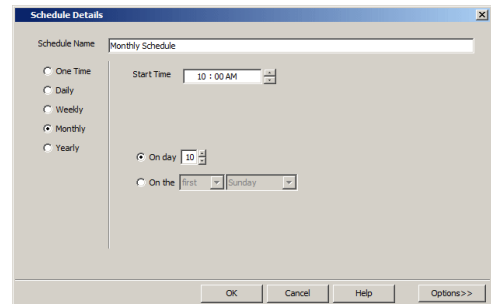
    Click **OK** to close the **Advanced Schedule Options** dialog box.
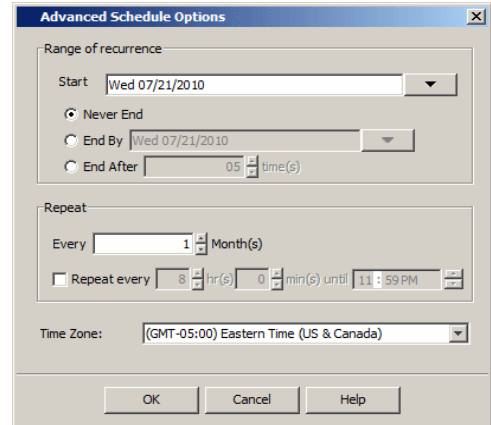
10. Click **OK** to close the **Schedule Details** window.

11. Click **OK** to close the job restart window.

Back to Top

SRM Data Collection Job History

Topics | How To | Related Topics

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

SRM Data Collection Job History - How To

Topics | How To | Related Topics

View Job History Details

View the Events of a Job History

View the Log Files of a Job History

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 where 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.

Back to Top