

Quantum[®]

StorNext[®]



Web Services Guide

6-68116-02, Rev. F

StorNext 6 Web Services Guide, 6-68116-02, November 2019, Product of USA.

Quantum Corporation provides this publication “as is” without warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability or fitness for a particular purpose. Quantum Corporation may revise this publication from time to time without notice.

COPYRIGHT STATEMENT

© 2019 Quantum Corporation. All rights reserved.

Your right to copy this manual is limited by copyright law. Making copies or adaptations without prior written authorization of Quantum Corporation is prohibited by law and constitutes a punishable violation of the law.

TRADEMARK STATEMENT

Artico, Be Certain (and the Q brackets design), DLT, DXi, DXi Accent, DXi V1000, DXi V2000, DXi V4000, FlexTier, GoVault, Lattus, NDX, the Q logo, the Q Quantum logo, Q-Cloud, Quantum (and the Q brackets design), the Quantum logo, Quantum Be Certain (and the Q brackets design), Quantum Vision, Scalar, StorageCare, StorNext, SuperLoader, Symform, the Symform logo (and design), vmPRO, and Xcellis are either registered trademarks or trademarks of Quantum Corporation and its affiliates in the United States and/or other countries. All other trademarks are the property of their respective owners.

Products mentioned herein are for identification purposes only and may be registered trademarks or trademarks of their respective companies. All other brand names or trademarks are the property of their respective owners.

Quantum specifications are subject to change.



Contents

Preface	v
StorNext Web Services Version 2 (V2)	v
Audience	vi
Ports Used By StorNext Web Services	vi
HTTP Port	vi
HTTPS Port	vi
View the List of Ports	vi
Chapter 1: StorNext Web Services Commands (V2)	1
StorNext Web Services V2 Commands, Usage, and Descriptions	2
Using the Web Services	2
Overview	3
Archive	9
Directory	16
Drive	23
File	29
Job	71

Media	80
Object Storage	140
Policy	145
Quota	160
Report	164
Schedule	188
System	208
Chapter 2: Software Development Kit (SDK) on Developing Applications Using StorNext Web Services V2	220
Prerequisites	221
Getting Started	221
Run the Web Services	224
Run the Web Services from a Client Application	228
Troubleshooting	274
Appendix A: Sample Perl Script	276
Sample Perl Script	277
Appendix B: SamplePython Script	294
Sample Python Script	295



Preface

This manual describes the commands supported by the StorNext Web Services and contains the following chapters:

- [Chapter 1: StorNext Web Services Commands \(V2\)](#)
- [Chapter 2: Software Development Kit \(SDK\) on Developing Applications Using StorNext Web Services V2](#)
- [Appendix A: Sample Perl Script](#)
- [Appendix B: SamplePython Script](#)

StorNext Web Services Version 2 (V2)

Version 2 of StorNext web services offers enhanced command coverage and supports XML, JSON, and TEXT response. The web services are categorized according to StorNext functional areas. For example, directories, files, media, etc.

Use the StorNext GUI to enable or disable the web service, set the protocol (HTTP or HTTPS), and control authentication. By default, version 2 web services are turned off (see [Enable Web Services on page 221](#)).

For API commands supported by the Web Services (V2), see [StorNext Web Services V2 Commands, Usage, and Descriptions on page 2](#).

Audience

This manual is written for StorNext 6 operators, system administrators, and field service engineers.

Ports Used By StorNext Web Services

The following table lists ports that are used by StorNext Web Services.

For a thorough explanation of StorNext's port selection algorithm, consult the **fsports(4)** man page.

Port	Protocol	StorNext Use	Notes
81	TCP	GUI (Java), Web Services	User starts at port 81, redirected to 443
443	TCP	GUI (Java), Web Services	

HTTP Port

The default **HTTP** port is **81**.

i Note: If **HTTP** port **81** is not available during your installation, the first available port is used (82, 83, etc.).

HTTPS Port

The default **HTTPS** port is **443**.

i Note: You do not need to specify the **HTTPS** port, as it will redirect to the secure port.

View the List of Ports

You can view the list of ports (both GUI and Web Services) in the `/usr/adic/tomcat/conf/server.xml` file.


Notational Conventions

This manual uses the following conventions:

Convention	Example
User input is shown in bold monospace font.	./DARTinstall
Computer output and command line examples are shown in monospace font.	./DARTinstall
User input variables are enclosed in angle brackets.	http://<ip_address>/cgi-bin/stats
For UNIX and Linux commands, the command prompt is implied.	./DARTinstall is the same as # ./DARTinstall
File and directory names, menu commands, button names, and window names are shown in bold font.	/data/upload
Menu names separated by arrows indicate a sequence of menus to be navigated.	Utilities > Firmware

The following formats indicate important information:

 **Note:** Note emphasizes important information related to the main topic.

 **Caution:** Caution indicates potential hazards to equipment or data.

 **WARNING:** Warning indicates potential hazards to personal safety.

- Right side of the system - Refers to the right side as you face the component being described.
- Left side of the system - Refers to the left side as you face the component being described.
- Data sizes are reported in base 10 (decimal) rather than base 2¹⁰ (binary). For example:
10,995, 116,277,769 Bytes are reported as 11.0 TB (decimal/1000). In binary, this value is 10 TiB (binary/1024).

Product Safety Statements

Quantum will not be held liable for damage arising from unauthorized use of the product. The user assumes all risk in this aspect.

This unit is engineered and manufactured to meet all safety and regulatory requirements. Be aware that improper use may result in bodily injury, damage to the equipment, or interference with other equipment.

-
- WARNING:** Before operating this product, read all instructions and warnings in this document and in the *Quantum Products System, Safety, and Regulatory Information Guide*.
-
- ADVARSEL:** Læs alle instruktioner og advarsler i dette dokument og i *Informationsvejledning vedrørende system-, sikkerheds- og lovbestemmelser for Quantum produkter, før produktet betjenes*.
-
- AVERTISSEMENT :** Avant d'utiliser ce produit, lisez toutes les instructions et les avertissements de ce document et du *Guide d'informations sur le système, la sécurité et la réglementation de Quantum*.
-
- WARNUNG:** Lesen Sie vor der Inbetriebnahme dieses Produkts alle Anleitungen und Warnungen in diesem Dokument und im *System-, Sicherheits- und Betriebsbestimmungen-Handbuch für Quantum-Produkte*.
-
- ADVERTENCIA:** Antes de hacer funcionar este producto, lea todas las instrucciones y advertencias de este documento y de la *Guía de información normativa, del sistema y de seguridad de los productos de Quantum*.
-
- VARNING:** Läs igenom alla instruktioner och varningar i detta dokument och i *Quantums produktsystem, säkerhet och reglerande informationsguide* innan denna produkt används.
-
- ВНИМАНИЕ!** Перед началом эксплуатации данного изделия прочтите все инструкции и предупреждения, приведенные в настоящем документе и в *Руководстве по системе, технике безопасности и действующим нормативам компании Quantum*.
-
- 警告：** 本製品を使用される前に、本書と『*Quantum製品システム、安全、規制情報ガイド*』に記載されているすべての説明と警告をお読みください。
-
- 경고:** 본 제품을 작동하기 전에 본 문서와 *Quantum 제품 시스템, 안전 및 규제 정보 설명서*에 있는 모든 지침과 경고를 참조합니다.
-
- 警告：** 在操作本产品之前，请阅读本文档和 *Quantum 产品系统、安全和法规信息指南*中的所有说明和警告。
-
- 警告：** 操作此產品前，請閱讀本檔案及 *Quantum 產品系統、安全與法規資訊指南*中的指示與警告說明。

אזהרה: לפני ההפעלה של מוצר זה, קרא את כל ההוראות והאזהרות הכלולות במסמך זה וכן במדריך המידע בנושא מערכת, בטיחות ותקינה עבור מוצרי Quantum.

For the most up to date information on StorNext 6, see:

<http://www.quantum.com/serviceandsupport/get-help/index.aspx#contact-support>

Contacts

For information about contacting Quantum, including Quantum office locations, go to:

<http://www.quantum.com/aboutus/contactus/index.aspx>

Comments

To provide comments or feedback about this document, or about other Quantum technical publications, send e-mail to:

doc-comments@quantum.com

Getting More Information or Help

StorageCare™, Quantum's comprehensive service approach, leverages advanced data access and diagnostics technologies with cross-environment, multi-vendor expertise to resolve backup issues faster and at lower cost.

Accelerate service issue resolution with these exclusive Quantum StorageCare services:

- **Service and Support Website** - Register products, license software, browse Quantum Learning courses, check backup software and operating system support, and locate manuals, FAQs, firmware downloads, product updates and more in one convenient location. Get started at:
<http://www.quantum.com/serviceandsupport/get-help/index.aspx#contact-support>
- **eSupport** - Submit online service requests, update contact information, add attachments, and receive status updates via email. Online Service accounts are free from Quantum. That account can also be used to access Quantum's Knowledge Base, a comprehensive repository of product support information. Get started at:

<http://www.quantum.com/customercenter/>

For further assistance, or for training opportunities, contact the Quantum Customer Support Center:

Region	Support Contact
North America	1-800-284-5101 (toll free) +1-720-249-5700
EMEA	+800-7826-8888 (toll free) +49 6131 324 185
Asia Pacific	+800-7826-8887 (toll free) +603-7953-3010

For worldwide support:

<http://www.quantum.com/serviceandsupport/get-help/index.aspx#contact-support>

Worldwide End-User Product Warranty

For more information on the Quantum Worldwide End-User Standard Limited Product Warranty:

<http://www.quantum.com/serviceandsupport/warrantyinformation/index.aspx>



Chapter 1: StorNext Web Services Commands (V2)

This chapter contains the following topics:

StorNext Web Services V2 Commands, Usage, and Descriptions	2
Using the Web Services	2
Overview	3
Archive	9
Directory	16
Drive	23
File	29
Job	71
Media	80
Object Storage	140
Policy	145
Quota	160
Report	164
Schedule	188
System	208

StorNext Web Services V2 Commands, Usage, and Descriptions

This section provides API commands supported by the Web Services (V2), along with respective:

- Description
- Parameters
- Parameters (input, output)
- Return Values
- Calling Sequence
- Usage Scenario
- Examples and Sample Output
- Related APIs (**where applicable**)
- Notes and Warnings (**where applicable**)

Using the Web Services

By default, web services are turned off. Use the StorNext GUI to enable or disable the web service, set the protocol (HTTP or HTTPS), and control authentication. By default, version 2 web services are turned off (see [Enable Web Services on page 221](#)).

Web Services Options

The table below describes the allowed web service options.

Table 1: Allowed web service options

Option	Protocol	Description
Protocol	HTTP	Allow web services over HTTP.
	HTTPS	Allow web services over HTTPS.
	HTTP or HTTPS	Allow web services over HTTP or HTTPS.

Option	Protocol	Description
Authentication	Off	No authentication is required to use web services.
	User	A username and password must be provided. The user is setup in the StorNext GUI.

Below is an example of a URL using the HTTP protocol and user authentication.

i Note: URL examples include multiple lines for clarity; your URLs will be a single line.

```
https://<<SERVER>>/sws/v2/report/fsqueue/media  
?username=wsuser  
&password=<<password>>  
&request=1928784996  
&format=xml
```

All examples are based on a protocol of HTTPS and no authentication.

Description for Num in the Parameters Tables

The **Num** field in the parameters table displays if the parameter is a single value or a list of values can be passed.

If the parameter only accepts one value, **1** is used for **Num**. If a list of values is allowed, **N** is used for **Num**.

An example of a web service which accepts a list of values is illustrated below.

```
https://<<SERVER>>/sws/v2/file/fsfileinfo  
?file=/stornext/snfx1/smp2data/foobar0  
&file=/stornext/snfx1/smp2data/foobar1
```

Overview

The table below provides a description for each category of a web service. The web services are organized into the high-level categories outlined in [Table 1 on the next page](#).

Table 1: Web Service Categories and General Descriptions

Category	Description
Archive	Return information about an archive, query an archive port, or change the state of an archive.
Directory	Modify the class attributes of a directory or retrieve or recover files from media.
Drive	Report or change the state of drive components and storage subsystems.
File	Report, retrieve, and store files to tiered storage.
Job	Return information about jobs.
Media	Manage media – copy, clean up, move, and report.
Object Storage	Report Object Storage components.
Policy	Manage and report policies.
Quota	Manage and report quotas.
Report	Return information about subsystem resource requests.
Schedule	Manage and report schedules.
System	Get the status of system and Tertiary Storage Manager (TSM) components. Manage and report backups.

[Table 2 below](#) provides a brief description of each web service and the minimum access control required to execute the command (see [Create the SWS V2 Web Service User on page 223](#)).

Table 2: Web Service Descriptions

Web Service	Description	Minimum Access Control Required to Execute the Command
Archive		
Query	Return information about an archive.	Destination, Read-Only
Query port	Query an archive port.	Destination, Read-Only
Change state	Change the state of an archive.	Destination, Read-Write
Directory		
Change attributes	Modify the class attributes of a directory.	File, Read-Write

Web Service	Description	Minimum Access Control Required to Execute the Command
Retrieve files	Retrieve files from media and place them on disk.	File, Read-Write
Drive		
State	Report the state of storage subsystem drive components and storage subsystems and Tertiary Storage Manager (TSM) software.	Destination, Read-Only
Change state	Change the state of a storage component in the Quantum storage subsystem.	Destination, Read-Write
File		
Information	Generate a report about files known to the Tertiary Storage Manager.	File, Read-Only
Tape location	Generate a report about a file's tape copy location.	File, Read-Only
Retrieve files	Retrieve files from media and place on disk.	File, Read-Write
Retrieve files / new location	Retrieve files from media and place into new disk file.	File, Read-Write
Relocate file from one affinity to another	Relocates a managed file from one disk affinity to another.	File, Read-Write
Retrieve files / partial	Retrieve partial files from media and place on disk.	File, Read-Write
Store	Expedite the storage of a file that currently resides on disk to media.	File, Read-Write
Remove disk copy	Remove the copy of a file from disk after the file was stored to a medium.	File, Read-Write
Modify class attributes	Modify the class attributes of a file.	File, Read-Write
Job		
Asynchronous job status	Returns a status of the jobs that are invoked asynchronously.	None

Web Service	Description	Minimum Access Control Required to Execute the Command
Detailed mover job status	Returns a detailed status of the mover jobs that are invoked asynchronously.	None
Media		
Information	Generate a media report based on their current status.	Destination, Read-Only
File background job status	Reports the status of the background job.	Destination, Read-Write
File inactive removal	Remove inactive versions of files.	Destination, Read-Write
File inactive remove by media	Clean all files on media that have been marked as logically blank.	Destination, Read-Write
File inactive removal list	List all media that has been marked as logically blank.	Destination, Read-Write
Move media	Move media from one archive to another.	Destination, Read-Write
Import cleaning media	Imports a list of cleaning media.	Destination, Read-Write
Import media	Imports a list of media.	Destination, Read-Write
Export media	Exports a list of media.	Destination, Read-Write
Copy media	Initiates copy-replace for a media.	Destination, Read-Write
Fragmentation report	Report on media fragmentation.	Destination, Read-Write
Eject media	Eject media out of an archive to be entered into another archive.	Destination, Read-Write
Enter media	Enter media that has been ejected out of an archive into another archive.	Destination, Read-Write
Purge media	Purges a list of media.	Destination, Read-Write

Web Service	Description	Minimum Access Control Required to Execute the Command
Attribute query	Queries for the attributes of one or more specified media.	Destination, Read-Only
Change media state	Change the class or state of a media.	Destination, Read-Write
Checkout media	Check media out of the Media Manager system.	Destination, Read-Write
List media for removal	List all media that are marked for removal.	Destination, Read-Write
List media by state	Lists media by state.	Destination, Read-Write
List media by location	Lists media by location.	Destination, Read-Write
Object Storage		
Report Object Storage components	Report Object Storage components.	Destination, Read-Only
Policy		
Class information	Report information on storage manager policies.	Policy, Read-Only
Modify a policy	Modify the processing parameters of a policy class.	Policy, Read-Write
Report policy class for a directory	Reports the policy class associated with directory.	Policy, Read-Only
Report policy class for a file system	Reports all policy classes with association points in a file system.	Policy, Read-Only
Quota		
Manage quotas	Manage the quota system in the StorNext file system.	File, Read-Write
Report		

Web Service	Description	Minimum Access Control Required to Execute the Command
Cancel requests	Cancels requests.	Policy, Read-Write
Files	Reports all files in the queue or specific files if a request identifiers or filename is specified.	Policy, Read-Only
Media	Reports the media movement for a request identifier or all media in queue.	Policy, Read-Only
Mover host	Reports the active mover host summary.	Policy, Read-Only
Mover request	Reports the active mover request summary.	Policy, Read-Only
Resource	Reports the active resource request summary.	Policy, Read-Only
Status	Reports the status summary information on requests.	Policy, Read-Only
Schedule		
Report	Prints the report of a feature or schedule.	System, Read-Only
Create	This web service will create a schedule.	System, Read-Write
Update	This web service will update a schedule.	System, Read-Write
Delete	This web service deletes an existing schedule.	System, Read-Write
Reset	This web service resets an existing schedule.	System, Read-Write
System		
Backup	Execute backup of configuration, database, and file system metadata.	System, Read-Write
Backup status	Retrieves the status of the backup operation.	System, Read-Only
File System Report	Reports the status of a file system and the status of stripe groups that belong to it.	File, Read-Only
Information	Retrieves the latest status of system components.	System, Read-Only

Web Service	Description	Minimum Access Control Required to Execute the Command
Parameters	Report the value for the specified Tertiary Manager System parameter.	Policy, Read-Only

Archive

Archive / Query

Return information about an archive.

This web service runs the `vsarchiveqry` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
archive	Optional	1	Identifies the archive to be queried. If not specified, all archives are queried.	-a (if absent)

Parameter	Req / Opt	Num	Description	CLI Option
showclassgroups	Optional	1	Indicates that detailed information on all MediaClass groups associated with the specified archive(s) are to be reported. Default value is false .	-c
showdrives	Optional	1	Indicates that all drives associated with the specified archive(s) are to be reported. Default value is false .	-d
showmedia	Optional	1	Indicates that all media associated with the specified archive(s) are to be reported. Default value is false .	-m
showports	Optional	1	Indicates that all import/export ports associated with the specified archive(s) are to be reported. Default value is false .	-s
showtypes	Optional	1	Indicates that detailed information on all media types associated with the specified archive(s) are to be reported. Default value is false .	-t
hostname	Optional	1	The host name of the Media Manager server.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries that web service will attempt if a timeout is returned by the API software. The default retries value is 3 .	-R
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout to the CLI software. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 300016 .	-V

Example

```
https://<<SERVER>>/sws/v2/archive/vsarchiveqry  
?archive=myarchive  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<vsarchiveqry xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="vsarchiveqry.xsd">  
<header>  
<commandName>vsarchiveqry</commandName>  
<commandLine>/usr/adic/MSM/clibin/vsarchiveqry myarchive -F xml</commandLine>  
<commandDescription>Queries for information about an  
archive.</commandDescription>  
<localDateISO>2014-05-15T10:44:08</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>10:44:08</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T15:44:08Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>  
<gmtTime>15:44:08</gmtTime>  
<gmtDayOfWeek>4</gmtDayOfWeek>  
</header>  
<archives>  
<archive>  
<archiveName>myarchive</archiveName>  
<archiveType>SCSI</archiveType>  
<archiveState>On-line</archiveState>  
<archiveMode>Attended</archiveMode>
```

```
<fillMode>None</fillMode>
<configState>Not Being Configured</configState>
</archive>
</archives>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T10:44:08</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>10:44:08</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T15:44:08Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>15:44:08</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0178</elapsedTimeInSeconds>
</footer>
</vsarchiveqry>
```

Archive / Query Port

Query an archive port.

This web service runs the **mmportinfo** command.

Note: This web service returns text output.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
archive	Required	1	Identifies the archive to obtain port information about. Valid archive names may contain up to 16 alphanumeric characters, including spaces. Leading and trailing spaces are not permitted.	archive name

Example

```
https://<<SERVER>>/sws/v2/archive/mmpportinfo  
?archive=i40
```

Output

```
Exit Code: 0  
Output: 512:LT0W,LT0:0,0,15,512
```

Archive / Change State

Change the state of an archive.

This web service runs the **vsarchivevary** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
archive	Required	1	Identifies the archive to be queried.	archive name
state	Required	1	Identifies the state into which the archive is placed. Valid archive states are: on-line , off-line , and diagnostic . The archive states, on-line , off-line , and diagnostic are abbreviated as on , of , and d respectively.	-s
hostname	Optional	1	The host name of the Media Manager server.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries that web service will attempt if a timeout is returned by the API software. The default retries value is 3 .	-R
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout to the CLI software. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 300016 .	-V

Example

```
https://<<SERVER>>/sws/v2/archive/vsarchivevary
?archive=myarchive
&state=on
&format=xml
```


Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<vsarchivevary xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="vsarchivevary.xsd">
<header>
<commandName>vsarchivevary</commandName>
<commandLine>/usr/adic/MSM/clibin/vsarchivevary myarchive -s on -F
xml</commandLine>
<commandDescription>Varies the state of an archive.</commandDescription>
<localDateISO>2014-05-15T10:45:46</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>10:45:46</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T15:45:46Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>15:45:46</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<vsarchivevaryOutput>
<vsarchivevarySuccess>
<vsarchivevaryArchive>myarchive</vsarchivevaryArchive>
<vsarchivevaryState>on-line</vsarchivevaryState>
</vsarchivevarySuccess>
</vsarchivevaryOutput>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T10:45:46</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>10:45:46</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T15:45:46Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>15:45:46</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0183</elapsedTimeInSeconds>
</footer>
</vsarchivevary>
```

Directory

Directory / Change Attributes

Modify the class attributes of a directory.

This web service runs the **fschdiat** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
directory	Required	N	Directory or directories to process.	directory name
recursive	Optional	1	Only one directory can be specified when the parameter is used. A value of false will process directory and its contents while a value of true will perform a recursive operation on the directory. If this parameter is not used, then the directories specified by the directory parameter are processed.	-R or -D
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
stubsizes	Optional	1	This indicates the stub size (in kilobytes) and is used to determine the number of bytes to leave on disk when files are truncated. It will be the minimum number of bytes left on disk (the value is rounded up to a multiple of the file system block size). If policy is specified as the value, then the policy class definitions will be used to determine the stub size.	-S
reloc	Optional	1	This option indicates how relocation policies operate. Valid values are exclude and policy . The exclude option excludes files from storage when a store policy occurs. The policy option stores files by storage policy.	-r

Parameter	Req / Opt	Num	Description	CLI Option
store	Optional	1	This option indicates how storage policies operate. Valid values are exclude and policy . The exclude option excludes files from storage when a store policy occurs. The policy option stores files by storage policy.	-s
trunc	Optional	1	This option indicates how truncation policies operate. Valid values are exclude and policy . The exclude option excludes files from storage when a store policy occurs. The policy option stores files by storage policy.	-t
clean	Optional	1	This option indicates if the database entries are to be cleaned when the file is removed from the file system. The yes option indicates that the database entries will be cleaned and the file will NOT be recoverable. The no option indicates that the database entries will NOT be cleaned and the file will be recoverable.	-C
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
policy	Optional	1	This specifies the class that will be associated with the directory.	-c

Example

```
https://<<SERVER>>/sws/v2/directory/fschdiat
?policy=smp4
```

```
&directory=/stornext/snfx1/smp2data/foodir0
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8"?>
<fschdiat xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fschdiat.xsd">
  <header>
    <commandName>fschdiat</commandName>
    <commandLine>/usr/adic/TSM/bin/fschdiat -c smp4 -F xml
/stornext/snfx1/smp2data/foodir0</commandLine>
    <commandDescription>Modify the class attributes of a
directory</commandDescription>
    <localDateISO>2015-12-03T11:49:12</localDateISO>
    <localDate>2015-12-03</localDate>
    <localTime>11:49:12</localTime>
    <localDayOfWeek>4</localDayOfWeek>
    <gmtDateISO>2015-12-03T18:49:12Z</gmtDateISO>
    <gmtDate>2015-12-03</gmtDate>
    <gmtTime>18:49:12</gmtTime>
    <gmtDayOfWeek>4</gmtDayOfWeek>
  </header>
  <statuses>
    <status>
      <statusCode>FS0109</statusCode>
      <statusNumber>109</statusNumber>
      <dayOfMonth>3</dayOfMonth>
      <requestId>180911</requestId>
      <commandName>/usr/adic/TSM/bin/fschdiat</commandName>
      <commandStatus>interim</commandStatus>
      <statusText>Command successful for
/stornext/snfx1/smp2data/foodir0.</statusText>
    </status>
    <status>
      <statusCode>FS0390</statusCode>
      <statusNumber>390</statusNumber>
      <dayOfMonth>3</dayOfMonth>
      <requestId>180911</requestId>
      <commandName>/usr/adic/TSM/bin/fschdiat</commandName>
      <commandStatus>completed</commandStatus>
      <statusText>1 out of 1 directory attribute changes were
```

```
successful.</statusText>
  </status>
  <status>
    <statusCode>FS0000</statusCode>
    <statusNumber>0</statusNumber>
    <dayOfMonth>3</dayOfMonth>
    <requestId>180911</requestId>
    <commandName>/usr/adic/TSM/bin/fschdiat</commandName>
    <commandStatus>completed</commandStatus>
    <statusText>Command Successful.</statusText>
  </status>
</statuses>
<footer>
  <returnCode>0</returnCode>
  <localDateISOEnd>2015-12-03T11:49:12</localDateISOEnd>
  <localDateEnd>2015-12-03</localDateEnd>
  <localTimeEnd>11:49:12</localTimeEnd>
  <localDayOfWeekEnd>4</localDayOfWeekEnd>
  <gmtDateISOEnd>2015-12-03T18:49:12Z</gmtDateISOEnd>
  <gmtDateEnd>2015-12-03</gmtDateEnd>
  <gmtTimeEnd>18:49:12</gmtTimeEnd>
  <gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
  <elapsedTimeInSeconds>0.0003</elapsedTimeInSeconds>
</footer>
</fschdiat>
```

Directory / Retrieve Files

Retrieve or recover files from media and place on disk.

This web service runs the **fsretrieve** command.

Important Consideration About The Recursive Retrieve Command

There are two phases when you invoke a recursive retrieve command:

- **Phase 1:** Mapping of the directory and the files to determine which files are retrieved.
- **Phase 2:** The actual retrieves from tape, sdisk, and object storage.

During **Phase 1** you can only execute one recursive retrieve command at a time. If you execute multiple recursive retrieve commands concurrently, the processes fail and you are notified that an existing recursive retrieve command is in progress.

For example, if a recursive retrieve is currently running **Phase 1** and an additional recursive retrieve is invoked, the second request fails

However, if that same recursive retrieve is currently running **Phase 2**, and an additional recursive retrieve is invoked, the second request is processed without any errors.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
directory	Required	1	The directory from which to start the recursive retrieves.	-R
updateaccesstime	Optional	1	Updates the access time for the requested files. Default value is false .	-a
toppriority	Optional	1	Specifies top priority and will cause all files for the retrieve request to be placed at the top of the retrieve queue. Default value is false .	-p

Example

```
https://<<SERVER>>/sws/v2/directory/fsretrieve  
?directory=/stornext/snfs1/xxx  
&updateaccesstime=false  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsretrieve xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsretrieve.xsd">
<header>
<commandName>fsretrieve</commandName>
<commandLine>/usr/adic/TSM/bin/fsretrieve -R /stornext/snfs1/xxx -F
xml</commandLine>
<commandDescription>Retrieve files from media and place on
disk</commandDescription>
<localDateISO>2014-05-15T11:04:42</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:04:42</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:04:42Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:04:42</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0657</statusCode>
<statusNumber>657</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387987</requestId>
<commandName>/usr/adic/TSM/bin/fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>Creating map of /stornext/snfs1/xxx ...</statusText>
</status>
<status>
<statusCode>FS0658</statusCode>
<statusNumber>658</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387987</requestId>
<commandName>/usr/adic/TSM/bin/fsretrieve</commandName>
<commandStatus>interim</commandStatus>
```

```
<statusText>Mapping completed.</statusText>
</status>
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387987</requestId>
<commandName>/usr/adic/TSM/bin/fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0655</statusCode>
<statusNumber>655</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387987</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>Currently processed 0 out of 100 files.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387987</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>completed</commandStatus>
<statusText>100 out of 100 retrieves were successful.</statusText>
</status>
```



```
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:04:51</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:04:51</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:04:51Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:04:51</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>9.0595</elapsedTimeInSeconds>
</footer>
</fsretrieve>
```

Drive

Drive / State

Report the state of all Quantum storage subsystem drive components and storage subsystems and/or Tertiary Manager software.

This web service runs the **fsstate** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
drive	Optional	1	Component alias drive identifier. Submitting the fsstate request without this option generates a report showing all storage subsystems and drive components currently configured in the Quantum storage subsystem and the state of Tertiary Manager software.	component alias

Example

```
https://<<SERVER>>/sws/v2/drive/fsstate  
?drive=vt1_dr1  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsstate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsstate.xsd">  
<header>  
<commandName>fsstate</commandName>  
<commandLine>/usr/adic/TSM/bin/fsstate vt1_dr1 -F xml</commandLine>
```

```
<commandDescription>Report the state of all Stornext drive components and storage
subsystems and/or Tertirary Manager software</commandDescription>
<localDateISO>2014-05-15T11:08:06</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:08:06</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:08:06Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:08:06</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<components>
<component>
<note>configured</note>
<alias>vtl_dr1</alias>
<driveId>1</driveId>
<driveState>ON</driveState>
<driveStatus>FREE</driveStatus>
<mediaId>NONE</mediaId>
</component>
</components>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387993</requestId>
<commandName>fsstate</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
```

```
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:08:06</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:08:06</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:08:06Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:08:06</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0084</elapsedTimeInSeconds>
</footer>
</fsstate>
```


Drive / Change State

Change the state of a storage component in the Quantum storage subsystem.

This web service runs the **fschstate** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast .  Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
drive	Required	1	Component alias drive identifier.	component alias
state	Required	1	The desired state of the drive components or subsystems. The valid values for drive components are MAINT , ON , or OFF . Valid values for subsystems are ON or OFF .	-s

Example

```
https://<<SERVER>>/sws/v2/drive/fschstate  
?drive=vt1_dr1  
&state=ON  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fschstate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fschstate.xsd">  
<header>
```

```
<commandName>fschstate</commandName>
<commandLine>/usr/adic/TSM/exec/fschstate vt1_dr1 -s on -F xml</commandLine>
<commandDescription>Change the state of a storage component.</commandDescription>
<localDateISO>2014-05-15T11:09:06</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:09:06</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:09:06Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:09:06</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0258</statusCode>
<statusNumber>258</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387995</requestId>
<commandName>fschstate</commandName>
<commandStatus>interim</commandStatus>
<statusText>Command attempted on vt1_dr1. New state = on. Status =
Successful.</statusText>
</status>
<status>
<statusCode>FS0270</statusCode>
<statusNumber>270</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387995</requestId>
<commandName>fschstate</commandName>
<commandStatus>completed</commandStatus>
<statusText>Overall status = Successful.</statusText>
```

```
</status>  
</statuses>  
<footer>  
<returnCode>0</returnCode>  
<localDateISOEnd>2014-05-15T11:09:06</localDateISOEnd>  
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>11:09:06</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T16:09:06Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>16:09:06</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0175</elapsedTimeInSeconds>  
</footer>  
</fschstate>
```

File

File / Information

Generate a report about files known to the Tertiary Storage Manager.

This web service runs the **fsfileinfo** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
checksum	Optional	1	If checksum was turned on for the file when stored and this option is specified, the checksum value generated for the file will be displayed. Default value is false .	-c

Parameter	Req / Opt	Num	Description	CLI Option
compressioninfo	Optional	1	If compression is enabled for the file when stored, the compression type, size, and ratio for the file is displayed. Default value is false .	-q
directory	Optional	1	The directory to process. The recursive parameter determines how the directory will be processed. i Note: At least one file or directory path is required.	-R or -D
encryptioninfo	Optional	1	If encryption is enabled for the file when stored, the encryption type for the file is displayed. Default value is false .	-e
file	Optional	1	List of files for which information is required. i Note: At least one file or directory path is required.	filename
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
objectinfo	Optional	1	If the file has one or more copies stored to Object Storage, then the object ids will be displayed. Offset information will also be displayed for each object id. Default value is false .	-o

Parameter	Req / Opt	Num	Description	CLI Option
objecturl	Optional	1	If the file has a copy or more stored to Object Storage, then the object URLs are displayed. Object Storage configuration information is also displayed. Default value is false .	-u
recursive	Optional	1	This parameter is only valid when the directory parameter is specified. A value of false will only process the contents of the directory while a value of true will perform a recursive operation on the directory. The default value is true .	-R or -D

Example

```
https://<<SERVER>>/sws/v2/file/fsfileinfo  
?file=/stornext/snfs1/xxx/testfile.0  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsfileinfo xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsfileinfo.xsd">  
<header>  
<commandName>fsfileinfo</commandName>  
<commandLine>/usr/adic/TSM/bin/fsfileinfo -F xml  
/stornext/snfs1/xxx/testfile.0</commandLine>  
<commandDescription>Generate a report about files known to the Tertiary  
Manager</commandDescription>  
<localDateISO>2014-05-15T11:12:56</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>11:12:56</localTime>  
<localDayOfWeek>4</localDayOfWeek>
```

```
<gmtDateISO>2014-05-15T16:12:56Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:12:56</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<fileInfos>
<fileInfo>
<fileName>/stornext/snfs1/xxx/testfile.0</fileName>
<storedPathFileName>N/A</storedPathFileName>
<storedPathSameAsFileName>>false</storedPathSameAsFileName>
<lastModificationDateString>15-may-2014 11:11:09</lastModificationDateString>
<lastModificationDate>2014-05-15</lastModificationDate>
<lastModificationDayOfWeek>4</lastModificationDayOfWeek>
<lastModificationTime>11:11:09</lastModificationTime>
<owner>root</owner>
<location>DISK</location>
<group>root</group>
<existingCopies>0</existingCopies>
<access>664</access>
<targetCopies>1</targetCopies>
<targetStubSize>0</targetStubSize>
<targetStubScale>1024</targetStubScale>
<existingStubSize>n/a</existingStubSize>
<fileSize>100000</fileSize>
<store>MINTIME</store>
<affinity>n/a</affinity>
<reloc>MINTIME</reloc>
<class>xxx</class>
<trunc>MINTIME</trunc>
<cleanDBInfo>NO</cleanDBInfo>
```

```
<medias>
<media>
<message>None</message>
</media>
</medias>
<checksums>
<checksum>
<summary>N</summary>
</checksum>
</checksums>
<objects>
<object>
<summary>N</summary>
</object>
</objects>
</fileInfo>
</fileInfos>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388006</requestId>
<commandName>/usr/adic/TSM/bin/fsfileinfo</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
```

```
<localDateISOEnd>2014-05-15T11:12:56</localDateISOEnd>  
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>11:12:56</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T16:12:56Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>16:12:56</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0022</elapsedTimeInSeconds>  
</footer>  
</fsfileinfo>
```

File / Expire Copies of a File

Allows you to expire numbered copies from all versions of the specified file(s). You must first configure the copy numbers for expiration. When you create or modify a file, you must create all copies for the current version before any copies can be expired. You can manually expire copies before the expiration interval has elapsed. You cannot expire copies for Write Once Read Multiple (WORM) media types.

This web service runs the `/usr/adic/TSM/exec/fsexpcopy` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None

Parameter	Req / Opt	Num	Description	CLI Option
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
copy	Optional	1	The copy number to expire. i Note: Required unless the scheduled parameter is set.	-c
file	Optional	N	One or more file(s) to expire. i Note: At least one file or directory path is required.	file name
dir	Optional	1	The directory from which to do start the recursive file expiration. i Note: At least one file or directory path is required.	-R
scheduled	Optional	1	Boolean that selects scheduled processing for automatic expiration of copies based on time since last access of a file. When specified, the copy , file and dir parameters cannot be set. i Note: At most one instance of the command is allowed to be running, and the command can take a long time to complete.	-S

JSON Example

```
https://<<SERVER>>/sws/v2/policy/fsexpcopy  
?copy=2  
&file=/stornext/snfs/file1  
&/stornext/snfs/file2  
&format=JSON
```

JSON Output

```
{
```

```

    "header": {
      "commandName": "fsexpcopy",
      "commandLine": "/usr/adic/TSM/exec/fsexpcopy -c 2
/stornext/snfs/file1 /stornext/snfs/file2 -F JSON",
      "commandDescription": "Expire file copies from media",
      "localDateISO": "2018-06-05T16:05:46",
      "localDate": "2018-06-05",
      "localTime": "16:05:46",
      "localDayOfWeek": 2,
      "gmtDateISO": "2018-06-05T20:05:46Z",
      "gmtDate": "2018-06-05",
      "gmtTime": "20:05:46",
      "gmtDayOfWeek": 2
    },
    "statuses": [
      {
        "statusCode": "FS0850",
        "statusNumber": 850,
        "dayOfMonth": 5,
        "requestId": 78396,
        "commandName": "/usr/adic/TSM/exec/fsexpcopy",
        "commandStatus": "interim",
        "statusText": "Copy(s) successfully expired for
/stornext/snfs/file1."
      },
      {
        "statusCode": "FS0850",
        "statusNumber": 850,
        "dayOfMonth": 5,
        "requestId": 78396,
        "commandName": "/usr/adic/TSM/exec/fsexpcopy",
        "commandStatus": "interim",
        "statusText": "Copy(s) successfully expired for
/stornext/snfs/file2."
      },
      {
        "statusCode": "FS0390",
        "statusNumber": 390,
        "dayOfMonth": 5,
        "requestId": 78396,
        "commandName": "/usr/adic/TSM/exec/fsexpcopy",
        "commandStatus": "completed",
        "statusText": "2 out of 2 file copy expires were

```

```
successful."
    },
    {
        "statusCode": "FS0000",
        "statusNumber": 0,
        "dayOfMonth": 5,
        "requestId": 78396,
        "commandName": "/usr/adic/TSM/exec/fsexpcopy",
        "commandStatus": "completed",
        "statusText": "Command Successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2018-06-05T16:05:46",
    "localDateEnd": "2018-06-05",
    "localTimeEnd": "16:05:46",
    "localDayOfWeekEnd": 2,
    "gmtDateISOEnd": "2018-06-05T20:05:46Z",
    "gmtDateEnd": "2018-06-05",
    "gmtTimeEnd": "20:05:46",
    "gmtDayOfWeekEnd": 2,
    "elapsedTimeInSeconds": "0.0037"
}
}
```

XML Example

```
https://<<SERVER>>/sws/v2/policy/fsexpcopy
?copy=2
&file=/stornext/snfs/file1
&/stornext/snfs/file2
&format=XML
```

XML Output

```
<?xml version="1.0" encoding="UTF-8"?>
<fsexpcopy xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```

xsi:noNamespaceSchemaLocation="fsexpcopy.xsd">
  <header>
    <commandName>fsexpcopy</commandName>
    <commandLine>/usr/adic/TSM/exec/fsexpcopy -c 2 /stornext/snfs/file1
/stornext/snfs/file2 -F XML</commandLine>
    <commandDescription>Expire file copies from media</commandDescription>
    <localDateISO>2018-06-05T16:05:26</localDateISO>
    <localDate>2018-06-05</localDate>
    <localTime>16:05:26</localTime>
    <localDayOfWeek>2</localDayOfWeek>
    <gmtDateISO>2018-06-05T20:05:26Z</gmtDateISO>
    <gmtDate>2018-06-05</gmtDate>
    <gmtTime>20:05:26</gmtTime>
    <gmtDayOfWeek>2</gmtDayOfWeek>
  </header>
  <statuses>
    <status>
      <statusCode>FS0850</statusCode>
      <statusNumber>850</statusNumber>
      <dayOfMonth>5</dayOfMonth>
      <requestId>78393</requestId>
      <commandName>/usr/adic/TSM/exec/fsexpcopy</commandName>
      <commandStatus>interim</commandStatus>
      <statusText>Copy(s) successfully expired for
/stornext/snfs/file1.</statusText>
    </status>
    <status>
      <statusCode>FS0850</statusCode>
      <statusNumber>850</statusNumber>
      <dayOfMonth>5</dayOfMonth>
      <requestId>78393</requestId>
      <commandName>/usr/adic/TSM/exec/fsexpcopy</commandName>
      <commandStatus>interim</commandStatus>
      <statusText>Copy(s) successfully expired for
/stornext/snfs/file2.</statusText>
    </status>
    <status>
      <statusCode>FS0390</statusCode>
      <statusNumber>390</statusNumber>
      <dayOfMonth>5</dayOfMonth>
      <requestId>78393</requestId>
      <commandName>/usr/adic/TSM/exec/fsexpcopy</commandName>
      <commandStatus>completed</commandStatus>

```



```

                <statusText>2 out of 2 file copy expires were
successful.</statusText>
            </status>
        </status>
            <statusCode>FS0000</statusCode>
            <statusNumber>0</statusNumber>
            <dayOfMonth>5</dayOfMonth>
            <requestId>78393</requestId>
            <commandName>/usr/adic/TSM/exec/fsexpcopy</commandName>
            <commandStatus>completed</commandStatus>
            <statusText>Command Successful.</statusText>
        </status>
    </statuses>
    <footer>
        <returnCode>0</returnCode>
        <localDateISOEnd>2018-06-05T16:05:26</localDateISOEnd>
        <localDateEnd>2018-06-05</localDateEnd>
        <localTimeEnd>16:05:26</localTimeEnd>
        <localDayOfWeekEnd>2</localDayOfWeekEnd>
        <gmtDateISOEnd>2018-06-05T20:05:26Z</gmtDateISOEnd>
        <gmtDateEnd>2018-06-05</gmtDateEnd>
        <gmtTimeEnd>20:05:26</gmtTimeEnd>
        <gmtDayOfWeekEnd>2</gmtDayOfWeekEnd>
        <elapsedTimeInSeconds>0.0024</elapsedTimeInSeconds>
    </footer>
</fsexpcopy>

```

File / Tape Location

Generate a report about a file's tape copy location.

This web service runs the **fsfiletapeloc** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
file	Required	1	The file for which location is being queried. The path name of the file is required.	file name
copynumber	Optional	1	The copy ID to generate the report for. If not specified, the information for the primary copy will be reported.	-c

Example

```
https://<<SERVER>>/sws/v2/file/fsfiletapeloc
?file=/stornext/snfs1/xxx/testfile.0
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8"?>
<fsfiletapeloc xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsfiletapeloc.xsd">
  <header>
    <commandName>fsfiletapeloc</commandName>
    <commandLine>/usr/adic/TSM/bin/fsfiletapeloc -F XML
/stornext/snfs1/xxx/testfile.0</commandLine>
    <commandDescription>Generate a report about a file's tape copy
location</commandDescription>
    <localDateISO>2017-10-05T13:27:22</localDateISO>
```

```

<localDate>2017-10-05</localDate>
<localTime>13:27:22</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2017-10-05T18:27:22Z</gmtDateISO>
<gmtDate>2017-10-05</gmtDate>
<gmtTime>18:27:22</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<files>
  <file>
    <fileName>/stornext/snfs1/xxx/testfile.0</fileName>
    <segments>
      <segment>
        <index>1</index>
        <mediaId>ACD683</mediaId>
        <libraryId>Library1</libraryId>
        <format>ANTF</format>
        <startBlock>56580</startBlock>
        <offset>128</offset>
        <segmentSize>9990000000</segmentSize>
        <blockSize>524288</blockSize>
      </segment>
      <segment>
        <index>2</index>
        <mediaId>ACD682</mediaId>
        <libraryId>Library1</libraryId>
        <format>ANTF</format>
        <startBlock>190550</startBlock>
        <offset>128</offset>
        <segmentSize>9990000000</segmentSize>
        <blockSize>524288</blockSize>
      </segment>
    </segments>
  </file>
</files>
<statuses>
  <status>
    <statusCode>FS0000</statusCode>
    <statusNumber>0</statusNumber>
    <dayOfMonth>5</dayOfMonth>
    <requestId>1224480</requestId>
    <commandName>/usr/adic/TSM/bin/fsfiletapeloc</commandName>
    <commandStatus>completed</commandStatus>
    <statusText>Command Successful.</statusText>
  </status>
</statuses>

```

```

    </status>
  </statuses>
</footer>
  <returnCode>0</returnCode>
  <localDateISOEnd>2017-10-05T13:27:22</localDateISOEnd>
  <localDateEnd>2017-10-05</localDateEnd>
  <localTimeEnd>13:27:22</localTimeEnd>
  <localDayOfWeekEnd>4</localDayOfWeekEnd>
  <gmtDateISOEnd>2017-10-05T18:27:22Z</gmtDateISOEnd>
  <gmtDateEnd>2017-10-05</gmtDateEnd>
  <gmtTimeEnd>18:27:22</gmtTimeEnd>
  <gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
  <elapsedTimeInSeconds>0.0006</elapsedTimeInSeconds>
</footer>
</fsfiletapeloc>

```

File / Retrieve Files

Retrieve truncated files from media and place on disk.

This web service runs the **fsretrieve** command.

Important Consideration About The Recursive Retrieve Command

There are two phases when you invoke a recursive retrieve command:

- **Phase 1:** Mapping of the directory and the files to determine which files are retrieved.
- **Phase 2:** The actual retrieves from tape, sdisk, and object storage.

During **Phase 1** you can only execute one recursive retrieve command at a time. If you execute multiple recursive retrieve commands concurrently, the processes fail and you are notified that an existing recursive retrieve command is in progress.

For example, if a recursive retrieve is currently running **Phase 1** and an additional recursive retrieve is invoked, the second request fails

However, if that same recursive retrieve is currently running **Phase 2**, and an additional recursive retrieve is invoked, the second request is processed without any errors.

For additional information, see [How to Find the async Job ID in the Output on page 69](#).

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
affinity	Optional	1	This parameter retrieves file(s) to a specific file system affinity.	-t
allocation	Optional	1	This parameter allocates disk blocks to files in alphabetic order in an attempt to provide sequential block allocation to all files in the specified directory. i Note: This parameter is only valid when the directory parameter is used and the recursive parameter is false . The default value is false .	-A
copynumber	Optional	1	Used to retrieve a specific copy of filename if one exists.	-c
directory	Optional	1	The directory to process. The recursive parameter determines how the directory will be processed. i Note: At least one file or directory path is required.	-R or -D
file	Optional	N	List of files that need to be retrieved. i Note: At least one file or directory path is required.	filename
forcealtlocation	Optional	1	Force change in alternate retrieval location behavior. Valid values are true and false .	-x
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	<p>This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow. The default value is fast.</p> <p>i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.</p>	None
mode	Optional	1	<p>This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async. The default value is sync.</p>	None
recursive	Optional	1	<p>This parameter is only valid when the directory parameter is specified. A value of false will only process the contents of the directory while a value of true will perform a recursive operation on the directory. The default value is true.</p>	-R or -D

Parameter	Req / Opt	Num	Description	CLI Option
retrievaltype	Optional	1	<p>This parameter specifies the type of retrieval from glacier storage.</p> <p>The following types of retrieval are supported:</p> <ul style="list-style-type: none">• standard: AWS Glacier standard storage class allowing data access within 3-5 hours.• expedited: AWS Glacier expedited storage class allowing data access within 1-5 minutes.• bulk: AWS Glacier bulk storage class allowing access to large amounts of data within a day. <p>If this option is not specified, then the retrieval type defaults to the configured value.</p> <p>i Note: This option is ignored if it is not supported by the media.</p>	-g
toppriority	Optional	1	<p>Specifies top priority and will cause all files for the retrieve request to be placed at the top of the retrieve queue. Default value is false.</p>	-p
updateaccesstime	Optional	1	<p>Updates the access time for the requested files.</p>	-a

Example

```
https://<<SERVER>>/sws/v2/file/fsretrieve  
?file=/stornext/snfs1/xxx/testfile.0  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<fsretrieve xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsretrieve.xsd">
<header>
<commandName>fsretrieve</commandName>
<commandLine>/usr/adic/TSM/bin/fsretrieve -a -p -F xml
/stornext/snfs1/xxx/testfile.0</commandLine>
<commandDescription>Retrieve files from media and place on
disk</commandDescription>
<localDateISO>2014-05-15T11:21:35</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:21:35</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:21:35Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:21:35</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388015</requestId>
<commandName>/usr/adic/TSM/bin/fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0347</statusCode>
<statusNumber>347</statusNumber>
<dayOfMonth>15</dayOfMonth>
```



```
<requestId>388015</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>File /stornext/snfs1/xxx/testfile.0 has been retrieved.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388015</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>completed</commandStatus>
<statusText>1 out of 1 retrieves were successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:21:39</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:21:39</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:21:39Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:21:39</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>4.0212</elapsedTimeInSeconds>
</footer>
</fsretrieve>
```

File / Retrieve Files / New Location

Retrieve files from media and place them into a new disk file.

This web service runs the **fsretrieve** command.

Important Consideration About The Recursive Retrieve Command

There are two phases when you invoke a recursive retrieve command:

- **Phase 1:** Mapping of the directory and the files to determine which files are retrieved.
- **Phase 2:** The actual retrieves from tape, sdisk, and object storage.

During **Phase 1** you can only execute one recursive retrieve command at a time. If you execute multiple recursive retrieve commands concurrently, the processes fail and you are notified that an existing recursive retrieve command is in progress.

For example, if a recursive retrieve is currently running **Phase 1** and an additional recursive retrieve is invoked, the second request fails

However, if that same recursive retrieve is currently running **Phase 2**, and an additional recursive retrieve is invoked, the second request is processed without any errors.

For additional information, see [How to Find the async Job ID in the Output on page 69](#).

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
file	Required	1	File that needs to be retrieved.	file name

Parameter	Req / Opt	Num	Description	CLI Option
newfile	Required	1	The new path and file name into which to retrieve the file. The location specified for the new file must be a local file system. Retrieval to an NFS mounted file system is not permitted.	-n
copynumber	Optional	1	Used to retrieve a specific copy of filename if one exists.	-c
updateaccesstime	Optional	1	Updates the access time for the requested files.	-a
toppriority	Optional	1	Specifies top priority and will cause all files for the retrieve request to be placed at the top of the retrieve queue. Default value is false .	-p

Example

```
https://<<SERVER>>/sws/v2/file/fsretrieve/new
?file=/stornext/snfs1/xxx/testfile.0
&newfile=/stornext/snfs1/xxx/testfile.1
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsretrieve xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsretrieve.xsd">
<header>
<commandName>fsretrieve</commandName>
<commandLine>/usr/adic/TSM/bin/fsretrieve /stornext/snfs1/xxx/testfile.0 -n
/stornext/snfs1/xxx/testfile.1 -F xml</commandLine>
<commandDescription>Retrieve files from media and place on
disk</commandDescription>
<localDateISO>2014-05-15T11:26:44</localDateISO>
```

```
<localDate>2014-05-15</localDate>
<localTime>11:26:44</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:26:44Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:26:44</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388021</requestId>
<commandName>/usr/adic/TSM/bin/fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0347</statusCode>
<statusNumber>347</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388021</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>File /stornext/snfs1/xxx/testfile.0 has been retrieved.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
```

```
<dayOfMonth>15</dayOfMonth>
<requestId>388021</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>completed</commandStatus>
<statusText>1 out of 1 retrieves were successful.</statusText>
</status>
</statuses>
<footer>

<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:26:46</localDateISOEnd> <localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:26:46</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:26:46Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:26:46</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>2.0689</elapsedTimeInSeconds>
</footer>
</fsretrieve>
```

File / Relocate File From One Affinity To Another

This web service relocates a managed file from one disk affinity to another.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
affinity	Required	1	The destination affinity for the files.	-a

Parameter	Req / Opt	Num	Description	CLI Option
allocation	Optional	1	This allocates disk blocks to files in alphabetic order in an attempt to provide sequential block allocation to all files in the specified directory. This parameter is only valid when the directory parameter is used and the recursive parameter is false. The default value is false .	-A
directory	Optional	1	The directory to process. The recursive parameter determines how the directory is processed. i Note: At least one file or directory path is required.	-R or -D
file	Optional	N	The files that need to be relocated. i Note: At least one file or directory path is required.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
recursive	Optional	1	This parameter is only valid when the directory parameter is specified. A value of false only process the contents of the directory, while a value of true performs a recursive operation on the directory. The default is true .	-R or -D

Example

```
https://<<SERVER>>/sws/v2/file/fsrelocate
?file=/stornext/snfs1/pol1/file1.txt
&affinity=tier2
&format=json
```

Output

```
{
  "header": {
    "commandName": "fsrelocate",
    "commandLine": "fsrelocate /stornext/snfs1/pol1/file1.txt -a tier2 -F JSON",
    "commandDescription": "Relocate a managed file from one disk affinity to another
or change the affinity association of a truncated file",
    "localDateISO": "2015-11-03T07:19:34",
    "localDate": "2015-11-03",
    "localTime": "07:19:34",
    "localDayOfWeek": 2,
    "gmtDateISO": "2015-11-03T13:19:34Z",
    "gmtDate": "2015-11-03",
    "gmtTime": "13:19:34",
    "gmtDayOfWeek": 2
  },
  "statuses": [
    {
      "statusCode": "FS0589",
      "statusNumber": 589,
      "dayOfMonth": 3,
      "requestId": 255713,
      "commandName": "fsrelocate",
      "commandStatus": "interim",
      "statusText": "Tertiary Manager software request received.
/stornext/snfs1/pol1/file1.txt"
    },
    {
      "statusCode": "FS0684",
      "statusNumber": 684,
      "dayOfMonth": 3,
      "requestId": 255713,
      "commandName": "fsrelocate",
      "commandStatus": "interim",
      "statusText": "File successfully relocated."
    },
    {
      "statusCode": "FS0390",
      "statusNumber": 390,
      "dayOfMonth": 3,
```

```

"requestId": 255713,
"commandName": "fsrelocate",
"commandStatus": "completed",
"statusText": "1 out of 1 relocates were successful."
}
],
"footer": {
"returnCode": 0,
"localDateISOEnd": "2015-11-03T07:19:34",
"localDateEnd": "2015-11-03",
"localTimeEnd": "07:19:34",
"localDayOfWeekEnd": 2,
"gmtDateISOEnd": "2015-11-03T13:19:34Z",
"gmtDateEnd": "2015-11-03",
"gmtTimeEnd": "13:19:34",
"gmtDayOfWeekEnd": 2,
"elapsedTimeInSeconds": "0.0040"
}
}

```

File / Retrieve Files / Partial

Retrieve files from media and place them on disk.

This web service runs the `fsretrieve` command.

Important Consideration About The Recursive Retrieve Command

There are two phases when you invoke a recursive retrieve command:

- **Phase 1:** Mapping of the directory and the files to determine which files are retrieved.
- **Phase 2:** The actual retrieves from tape, sdisk, and object storage.

During **Phase 1** you can only execute one recursive retrieve command at a time. If you execute multiple recursive retrieve commands concurrently, the processes fail and you are notified that an existing recursive retrieve command is in progress.

For example, if a recursive retrieve is currently running **Phase 1** and an additional recursive retrieve is invoked, the second request fails

However, if that same recursive retrieve is currently running **Phase 2**, and an additional recursive retrieve is invoked, the second request is processed without any errors.

For additional information, see [How to Find the async Job ID in the Output on page 69](#).

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
file	Required	1	File that needs to be retrieved.	file name
newfile	Required	1	The new path and file name into which to retrieve the file. The location specified for the new file must be a local file system. Retrieval to an NFSmounted file system is not permitted.	-n
startbyte	Required	1	The starting byte for the file to be retrieved. The startbyte must be less than endbyte , and both must be within the byte range of the file. The byte range is inclusive.	-b
endbyte	Required	1	The last byte for the file to be retrieved.	-b
updateaccesstime	Optional	1	Updates the access time for the requested files.	-a
toppriority	Optional	1	Specifies top priority and will cause the file for the retrieve request to be placed at the top of the retrieve queue. Default value is false .	-p

Example

```
https://<<SERVER>>/sws/v2/file/fsretrieve/partial  
?file=/stornext/snfs1/xxx/testfile.0  
&newfile=/stornext/snfs1/xxx/testfile.1  
&startbyte=100  
&endbyte=1000  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsretrieve xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsretrieve.xsd">  
  <header>  
    <commandName>fsretrieve</commandName>  
    <commandLine>/usr/adic/TSM/bin/fsretrieve /stornext/snfs1/xxx/testfile.0 -n  
/stornext/snfs1/xxx/testfile.1 -b 100 1000 -F xml</commandLine>  
    <commandDescription>Retrieve files from media and place on  
disk</commandDescription>  
    <localDateISO>2014-05-15T11:35:23</localDateISO>  
    <localDate>2014-05-15</localDate>  
    <localTime>11:35:23</localTime>  
    <localDayOfWeek>4</localDayOfWeek>  
    <gmtDateISO>2014-05-15T16:35:23Z</gmtDateISO>  
    <gmtDate>2014-05-15</gmtDate>  
    <gmtTime>16:35:23</gmtTime>  
    <gmtDayOfWeek>4</gmtDayOfWeek>  
  </header>  
  <statuses>  
    <status>  
      <statusCode>FS0589</statusCode>  
      <statusNumber>589</statusNumber>
```

```
<dayOfMonth>15</dayOfMonth>
<requestId>388031</requestId>
<commandName>/usr/adic/TSM/bin/fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0347</statusCode>
<statusNumber>347</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388031</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>interim</commandStatus>
<statusText>File /stornext/snfs1/xxx/testfile.0 has been retrieved.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388031</requestId>
<commandName>fsretrieve</commandName>
<commandStatus>completed</commandStatus>
<statusText>1 out of 1 retrieves were successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:35:24</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:35:24</localTimeEnd>
```

```
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T16:35:24Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>16:35:24</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0727</elapsedTimeInSeconds>  
</footer>  
</fsretrieve>
```

File / Store

Expedite the storage of a file that currently resides on disk to media.

This web service runs the **fsstore** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
copies	Optional	1	Number of copies of the file(s) to be stored.	-c
directory	Optional	1	The directory to process. The recursive parameter determines how the directory will be processed. i Note: At least one file or directory path is required.	-R or -D
drivepool	Optional	1	Media Manager drive pool group used to store the file specified.	-v
file	Optional	N	File that needs to be stored. i Note: At least one file or directory path is required.	file name
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
mediatype	Optional	1	Defines the type of medium to be used for storage.	-t
minsize	Optional	1	Minimum File Size in bytes to be stored.	-z
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
recursive	Optional	1	This parameter is only valid when the directory parameter is specified. A value of false will only process the contents of the directory while a value of true will perform a recursive operation on the directory. The default value is true .	-R or -D
runtime	Optional	1	Maximum allowable time in hours for the command to finish.	-u
trunc	Optional	1	The truncation mode. Valid value are immediate and policy .	-f

Example

```
https://<<SERVER>>/sws/v2/file/fsstore
?file=/stornext/snfx1/smp2data/filex1
&file=/stornext/snfx1/smp2data/filex2
&copies=1
&format=xml
```

Output

```

<?xml version="1.0" encoding="UTF-8"?>
<fsstore xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsstore.xsd">
  <header>
    <commandName>fsstore</commandName>
    <commandLine>/usr/adic/TSM/bin/fsstore -c 1 -F xml
/stornext/snfx1/smp2data/filex1
/stornext/snfx1/smp2data/filex2</commandLine>
    <commandDescription>Request the storage of a file that currently
resides on disk to media</commandDescription>
    <localDateISO>2015-12-03T11:43:19</localDateISO>
    <localDate>2015-12-03</localDate>
    <localTime>11:43:19</localTime>
    <localDayOfWeek>4</localDayOfWeek>
    <gmtDateISO>2015-12-03T18:43:19Z</gmtDateISO>
    <gmtDate>2015-12-03</gmtDate>
    <gmtTime>18:43:19</gmtTime>
    <gmtDayOfWeek>4</gmtDayOfWeek>
  </header>
  <statuses>
    <status>
      <statusCode>FS0589</statusCode>
      <statusNumber>589</statusNumber>
      <dayOfMonth>3</dayOfMonth>
      <requestId>180889</requestId>
      <commandName>/usr/adic/TSM/bin/fsstore</commandName>
      <commandStatus>interim</commandStatus>
      <statusText>Tertiary Manager software request
received.</statusText>
    </status>
    <status>
      <statusCode>FS0799</statusCode>
      <statusNumber>799</statusNumber>
      <dayOfMonth>3</dayOfMonth>
      <requestId>180889</requestId>
      <commandName>/usr/adic/TSM/bin/fsstore</commandName>
      <commandStatus>interim</commandStatus>
      <statusText>2 file store request(s) have been sent to
Tertiary
Manager.</statusText>
    </status>
  </statuses>

```

```

        <statusCode>FS0346</statusCode>
        <statusNumber>346</statusNumber>
        <dayOfMonth>3</dayOfMonth>
        <requestId>180889</requestId>
        <commandName>fsstore</commandName>
        <commandStatus>interim</commandStatus>
        <statusText>File /stornext/snfx1/smp2data/filex1 copy 1 has
been
stored.</statusText>
    </status>
    <status>
        <statusCode>FS0346</statusCode>
        <statusNumber>346</statusNumber>
        <dayOfMonth>3</dayOfMonth>
        <requestId>180889</requestId>
        <commandName>fsstore</commandName>
        <commandStatus>interim</commandStatus>
        <statusText>File /stornext/snfx1/smp2data/filex2 copy 1 has
been
stored.</statusText>
    </status>
    <status>
        <statusCode>FS0390</statusCode>
        <statusNumber>390</statusNumber>
        <dayOfMonth>3</dayOfMonth>
        <requestId>180889</requestId>
        <commandName>fsstore</commandName>
        <commandStatus>completed</commandStatus>
        <statusText>2 out of 2 statuses were
successful.</statusText>
    </status>
    <status>
        <statusCode>FS0000</statusCode>
        <statusNumber>0</statusNumber>
        <dayOfMonth>3</dayOfMonth>
        <requestId>180889</requestId>
        <commandName>fsstore</commandName>
        <commandStatus>completed</commandStatus>
        <statusText>Command Successful.</statusText>
    </status>
</statuses>
<footer>
    <returnCode>0</returnCode>

```

```

<localDateISOEnd>2015-12-03T11:43:21</localDateISOEnd>
<localDateEnd>2015-12-03</localDateEnd>
<localTimeEnd>11:43:21</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2015-12-03T18:43:21Z</gmtDateISOEnd>
<gmtDateEnd>2015-12-03</gmtDateEnd>
<gmtTimeEnd>18:43:21</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>1.0867</elapsedTimeInSeconds>
</footer>
</fsstore>

```

File / Remove Disk Copy

Remove the copy of a file from disk after the file was stored to a medium.

This web service runs the **fsrmdiskcopy** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
directory	Optional	1	The directory to process. The recursive parameter determines how the directory will be processed. i Note: At least one file or directory path is required.	-R or -D
file	Optional	N	One or more files to remove from disk. i Note: At least one file or directory path is required.	file name
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
recursive	Optional	1	This parameter is only valid when the directory parameter is specified. A value of false will only process the contents of the directory while a value of true will perform a recursive operation on the directory. The default value is true .	-R or -D

Example

```
https://<<SERVER>>/sws/v2/file/fsrmdiskcopy  
?file=/stornext/snfs1/xxx/testfile.0  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsrmdiskcopy xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsrmdiskcopy.xsd">  
<header>  
<commandName>fsrmdiskcopy</commandName>  
<commandLine>/usr/adic/TSM/bin/fsrmdiskcopy -F xml  
&file=/stornext/snfs1/xxx/testfile.0</commandLine>  
<commandDescription>Remove file data blocks from disk after the file was stored  
to a medium</commandDescription>  
<localDateISO>2014-05-15T11:43:34</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>11:43:34</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T16:43:34Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>
```

```
<gmtTime>16:43:34</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0266</statusCode>
<statusNumber>266</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388038</requestId>
<commandName>/usr/adic/TSM/bin/fsrmdiskcopy</commandName>
<commandStatus>interim</commandStatus>
<statusText>Data disk blocks for file /stornext/snfs1/xxx/testfile.0 were
successfully removed.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388038</requestId>
<commandName>/usr/adic/TSM/bin/fsrmdiskcopy</commandName>
<commandStatus>completed</commandStatus>
<statusText>1 out of 1 disk copy removes were successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:43:34</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:43:34</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:43:34Z</gmtDateISOEnd>
```

```
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>16:43:34</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0007</elapsedTimeInSeconds>  
</footer>  
</fsrmdiskcopy>
```

File / Modify Class Attributes

Modify the class attributes of a file.

This web service runs the **fschfiat** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
clean	Optional	1	This options indicates if the database entries are to be cleaned when the file is removed from the file system. Valid values are true and false . The true argument indicates that the database entries will be cleaned and the file will NOT be recoverable by the fsrecover command. The false argument indicates that the database entries will NOT be cleaned and the file will be recoverable by the fsrecover command.	-C
directory	Optional	1	The directory to process. The recursive parameter determines how the directory will be processed. i Note: At least one file or directory path is required.	-R or -D
file	Optional	N	One or more file(s) having the attributes changed. i Note: At least one file or directory path is required.	file name
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	<p>This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow. The default value is fast.</p> <p>i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.</p>	None
mode	Optional	1	<p>This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async. The default value is sync.</p>	None
numcopies	Optional	1	<p>Number of copies of the file(s) to be stored.</p>	-c
policy	Optional	1	<p>This specifies the class that will be associated with the file.</p>	-a
recursive	Optional	1	<p>This parameter is only valid when the directory parameter is specified. A value of false will only process the contents of the directory while a value of true will perform a recursive operation on the directory. The default value is true.</p>	-R or -D
reloc	Optional	1	<p>This option indicates how relocation policies operate on the file. Valid values are exclude and policy. The exclude argument excludes the file from relocation when a relocation policy occurs. The policy argument relocates the file by relocation policy.</p>	-r
store	Optional	1	<p>This option indicates how storage policies operate on the file. Valid values are exclude and policy. The exclude argument excludes the file from storage when a store policy occurs. The policy argument stores the file by storage policy.</p>	-s
stubsizes	Optional	1	<p>The truncation stub size (in kilobytes). This value is used to determine the number of bytes to leave on disk when files are truncated.</p>	-S

Parameter	Req / Opt	Num	Description	CLI Option
trunc	Optional	1	This option indicates how truncation policies operate on the file. Valid values are exclude , policy , immediate and clear . The exclude argument excludes the file from truncation when a store and/or cleanup policy application occurs. The immediate argument truncates the file immediately when stored to a medium. The policy argument truncates the file by cleanup policy. The clear argument temporarily clears the indication that this file met truncate exclusion criteria defined in the <code>excludes.truncate</code> file.	-t

Example

```
https://<<SERVER>>/sws/v2/file/fschfiat  
?store=exclude  
&trunc=immediate  
&file=/stornext/snfs1/xxx/testfile.0  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fschfiat xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fschfiat.xsd">  
<header>  
<commandName>fschfiat</commandName>  
<commandLine>/usr/adic/TSM/bin/fschfiat -s e -t i -D n -F xml  
/stornext/snfs1/xxx/testfile.0</commandLine>  
<commandDescription>Change file attributes for a set of file  
names</commandDescription>  
<localDateISO>2014-05-15T11:45:04</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>11:45:04</localTime>
```

```
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:45:04Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:45:04</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0109</statusCode>
<statusNumber>109</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388039</requestId>
<commandName>/usr/adic/TSM/bin/fschfiat</commandName>
<commandStatus>interim</commandStatus>
<statusText>Command successful for /stornext/snfs1/xxx/testfile.0.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388039</requestId>
<commandName>/usr/adic/TSM/bin/fschfiat</commandName>
<commandStatus>completed</commandStatus>
<statusText>1 out of 1 file attribute changes were successful.</statusText>
</status>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388039</requestId>
```

```

<commandName>/usr/adic/TSM/bin/fschfiat</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:45:04</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:45:04</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:45:04Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:45:04</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0046</elapsedTimeInSeconds>
</footer>
</fschfiat>

```

How to Find the async Job ID in the Output

Below is an example command that initiates the async request to the StorNext MDC over HTTP or HTTPS:

```

# /opt/quantum/curl/bin/curl
"http://$MDC:81/sws/v2/file/fsretrieve?file=/stornext/snfs1/foobar&mode=async&for
mat=JSON"

```

Below is an example of the output:

```

{
  "job" : "23",
  "message" : "Job has been successfully submitted."
}

```

Below is an example command that queries for the status for the job number:

```
# /opt/quantum/curl/bin/curl "http://$MDC:81/sws/v2/job/info?job=23"
```

Below is an example of the output:

```
{
  "jobList": [
    {
      "jobInfo": {
        "job": "17",
        "state": "COMPLETED",
        "exitcode": 0,
        "datecompleted": "2018-10-30 19:13:05"
      },
      "response": {
        "header": {
          "commandName": "fsretrieve",
          "commandLine": "/usr/adic/TSM/bin/fsretrieve -F JSON
/stornext/snfs1/foobar",
          "commandDescription": "Retrieve files from media and place on
disk",
          "localDateISO": "2018-10-30T19:12:51",
          "localDate": "2018-10-30",
          "localTime": "19:12:51",
          "localDayOfWeek": 2,
          "gmtDateISO": "2018-10-30T23:12:51Z",
          "gmtDate": "2018-10-30",
          "gmtTime": "23:12:51",
          "gmtDayOfWeek": 2
        },
        "statuses": [
          {
            "statusCode": "FS0589",
            "statusNumber": 589,
            "dayOfMonth": 30,
            "requestId": 248266,
            "commandName": "/usr/adic/TSM/bin/fsretrieve",
            "commandStatus": "interim",
            "statusText": "Tertiary Manager software request received."
          },
          {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 30,
            "requestId": 248266,

```



```

        "commandName": "/usr/adic/TSM/bin/fsretrieve",
        "commandStatus": "interim",
        "statusText": "File /stornext/snfs1/foobar has been
retrieved."
    },
    {
        "statusCode": "FS0390",
        "statusNumber": 390,
        "dayOfMonth": 30,
        "requestId": 248266,
        "commandName": "/usr/adic/TSM/bin/fsretrieve",
        "commandStatus": "completed",
        "statusText": "1 out of 1 retrieves were successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2018-10-30T19:13:05",
    "localDateEnd": "2018-10-30",
    "localTimeEnd": "19:13:05",
    "localDayOfWeekEnd": 2,
    "gmtDateISOEnd": "2018-10-30T23:13:05Z",
    "gmtDateEnd": "2018-10-30",
    "gmtTimeEnd": "23:13:05",
    "gmtDayOfWeekEnd": 2,
    "elapsedTimeInSeconds": "13.0942"
}
}
]
}

```

Job

Job / Asynchronous Job Status

This web service returns a status of the jobs that are invoked asynchronously.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
job	Required	N	The list of job ids for which status is being queried.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	None

Example

```
https://<<SERVER>>/sws/v2/job/info  
?job=27  
&format=json
```

Output

```
{  
  "jobList": [  
    {  
      "jobInfo": {  
        "job": "27",  
        "state": "RUNNING"  
      }  
    }  
  ]  
}
```

Job / Detailed Mover Job Status

This web service returns a detailed status of the mover jobs that are invoked asynchronously. This web service only supports **fsstore** and **fsretrieve** jobs.

Important Consideration About The Recursive Retrieve Command

There are two phases when you invoke a recursive retrieve command:

- **Phase 1:** Mapping of the directory and the files to determine which files are retrieved.
- **Phase 2:** The actual retrieves from tape, sdisk, and object storage.

During **Phase 1** you can only execute one recursive retrieve command at a time. If you execute multiple recursive retrieve commands concurrently, the processes fail and you are notified that an existing recursive retrieve command is in progress.

For example, if a recursive retrieve is currently running **Phase 1** and an additional recursive retrieve is invoked, the second request fails

However, if that same recursive retrieve is currently running **Phase 2**, and an additional recursive retrieve is invoked, the second request is processed without any errors.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
job	Required	N	The list of job ids for which status is being queried.	None

Example

```
https://<<SERVER>>/sws/v2/job/mover/info  
?job=26  
&job=27  
&job=28  
&job=29  
&job=30
```

Output

```
[  
  {  
    "moverRequestList": [  
      {  
        "requestId": "177193",  
        "requestType": "Retrieve",  
        "state": "COPY",  
        "positioninqueue": 1  
      },  
      {  
        "requestId": "177194",
```

```

        "requestType": "Retrieve",
        "state": "READY",
        "positioninqueue": 2
    },
    {
        "requestId": "177205",
        "requestType": "Retrieve",
        "state": "READY",
        "positioninqueue": 3
    },
    {
        "requestId": "177213",
        "requestType": "Retrieve",
        "state": "READY",
        "positioninqueue": 4
    }
],
"moverProgressList": [
    {
        "host": "REDHAT5-DEMO",
        "requestId": "177193",
        "deviceAlias": "archives_dr1",
        "runTime": "00:00:03",
        "totalFiles": "3",
        "filesCopied": "1",
        "filesFailed": "0"
    }
]
},
{
    "completedJobList": [
        {
            "header": {
                "commandName": "fsretrieve",
                "commandLine": "/usr/adic/TSM/bin/fsretrieve -F json
/stornext/snfx1/smp2data/soobar1 /stornext/snfx1/smp2data/soobar2
/stornext/snfx1/smp2data/soobar3 /stornext/snfx1/smp2data/soobar4
/stornext/snfx1/smp2data/soobar5",
                "commandDescription": "Retrieve files from media and
place on disk",
                "localDateISO": "2015-10-27T17:05:09",
                "localDate": "2015-10-27",
                "localTime": "17:05:09",
            }
        }
    ]
}

```

```

        "localDayOfWeek": 2,
        "gmtDateISO": "2015-10-27T23:05:09Z",
        "gmtDate": "2015-10-27",
        "gmtTime": "23:05:09",
        "gmtDayOfWeek": 2
    },
    "jobInfo": {
        "job": "24",
        "exitcode": 0,
        "datecompleted": "2015-10-27 17:05:20",
        "state": "COMPLETED"
    },
    "statuses": [
        {
            "statusCode": "FS0005",
            "statusNumber": 5,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "/usr/adic/TSM/bin/fsretrieve",
            "commandStatus": "interim",
            "statusText": "No retrieve needed, the data is
already present on the disk for file /stornext/snfx1/smp2data/soobar1."
        },
        {
            "statusCode": "FS0589",
            "statusNumber": 589,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "/usr/adic/TSM/bin/fsretrieve",
            "commandStatus": "interim",
            "statusText": "Tertiary Manager software request
received."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/soobar2 has been retrieved."
        },
    ]

```

```

        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/soobar3 has been retrieved."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/soobar4 has been retrieved."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/soobar5 has been retrieved."
        },
        {
            "statusCode": "FS0654",
            "statusNumber": 654,
            "dayOfMonth": 27,
            "requestId": 177191,
            "commandName": "fsretrieve",
            "commandStatus": "completed",
            "statusText": "1 out of 5 files were already on
disk."
        },
        {
            "statusCode": "FS0390",
            "statusNumber": 390,

```

```

        "dayOfMonth": 27,
        "requestId": 177191,
        "commandName": "fsretrieve",
        "commandStatus": "completed",
        "statusText": "5 out of 5 retrieves were
successful."
    }
  ],
  "footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-27T17:05:20",
    "localDateEnd": "2015-10-27",
    "localTimeEnd": "17:05:20",
    "localDayOfWeekEnd": 2,
    "gmtDateISOEnd": "2015-10-27T23:05:20Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "23:05:20",
    "gmtDayOfWeekEnd": 2,
    "elapsedTimeInSeconds": "10.0878"
  }
},
{
  "header": {
    "commandName": "fsretrieve",
    "commandLine": "/usr/adic/TSM/bin/fsretrieve -F json
/stornext/snfx1/smp2data/foobar1 /stornext/snfx1/smp2data/foobar2
/stornext/snfx1/smp2data/foobar3",
    "commandDescription": "Retrieve files from media and
place on disk",
    "localDateISO": "2015-10-27T17:05:09",
    "localDate": "2015-10-27",
    "localTime": "17:05:09",
    "localDayOfWeek": 2,
    "gmtDateISO": "2015-10-27T23:05:09Z",
    "gmtDate": "2015-10-27",
    "gmtTime": "23:05:09",
    "gmtDayOfWeek": 2
  },
  "jobInfo": {
    "job": "25",
    "exitcode": 0,
    "datecompleted": "2015-10-27 17:05:26",
    "state": "COMPLETED"
  }
}

```

```

    },
    "statuses": [
        {
            "statusCode": "FS0589",
            "statusNumber": 589,
            "dayOfMonth": 27,
            "requestId": 177192,
            "commandName": "/usr/adic/TSM/bin/fsretrieve",
            "commandStatus": "interim",
            "statusText": "Tertiary Manager software request
received."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177192,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/foobar1 has been retrieved."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177192,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/foobar2 has been retrieved."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177192,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File
/stornext/snfx1/smp2data/foobar3 has been retrieved."
        },
        {

```



```

        "statusCode": "FS0390",
        "statusNumber": 390,
        "dayOfMonth": 27,
        "requestId": 177192,
        "commandName": "fsretrieve",
        "commandStatus": "completed",
        "statusText": "3 out of 3 retrieves were
successful."
    }
  ],
  "footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-27T17:05:26",
    "localDateEnd": "2015-10-27",
    "localTimeEnd": "17:05:26",
    "localDayOfWeekEnd": 2,
    "gmtDateISOEnd": "2015-10-27T23:05:26Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "23:05:26",
    "gmtDayOfWeekEnd": 2,
    "elapsedTimeInSeconds": "16.0902"
  }
}
],
{
  "pendingJobList": [
    {
      "jobInfo": {
        "job": "30",
        "positioninagentqueue": 1,
        "exitcode": 0,
        "state": "QUEUED"
      }
    }
  ]
}
]

```

Media

Media / Information

Generate a report on media based on their current status.

This web service runs the `fsmediainfo` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
verbose	Optional	1	Produce the long form of the report that contains the same information as the short form, plus a list of the file segments on the medium. Default value is false .	-l
starttime	Optional	1	Used with the verbose option to indicate a start time of the files on the media to be reported. If this time and/or the end time are used with the verbose option then only the files on the media that were stored or recovered during the specified time window will be displayed. When this option or the -e is used, the output will be sorted per file system by the store/recovery time. The format for the time parameter is YYYY:MM:DD:hh:mm:ss .	-s

Parameter	Req / Opt	Num	Description	CLI Option
endtime	Optional	1	Used with the verbose option to indicate an end time of the files on the media to be reported. The format for the time parameter is YYYY:MM:DD:hh:mm:ss .	-e
media	Required	N	A media ID.	mediaID

Example

```
https://<<SERVER>>/sws/v2/media/fsmedinfo  
?verbose=true  
&starttime=2004:01:01:01:01:01  
&endtime=2013:01:01:01:01:01  
&media=E00001  
&media=E00002  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsmedinfo xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsmedinfo.xsd">  
<header>  
<commandName>fsmedinfo</commandName>  
<commandLine>/usr/adic/TSM/bin/fsmedinfo -l -s 2004:01:01:01:01:01 -e  
2013:01:01:01:01:01 -F xml E00000 E00001</commandLine>  
<commandDescription>Generate a report on media</commandDescription>  
<localDateISO>2014-05-15T11:47:16</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>11:47:16</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T16:47:16Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>
```

```
<gmtTime>16:47:16</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<medias>
<media>
<mediaId>E00000</mediaId>
<copy>1</copy>
<mediaType>LTO</mediaType>
<storageArea>VolSub</storageArea>
<classId>sws_1400082516</classId>
<lastAccessed>15-may-2014 10:07:44</lastAccessed>
<mediaStatus>AVAIL</mediaStatus>
<writeProtect>N</writeProtect>
<markStatus>UNMARKED</markStatus>
<mediumLocation>SLOT/BIN</mediumLocation>
<formatted>Y</formatted>
<formatType>ANTF</formatType>
<numberOfSegments>10</numberOfSegments>
<externalLocation>N/A</externalLocation>
<bytesUsed>1453378</bytesUsed>
<spaceRemaining>5241831424</spaceRemaining>
<percentUsed>0.03</percentUsed>
<suspectCount>0</suspectCount>
<mountCount>5</mountCount>
<mediaClass>F0_LTO_DATA</mediaClass>
<currentState>On-line</currentState>
<assignment>Free</assignment>
<actionState>None</actionState>
<locationState>Archive</locationState>
<currentArchive>myarchive</currentArchive>
```

```
<pendingArchive>N/A</pendingArchive>
<importDate>12-may-2014 15:44:14</importDate>
<moveCount>10</moveCount>
<files />
</media>
<media>
<mediaId>E00001</mediaId>
<copy>0</copy>
<mediaType>LTO</mediaType>
<storageArea>VolSub</storageArea>
<classId>sws_1400082516</classId>
<lastAccessed>15-may-2014 10:02:43</lastAccessed>
<mediaStatus>AVAIL</mediaStatus>
<writeProtect>N</writeProtect>
<markStatus>UNMARKED</markStatus>
<mediumLocation>SLOT/BIN</mediumLocation>
<formatted>N</formatted>
<formatType>UNKNOWN</formatType>
<numberOfSegments>0</numberOfSegments>
<externalLocation>N/A</externalLocation>
<bytesUsed>0</bytesUsed>
<spaceRemaining>0</spaceRemaining>
<percentUsed>0.00</percentUsed>
<suspectCount>0</suspectCount>
<mountCount>4</mountCount>
<mediaClass>F0_LTO_DATA</mediaClass>
<currentState>On-line</currentState>
<assignment>Free</assignment>
<actionState>None</actionState>
<locationState>Archive</locationState>
```

```
<currentArchive>myarchive</currentArchive>
<pendingArchive>N/A</pendingArchive>
<importDate>12-may-2014 15:44:14</importDate>
<moveCount>8</moveCount>
</media>
</medias>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388043</requestId>
<commandName>/usr/adic/TSM/bin/fsmedinfo</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:47:16</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:47:16</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:47:16Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:47:16</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0012</elapsedTimeInSeconds>
</footer>
</fsmedinfo>
```

Media / File Background job status

This web service reports the status of the background job.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are xml , json and text . The default value is text .	-F
requestid	Optional	1	The request id for the deletion requests. If no requestid is provided, all outstanding requests are included.	-C

Example

```
https://<<SERVER>>/sws/v2/media/fsclean/background/status  
?requestid=177937  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8"?>  
<fsclean xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsclean.xsd">  
<header>
```

```
<commandName>fsclean</commandName>
<commandLine>/usr/adic/TSM/exec/fsclean -C 177937 -F xml</commandLine>
<commandDescription>Remove file version information from Tertiary Manager
knowledge.</commandDescription>
<localDateISO>2015-11-02T12:40:26</localDateISO>
<localDate>2015-11-02</localDate>
<localTime>12:40:26</localTime>
<localDayOfWeek>1</localDayOfWeek>
<gmtDateISO>2015-11-02T19:40:26Z</gmtDateISO>
<gmtDate>2015-11-02</gmtDate>
<gmtTime>19:40:26</gmtTime>
<gmtDayOfWeek>1</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>2</dayOfMonth>
<requestId>177943</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>2</dayOfMonth>
<requestId>177943</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2015-11-02T12:40:26</localDateISOEnd>
<localDateEnd>2015-11-02</localDateEnd>
<localTimeEnd>12:40:26</localTimeEnd>
<localDayOfWeekEnd>1</localDayOfWeekEnd>
<gmtDateISOEnd>2015-11-02T19:40:26Z</gmtDateISOEnd>
```



```
<gmtDateEnd>2015-11-02</gmtDateEnd>  
<gmtTimeEnd>19:40:26</gmtTimeEnd>  
<gmtDayOfWeekEnd>1</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0000</elapsedTimeInSeconds>  
</footer>  
</fsclean>
```

Media / File Inactive Removal

The primary function of this web service is to remove inactive versions of files.

This web service runs the `fsclean` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
fsmounts	Optional	N	One or more file systems for which to clean.	-s
policy	Optional	1	Policy class associated with data to clean.	-c
endtime	Optional	1	Endtime option. Time should be current or less than current time. If the time specified is greater than current time, current time will be used. The format for the time parameter is YYYY:MM:DD:hh:mm:ss.	-t

Parameter	Req / Opt	Num	Description	CLI Option
removedonly	Optional	1	Process inactive versions associated with removed files. Default value is false.	-d
purge	Optional	1	This option is used to indicate that a purge of the database namespace will be performed. Default value is false.	-P
media	Optional	N	A media ID.	mediaID

Example

```
https://<<SERVER>>/sws/v2/media/fsclean  
?media=E00001  
&endtime=2013:01:01:01:01:01  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsclean xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsclean.xsd">  
<header>  
<commandName>fsclean</commandName>  
<commandLine>/usr/adic/TSM/exec/fsclean -m E00001 -t 2013:01:01:01:01:01 -F  
xml</commandLine>  
<commandDescription>Remove file version information from Tertiary Manager  
knowledge.</commandDescription>  
<localDateISO>2014-05-15T09:55:32</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>09:55:32</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T14:55:32Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>
```

```
<gmtTime>14:55:32</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387924</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0723</statusCode>
<statusNumber>723</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387924</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>completed</commandStatus>
<statusText>Nothing found to clean for request.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T09:55:32</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>09:55:32</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T14:55:32Z</gmtDateISOEnd>
```

```
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>14:55:32</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0003</elapsedTimeInSeconds>  
</footer>  
</fsclean>
```

Media / File Inactive Remove by Media

Clean all Tertiary Manager knowledge of files on media that has been marked as logically blank.
This web service runs the `fsclean` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
rminfomedia	Required	1	Media for which file version removal is required.	media ID
rminforetrieve	Optional	1	The filename file contains a list of files which need to be retrieved so that their missing copies can be regenerated.	-p

Parameter	Req / Opt	Num	Description	CLI Option
purge	Optional	1	This option is used to indicate that a purge of the database namespace will be performed. Default value is false .	-P

Example

```
https://<<SERVER>>/sws/v2/media/fsclean/rminfo  
?rminfomedia=E00001  
&purge=false  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsclean xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsclean.xsd">  
<header>  
<commandName>fsclean</commandName>  
<commandLine>/usr/adic/TSM/exec/fsclean -r E00001 -F xml</commandLine>  
<commandDescription>Remove file version information from Tertiary Manager  
knowledge.</commandDescription>  
<localDateISO>2014-05-15T12:43:55</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>12:43:55</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T17:43:55Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>  
<gmtTime>17:43:55</gmtTime>  
<gmtDayOfWeek>4</gmtDayOfWeek>  
</header>  
<statuses>
```

```
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388137</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0723</statusCode>
<statusNumber>723</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388137</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>completed</commandStatus>
<statusText>Nothing found to clean for request.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:43:55</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:43:55</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:43:55Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:43:55</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0002</elapsedTimeInSeconds>
```

```
</footer>  
</fsclean>
```

Media / File Inactive Removal List

This will give a listing of all media which has been marked as logically blank.

This web service runs the `fsclean` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Example

```
https://<<SERVER>>/sws/v2/media/fsclean/rminfo/list  
?format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<fsclean xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsclean.xsd">
<header>
<commandName>fsclean</commandName>
<commandLine>/usr/adic/TSM/exec/fsclean -r -l -F xml</commandLine>
<commandDescription>Remove file version information from Tertiary Manager
knowledge.</commandDescription>
<localDateISO>2014-05-15T09:57:17</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>09:57:17</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T14:57:17Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>14:57:17</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0589</statusCode>
<statusNumber>589</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387927</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>interim</commandStatus>
<statusText>Tertiary Manager software request received.</statusText>
</status>
<status>
<statusCode>FS0723</statusCode>
<statusNumber>723</statusNumber>
<dayOfMonth>15</dayOfMonth>
```



```
<requestId>387927</requestId>
<commandName>/usr/adic/TSM/exec/fsclean</commandName>
<commandStatus>completed</commandStatus>
<statusText>Nothing found to clean for request.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T09:57:17</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>09:57:17</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T14:57:17Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>14:57:17</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0002</elapsedTimeInSeconds>
</footer>
</fsclean>
```

Media / Move Media

Move media from one archive to another.

This web service runs the **vsmove** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
media	Required	N	The media(s) that need(s) to be moved.	media ID
archive	Required	1	Specifies the name of the archive to which the specified media are to be moved.	-a
operator	Optional	1	Indicates this command is to be processed only if both the source and destination archives are operator-attended. Default value is false .	-i
wait	Optional	1	Indicates the Media Manager software waits until the command processing completes before returning status to the client. Default value is false .	-w
verbose	Optional	1	Indicates that verbose output is desired. Default value is false .	-v
hostname	Optional	1	The host name of the Media Manager server. The default host name is the host name of the computer where the CLI command is issued.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries the CLI software attempts if a timeout is returned by the API software. The default retries value is 3 .	-R

Parameter	Req / Opt	Num	Description	CLI Option
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout to the CLI software. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 300016 .	-V

Example

```
https://<<SERVER>>/sws/v2/media/vsmove  
?media=E00008  
&archive=myarchive  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<vsmove xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="vsmove.xsd">  
<header>  
<commandName>vsmove</commandName>  
<commandLine>/usr/adic/MSM/clibin/vsmove -a myarchive E00008 -F xml</commandLine>  
<commandDescription>Move media from one archive to another.</commandDescription>  
<localDateISO>2014-05-15T11:50:27</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>11:50:27</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T16:50:27Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>
```

```
<gmtTime>16:50:27</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<vsmoveOutput>
<vsmoveSuccess>
<vsmoveSuccessCompleted>0</vsmoveSuccessCompleted>
<vsmoveSuccessTotal>1</vsmoveSuccessTotal>
</vsmoveSuccess>
<errorMessage>
<errorMessageCode>VOL024</errorMessageCode>
<errorMessageText>error in the list</errorMessageText>
</errorMessage>
<mediaErrors>
<mediaError>
<mediaErrorMedium>E00008</mediaErrorMedium>
<mediaErrorText>medium already exists in target archive</mediaErrorText>
</mediaError>
</mediaErrors>
</vsmoveOutput>
<footer>
<returnCode>24</returnCode>
<localDateISOEnd>2014-05-15T11:50:27</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:50:27</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:50:27Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:50:27</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0051</elapsedTimeInSeconds>
```

```
</footer>  
</vsmove>
```

Media / Import Cleaning Media

This web service imports a list of cleaning media.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
mediaid	Required	N	The list of media IDs.	None

Example

```
https://<<SERVER>>/sws/v2/media/fsmedin/cleaningmedia  
?mediaid=000025  
&format=json
```

Output

```
{
  "header": {
    "commandName": "fsmedin",
    "commandLine": "/usr/adic/TSM/exec/fsmedin -k -F json 000025",
    "commandDescription": "Logically enters media into the Tertiary
Manager system from the Media Manager system.",
    "localDateISO": "2015-11-02T12:47:31",
    "localDate": "2015-11-02",
    "localTime": "12:47:31",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-11-02T19:47:31Z",
    "gmtDate": "2015-11-02",
    "gmtTime": "19:47:31",
    "gmtDayOfWeek": 1
  },
  "statuses": [
    {
      "statusCode": "FS0627",
      "statusNumber": 627,
      "dayOfMonth": 2,
      "requestId": 177981,
      "commandName": "/usr/adic/TSM/exec/fsmedin",
      "commandStatus": "interim",
      "statusText": "Entering cleaning media..."
    },
    {
      "statusCode": "FS0574",
      "statusNumber": 574,
      "dayOfMonth": 2,
      "requestId": 177981,
      "commandName": "fsmedin",
      "commandStatus": "interim",
      "statusText": "Entering of medium 000025 failed. Reason:
Query could not find a match for given criteria."
    },
    {
      "statusCode": "FS0390",
      "statusNumber": 390,
      "dayOfMonth": 2,
      "requestId": 177981,
      "commandName": "fsmedin",
      "commandStatus": "failed",
```

```
        "statusText": "0 out of 1 requests were successful."
    }
  ],
  "footer": {
    "returnCode": 1,
    "localDateISOEnd": "2015-11-02T12:47:31",
    "localDateEnd": "2015-11-02",
    "localTimeEnd": "12:47:31",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-11-02T19:47:31Z",
    "gmtDateEnd": "2015-11-02",
    "gmtTimeEnd": "19:47:31",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0043"
  }
}
```

Media / Import Media

This web service imports a list of media.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
mediaid	Required	N	The list of media IDs.	None
mediaformat	Optional	1	The media format that is requested for the media. The valid values are ANTF and LTFS .	-T
policyclass	Optional	1	The policy class this media will be associated.	-c
withholdformatting	Optional	1	This option is used to withhold formatting media immediately.	-w

Example

```
https://<<SERVER>>/sws/v2/media/fsmedin  
?mediaid=000017  
&format=json
```

Output

```
{  
  "header": {  
    "commandName": "fsmedin",  
    "commandLine": "/usr/adic/TSM/exec/fsmedin -b -F json 000017",  
    "commandDescription": "Logically enters media into the Tertiary  
Manager system from the Media Manager system.",  
    "localDateISO": "2015-11-02T12:45:58",  
    "localDate": "2015-11-02",  
    "localTime": "12:45:58",  
    "localDayOfWeek": 1,  
    "gmtDateISO": "2015-11-02T19:45:58Z",  
    "gmtDate": "2015-11-02",  
    "gmtTime": "19:45:58",  
    "gmtDayOfWeek": 1  
  },  
  "statuses": [  
    {  
      "statusCode": "FS0627",  
    }  
  ]  
}
```



```

        "statusNumber": 627,
        "dayOfMonth": 2,
        "requestId": 177962,
        "commandName": "/usr/adic/TSM/exec/fsmedin",
        "commandStatus": "interim",
        "statusText": "Entering media..."
    },
    {
        "statusCode": "FS0575",
        "statusNumber": 575,
        "dayOfMonth": 2,
        "requestId": 177962,
        "commandName": "fsmedin",
        "commandStatus": "interim",
        "statusText": "Entering of medium 000017 successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-11-02T12:45:58",
    "localDateEnd": "2015-11-02",
    "localTimeEnd": "12:45:58",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-11-02T19:45:58Z",
    "gmtDateEnd": "2015-11-02",
    "gmtTimeEnd": "19:45:58",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0080"
}
},
{
    "statusCode": "FS0627",
    "statusNumber": 627,
    "dayOfMonth": 2,
    "requestId": 177962,
    "commandName": "fsmedin",
    "commandStatus": "interim",
    "statusText": "Formatting media..."
},
{
    "statusCode": "FS0575",
    "statusNumber": 575,

```

```

    "dayOfMonth": 2,
    "requestId": 177962,
    "commandName": "fsmedin",
    "commandStatus": "interim",
    "statusText": "Formatting of medium 000017 successful."
  },
  {
    "statusCode": "FS0390",
    "statusNumber": 390,
    "dayOfMonth": 2,
    "requestId": 177962,
    "commandName": "fsmedin",
    "commandStatus": "completed",
    "statusText": "1 out of 1 requests were successful."
  }
],
"footer": {
  "returnCode": 0,
  "localDateISOEnd": "2015-11-02T12:45:59",
  "localDateEnd": "2015-11-02",
  "localTimeEnd": "12:45:59",
  "localDayOfWeekEnd": 1,
  "gmtDateISOEnd": "2015-11-02T19:45:59Z",
  "gmtDateEnd": "2015-11-02",
  "gmtTimeEnd": "19:45:59",
  "gmtDayOfWeekEnd": 1,
  "elapsedTimeInSeconds": "0.0379"
}
}

```

Media / Export Media

This web service exports a list of media.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
mediaid	Required	N	The list of media IDs.	None

Example

```
https://<<SERVER>>/sws/v2/media/fsmedout
?mediaid=000017
&format=json
```

Output

```
{
  "header": {
    "commandName": "fsmedout",
    "commandLine": "/usr/adic/TSM/exec/fsmedout -F json 000017",
    "commandDescription": "Logically removes media from the Tertiary
Manager system.",
    "localDateISO": "2015-11-02T12:48:23",
    "localDate": "2015-11-02",
    "localTime": "12:48:23",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-11-02T19:48:23Z",
    "gmtDate": "2015-11-02",
    "gmtTime": "19:48:23",
    "gmtDayOfWeek": 1
  }
}
```

```
    },
    "statuses": [
      {
        "statusCode": "FS0575",
        "statusNumber": 575,
        "dayOfMonth": 2,
        "requestId": 177985,
        "commandName": "fsmedout",
        "commandStatus": "interim",
        "statusText": "Ejecting of medium 000017 successful."
      },
      {
        "statusCode": "FS0390",
        "statusNumber": 390,
        "dayOfMonth": 2,
        "requestId": 177985,
        "commandName": "fsmedout",
        "commandStatus": "completed",
        "statusText": "1 out of 1 requests were successful."
      }
    ],
    "footer": {
      "returnCode": 0,
      "localDateISOEnd": "2015-11-02T12:48:23",
      "localDateEnd": "2015-11-02",
      "localTimeEnd": "12:48:23",
      "localDayOfWeekEnd": 1,
      "gmtDateISOEnd": "2015-11-02T19:48:23Z",
      "gmtDateEnd": "2015-11-02",
      "gmtTimeEnd": "19:48:23",
      "gmtDayOfWeekEnd": 1,
      "elapsedTimeInSeconds": "0.0226"
    }
  }
}
```

Media / Copy Media

Initiates copy-replace for a media.

This web service runs the **fsmedcopy** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
<code>includeinactive</code>	Optional	1	Indicates all files, active and inactive versions will be copied from the source medium. Default value is false .	<code>-a</code>
<code>blank</code>	Optional	1	Specify blank media for media destination. Default value is false .	<code>-b</code>
<code>destination</code>	Optional	1	Copy data file(s) to destination media.	<code>-d</code>
<code>format</code>	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	<code>-F</code>
<code>checksum</code>	Optional	1	Generate and maintain a checksum for each copied file. Valid values are y and n .	<code>-G y or n</code>
<code>limit</code>	Optional	1	Use this option to throttle and limit the number of concurrent streams used for the request. i Note: This option is useful with object storage media. The default value is 10 .	<code>-L</code>
<code>recreate</code>	Optional	1	Use this option when issues exist with a medium such that files can not be read from it. Files on the medium can be recreated from alternate media which have different copies of the files. The argument specifies which copy to use. If 0 is specified, then the command uses any copy to recreate copies of files for the bad medium. Valid values are 0 through 8 .	<code>-R</code>
<code>mediatype</code>	Optional	1	Defines the type of medium to be used.	<code>-t</code>
<code>runtime</code>	Optional	1	Maximum allowable time in hours for the command to finish.	<code>-u</code>
<code>drivepool</code>	Optional	1	Media Manager drive pool group from which the destination drive will be selected when copying the specified media.	<code>-v</code>
<code>media</code>	Required	N	Media IDs of the media(s).	<code>media ID</code>

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	<p>This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow. The default value is fast.</p> <p>i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.</p>	None
mode	Optional	1	<p>This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async. The default value is sync.</p>	None

Example

```
https://<<SERVER>>/sws/v2/media/fsmedcopy/replace
?media=E00001
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsmedcopy xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsmedcopy.xsd">
<header>
<commandName>fsmedcopy</commandName>
<commandLine>/usr/adic/TSM/exec/fsmedcopy E00001 -r -G n -F xml</commandLine>
<commandDescription>Replace and/or defragment media.</commandDescription>
<localDateISO>2014-05-15T10:02:36</localDateISO>
<localDate>2014-05-15</localDate>
```

```
<localTime>10:02:36</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T15:02:36Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>15:02:36</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0575</statusCode>
<statusNumber>575</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387943</requestId>
<commandName>fsmedcopy</commandName>
<commandStatus>interim</commandStatus>
<statusText>Copying files from medium E00001 successful.</statusText>
</status>
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387943</requestId>
<commandName>fsmedcopy</commandName>
<commandStatus>completed</commandStatus>
<statusText>1 out of 1 requests were successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T10:02:42</localDateISOEnd>
```

```
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>10:02:42</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T15:02:42Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>15:02:42</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>5.0470</elapsedTimeInSeconds>  
</footer>  
</fsmedcopy>  
</footer>  
</fsclean>
```

Media / Fragmentation Report

Report on media fragmentation.

This web service runs the **fsmedcopy** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None

Parameter	Req / Opt	Num	Description	CLI Option
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
media	Required	N	The media IDs for which we need the fragmentation report.	media ID
fill	Optional	1	Fill level threshold between 0 and 100 percent. The percentage of the medium that has been written, including active and inactive file versions. A default of 0 percent is used if not specified.	-f
fragmentation	Optional	1	The percent (0 – 100) of wasted space out of the filled space on a medium. A default of 0 (zero) percent is used if not specified.	-w

Example

```
https://<<SERVER>>/sws/v2/media/fsmedcopy/fragreport
?media=E00001
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsmedcopy xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsmedcopy.xsd">
<header>
<commandName>fsmedcopy</commandName>
<commandLine>/usr/adic/TSM/exec/fsmedcopy E00001 -F xml</commandLine>
<commandDescription>Replace and/or defragment media.</commandDescription>
<localDateISO>2014-05-15T11:52:30</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:52:30</localTime>
```

```
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:52:30Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:52:30</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<media>
<medium>
<mediaId>E00001</mediaId>
<fillLevel>0.00</fillLevel>
<wastedSpace>0.00</wastedSpace>
<segmentCount>0</segmentCount>
<available>Y</available>
<vaulted>N</vaulted>
</medium>
</media>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388046</requestId>
<commandName>/usr/adic/TSM/exec/fsmedcopy</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T11:52:30</localDateISOEnd>
```

```
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>11:52:30</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T16:52:30Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>16:52:30</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0005</elapsedTimeInSeconds>  
</footer>  
</fsmedcopy>
```

Media / Eject Media

Eject media out of an archive to be entered into another archive.

This web service runs the **vsarchiveeject** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
media	Required	N	Media IDs that need to be ejected.	mediaID

Parameter	Req / Opt	Num	Description	CLI Option
port	Optional	1	Specifies the import/export port the media is ejected to (if applicable).	-s
verbose	Optional	1	Indicates that verbose output is desired. Default value is false .	-v
hostname	Optional	1	The host name of the Media Manager server.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries that are attempted if a timeout is returned by the API software. The default retries value is 3 .	-R
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 300016 .	-V

Example

```
https://<<SERVER>>/sws/v2/media/vsarchiveeject  
?media=E00008  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<vsarchiveeject xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="vsarchiveeject.xsd">
```

```
<header>
<commandName>vsarchiveeject</commandName>
<commandLine>/usr/adic/MSM/clibin/vsarchiveeject E00008 -F xml</commandLine>
<commandDescription>Ejects media out of an archive to be entered into another
archive.</commandDescription>
<localDateISO>2014-05-15T11:53:41</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:53:41</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:53:41Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:53:41</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<vsarchiveejectOutput>
<vsarchiveejectReport>
<successfullyEjected>0</successfullyEjected>
<totalRequested>1</totalRequested>
</vsarchiveejectReport>
<errorMessage>
<errorMessageCode>VOL024</errorMessageCode>
<errorMessageText>error in the list</errorMessageText>
</errorMessage>
<mediaErrors>
<mediaError>
<mediaErrorMedium>E00008</mediaErrorMedium>
<mediaErrorText>port not available</mediaErrorText>
</mediaError>
</mediaErrors>
</vsarchiveejectOutput>
<footer>
```

```
<returnCode>24</returnCode>  
<localDateISOEnd>2014-05-15T11:53:41</localDateISOEnd>  
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>11:53:41</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T16:53:41Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>16:53:41</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0080</elapsedTimeInSeconds>  
</footer>  
</vsarchiveject>
```

Media / Enter Media

Enter media that has been ejected out of an archive into another archive.

This web service runs the **vsarchiveenter** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
media	Required	N	Media IDs that need to be moved.	mediaID
port	Optional	1	Specifies the import/export port the media is entered from (if applicable).	-s
archive	Required	1	Specifies the name of the archive to which the specified media are to be moved.	-a
verbose	Optional	1	Indicates that verbose output is desired.	-v
hostname	Optional	1	The host name of the Media Manager server.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries that are attempted if a timeout is returned by the API software. The default retries value is 3 .	-R
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 300016 .	-V

Example

```
https://<<SERVER>>/sws/v2/media/vsarchiveenter
?media=E00008
&archive=myarchive
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<vsarchiveenter xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="vsarchiveenter.xsd">
  <header>
    <commandName>vsarchiveenter</commandName>
    <commandLine>/usr/adic/MSM/clibin/vsarchiveenter E00008 -a myarchive -F
xml</commandLine>
    <commandDescription>Enters media that has been ejected out of an archive into
another archive.</commandDescription>
    <localDateISO>2014-05-15T11:54:54</localDateISO>
    <localDate>2014-05-15</localDate>
    <localTime>11:54:54</localTime>
    <localDayOfWeek>4</localDayOfWeek>
    <gmtDateISO>2014-05-15T16:54:54Z</gmtDateISO>
    <gmtDate>2014-05-15</gmtDate>
    <gmtTime>16:54:54</gmtTime>
    <gmtDayOfWeek>4</gmtDayOfWeek>
  </header>
  <vsarchiveenterOutput>
  <vsarchiveenterReport>
    <successfullyEntered>0</successfullyEntered>
    <totalRequested>1</totalRequested>
  </vsarchiveenterReport>
  <errorMessage>
    <errorMessageCode>VOL024</errorMessageCode>
    <errorMessageText>error in the list</errorMessageText>
  </errorMessage>
  <mediaErrors>
    <mediaError>
      <mediaErrorMedium>E00008</mediaErrorMedium>
```



```
<mediaErrorText>invalid action or location state for operation</mediaErrorText>
</mediaError>
</mediaErrors>
</vsarchiveenterOutput>
<footer>
<returnCode>24</returnCode>
<localDateISOEnd>2014-05-15T11:54:54</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:54:54</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:54:54Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:54:54</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0091</elapsedTimeInSeconds>
</footer>
</vsarchiveenter>
```

Media / Purge Media

This web service purges a list of media.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
mediaid	Required	N	The list of media IDs.	None

Example

```
https://<<SERVER>>/sws/v2/media/fsmedout/purge  
?mediaid=000017  
&format=json
```

Output

```
{  
  "header": {  
    "commandName": "fsmedout",  
    "commandLine": "/usr/adic/TSM/exec/fsmedout -k -F json 000017",  
    "commandDescription": "Logically removes media from the Tertiary  
Manager system.",  
    "localDateISO": "2015-11-02T12:45:24",  
    "localDate": "2015-11-02",  
    "localTime": "12:45:24",  
    "localDayOfWeek": 1,  
    "gmtDateISO": "2015-11-02T19:45:24Z",  
    "gmtDate": "2015-11-02",  
    "gmtTime": "19:45:24",  
    "gmtDayOfWeek": 1  
  },  
}
```

```
"statuses": [  
  {  
    "statusCode": "FS0575",  
    "statusNumber": 575,  
    "dayOfMonth": 2,  
    "requestId": 177957,  
    "commandName": "fsmedout",  
    "commandStatus": "interim",  
    "statusText": "Ejecting of medium 000017 successful."  
  },  
  {  
    "statusCode": "FS0390",  
    "statusNumber": 390,  
    "dayOfMonth": 2,  
    "requestId": 177957,  
    "commandName": "fsmedout",  
    "commandStatus": "completed",  
    "statusText": "1 out of 1 requests were successful."  
  }  
],  
"footer": {  
  "returnCode": 0,  
  "localDateISOEnd": "2015-11-02T12:45:25",  
  "localDateEnd": "2015-11-02",  
  "localTimeEnd": "12:45:25",  
  "localDayOfWeekEnd": 1,  
  "gmtDateISOEnd": "2015-11-02T19:45:25Z",  
  "gmtDateEnd": "2015-11-02",  
  "gmtTimeEnd": "19:45:25",  
  "gmtDayOfWeekEnd": 1,  
  "elapsedTimeInSeconds": "0.0554"  
}  
}
```

Media / Attribute Query

Queries for the attributes of one or more specified media.

This web service runs the **vsmedqry** command.

i Note: This web service returns text output.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
media	Required	N	Specifies a media to be queried.	mediaID
hostname	Optional	1	The host name of the Media Manager server.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries that are attempted if a timeout is returned by the API software. The default retries value is 3 .	-R
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 300016 .	-V

Example

```
https://<<SERVER>>/sws/v2/media/vsmedqry  
?media=000001
```

Output

```
-----  
Media Query Report 03-Jan-2014 11:58:23 1  
-----
```

```
Media ID: 000001
```

```
-----  
Media Type: LTO  
Media Class: F0_LTO_DATA  
Assignment: Free  
Location State: Archive  
Current Archive: mylib  
Pending Archive:  
Action State: Checkout  
Import Date: 15-Aug-2013 08:08:21  
Last Access: 11-Dec-2013 11:08:40  
Mount Count: 99  
Move Count: 198  
Manufacturer:  
Batch:  
Current State: On-line
```

Media / Change Media State

Change the class or state of a media.

This web service runs the `fschmedstate` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
media	Required	N	One or more 16-character media identifiers.	mediaID
state	Optional	1	Media state. Valid values for states are as follows: unsusp : Reset error count associated with media to 0. protect : Mark media as write-protected. Files can be read, but no data can be written to the media. unprotect : Mark the media as unprotected for data storage on media. avail : Media are available for storage and retrieval. unavail : Media are unavailable to Tertiary Manager software. unmark : Unmark media that are marked Error, or Check out. Either the state or policy is required.	-s
policy	Optional	1	Change the policy class name of blank media. Either the state or policy is required.	-c
blank	Optional	1	Change policy class for a blank medium to system blank pool. Default value is false .	-b

Example

```
https://<<SERVER>>/sws/v2/media/fschmedstate
?media=E00001
&state=avail
```

```
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fschmedstate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fschmedstate.xsd">
<header>
<commandName>fschmedstate</commandName>
<commandLine>/usr/adic/TSM/exec/fschmedstate E00001 -s avail -F xml</commandLine>
<commandDescription>Change the class or state of a medium.</commandDescription>
<localDateISO>2014-05-15T11:56:21</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>11:56:21</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T16:56:21Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>16:56:21</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0249</statusCode>
<statusNumber>249</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388051</requestId>
<commandName>/usr/adic/TSM/exec/fschmedstate</commandName>
<commandStatus>interim</commandStatus>
<statusText>Media E00001 is already in state avail.</statusText>
</status>
```

```
<status>
<statusCode>FS0390</statusCode>
<statusNumber>390</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388051</requestId>
<commandName>/usr/adic/TSM/exec/fschmedstate</commandName>
<commandStatus>failed</commandStatus>
<statusText>0 out of 1 media state change requests were successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>1</returnCode>
<localDateISOEnd>2014-05-15T11:56:21</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>11:56:21</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T16:56:21Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>16:56:21</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0001</elapsedTimeInSeconds>
</footer>
</fschmedstate>
```

Media / Checkout Media

Check media out of the Media Manager system.

This web service runs the **vscheckout** command.

i Note: This web service returns text output.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
media	Required	N	Specifies a list of one or more media to be queried.	mediaID
comment	Optional	1	Provide a comment to be associated with each checked-out media.	-t
verbose	Optional	1	Indicates that verbose output is needed. Default value is false .	-v
hostname	Optional	1	The host name of the Media Manager server.	-H
priority	Optional	1	The execution priority of the entered command. Assignable priority values are restricted to a range from 1 (highest) to 32 (lowest) inclusive. The default priority value is 15 .	-P
retries	Optional	1	The number of retries that are attempted if a timeout is returned by the API software. The default retries value is 3 .	-R
timeout	Optional	1	The amount of time (in seconds) the API software waits for status from the Media Manager software before returning a timeout. Total wait time for a command is (retries plus 1) multiplied by time-out value. The default time-out value is 120 seconds .	-T
rpcnumber	Optional	1	The RPC program number for the Media Manager software. The default value for the Media Manager software program number is 30016 .	-V

Example

```
https://<<SERVER>>/sws/v2/media/vscheckout  
?media=E00001
```

Output

```
Check out 1 of 1 media was successful
```

Media / List Media for Removal

List all media that are marked for removal.

This web service runs the **fsmedList** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
policy	Optional	N	Policy class(es) for which the report is to be generated.	-c
blank	Optional	1	Used to report on the blank media in the general scratch pool. Default value is false .	-g
checkout	Optional	1	List all media marked for check out. Default value is false .	-lk

Example

```
https://<<SERVER>>/sws/v2/media/fsmedList/removal  
?policy=myaxrpol1  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsmedlist xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsmedlist.xsd">
  <header>
    <commandName>fsmedlist</commandName>
    <commandLine>
      /usr/adic/TSM/bin/fsmedlist -c myaxrpol1 -l -m -F xml
    </commandLine>
    <commandDescription>
      Generate a list of media that have a specific status
    </commandDescription>
    <localDateISO>2014-07-01T16:01:10</localDateISO>
    <localDate>2014-07-01</localDate>
    <localTime>16:01:10</localTime>
    <localDayOfWeek>2</localDayOfWeek>
    <gmtDateISO>2014-07-01T22:01:10Z</gmtDateISO>
    <gmtDate>2014-07-01</gmtDate>
    <gmtTime>22:01:10</gmtTime>
    <gmtDayOfWeek>2</gmtDayOfWeek>
  </header>
  <classes>
    <class>
      <classId>myaxrpol1</classId>
      <marked>
        <total>0</total>
      </marked>
      <totalMediaInClass>0</totalMediaInClass>
    </class>
  </classes>
  <statuses>
    <status>
      <statusCode>FS0000</statusCode>
      <statusNumber>0</statusNumber>
      <dayOfMonth>1</dayOfMonth>
      <requestId>323000</requestId>
    </status>
  </statuses>
  <commandName>/usr/adic/TSM/bin/fsmedlist</commandName>
  <commandStatus>completed</commandStatus>
</fsmedlist>
```

```
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-07-01T16:01:10</localDateISOEnd>
<localDateEnd>2014-07-01</localDateEnd>
<localTimeEnd>16:01:10</localTimeEnd>
<localDayOfWeekEnd>2</localDayOfWeekEnd>
<gmtDateISOEnd>2014-07-01T22:01:10Z</gmtDateISOEnd>
<gmtDateEnd>2014-07-01</gmtDateEnd>
<gmtTimeEnd>22:01:10</gmtTimeEnd>
<gmtDayOfWeekEnd>2</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0002</elapsedTimeInSeconds>
</footer>
</fsmedlist>
```

Media / List Media by State

Lists media by state.

This web service runs the **fsmedlist** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None

Parameter	Req / Opt	Num	Description	CLI Option
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
policy	Optional	N	Policy class(es) for which the report is to be generated.	-c
blank	Optional	1	Used to report on the blank media in the general scratch pool. Default value is false .	-g
unformatted	Optional	1	List unformatted blank media. Default value is false .	-lb
formatted	Optional	1	List formatted blank media. Default value is false .	-lf
protect	Optional	1	List all write protected media. Default value is false .	-lp
error	Optional	1	List media with mark error. Default value is false .	-lq
available	Optional	1	List all available media. Default value is false .	-la
inaccessible	Optional	1	List all media unavailable to Tertiary Manager software. Default value is false .	-ln
unavailable	Optional	1	List all media marked as unavailable, but still located within the Tertiary Manager system. Default value is false .	-lu
suspect	Optional	1	List all suspect media. Default value is false .	-ls

Example

```
https://<<SERVER>>/sws/v2/media/fsmedlist/state  
?policy=myaxrpol1  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsmedlist xsi:noNamespaceSchemaLocation="fsmedlist.xsd">
```

```
<header>
<commandName>
fsmedlist
</commandName>
<commandLine>
/usr/adic/TSM/bin/fsmedlist -c myaxrpol1 -l -F xml
</commandLine>
<commandDescription>
Generate a list of media that have a specific status
</commandDescription>
<localDateISO>
2014-07-01T16:05:08
</localDateISO>
<localDate>
2014-07-01
</localDate>
<localTime>
16:05:08
</localTime>
<localDayOfWeek>
2
</localDayOfWeek>
<gmtDateISO>
2014-07-01T22:05:08Z
</gmtDateISO>
<gmtDate>
2014-07-01
</gmtDate>
<gmtTime>
22:05:08
</gmtTime>
<gmtDayOfWeek>
2
</gmtDayOfWeek>
</header>
<classes>
<class>
<classId>
myaxrpol1
</classId>
```

```
<inDrive>
<total>
0
</total>
</inDrive>
<inBin>
<total>
0
</total>
</inBin>
<exiting>
<total>
0
</total>
</exiting>
<outOfStorNext>
<total>
0
</total>
</outOfStorNext>
<markedForCheckOut>
<total>
0
</total>
</markedForCheckOut>
<markError>
<total>
0
</total>
</markError>
<marked>
<total>
0
</total>
</marked>
<total>
0
</total>
</formattedBlank>
<unformattedBlank>
```

```
<total>
0
</total>
</unformattedBlank>
<writeProtected>
<total>
0
</total>
</writeProtected>
<suspect>
<total>
0
</total>
</suspect>
<available>
<total>
0
</total>
</available>
<unavailable>
<total>
0
</total>
<formattedBlank>
</unavailable>
<unavailableToTertiaryManager>
<total>
0
</total>
</unavailableToTertiaryManager>
<totalMediaInClass>
0
</totalMediaInClass>
</class>
</classes>
<statuses>
<status>
<statusCode>
FS0000
</statusCode>
```



```
<statusNumber>
0
</statusNumber>
<dayOfMonth>
1
</dayOfMonth>
<requestId>
323010
</requestId>
<commandName>
/usr/adic/TSM/bin/fsmedlist
</commandName>
<commandStatus>
completed
</commandStatus>
<statusText>
Command Successful.
</statusText>
</status>
</statuses>
<footer>
<returnCode>
0
</returnCode>
<localDateISOEnd>
2014-07-01T16:05:08
</localDateISOEnd>
<localDateEnd>
2014-07-01
</localDateEnd>
<localTimeEnd>
16:05:08
</localTimeEnd>
<localDayOfWeekEnd>
2
</localDayOfWeekEnd>
<gmtDateISOEnd>
2014-07-01T22:05:08Z
</gmtDateISOEnd>
<gmtDateEnd>
```

```
2014-07-01
</gmtDateEnd>
<gmtTimeEnd>
22:05:08
</gmtTimeEnd>
<gmtDayOfWeekEnd>
2
</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>
0.0001
</elapsedTimeInSeconds>
</footer>
</fsmedList>
```

Media / List Media by Location

Lists media by location.

This web service runs the `fsmedList` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
policy	Optional	N	Policy class(es) for which the report is to be generated.	-c

Parameter	Req / Opt	Num	Description	CLI Option
blank	Optional	1	Used to report on the blank media in the general scratch pool. Default value is false .	-g
drive	Optional	1	List all media located in a drive. Default value is false .	-ld
home	Optional	1	List all media located in their home slot/bin. Default value is false .	-lh
exit	Optional	1	List all media exiting a storage area. Default value is false .	-lz
checkout	Optional	1	List all media that are checked out of the storage areas. Default value is false .	-lo

Example

```
https://<<SERVER>>/sws/v2/media/fsmedlist/location  
?policy=myaxrp011  
&drive=true  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsmedlist xsi:noNamespaceSchemaLocation="fsmedlist.xsd">  
<header>  
<commandName>  
fsmedlist  
</commandName>  
<commandLine>  
/usr/adic/TSM/bin/fsmedlist -c myaxrp011 -l -d -F xml  
</commandLine>  
<commandDescription>  
Generate a list of media that have a specific status  
</commandDescription>  
<localDateISO>  
2014-07-01T16:08:05
```

```
</localDateISO>  
<localDate>  
2014-07-01  
</localDate>  
<localTime>  
16:08:05  
</localTime>  
<localDayOfWeek>  
2  
</localDayOfWeek>  
<gmtDateISO>  
2014-07-01T22:08:05Z  
</gmtDateISO>  
<gmtDate>  
2014-07-01  
</gmtDate>  
<gmtTime>  
22:08:05  
</gmtTime>  
<gmtDayOfWeek>  
2  
</gmtDayOfWeek>  
</header>  
<classes>  
<class>  
<classId>  
myaxrpol1  
</classId>  
<inDrive>  
<total>  
0  
</total>  
</inDrive>  
<totalMediaInClass>  
0  
</totalMediaInClass>  
</class>  
</classes>  
<statuses>  
<status>
```

```
<statusCode>
FS0000
</statusCode>
<statusNumber>
0
</statusNumber>
<dayOfMonth>
1
</dayOfMonth>
<requestId>
323016
</requestId>
<commandName>
/usr/adic/TSM/bin/fsmedlist
</commandName>
<commandStatus>
completed
</commandStatus>
<statusText>
Command Successful.
</statusText>
</status>
</statuses>
<footer>
<returnCode>
0
</returnCode>
<localDateISOEnd>
2014-07-01T16:08:05
</localDateISOEnd>
<localDateEnd>
2014-07-01
</localDateEnd>
<localTimeEnd>
16:08:05
</localTimeEnd>
<localDayOfWeekEnd>
2
</localDayOfWeekEnd>
<gmtDateISOEnd>
```

```
2014-07-01T22:08:05Z
</gmtDateISOEnd>
<gmtDateEnd>
2014-07-01
</gmtDateEnd>
<gmtTimeEnd>
22:08:05
</gmtTimeEnd>
<gmtDayOfWeekEnd>
2
</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>
0.0001
</elapsedTimeInSeconds>
</footer>
</fsmedList>
```

Object Storage

Report Object Storage Components

Report all Object Storage components in Quantum storage system.

This web service runs the `fsobjcfg` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
action	Required	1	The only valid value is list . It generates a report showing all Quantum Object Storage components that are currently configured.	no CLI option.

Example

```
https://<<SERVER>>/sws/v2/objectstorage/lattus/fsobjcfg  
?action=list  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsobjcfg xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsobjcfg.xsd">  
<header>  
<commandName>fsobjcfg</commandName>  
<commandLine>/usr/adic/TSM/exec/fsobjcfg -F xml</commandLine>  
<commandDescription>Object Storage configuration</commandDescription>  
<localDateISO>2014-05-15T12:03:43</localDateISO>  
<localDate>2014-05-15</localDate>
```

```
<localTime>12:03:43</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:03:43Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:03:43</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<configurationReport>
<appliance>
<alias>MDH1</alias>
<type>appliance</type>
<maxStreams>0</maxStreams>
<protocol>http</protocol>
<restapi />
<urlstyle />
<ipAddress>10.65.166.61</ipAddress>
<port>80</port>
<provider>LATTUS</provider>
<nodes>
<node>
<alias>C1</alias>
<type>node</type>
<maxStreams>48</maxStreams>
<protocol />
<restapi />
<urlstyle />
<ipAddress />
<port />
<provider />
<iopaths>
```



```
<iopath>
<alias>P1</alias>
<type>iopath</type>
<maxStreams>0</maxStreams>
<protocol>http</protocol>
<restapi>AXR</restapi>
<urlstyle>PATH</urlstyle>
<ipAddress>10.65.166.62:8080</ipAddress>
<port />
<provider />
</iopath>
</iopaths>
</node>
<node>
<alias>C2</alias>
<type>node</type>
<maxStreams>48</maxStreams>
<protocol />
<restapi />
<urlstyle />
<ipAddress />
<port />
<provider />
<iopaths>
<iopath>
<alias>P3</alias>
<type>iopath</type>
<maxStreams>0</maxStreams>
<protocol>http</protocol>
<restapi>AXR</restapi>
```

```
<urlstyle>PATH</urlstyle>
<ipAddress>10.65.166.65:8080</ipAddress>
<port />
<provider />
</iopath>
</iopaths>
</node>
</nodes>
</appliance>
</configurationReport>
<mediaReport>
<appliance>
<alias>MDH1</alias>
<medias>
<media>
<namespace>george1</namespace>
<mediaId>george1</mediaId>
<copy>1</copy>
<mediatype>AXR</mediatype>
</media>
</medias>
</appliance>
</mediaReport>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388056</requestId>
<commandName>/usr/adic/TSM/exec/fsobjcfg</commandName>
```

```
<commandStatus>completed</commandStatus>  
<statusText>Command Successful.</statusText>  
</status>  
</statuses>  
<footer>  
<returnCode>0</returnCode>  
<localDateISOEnd>2014-05-15T12:03:43</localDateISOEnd>  
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>12:03:43</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T17:03:43Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>17:03:43</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0004</elapsedTimeInSeconds>  
</footer>  
</fsobjcfg>
```

Policy

Policy / Class Information

This web service reports information on storage manager policies.

This web service runs the **fsclassinfo** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
policy	Optional	N	Policy class(es) for which the report is to be generated. If no policy classes are specified, a short report is displayed for all policy classes.	policy name
verbose	Optional	1	List information in the long report format. Default value is false .	-l

Example

```
https://<<SERVER>>/sws/v2/policy/fsclassinfo  
?policy=xxx  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsclassinfo xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsclassinfo.xsd">
```

```
<header>
<commandName>fsclassinfo</commandName>
<commandLine>/usr/adic/TSM/bin/fsclassinfo xxx -F xml</commandLine>
<commandDescription>Report policy class processing parameters, associated
directory paths, and affinity lists.</commandDescription>
<localDateISO>2014-05-15T12:05:02</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>12:05:02</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:05:02Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:05:02</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<classes>
<class>
<classId>xxx</classId>
<softLimit>20000</softLimit>
<hardLimit>25000</hardLimit>
<drivePool>fs_F0drivepool</drivePool>
<securityCode>NONE</securityCode>
<acctNumber>12345</acctNumber>
<defCopies>1</defCopies>
<maxCopies>4</maxCopies>
<maxInactiveVersions>10</maxInactiveVersions>
<mediaType>LTO</mediaType>
<fileCleanup>MINTIME</fileCleanup>
<mediaCleanup>SYSTEM</mediaCleanup>
<storeMinTime>5m</storeMinTime>
<storeMaxSetAge>n/a</storeMaxSetAge>
```

```
<storeMinSetSize>n/a</storeMinSetSize>
<storeAutomatically>yes</storeAutomatically>
<relocMinTime>7d</relocMinTime>
<truncMinTime>3d</truncMinTime>
<generateChecksum>DISABLED</generateChecksum>
<validateChecksum>DISABLED</validateChecksum>
<cleanOnRemove>DISABLED</cleanOnRemove>
<targetStubSize>0</targetStubSize>
</class>
</classes>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388058</requestId>
<commandName>/usr/adic/TSM/bin/fsclassinfo</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:05:02</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:05:02</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:05:02Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:05:02</gmtTimeEnd>
```

```
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0002</elapsedTimeInSeconds>  
</footer>  
</fsclassinfo>
```

Policy / Modify a Policy

Modify the processing parameters of a policy class.

This web service runs the `fsmodclass` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
account	Optional	1	Up to five characters can be used for the account number.	-o
affinity	Optional	1	A space-separated list of disk affinities that the files in this policy class will traverse throughout their life cycle.	-a
autostore	Optional	1	This option decides if we allow the policy engine to automatically store files for this policy class. Valid values are true and false .	-p
blankpool	Optional	1	Media classification cleanup action. Valid values are policy and system.	-r
checksumretrieve	Optional	1	Verify the checksum of each retrieved file. Valid values are true and false . i Note: If you enable checksum, then it might not be possible to keep the drives with compression enabled, running at their highest rate due to the overhead of generating the checksum.	-V

Parameter	Req / Opt	Num	Description	CLI Option
checksumstore	Optional	1	Generate and maintain a checksum for each stored file. Valid values are true and false . i Note: If you enable checksum, then it might not be possible to keep the drives with compression enabled, running at their highest rate due to the overhead of generating the checksum.	-G
copy	Optional	1	Used to apply the copy options to a specific copy.	-C
dbclean	Optional	1	Remove database information when a file is removed. Valid values are true and false .	-D
defaultcopies	Optional	1	The total number of copies that will be stored (including the primary copy) for each file in this policy class.	-d
drivelimit	Optional	1	The maximum number of drives to use when the policy is run.	-L
drivepool	Optional	1	The Media Manager drive pool group used to store or retrieve data for this policy class.	-v

Parameter	Req / Opt	Num	Description	CLI Option
expirationtime	Optional	1	<p>The minimum time per copy that a stored file must reside without being accessed before the copy becomes eligible for deletion. The default value of 0 (zero) indicates that the copy is not eligible for expiration. Expiration time can be set on any copy, but at least one copy must be configured as ineligible for expiration. The default unit for the copy expiration value is days.</p> <p>Examples:</p> <ul style="list-style-type: none"> • A value of 15m equates to 15 minutes. • A value of 3h equates to 3 hours. • A value of 180d equates to 180 days. • A value of 10 equates to 10 days. 	-E
forceallcopiesexpire	Optional	1	<p>Boolean to override the restriction where the user is not allowed to configure a copy expiration time on all configured copies. The expiration option must also be specified with an expiration time greater than 0. When the last copy of a file expires and is removed, the file is automatically removed from the file-system name space and is no longer recoverable.</p>	-X
format	Optional	1	<p>The output format requested. Valid values are xml, json and text. The default is text.</p>	-F
hardlimit	Optional	1	<p>The maximum number of media that are allowed in this policy class.</p>	-h

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
maxcopies	Optional	1	The maximum number of copies (including the primary copy) that are allowed for each file in this policy class.	-x
maxsetage	Optional	1	Candidate expiration time (in hours) of the policy class.	-g
maxversions	Optional	1	This is the maximum number of inactive versions to keep for a file (the current version is active, all others are inactive).	-k
mediaformattype	Optional	1	Specifies the media format type that will be used when formatting or selecting media.	-T
mediatype	Optional	1	Defines the type of medium to be used.	-t
minreloctime	Optional	1	The minimum time that a stored file must reside unaccessed on disk before being considered a candidate for relocation (the clearing of disk blocks).	-i
minsetsize	Optional	1	The minimum set size of the policy class.	-z
minstoretime	Optional	1	The minimum time that a file must reside unmodified on disk before being considered a candidate for storage on media.	-m

Parameter	Req / Opt	Num	Description	CLI Option
mintrunc <code>time</code>	Optional	1	The minimum time that a stored file must reside unaccessed on disk before being considered a candidate for truncation (the clearing of disk blocks).	-c
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
policy	Required	1	The policy class for which the report is to be generated.	policy class
restoreonreference	Optional	1	Boolean to indicate if copies are to be recreated when referenced after being expired. The default value of false specifies that the copy is not to be recreated. This option is not allowed with the forceallcopiesexpire option or when the expirationtime is set to 0 .	-P
retrieveaffinity	Optional	1	The affinity to retrieve a truncated file to.	-R
retrieveorder	Optional	1	A comma-separated list of copy numbers specifying the order in which copies will be selected when retrieving files. Specifying none will re-enable the default retrieve order. If this option is not specified, the default retrieve order is used.	-O
security	Optional	1	Up to four characters can be used for security code.	-l
softlimit	Optional	1	The warning limit for the number of media that can be allocated to this policy class.	-s
stubs <code>size</code>	Optional	1	The truncation stub size (in kilobytes).	-S
trunc <code>mode</code>	Optional	1	Truncation mode. Valid values are immediate and policy .	-f

Example

```
https://<<SERVER>>/sws/v2/policy/fsmodclass  
?policy=xxx  
&defaultcopies=3  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsmodclass xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsmodclass.xsd">  
<header>  
<commandName>fsmodclass</commandName>  
<commandLine>/usr/adic/TSM/exec/fsmodclass xxx -d 3 -p no -G n -V n -D n -F  
xml</commandLine>  
<commandDescription>Modify the processing parameters of a policy  
class.</commandDescription>  
<localDateISO>2014-05-15T12:06:20</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>12:06:20</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T17:06:20Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>  
<gmtTime>17:06:20</gmtTime>  
<gmtDayOfWeek>4</gmtDayOfWeek>  
</header>  
<statuses>  
<status>  
<statusCode>FS0000</statusCode>  
<statusNumber>0</statusNumber>
```

```
<dayOfMonth>15</dayOfMonth>
<requestId>388059</requestId>
<commandName>/usr/adic/TSM/exec/fsmodclass</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful. Warning: AUTOSTORE is off for the policy class
and there is no spolicy schedule for it.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:06:20</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:06:20</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:06:20Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:06:20</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0022</elapsedTimeInSeconds>
</footer>
</fsmodclass>
```

Policy / Report Policy Class For A Directory

This web service reports the policy class associated with directory.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
directory	Required	1	The directory for which the policy class is required.	None

Example

```
https://<<SERVER>>/sws/v2/policy/fsdirclass
?directory=/stornext/snfx1/smpldata
&format=json
```

Output

```
{
  "header": {
    "commandName": "fsdirclass",
    "commandLine": "/usr/adic/TSM/bin/fsdirclass
/stornext/snfx1/smpldata -F json",
    "commandDescription": "Report the policy class associated with a
directory.",
    "localDateISO": "2015-11-02T12:50:56",
    "localDate": "2015-11-02",
    "localTime": "12:50:56",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-11-02T19:50:56Z",
    "gmtDate": "2015-11-02",
    "gmtTime": "19:50:56",
```

```
    "gmtDayOfWeek": 1
  },
  "directories": [
    {
      "directoryName": "/stornext/snfx1/smpldata",
      "classId": "smpl"
    }
  ],
  "statuses": [
    {
      "statusCode": "FS0000",
      "statusNumber": 0,
      "dayOfMonth": 2,
      "requestId": 177998,
      "commandName": "/usr/adic/TSM/bin/fsdirclass",
      "commandStatus": "completed",
      "statusText": "Command Successful."
    }
  ],
  "footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-11-02T12:50:56",
    "localDateEnd": "2015-11-02",
    "localTimeEnd": "12:50:56",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-11-02T19:50:56Z",
    "gmtDateEnd": "2015-11-02",
    "gmtTimeEnd": "19:50:56",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0003"
  }
}
```

Policy / Report Policy Class For A File System

This web service reports all policy classes with association points in a file system.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
filesystem	Required	1	The file system name on which to generate policy class relation information.	None

Example

```
https://<<SERVER>>/sws/v2/policy/fsgetclasses  
?filesystem=/stornext/snfx1  
&format=json
```

Output

```
{  
  "header": {  
    "commandName": "fsgetclasses",  
    "commandLine": "/usr/adic/TSM/bin/fsgetclasses /stornext/snfx1 -  
F json",  
    "commandDescription": "Report all policy classes with  
association points in a file system.",  
  }  
}
```



```
"localDateISO": "2015-11-02T12:52:04",
"localDate": "2015-11-02",
"localTime": "12:52:04",
"localDayOfWeek": 1,
"gmtDateISO": "2015-11-02T19:52:04Z",
"gmtDate": "2015-11-02",
"gmtTime": "19:52:04",
"gmtDayOfWeek": 1
},
"filesystems": [
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smp1"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "_adic_backup"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smp2"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smp3"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smp4"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smp67"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smp78"
  },
  {
    "filesystemName": "/stornext/snfx1",
    "classId": "smpqcc"
  },
  {
```

```

        "filesystemName": "/stornext/snfx1",
        "classId": "smpltomedia"
    },
],
"statuses": [
    {
        "statusCode": "FS0000",
        "statusNumber": 0,
        "dayOfMonth": 2,
        "requestId": 178002,
        "commandName": "/usr/adic/TSM/bin/fsgetclasses",
        "commandStatus": "completed",
        "statusText": "Command Successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-11-02T12:52:04",
    "localDateEnd": "2015-11-02",
    "localTimeEnd": "12:52:04",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-11-02T19:52:04Z",
    "gmtDateEnd": "2015-11-02",
    "gmtTimeEnd": "19:52:04",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0012"
}
}

```

Quota

Quota / Manage Quotas

This web service manipulates the quota system in the StorNext file system.

This web service runs the **snquota** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-o
fsname	Required	1	Specify FileSystemName as the file system to manipulate.	-F
path	Optional	1	Specify the file system containing Path as the file system to manipulate.	-P
action	Required	1	Specify the action. Valid values are create , delete , list , listall , mark , rebuild , and set .	create = -C delete = -D list = -G listall = -L mark = -M rebuild = -R set = -S
absolute	Optional	1	Specifies if the path is absolute. Default value is false .	-a
directory	Optional	1	This option specifies a DQNS on a StorNext file system to be used with the actions.	-d

Parameter	Req / Opt	Num	Description	CLI Option
exact	Optional	1	When used with the list or listall actions, numbers will be printed as exact values.	-e
files	Optional	1	This option is only useful with the list and set actions and the directory option. When this option is present, limits and values represent the number of regular files contained in the DQNS.	-f
groupname	Optional	1	This option specifies the name of a group to get or set with the list or set action.	-g
hostname	Optional	1	Use a hostname in a StorNext cluster that is different from the cluster the command is being run on. This option is rarely needed.	-H
hardlimit	Optional	1	This option specifies a hard limit to set when used with the set action.	-h
softlimit	Optional	1	This option specifies a soft limit to set when used with the set action.	-s
graceperiod	Optional	1	This option specifies a grace period to set when used with the set action.	-t
user	Optional	1	This option specifies the name of a user to get or set with the list or set action.	-u

Usage and Limits are printed in a human-readable form, suffixed with "K", "M", "G", "T", or "P" for kilobytes, megabytes, gigabytes, terabytes, or petabytes (respectively).

These are base-2 values (in other words, 1K = 1024). A value without a suffix is in bytes.

Example

```
https://<<SERVER>>/sws/v2/quota/snquota  
?fsname=sdfs1  
&action=listall  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<snquota xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="snquota.xsd">
<userQuotas>
<quota>
<hardLimit>0</hardLimit>
<softLimit>0</softLimit>
<gracePeriod>0</gracePeriod>
<curSize>327M</curSize>
<status>NoLimit</status>
<type>user</type>
<name>root</name>
</quota>
</userQuotas>
<groupQuotas>
<quota>
<hardLimit>0</hardLimit>
<softLimit>0</softLimit>
<gracePeriod>0</gracePeriod>
<curSize>327M</curSize>
<status>NoLimit</status>
<type>group</type>
<name>root</name>
</quota>
</groupQuotas>
<directoryQuotas>
<quota>
<hardLimit>5.0T</hardLimit>
<softLimit>2.0T</softLimit>
```

```
<gracePeriod>2w</gracePeriod>
<curSize>0</curSize>
<status>Under</status>
<type>dir</type>
<name>/foobar</name>
</quota>
<quota>
<hardLimit>0</hardLimit>
<softLimit>0</softLimit>
<gracePeriod>0</gracePeriod>
<curSize>0</curSize>
<status>NoLimit</status>
<type>dirfiles</type>
<name>/foobar</name>
</quota>
</directoryQuotas>
<returnCode>0</returnCode>
</snquota>
```

Report

Report / Cancel Requests

This web service cancels requests.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are json and text . The default value is text .	-F
requestid	Required	1	The request id that needs to be canceled.	-r

Example

```
https://<<SERVER>>/sws/v2/report/fscancel  
?request=177397
```

Output

```
{  
  "header": {  
    "commandName": "fscancel",  
    "commandLine": "fscancel 177937 -F json",  
    "commandDescription": "Cancel media, file, and resource  
queued requests",  
    "localDateISO": "2015-11-02T12:58:29",  
    "localDate": "2015-11-02",  
    "localTime": "12:58:29",
```

```
        "localDayOfWeek": 1,  
        "gmtDateISO": "2015-11-02T19:58:29Z",  
        "gmtDate": "2015-11-02",  
        "gmtTime": "19:58:29",  
        "gmtDayOfWeek": 1  
    },  
    "statuses": [  
        {  
            "statusCode": "FS0000",  
            "statusNumber": 0,  
            "dayOfMonth": 2,  
            "requestId": 178014,  
            "commandName": "fscancel",  
            "commandStatus": "completed",  
            "statusText": "Command Successful."  
        }  
    ],  
    "footer": {  
        "returnCode": 0,  
        "localDateISOEnd": "2015-11-02T12:58:29",  
        "localDateEnd": "2015-11-02",  
        "localTimeEnd": "12:58:29",  
        "localDayOfWeekEnd": 1,  
        "gmtDateISOEnd": "2015-11-02T19:58:29Z",  
        "gmtDateEnd": "2015-11-02",  
        "gmtTimeEnd": "19:58:29",  
        "gmtDayOfWeekEnd": 1,  
        "elapsedTimeInSeconds": "0.0000"  
    }  
}
```

Report / Files

Reports all files in the queue or specific files if a request identifiers or filename is specified.

This web service runs the **fsqueue** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
request	Optional	1	The request identifier of the request to be reported.	-r
file	Optional	N	The absolute path of the file(s).	-f

Example

```
https://<<SERVER>>/sws/v2/report/fsqueue/file  
?file=/stornext/snfs1/xxx/testfile.0  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsqueue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsqueue.xsd">  
<header>  
<commandName>fsqueue</commandName>  
<commandLine>/usr/adic/TSM/exec/fsqueue -f /stornext/snfs1/xxx/testfile.0 -F  
xml</commandLine>  
<commandDescription>View subsystem resource requests</commandDescription>  
<localDateISO>2014-05-15T12:11:25</localDateISO>  
<localDate>2014-05-15</localDate>
```

```
<localTime>12:11:25</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:11:25Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:11:25</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388061</requestId>
<commandName>fsqueue</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful. There are no requests found.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:11:25</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:11:25</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:11:25Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:11:25</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0001</elapsedTimeInSeconds>
</footer>
```

```
</fsqueue>
```

Report / Media

Reports the media movement for a request identifier or all media in queue.

This web service runs the **fsqueue** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
request	Optional	1	The request identifier of the request to be reported.	-r

Example

```
https://<<SERVER>>/sws/v2/report/fsqueue/media  
?request=1928784996  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsqueue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsqueue.xsd">
<header>
<commandName>fsqueue</commandName>
<commandLine>/usr/adic/TSM/exec/fsqueue -m -r 1928784996 -F xml</commandLine>
<commandDescription>View subsystem resource requests</commandDescription>
<localDateISO>2014-05-15T12:13:06</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>12:13:06</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:13:06Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:13:06</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388064</requestId>
<commandName>fsqueue</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful. There are no requests found.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:13:06</localDateISOEnd>
```

```
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>12:13:06</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T17:13:06Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>17:13:06</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0000</elapsedTimeInSeconds>  
</footer>  
</fsqueue>
```

Report / Mover Host

Active mover host summary.

This web service runs the **fsqueue** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Example

```
https://<<SERVER>>/sws/v2/report/fsqueue/moverhost  
?format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsqueue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsqueue.xsd">  
<header>  
<commandName>fsqueue</commandName>  
<commandLine>/usr/adic/TSM/exec/fsqueue -a -F xml</commandLine>  
<commandDescription>View subsystem resource requests</commandDescription>  
<localDateISO>2014-05-15T12:14:17</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>12:14:17</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T17:14:17Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>  
<gmtTime>17:14:17</gmtTime>  
<gmtDayOfWeek>4</gmtDayOfWeek>  
</header>  
<movers>  
<move>  
<host>gp-rh63.mdh.quantum.com</host>  
<state>Enabled</state>  
<activeDataMovers>0</activeDataMovers>  
</move>  
</movers>  
<statuses>
```

```
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388066</requestId>
<commandName>fsqueue</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:14:17</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:14:17</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:14:17Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:14:17</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0001</elapsedTimeInSeconds>
</footer>
</fsqueue>
```

Report / Mover Request

Active mover request summary.

This web service runs the **fsqueue** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Example

```
https://<<SERVER>>/sws/v2/report/fsqueue/moverrequest  
?format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsqueue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsqueue.xsd">  
<header>  
<commandName>fsqueue</commandName>  
<commandLine>/usr/adic/TSM/exec/fsqueue -a -v -F xml</commandLine>  
<commandDescription>View subsystem resource requests</commandDescription>  
<localDateISO>2014-05-15T12:15:07</localDateISO>  
<localDate>2014-05-15</localDate>
```



```
<localTime>12:15:07</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:15:07Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:15:07</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388068</requestId>
<commandName>fsqueue</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful. There are no requests found.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:15:07</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:15:07</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:15:07Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:15:07</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0007</elapsedTimeInSeconds>
</footer>
```

```
</fsqueue>
```

Report / Resource

Active resource request summary.

This web service runs the **fsqueue** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
request	Optional	1	The request identifier of the request to be reported.	-r

Example

```
https://<<SERVER>>/sws/v2/report/fsqueue/resource  
?request=1928784996  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsqueue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsqueue.xsd">
  <header>
    <commandName>fsqueue</commandName>
    <commandLine>/usr/adic/TSM/exec/fsqueue -r 1928784996 -F xml</commandLine>
    <commandDescription>View subsystem resource requests</commandDescription>
    <localDateISO>2014-05-15T12:17:05</localDateISO>
    <localDate>2014-05-15</localDate>
    <localTime>12:17:05</localTime>
    <localDayOfWeek>4</localDayOfWeek>
    <gmtDateISO>2014-05-15T17:17:05Z</gmtDateISO>
    <gmtDate>2014-05-15</gmtDate>
    <gmtTime>17:17:05</gmtTime>
    <gmtDayOfWeek>4</gmtDayOfWeek>
  </header>
  <statuses>
    <status>
      <statusCode>FS0000</statusCode>
      <statusNumber>0</statusNumber>
      <dayOfMonth>15</dayOfMonth>
      <requestId>388071</requestId>
      <commandName>fsqueue</commandName>
      <commandStatus>completed</commandStatus>
      <statusText>Command Successful. There are no requests found.</statusText>
    </status>
  </statuses>
  <footer>
    <returnCode>0</returnCode>
  </footer>
</fsqueue>
```

```
<localDateISOEnd>2014-05-15T12:17:05</localDateISOEnd>  
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>12:17:05</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T17:17:05Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>17:17:05</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0000</elapsedTimeInSeconds>  
</footer>  
</fsqueue>
```

Report / List Available Software Backups

Provides a listing of available SNSM software backups which you can use for a restore operation. The information is listed in a tabular format. Full backups and all subsequent partial backups are grouped together. Each copy is also grouped together. The media required for each set of backups is shown in the **MEDIA** column.

This web service runs the **snbkpreport** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync . The default value is sync .	None
format	Optional	1	The output format requested. This web service only supports text . output. The default is text .	None

Example

```
/opt/quantum/curl/bin/curl -k "https://192.168.1.75/sws/v2/report/snbackup"
```

Output

```
=====
=====

-----
-----

--- ADIC Backup Report ---

-----
-----

-----
-----

Sdisk and Object Storage Device Information (They may or may not be used
for
storing backups)

ALIAS                TYPE          PATH
-----
mysdisk              SDISK         /stornext/u1/mysdisk/adic.xps-centos7-c

-----
-----

===== \

BACKUP ID: 0
TIME RANGE: 2019.06.28 - 2019.06.28
-----

Copy: 1
  DATE                TYPE          STATUS        MEDIA
-----
2019.06.28:10:19:42  full          PASS          mysdisk
```

```
=====
```

Report / Get Status for Software Backups

Get status for currently running backup or results of previous backup.

This web service runs the **snbackup -s** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
format	Optional	1	The output format requested. Valid values are xml and json . The default is json .	-F

Example

```
curl -k "https://192.168.1.75/sws/v2/report/snbackup/status?format=JSON"
```

Output

```
{
  "header" : {
    "gmtDateISO" : "2019-06-28T15:23:39Z",
    "localDate" : "2019-06-28",
    "localTime" : "10:23:39",
    "gmtTime" : "15:23:39",
    "gmtDayOfWeek" : 5,
    "gmtDate" : "2019-06-28",
    "commandName" : "snbackup",
    "commandDescription" : "Execute backup of configuration, database,
and file system metadata.",
    "localDateISO" : "2019-06-28T10:23:39",
    "localDayOfWeek" : 5,
    "commandLine" : "snbackup -s -F JSON"
```

```
},
"status" : {
  "state" : "idle",
  "result" : "completed",
  "resultDetails" : "Backup Successful",
  "startTime" : "Fri Jun 28 10:19:42 2019",
  "endTime" : "Fri Jun 28 10:19:56 2019"
},
"footer" : {
  "gmtDateISOEnd" : "2019-06-28T15:23:39Z",
  "returnCode" : 0,
  "elapsedTimeInSeconds" : 0,
  "localDateEnd" : "2019-06-28",
  "localTimeEnd" : "10:23:39",
  "gmtTimeEnd" : "15:23:39",
  "gmtDayOfWeekEnd" : 5,
  "localDateISOEnd" : "2019-06-28T10:23:39",
  "localDayOfWeekEnd" : 5,
  "gmtDateEnd" : "2019-06-28"
}
}
```

Report / Status

Displays status summary information on requests.

This web service runs the **fsqueue** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobpriority	Optional	1	This parameter describes the priority of an asynchronous job. Valid values are high , medium and low .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	<p>This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow. The default value is fast.</p> <p>i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.</p>	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
queuedonly	Optional	1	This parameter will limit the output to include requests that are queued waiting on resource allocation.	-q
moveronly	Optional	1	This parameter will limit the output to include requests that have data movers which are working on requests.	-i
timelimit	Optional	1	<p>This parameter will limit the output to include requests that have completed within the specified amount of time.</p> <p>The time value can be set in units of seconds, minutes, hours or days using the following suffix values:</p> <ul style="list-style-type: none"> • s: seconds (default if no suffix specified) • m: minutes • h: hours • d: days 	-c
request	Optional	1	The request identifier of the request to be reported.	-r

Example

```
https://<<SERVER>>/sws/v2/report/fsqueue/status
?
format=json
```


Output

```
{
  "header": {
    "commandName": "fsqueue",
    "commandLine": "fsqueue -s -i -q -c 10 -F JSON",
    "commandDescription": "View subsystem resource requests",
    "localDateISO": "2017-02-06T14:44:42",
    "localDate": "2017-02-06",
    "localTime": "14:44:42",
    "localDayOfWeek": 1,
    "gmtDateISO": "2017-02-06T20:44:42Z",
    "gmtDate": "2017-02-06",
    "gmtTime": "20:44:42",
    "gmtDayOfWeek": 1
  },
  "requestQueue": [
    {
      "queuePos": 1,
      "requestId": 420,
      "requestState": "COPY",
      "requestType": "STR",
      "startTime": 1486413864,
      "stopTime": 0,
      "runTime": 18,
      "totalFiles": 3000,
      "filesCopied": 2371,
      "filesFailed": 0,
      "totalDataSize": 76579736,
      "dataCopied": 52649600,
      "mediaId": "E00000",
      "deviceAlias": "vtl1_drv1",
      "deviceAlias2": "",
      "host": "snt756465-mdc1"
    },
    {
      "queuePos": 2,
      "requestId": 420,
      "requestState": "QUEUE",
      "requestType": "STR",
      "startTime": 1486413872,
      "stopTime": 0,
      "runTime": 10,
      "totalFiles": 3000,
```

```
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 197321367,  
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",  
        "host": ""  
    },  
    {  
        "queuePos": 3,  
        "requestId": 420,  
        "requestState": "QUEUE",  
        "requestType": "STR",  
        "startTime": 1486413872,  
        "stopTime": 0,  
        "runTime": 10,  
        "totalFiles": 3000,  
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 197321367,  
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",  
        "host": ""  
    },  
    {  
        "queuePos": 4,  
        "requestId": 420,  
        "requestState": "QUEUE",  
        "requestType": "STR",  
        "startTime": 1486413872,  
        "stopTime": 0,  
        "runTime": 10,  
        "totalFiles": 3000,  
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 197321367,  
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",
```

```
    "host": ""
  },
  {
    "queuePos": 5,
    "requestId": 420,
    "requestState": "QUEUE",
    "requestType": "STR",
    "startTime": 1486413872,
    "stopTime": 0,
    "runTime": 10,
    "totalFiles": 3000,
    "filesCopied": 0,
    "filesFailed": 0,
    "totalDataSize": 197321367,
    "dataCopied": 0,
    "mediaId": "",
    "deviceAlias": "",
    "deviceAlias2": "",
    "host": ""
  },
  {
    "queuePos": 6,
    "requestId": 420,
    "requestState": "ALLOCATE",
    "requestType": "STR",
    "startTime": 1486413864,
    "stopTime": 0,
    "runTime": 18,
    "totalFiles": 3000,
    "filesCopied": 2372,
    "filesFailed": 0,
    "totalDataSize": 76579736,
    "dataCopied": 52649472,
    "mediaId": "E00028",
    "deviceAlias": "vtl1_drv2",
    "deviceAlias2": "",
    "host": "snt756465-mdc1"
  },
  {
    "queuePos": 7,
    "requestId": 420,
    "requestState": "ALLOCATE",
    "requestType": "STR",
```

```
        "startTime": 1486413864,  
        "stopTime": 0,  
        "runTime": 18,  
        "totalFiles": 3000,  
        "filesCopied": 2371,  
        "filesFailed": 0,  
        "totalDataSize": 76579736,  
        "dataCopied": 52649600,  
        "mediaId": "E00027",  
        "deviceAlias": "vtl1_drv3",  
        "deviceAlias2": "",  
        "host": "snt756465-mdc1"  
    },  
    {  
        "queuePos": 8,  
        "requestId": 420,  
        "requestState": "ALLOCATE",  
        "requestType": "STR",  
        "startTime": 1486413864,  
        "stopTime": 0,  
        "runTime": 18,  
        "totalFiles": 3000,  
        "filesCopied": 2372,  
        "filesFailed": 0,  
        "totalDataSize": 76579736,  
        "dataCopied": 52649472,  
        "mediaId": "E00026",  
        "deviceAlias": "vtl1_drv4",  
        "deviceAlias2": "",  
        "host": "snt756465-mdc1"  
    },  
    {  
        "queuePos": 9,  
        "requestId": 420,  
        "requestState": "QUEUE",  
        "requestType": "STR",  
        "startTime": 1486413881,  
        "stopTime": 0,  
        "runTime": 1,  
        "totalFiles": 2778,  
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 33271651,
```

```
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",  
        "host": ""  
    },  
    {  
        "queuePos": 10,  
        "requestId": 420,  
        "requestState": "QUEUE",  
        "requestType": "STR",  
        "startTime": 1486413881,  
        "stopTime": 0,  
        "runTime": 1,  
        "totalFiles": 2778,  
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 33271651,  
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",  
        "host": ""  
    },  
    {  
        "queuePos": 11,  
        "requestId": 420,  
        "requestState": "QUEUE",  
        "requestType": "STR",  
        "startTime": 1486413881,  
        "stopTime": 0,  
        "runTime": 1,  
        "totalFiles": 2778,  
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 33271651,  
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",  
        "host": ""  
    },  
    {
```

```
        "queuePos": 12,  
        "requestId": 420,  
        "requestState": "QUEUE",  
        "requestType": "STR",  
        "startTime": 1486413881,  
        "stopTime": 0,  
        "runTime": 1,  
        "totalFiles": 2778,  
        "filesCopied": 0,  
        "filesFailed": 0,  
        "totalDataSize": 33271651,  
        "dataCopied": 0,  
        "mediaId": "",  
        "deviceAlias": "",  
        "deviceAlias2": "",  
        "host": ""  
    },  
    ],  
    "footer": {  
        "returnCode": 0,  
        "localDateISOEnd": "2017-02-06T14:44:42",  
        "localDateEnd": "2017-02-06",  
        "localTimeEnd": "14:44:42",  
        "localDayOfWeekEnd": 1,  
        "gmtDateISOEnd": "2017-02-06T20:44:42Z",  
        "gmtDateEnd": "2017-02-06",  
        "gmtTimeEnd": "20:44:42",  
        "gmtDayOfWeekEnd": 1,  
        "elapsedTimeInSeconds": "0.0009"  
    }  
}
```

Schedule

Schedule / Report

Prints the report of a feature or schedule.

This web service runs the **fsschedule** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
feature	Optional	1	The name of the feature. Valid types are: clninfo , clnver , defrag , rebuild , p_backup , f_backup , spolicy , healthck , activevault , and archive_cmp .	-f
schedule	Optional	1	The schedule name.	-n

Example

```
https://<<SERVER>>/sws/v2/schedule/fsschedule/info  
?feature=defrag  
&schedule=schedule1  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
<fsschedule xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsschedule.xsd">
<header>
<commandName>fsschedule</commandName>
<commandLine>/usr/adic/TSM/exec/fsschedule -n schedule1 -F xml</commandLine>
<commandDescription>Insert, modify, delete, reset, or report all maintenance
features in the Quantum storage subsystem.</commandDescription>
<localDateISO>2014-05-15T12:21:43</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>12:21:43</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:21:43Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:21:43</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<schedules>
<schedule>
<name>schedule1</name>
<feature>defrag</feature>
<period>daily</period>
<lastRun>None</lastRun>
<lastRunISODate>None</lastRunISODate>
<lastRunTime>None</lastRunTime>
<calendar>
<dailyflags>YYYYYYY</dailyflags>
</calendar>
<startWindowStartHr>00</startWindowStartHr>
<startWindowStartMin>00</startWindowStartMin>
<startWindowEndHr>01</startWindowEndHr>
<startWindowEndMin>00</startWindowEndMin>
```



```
<lastRunStatus>None</lastRunStatus>
</schedule>
</schedules>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388079</requestId>
<commandName>/usr/adic/TSM/exec/fsschedule</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:21:43</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:21:43</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:21:43Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:21:43</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0001</elapsedTimeInSeconds>
</footer>
</fsschedule>
```

Schedule / Create

This web service will create a schedule.

This web service runs the **fsschedule** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
feature	Required	1	The name of the feature. Valid types are: clninfo , clnver , defrag , rebuild , p_backup , f_backup , spolicy , healthck , activevault , and archive_cmp .	-f
schedule	Required	1	The schedule name.	-n
period	Optional	1	The period of the schedule. Valid options are: daily , weekly , and monthly .	-p
weekday	Optional	1	The day of the week: Valid options are: Sun , Mon , Tue , Wed , Thu , Fri , or Sat .	-e
monthday	Optional	1	The day of the month: 1 – 31.	-y
runtime	Required	1	The start time of the feature defined as HHMM.	-t
window	Optional	1	The window or runtime offset defined as HHMM.	-w

Parameter	Req / Opt	Num	Description	CLI Option
option	Optional	1	The option used by the feature. Currently, only the spolicy feature requires an option, which is an existing policy class.	-o
archive	Optional	N	Applicable only for activevault feature. Media to be vaulted are selected from this list of archives.	--
vault	Optional	1	Applicable only for activevault feature. The destination archive vault media.	-vault
copy	Optional	1	Applicable only for activevault feature. A list of copy numbers to query on.	-copy
used	Optional	1	Applicable only for activevault feature. Select only media that have used size capacity. Size is in bytes by default, but a suffix of B(ytes), K(ibibytes), M(ebibytes), G(ibibytes) or T(ebibytes) may be used to specify capacity.	-used
free	Optional	1	Applicable only for activevault feature. Select only media that have size capacity remaining. Size is in bytes by default, but a suffix of B(ytes), K(ibibytes), M(ebibytes), G(ibibytes) or T(ebibytes) may be used to specify capacity.	-remaining
age	Optional	1	Applicable only for activevault feature. Vault media according to age. age by default is in seconds, but a time unit may also be provided to specify seconds, days, weeks, months or years. A specific date may also be specified with the YYYY:MM:DD:hh:mm:ss format.	-age

Parameter	Req / Opt	Num	Description	CLI Option
sort	Optional	1	Applicable only for activevault feature. Sort results based according to column where column can be age, id, full, remaining or used. Age will sort by last access time of the media. Id will sort by media ID. Full will sort by the percentage full of the media. This is the default behavior if no sort option is specified. Remaining will sort by space remaining on the media. Used will sort by the amount of space used on the media.	-sort
migrate	Optional	1	Applicable only for activevault feature. Valid values are true and false. If true, Select from media in the MIGRATE media class. If false, Ignore media in the MIGRATE media class.	-migrate or -nomigrate
pending	Optional	1	Applicable only for activevault feature. Valid values are true and false . If true , Select media where a vaulting operation is pending. If false , Select media where no vaulting operation is pending.	-pending or -nopending
highmark	Optional	1	Applicable only for activevault feature. Override the ACTIVEVAULT_HIGH_USE sysparm value to start vaulting if the used capacity of the Storage Manager license is at or above the pct percent.	-highmark
lowmark	Optional	1	Applicable only for activevault feature. Override the ACTIVEVAULT_LOW_USE sysparm value to stop vaulting if the used capacity of the Storage Manager license is below the pct percent.	-lowmark
fill	Optional	1	Applicable only for activevault feature. Override the ACTIVEVAULT_FULL_PERCENT sysparm value to consider vaulting media that is at or above the specified percent.	-fullpct

Parameter	Req / Opt	Num	Description	CLI Option
report	Optional	1	Applicable only for activevault feature. Generate a media report based upon the selection criteria.	-report
includepolicy	Optional	N	Applicable only for activevault feature. Select media belonging to the list of policy classes. If this option is used, only media belonging to the list will be selected.	-include_policy
excludepolicy	Optional	N	Applicable only for activevault feature. Excludes media belonging to the listed policy classes.	-exclude_policy
capacity	Optional	1	Applicable only for activevault feature. Report the current licensed capacity and total available licensed capacity.	-capacity
dryrun	Optional	1	Applicable only for activevault feature. Show what media would be vaulted according to the selection criteria.	-dryrun
limit	Optional	1	Applicable only for activevault feature. Limit the number of vaulted media to this number.	-limit
notify	Optional	1	Applicable only for activevault feature. Set the email notification level for active vault policy admin alerts where level is either none , error , warn , or info . None will suppress all email notifications. Error will only send notifications when an error occurs, such as database errors or licensing errors. Warn will send notifications for warnings, such as being unable to vault enough media to satisfy the low water mark. Info will cause email notifications to be sent indicating that the active vault policy completed successfully. The default notification level is warn .	-notify

Parameter	Req / Opt	Num	Description	CLI Option
noheader	Optional	1	Applicable only for the activevault feature. Do not display header or result count in the media report.	-noheader
verbose	Optional	1	Applicable only for activevault feature.	-verbose
policy	Optional	1	Applicable only for the activevault feature. The name of the Active Vault policy to use for email notifications.	-policy

Example

```
https://<<SERVER>>/sws/v2/schedule/fsschedule/create  
?feature=f_backup  
&schedule=schedule1  
&period=daily  
&weekday=Sun  
&runtime=1000  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsschedule xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsschedule.xsd">  
<header>  
<commandName>fsschedule</commandName>  
<commandLine>/usr/adic/TSM/exec/fsschedule -a -n schedule2 -f f_backup -p daily -  
e Sun -t 1000 -F xml</commandLine>  
<commandDescription>Insert, modify, delete, reset, or report all maintenance  
features in the Quantum storage subsystem.</commandDescription>  
<localDateISO>2014-05-15T12:25:28</localDateISO>  
<localDate>2014-05-15</localDate>
```

```
<localTime>12:25:28</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:25:28Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:25:28</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388090</requestId>
<commandName>/usr/adic/TSM/exec/fsschedule</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:25:28</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:25:28</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:25:28Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:25:28</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0049</elapsedTimeInSeconds>
</footer>
```

```
</fsschedule>
```

Schedule / Update

This web service will update a schedule.

This web service runs the `fsschedule` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
schedule	Required	1	The schedule name.	-n
period	Optional	1	The period of the schedule. Valid options are: daily , weekly , or monthly .	-p
weekday	Optional	1	The day of the week: Valid options are: Sun, Mon, Tue, Wed, Thu, Fri, or Sat.	-e
monthday	Optional	1	The day of the month: 1 – 31.	-y
runtime	Optional	1	The start time of the feature defined as HHMM.	-t

Parameter	Req / Opt	Num	Description	CLI Option
window	Optional	1	The window or runtime offset defined as HHMM.	-w
option	Optional	1	The option used by the feature. Currently, only the spolicy feature requires an option, which is an existing policy class.	-o
archive	Optional	N	Applicable only for the activevault feature. Media to be vaulted are selected from this list of archives.	--
vault	Optional	1	Applicable only for the activevault feature. The destination archive where to vault media.	-vault
copy	Optional	1	Applicable only for the activevault feature. A list of copy numbers to query.	-copy
used	Optional	1	Applicable only for the activevault feature. Select only media that have used size capacity. Size is in bytes by default, but a suffix of B(ytes), K (ibibytes), M(ebibytes), G(ibibytes) or T (ebibytes) may be used to specify capacity.	-used
free	Optional	1	Applicable only for the activevault feature. Select only media that have size capacity remaining. Size is in bytes by default, but a suffix of B(ytes), K (ibibytes), M(ebibytes), G(ibibytes) or T (ebibytes) may be used to specify capacity.	-remaining
age	Optional	1	Applicable only for the activevault feature. Vault media according to age. Age by default is in seconds , but a time unit may also be provided to specify seconds, days, weeks, months or years. A specific date may also be specified with the YYYY:MM:DD:hh:mm:ss format.	-age

Parameter	Req / Opt	Num	Description	CLI Option
sort	Optional	1	Applicable only for the activevault feature. Sort results based according to column where column can be age, id, full, remaining or used. Age will sort by last access time of the media. Id will sort by media ID. Full will sort by the percentage full of the media. This is the default behavior if no sort option is specified. Remaining will sort by space remaining on the media. Used will sort by the amount of space used on the media.	-sort
migrate	Optional	1	Applicable only for the activevault feature. Valid values are true and false . If true , select from media in the MIGRATE media class. If false , ignore media in the MIGRATE media class.	-migrate or - nomigrate
pending	Optional	1	Applicable only for the activevault feature. Valid values are true and false . If true , select media where a vaulting operation is pending. If false , select media where no vaulting operation is pending.	-pending or -nopending
highmark	Optional	1	Applicable only for the activevault feature. Override the ACTIVEVAULT_HIGH_USE sysparm value to start vaulting if the used capacity of the Storage Manager license is at or above the pct percent.	-highmark
lowmark	Optional	1	Applicable only for the activevault feature. Override the ACTIVEVAULT_LOW_USE sysparm value to stop vaulting if the used capacity of the Storage Manager license is below the pct percent.	-lowmark
fill	Optional	1	Applicable only for the activevault feature. Override the ACTIVEVAULT_FULL_PERCENT sysparm value to consider vaulting media that is at or above the pct percent.	-fullpct

Parameter	Req / Opt	Num	Description	CLI Option
report	Optional	1	Applicable only for the activevault feature. Generate a media report based upon the selection criteria.	-report
includepolicy	Optional	N	Applicable only for the activevault feature. Select media belonging to the list of policy classes. If this option is used, only media belonging to the list will be selected.	-include_policy
excludepolicy	Optional	N	Applicable only for the activevault feature. Excludes media belonging to the listed policy classes.	-exclude_policy
capacity	Optional	1	Applicable only for the activevault feature. Report the current licensed capacity and total available licensed capacity.	-capacity
dryrun	Optional	1	Applicable only for the activevault feature. Show media that would be vaulted according to the selection criteria.	-dryrun
limit	Optional	1	Applicable only for the activevault feature. Limit the number of vaulted media to this number.	-limit
notify	Optional	1	Applicable only for the activevault feature. Set the email notification level for active vault policy admin alerts where level is either none, error, warn, or info. Nnone will suppress all email notifications. Error will only send notifications when an error occurs, such as database errors or licensing errors. Warn will send notifications for warnings, such as being unable to vault enough media to satisfy the low water mark. Info will cause email notifications to be sent indicating that the active vault policy completed successfully. The default notification level is warn.	-notify

Parameter	Req / Opt	Num	Description	CLI Option
noheader	Optional	1	Applicable only for the activevault feature. Do not display header or result count in the media report.	-noheader
verbose	Optional	1	Applicable only for activevault feature.	-verbose
policy	Optional	1	Applicable only for the activevault feature. The name of the Active Vault policy to use for email notifications.	-policy

Example

```
https://<<SERVER>>/sws/v2/schedule/fsschedule/update  
?feature=defrag  
&schedule=schedule1  
&period=daily  
&weekday=Sun  
&runtime=1000  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsschedule xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsschedule.xsd">  
<header>  
<commandName>fsschedule</commandName>  
<commandLine>/usr/adic/TSM/exec/fsschedule -m -n schedule1 -p daily -e Sun -t  
1000 -F xml</commandLine>  
<commandDescription>Insert, modify, delete, reset, or report all maintenance  
features in the Quantum storage subsystem.</commandDescription>  
<localDateISO>2014-05-15T12:27:59</localDateISO>  
<localDate>2014-05-15</localDate>
```

```
<localTime>12:27:59</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:27:59Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:27:59</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388095</requestId>
<commandName>/usr/adic/TSM/exec/fsschedule</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:27:59</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:27:59</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:27:59Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:27:59</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0057</elapsedTimeInSeconds>
</footer>
```

```
</fsschedule>
```

Schedule / Delete

This web service deletes an existing schedule.

This web service runs the **fsschedule** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
schedule	Required	1	The schedule name.	-n

Example

```
https://<<SERVER>>/sws/v2/schedule/fsschedule/delete  
?schedule=schedule1  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<fsschedule xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="fsschedule.xsd">
<header>
<commandName>fsschedule</commandName>
<commandLine>/usr/adic/TSM/exec/fsschedule -d -n schedule1 -F xml</commandLine>
<commandDescription>Insert, modify, delete, reset, or report all maintenance
features in the Quantum storage subsystem.</commandDescription>
<localDateISO>2014-05-15T12:29:23</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>12:29:23</localTime>
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T17:29:23Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>17:29:23</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388098</requestId>
<commandName>/usr/adic/TSM/exec/fsschedule</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
```

```
<returnCode>0</returnCode>  
<localDateISOEnd>2014-05-15T12:29:24</localDateISOEnd>  
<localDateEnd>2014-05-15</localDateEnd>  
<localTimeEnd>12:29:24</localTimeEnd>  
<localDayOfWeekEnd>4</localDayOfWeekEnd>  
<gmtDateISOEnd>2014-05-15T17:29:24Z</gmtDateISOEnd>  
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>17:29:24</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0613</elapsedTimeInSeconds>  
</footer>  
</fsschedule>
```

Schedule / Reset

This web service resets an existing schedule.

This web service runs the `fsschedule` command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Parameter	Req / Opt	Num	Description	CLI Option
feature	Required	1	The name of the feature. Valid types are: clninfo , clnver , defrag , rebuild , p_backup , f_backup , spolicy , healthck , activevault , or archive_cmp .	-f

Example

```
https://<<SERVER>>/sws/v2/schedule/fsschedule/reset  
?feature=defrag  
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<fsschedule xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xsi:noNamespaceSchemaLocation="fsschedule.xsd">  
<header>  
<commandName>fsschedule</commandName>  
<commandLine>/usr/adic/TSM/exec/fsschedule -r -f defrag -F xml</commandLine>  
<commandDescription>Insert, modify, delete, reset, or report all maintenance  
features in the Quantum storage subsystem.</commandDescription>  
<localDateISO>2014-05-15T12:30:26</localDateISO>  
<localDate>2014-05-15</localDate>  
<localTime>12:30:26</localTime>  
<localDayOfWeek>4</localDayOfWeek>  
<gmtDateISO>2014-05-15T17:30:26Z</gmtDateISO>  
<gmtDate>2014-05-15</gmtDate>  
<gmtTime>17:30:26</gmtTime>  
<gmtDayOfWeek>4</gmtDayOfWeek>  
</header>  
<statuses>
```

```
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>388101</requestId>
<commandName>/usr/adic/TSM/exec/fsschedule</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T12:30:26</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>12:30:26</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T17:30:26Z</gmtDateISOEnd>
<gmtDateEnd>2014-05-15</gmtDateEnd>
<gmtTimeEnd>17:30:26</gmtTimeEnd>
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>
<elapsedTimeInSeconds>0.0139</elapsedTimeInSeconds>
</footer>
</fsschedule>
```

System

System / Backup

Execute backup of configuration, database, and file system metadata.

This web service runs the **snbackup** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are json and text . The default is text .	-F

Example

```
https://<<SERVER>>/sws/v2/system/snbackup  
?partial=true  
&meta=true
```

Output

```
Exit Code: 0  
Output: =====  
=====--- StorNext Backup ---  
=====  
  
Backup Start: Thu Apr 17 12:56:30 2014  
Log File: /usr/adic/TSM/logs/reports/backup.status
```

Type: Partial Backup

```
=====
----- Begin Processing -----
=====
```

- Connecting to database
Database connection successful

 - Configuring backup information
 - Backup using storage manager
 - Querying database for _adic_backup class information
 - Getting list of file systems with metadata files
 - Checking for BACKUPFS fs_sysparm setting
 - Scanning for defined file systems
 - Updating fs_sysparm for selected mount point

 - Checking for required components
 - Verifying Relation Point
 - Get identifier information and sequence numbers
Using Backup ID 15 for partial backup
 - Check Failures

 - Getting list of existing backup files

 - Package Configuration Files

 - Package Database Files
 - Dumping database
- Backup scanned up to lsn 71894126433

```
mysqlbackup incremental backup succeeded
- Create archive file for database backup

- Package Filesystem Metadata Files
- Suspending metadata archive processing for target
- Updating reference copy for target
- Compressing package for target
Packaged target metadata - took 83s
- Resuming metadata archive processing for target

- Storing files to media

- Removing obsolete backup versions
- Update database backup catalog
- Syncing backup manifest files
Wrote out snbackup_manifest file /usr/adic/mysql/snbackup_manifest
Wrote out snbackup_manifest file /usr/adic/TSM/internal/status_dir/snbackup_
manifest
Wrote out device_manifest file /usr/adic/mysql/device_manifest
Wrote out device_manifest file /usr/adic/TSM/internal/status_dir/device_manifest

- Checking for files to revert

=====
=====--- Backup End ---=====
=====

== End Time: Thu Apr 17 13:08:51 2014
== Backup successfully completed
```

System / Backup Status

Retrieves the status of the backup operation.

This web service runs the **snbackup** command.

i Note: This web service returns text or json output. The default is text.

Parameters

This web service does not contain any parameters.

Example

```
https://<<SERVER>>/sws/v2/system/snbackup/status
```

Output

```
Exit Code: 0
Output: Backup Complete: Backup completed successfully
Output from last run of snbackup:
2014-04-17-12:56:30: Backup Start: Thu Apr 17 12:56:30 2014
2014-04-17-12:56:30: - Connecting to database
2014-04-17-12:56:30: Database connection successful
2014-04-17-12:56:30: - Configuring backup information
2014-04-17-12:56:30: - Backup using storage manager
2014-04-17-12:56:30: - Querying database for _adic_backup class information
2014-04-17-13:03:56: - Compressing package for target
2014-04-17-13:05:19: Packaged target metadata - took 83s
2014-04-17-13:05:19: - Resuming metadata archive processing for target
2014-04-17-13:05:19: - Storing files to media
2014-04-17-13:08:36: - Removing obsolete backup versions
2014-04-17-13:08:36: - Update database backup catalog
2014-04-17-12:56:30: - Getting list of file systems with metadata files
2014-04-17-12:56:30: - Checking for BACKUPFS fs_sysparm setting
2014-04-17-12:56:30: - Scanning for defined file systems
```

```
2014-04-17-12:56:30: - Updating fs_sysparm for selected mount point
2014-04-17-12:56:30: - Checking for required components
2014-04-17-12:56:30: - Verifying Relation Point
2014-04-17-12:56:31: - Get identifier information and sequence numbers
2014-04-17-12:56:31: - Check Failures
2014-04-17-12:56:31: - Getting list of existing backup files
2014-04-17-12:56:31: - Package Configuration Files
2014-04-17-12:56:58: - Package Database Files
2014-04-17-12:56:58: - Dumping database
2014-04-17-13:02:10: Backup scanned up to lsn 71894126433
2014-04-17-13:02:10: mysqlbackup incremental backup succeeded
2014-04-17-13:02:10: - Create archive file for database backup
2014-04-17-13:02:14: - Package Filesystem Metadata Files
2014-04-17-13:02:14: - Suspending metadata archive processing for target
2014-04-17-13:02:14: - Updating reference copy for target
2014-04-17-13:08:37: - Syncing backup manifest files
2014-04-17-13:08:37: Wrote out snbackup_manifest file /usr/adic/mysql/snbackup_
manifest
2014-04-17-13:08:37: Wrote out snbackup_manifest file
/usr/adic/TSM/internal/status_dir/snbackup_manifest
2014-04-17-13:08:39: Wrote out device_manifest file /usr/adic/mysql/device_
manifest
2014-04-17-13:08:39: Wrote out device_manifest file
/usr/adic/TSM/internal/status_dir/device_manifest
2014-04-17-13:08:51: - Checking for files to revert
2014-04-17-13:08:51: == End Time: Thu Apr 17 13:08:51 2014
2014-04-17-13:08:51: == Backup successfully completed
systems with relation points
```

System / File System Report

This web service reports the status of a file system and the status of stripe groups that belong to it.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. The valid values are xml , json and text . The default value is text .	-F
filesystem	Required	1	The file system name for which status is required.	None
showstripegroups	Optional	1	This option will also enable the status information of stripe groups. The valid values are true and false . The default value is false .	

Example

```
https://<<SERVER>>/sws/v2/system/filesystem/info  
?filesystem=snfx1  
&showstripegroups=true  
&format=json
```

Output

```
{
```



```
"status" : "Online",
"totalSpace" : "19.991 GB",
"usedSpace" : "9.1 GB",
"usedPercent" : "45%",
"freeSpace" : "10.937 GB",
"freePercent" : "55%",
"sgList" : [ {
  "name" : "sg0",
  "totalSpace" : "19.99 GB",
  "reservedSpace" : "4.13 GB",
  "freeSpace" : "15.07 GB"
} ]
}
```

System / Information

Retrieves the latest status of system components.

This web service runs control scripts for different components and gathers the output.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F

Example

```
https://<<SERVER>>/sws/v2/system/info  
?format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>  
<xml-fragment>  
<sws:SoftwareVersion  
xmlns:sws="http://www.quantum.com/sws">5.0.0</sws:SoftwareVersion>  
<sws:System xmlns:sws="http://www.quantum.com/sws">ONLINE</sws:System>  
<sws:Tsm xmlns:sws="http://www.quantum.com/sws">ONLINE</sws:Tsm>  
<sws:Msm xmlns:sws="http://www.quantum.com/sws">ONLINE</sws:Msm>  
<sws:Dsm xmlns:sws="http://www.quantum.com/sws">ONLINE</sws:Dsm>  
<sws:Database xmlns:sws="http://www.quantum.com/sws">ONLINE</sws:Database>  
<sws:Srvclg xmlns:sws="http://www.quantum.com/sws">ONLINE</sws:Srvclg>  
</xml-fragment>
```

System / Parameters

Report the value for the specified Tertiary Manager system parameter.

This web service runs the **showsysparm** command.

Parameters

Parameter	Req / Opt	Num	Description	CLI Option
mode	Optional	1	This option specifies if the job will be run synchronously or asynchronously. The valid values are sync and async . The default value is sync .	None

Parameter	Req / Opt	Num	Description	CLI Option
jobtype	Optional	1	This parameter is used for async mode only and enables the user to run it as a fast or slow job. Valid values are fast and slow . The default value is fast . i Note: The fast and slow queues provide a method for segregating jobs that run quickly from jobs that take a long time to complete. Each queue is configured by default to run up to four jobs simultaneously in order within their respective queues.	None
format	Optional	1	The output format requested. Valid values are xml , json and text . The default is text .	-F
param	Required	N	Name of the system parameter.	no CLI option

Example

```
https://<<SERVER>>/sws/v2/system/showsysparm
?param=CLASS_DEFAULT_COPIES
&format=xml
```

Output

```
<?xml version="1.0" encoding="UTF-8" ?>
<showsysparm xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="showsysparm.xsd">
<header>
<commandName>showsysparm</commandName>
<commandLine>/usr/adic/TSM/util/showsysparm CLASS_DEFAULT_COPIES -F
xml</commandLine>
<commandDescription>Report the value for the specified Tertiary Manager system
parameter.</commandDescription>
<localDateISO>2014-05-15T10:39:59</localDateISO>
<localDate>2014-05-15</localDate>
<localTime>10:39:59</localTime>
```

```
<localDayOfWeek>4</localDayOfWeek>
<gmtDateISO>2014-05-15T15:39:59Z</gmtDateISO>
<gmtDate>2014-05-15</gmtDate>
<gmtTime>15:39:59</gmtTime>
<gmtDayOfWeek>4</gmtDayOfWeek>
</header>
<sysparms>
<sysparm>
<name>CLASS_DEFAULT_COPIES</name>
<value>1</value>
</sysparm>
</sysparms>
<statuses>
<status>
<statusCode>FS0000</statusCode>
<statusNumber>0</statusNumber>
<dayOfMonth>15</dayOfMonth>
<requestId>387968</requestId>
<commandName>/usr/adic/TSM/util/showsysparm</commandName>
<commandStatus>completed</commandStatus>
<statusText>Command Successful.</statusText>
</status>
</statuses>
<footer>
<returnCode>0</returnCode>
<localDateISOEnd>2014-05-15T10:39:59</localDateISOEnd>
<localDateEnd>2014-05-15</localDateEnd>
<localTimeEnd>10:39:59</localTimeEnd>
<localDayOfWeekEnd>4</localDayOfWeekEnd>
<gmtDateISOEnd>2014-05-15T15:39:59Z</gmtDateISOEnd>
```

```
<gmtDateEnd>2014-05-15</gmtDateEnd>  
<gmtTimeEnd>15:39:59</gmtTimeEnd>  
<gmtDayOfWeekEnd>4</gmtDayOfWeekEnd>  
<elapsedTimeInSeconds>0.0000</elapsedTimeInSeconds>  
</footer>  
</showsysparm>
```



Chapter 2: Software Development Kit (SDK) on Developing Applications Using StorNext Web Services V2

StorNext Web Services (SWS) V2 is a collection of web services that provide an interface to important functionalities within the product. SWS V2 enables the user to make quick and reliable web service calls and perform different operations and obtain reports from the StorNext enabled system.

This section provides an overview of how to use the SWS V2 web services. The section demonstrates different ways the web services can be invoked and also provides insight into the various options.

This chapter contains the following topics:

Prerequisites	221
Getting Started	221
Run the Web Services	224
Run the Web Services from a Client Application	228
Troubleshooting	274

Prerequisites

Table 3: StorNext Web Services V2 Prerequisites

Prerequisite	Notes
StorNext 5 release 5.3 (or later) should be installed on the system.	For information on how to install StorNext, contact a Quantum representative or visit the <i>StorNext Installation Guide</i> online at http://www.quantum.com/snsdocs .
Web services should be enabled.	For information on how to enable web services, see the section Getting Started below .
Web service authentication and user credentials should be configured.	For information on how to configure authentication and user credentials, see the section Getting Started below .
If authentication is required, web service user(s) needs to be created.	For information on how to create web service users, see the section Getting Started below .
If SWS V2 web services need to be executed via a web browser, it should be installed on the system.	SWS V2 can be invoked from various browsers. For example: <ul style="list-style-type: none">• Microsoft Windows Internet Explorer• Mozilla Firefox• Google Chrome
If SWS V2 web services are invoked from customer source code, relevant libraries need to be installed and referenced from the source code.	For additional information, see the section Run the Web Services from a Client Application on page 228 .

Getting Started

This section provides the procedures required to begin using SWS V2 web services. The procedures assume you have access to the StorNext Graphical User Interface (GUI).

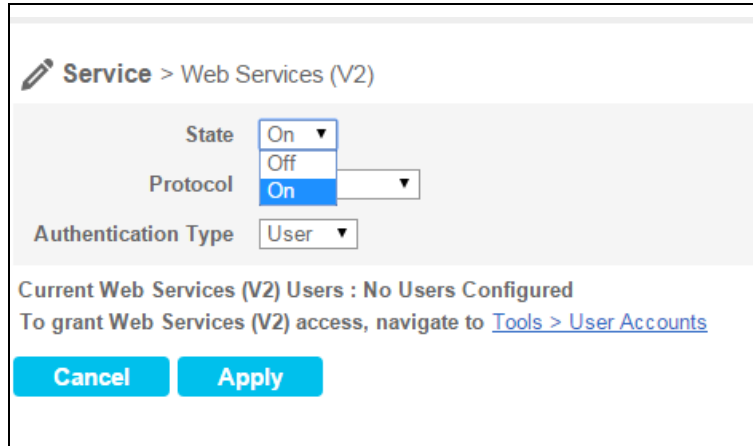
Enable Web Services

Enable or disable the SWS V2 web services using the StorNext GUI. Ensure the GUI is accessible via a supported browser (see [Prerequisites above](#)). If StorNext is installed and configured correctly, access the StorNext GUI from `https://<mdc_ip_address>>[:<<mdc_port>>]`.

1. On the StorNext GUI, click **Service**, and then click **Web Services (V2)**. The **Service > Web Services (V2)** page appears.

2. In the **State** box, select **On** to enable web services.
3. Click **Apply**.

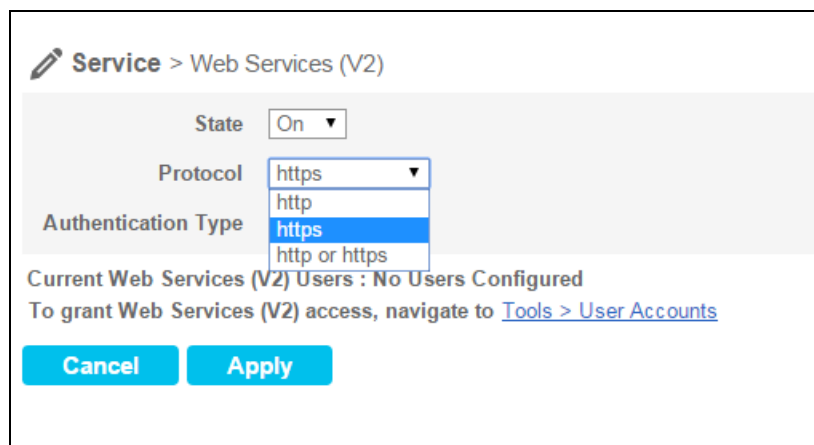
Figure 1: Enable Web Services



Configure Protocol for Access

1. On the StorNext GUI, click **Service**, and then click **Web Services (V2)**. The **Service > Web Services (V2)** page appears.
2. In the **Protocol** box, select the protocol (**http**, **https** or **http or https**).
3. Click **Apply**.

Figure 2: Configure Web Services Protocol

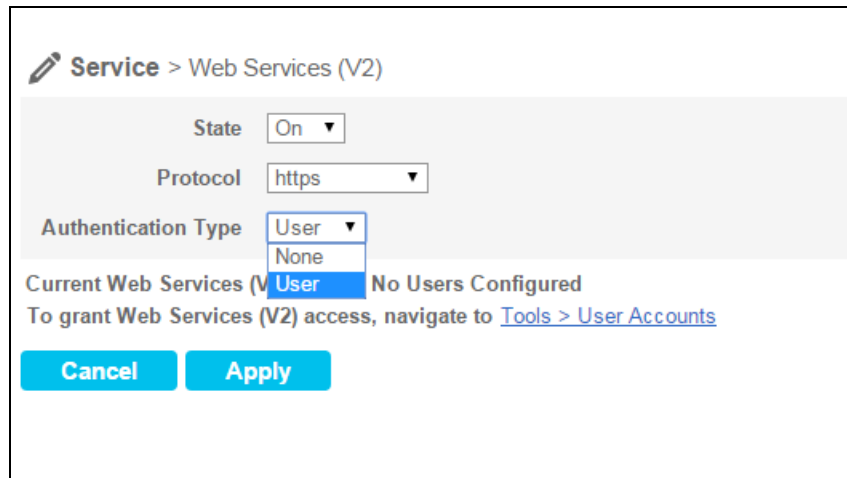


Configure Authentication Type

Configure Web Services to authenticate web service requests with a **username** and **password** by configuring the authentication type to **User**.

- i Note:** If **User** is selected, all web service requests require a valid **username** and **password**. For this purpose, a valid web service user needs to be created. To grant Web Services (V2) access, on the StorNext GUI navigate to **Tools > User Accounts**.
1. On the StorNext GUI, click **Service**, and then click **Web Services (V2)**. The **Service > Web Services (V2)** page appears.
 2. In the **Authentication Type** box, select the type (**User**, or **None**).
 3. Click **Apply**.

Figure 3: Configure Authentication for Web Services



Create the SWS V2 Web Service User

1. On the **Tools** menu, click **User Accounts**. The **Tools > User Accounts** page appears. All existing users and the admin are shown.
2. Click **New**. The **Tools > User Accounts > New** page appears.
3. In the **User Name** field, type the name the new user will enter at the **User ID** field when he or she logs on to StorNext.
4. In the **Password** field, type the password the new user will enter when logging on to StorNext.
5. In the **Session Timeout** field, type a number, and then select Minutes or Hours as unit of time measurement from the drop-down. The **Session Timeout** specifies the predetermined amount of time that should elapse before the user is logged out of the system. The default is 30 minutes, and the valid range is from 10 minutes to 12 hours.

i Note: Access to the **Session Timeout** feature is available when a user has the **Manage Users** privilege checked within the **Admin Functions** section.

6. Roles are grouped according to **Admin Functions**, **Operator Functions** and **General User Functions**. You can automatically pre-select all the functions for one of these three roles by clicking at the **Access Control** field **Admin Defaults**, **Operator Defaults**, **General User Defaults** or **Web Services**. Selecting one of these roles for the new user makes it easy for you to automatically add or

remove functions.

- a. Under **Access Control**, click **Web Services**.
- b. Under **General User Functions**, click **Use Web Services**.
- c. If **Use Web Services** is enabled, then you can also configure the following **Web Service Access Controls**:
 - o **File Control**: Used for all file related web services. Select one of the following: **Read-Write**, **Read-Only**, or **Disabled**.
 - o **Destination Control**: Used for all web services that deal with some form of media. Select one of the following: **Read-Write**, **Read-Only**, or **Disabled**.
 - o **System Control**: Used for all system related web services. Select one of the following: **Read-Write**, **Read-Only**, or **Disabled**.
 - o **Policy Control**: Used for all policy related web services. Select one of the following: **Read-Write**, **Read-Only**, or **Disabled**.

Read-Write: You can query information and all perform create/edit/update/delete operations either on files or media.

Read-Only: You can only query information for files or media.

Disabled: You cannot perform any operations including querying information.

For example, a file information call requires **File-Control** and **Read-Only** access, but a retrieve or store call requires **File-Control** and **Read-Write** access.

7. When you are satisfied with the permissions you have assigned, click **Apply** to save your changes. To exit without saving, click **Cancel**.
8. When a message informs you that the new user was successfully added, click **OK**.

Run the Web Services

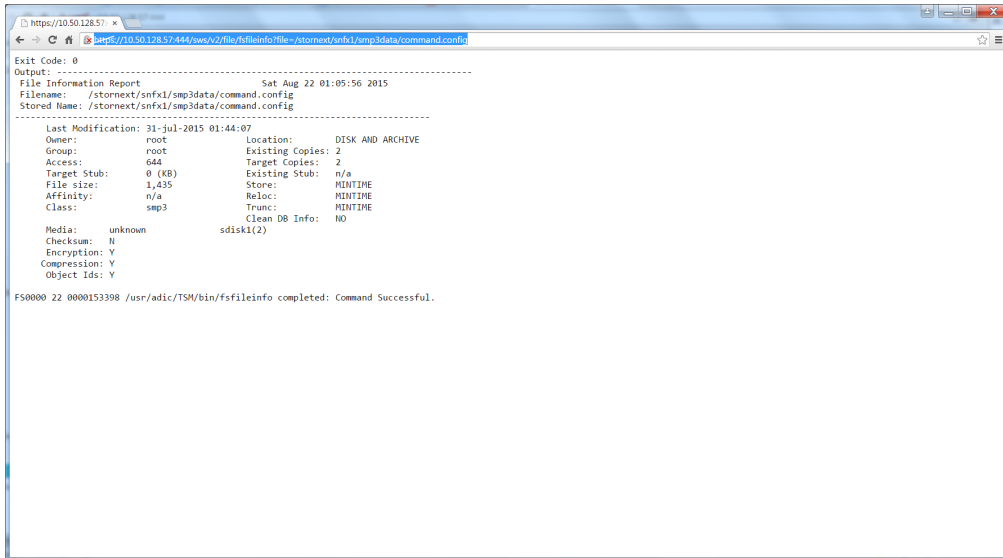
Run SWS V2 web services from a supported web browser (see [Prerequisites on page 221](#)). Below are examples of a sample run of the web services using Google Chrome.

Example of SWS V2 Run Using Google Chrome

In the example, the web service is run with the **Protocol** configured to **https** and **Authentication Type** configured to **None**.

Chapter 2: Software Development Kit (SDK) on Developing Applications Using StorNext Web Services V2

Run the Web Services

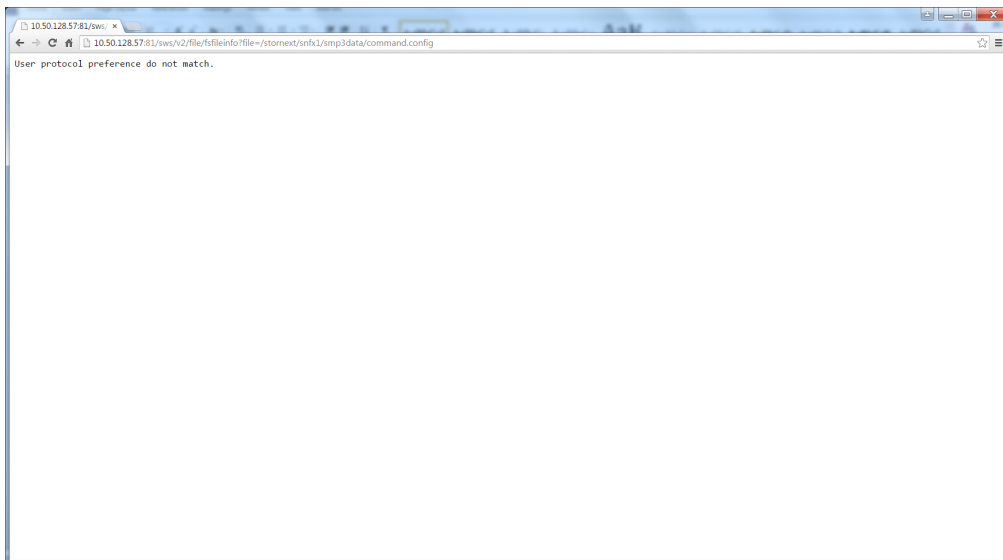


```
https://10.50.128.57:444/sws/v2/file/fsfileinfo?file=/stornext/snfx1/smp3data/command.config
Exit Code: 0
Output: -----
File Information Report                               Sat Aug 22 01:05:56 2015
Filename: /stornext/snfx1/smp3data/command.config
Stored Name: /stornext/snfx1/smp3data/command.config
-----
Last Modification: 31-Jul-2015 01:44:07
Owner: root                                           Location: DISK AND ARCHIVE
Group: root                                           Existing Copies: 2
Access: 644                                           Target Copies: 2
Target Stub: 0 (KB)                                  Existing Stub: n/a
File size: 1,435                                     Stores: MINTIME
Affinity: n/a                                        Reloc: MINTIME
Class: smp3                                          Trunc: MINTIME
Media: unknown                                       (Clean DB Info: NO
Checksum: N                                           sdisk1(2)
Encryption: Y
Compression: Y
Object Ids: Y

FS0000 22 0000153398 /usr/adic/TSM/bin/fsfileinfo completed: Command Successful.
```

Example of SWS V2 Protocol Failure Using Google Chrome

SWS V2 displays an error if a mismatch in the protocol exists, as illustrated below.



```
10.50.128.57:81/sws/v2/file/fsfileinfo?file=/stornext/snfx1/smp3data/command.config
User protocol preference do not match.
```

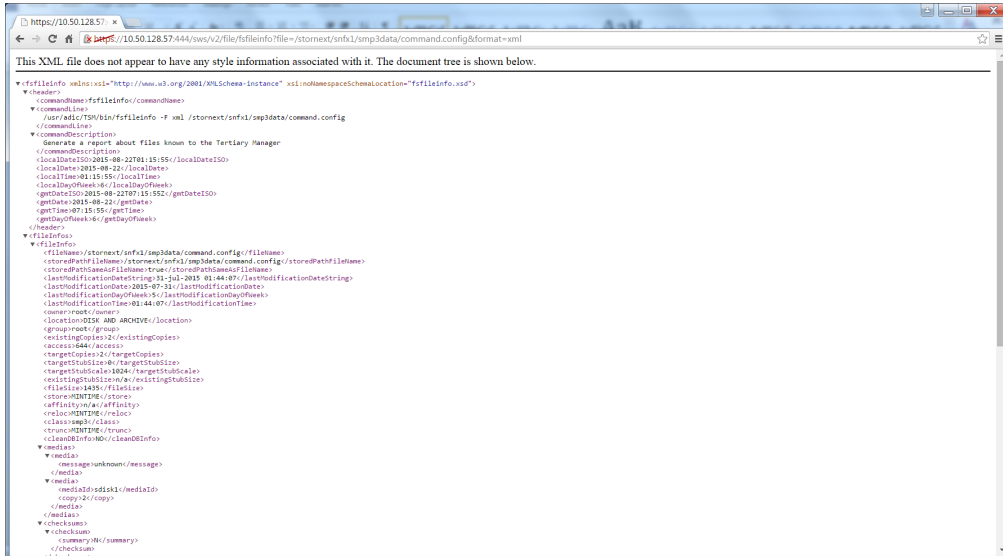
Similarly, if you provide a **username** and/or **password** in the query parameters, it is ignored.

SWS V2 supports different formats for response. The supported formats are **TEXT**, **XML** and **JSON**. However, there are certain web services that only support **TEXT** and **JSON**. For information on the supported formats for a particular web service, see the *StorNext Web Services Guide* online at <http://www.quantum.com/snsdocs>.

Quantum recommends **JSON** as the preferred format since most web services support this format. **XML** is also supported, but it is primarily used for compatibility with existing applications.

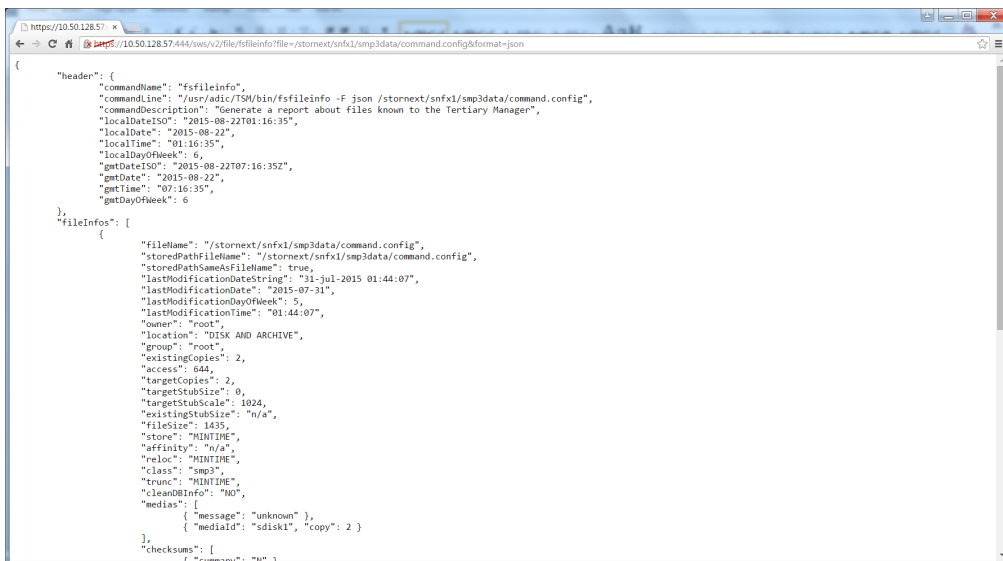
Example of Web Service Run With The XML Format Using Google Chrome

Below is an example of the same web service run with the **XML** format request.



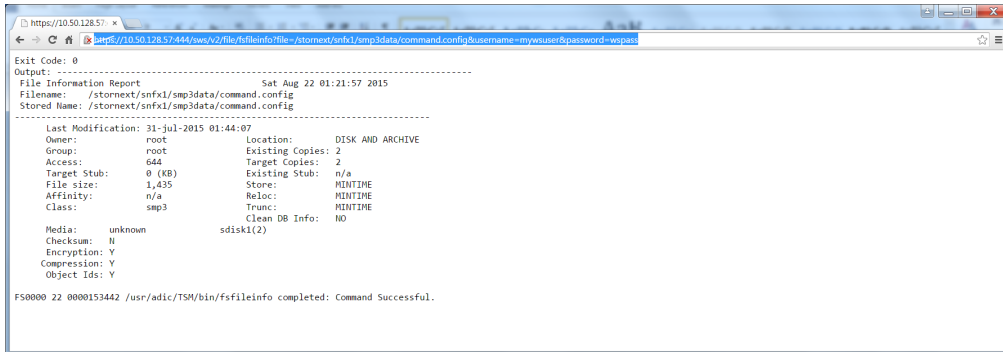
Example of Web Service Run With The JSON Format Using Google Chrome

Below is an example of the same web service run with the **JSON** format request.



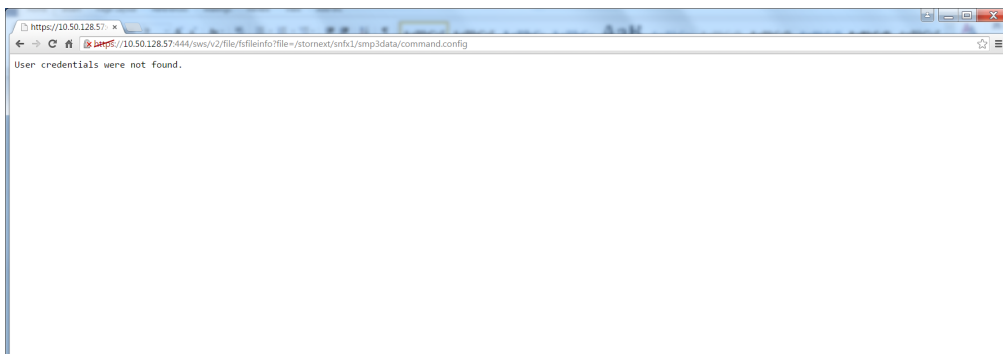
Example of a SWS V2 Run Using Google Chrome

If the **Authentication Type** is configured to **User**, the web service request requires a valid **username** and **password**.



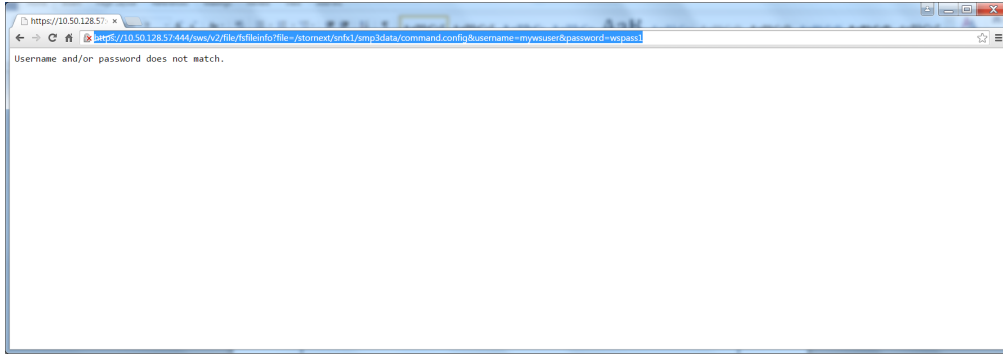
Example of a SWS V2 User Credential Failure Using Google Chrome

If the user credentials are not provided, an error appears.



Example of SWS V2 User Credentials Incorrect Error Using Google Chrome

If the incorrect **username** and **password** are provided in the credentials, a corresponding error appears.



Run the Web Services from a Client Application

This section provides the following:

- Demonstrate how to use the SWS V2 from client applications.
- Provide a step-by-step approach to integrate the SWS V2 web services in the client applications.
- Demonstrate the following scenarios.

Scenario	Web Service Used
Generate a report about files known to the Tertiary Storage Manager	fsfileinfo
Generate a report about the policy class associated with directory.	fsdirclass
Generate a report about storage manager policies.	fsclassinfo
Expedite the storage of a file that currently resides on disk to media.	fsstore
Remove the copy of a file from disk after the file was stored to a medium.	fsrmdiskcopy
Retrieve or recover files from media and place on disk.	fsretrieve
Create a directory quota on a managed file system.	
Set the quota limits for the directory.	squota
List all available quotas on a file system.	

- Provide samples on how to asynchronously execute web services calls in SWS V2.
- Demonstrate how to use web services for object storage activities.
- SWS V2 web services supports several software languages; this section also demonstrates how to use the web services in customer applications written in Java, Perl and Python.

How to Determine File States Using the `fsfileinfo` Command

You can determine the store and truncation states using the `fsfileinfo` command and checking the json/xml output for the following key words:

- **location**
- **targetStubSize**
- **targetStubScale**

i Note: The **targetStubScale** is 1024, stubs defined in 1KB blocks.

- **existingStubSize**
- **existingStubScale**

i Note: The **existingStubScale** is 1024, not provided if file not truncated.

i Note: While you can define the stub size in 1KB blocks, the actual truncation only leaves stubs rounded up to multiples of the file system block size. The block size for managed file systems is typically 4KB. For example, if you have three files with stub sizes of 1k, 2k and 3k they are all left with 4096 bytes in their stubs at truncation time.

Example of File State: On Disk Only (Not Stored)

```
% fsfileinfo -F json junk | egrep "location|Stub"
"location": "DISK",
"targetStubSize": 0,
"targetStubScale": 1024,
"existingStubSize": "n/a",
```

- The location of **DISK** means the file is not stored; no copies in the **ARCHIVE**.
- The **targetStubSize** of **0** means no stub has been requested for this file at truncation time.
- The **targetStubScale** is always **1024**.
- The **existingStubSize** of **n/a** means the file is not truncated.

Example of File State: File Stored but Not Truncated (No Stub Defined)

```
% fsfileinfo -F json junk | egrep "location|Stub"
"location": "DISK AND ARCHIVE",
```

```
"targetStubSize": 0,  
"targetStubScale": 1024,  
"existingStubSize": "n/a",
```

- The location of **DISK AND ARCHIVE** means the file is stored and not truncated.
- The **targetStubSize** of **0** means no stub has been requested for this file at truncation time.
- The **targetStubScale** is always **1024**.
- The **existingStubSize** of **n/a** means the file is not truncated.

Example of File State: File Stored and Truncated (No Stub Defined)

```
% fsfileinfo -F json junk | egrep "location|Stub"  
"location": "ARCHIVE",  
"targetStubSize": 0,  
"targetStubScale": 1024,  
"existingStubSize": 0,  
"existingStubScale": 1024,
```

- The location of **ARCHIVE** means the file is stored and truncated.
- The **targetStubSize** of **0** means no stub has been requested for this file at truncation time.
- The **targetStubScale** is always **1024**.
- The **existingStubSize** of **0** means no stub has been left on disk.
- The **existingStubScale** is always **1024**.

Example of File State: File Stored and Truncated (2k Stub Defined)

```
% fsfileinfo -F json junk | egrep "location|Stub"  
"location": "ARCHIVE",  
"targetStubSize": 2,  
"targetStubScale": 1024,  
"existingStubSize": 4,  
"existingStubScale": 1024,
```


- The location of **ARCHIVE** means the file is stored and truncated.
- The **targetStubSize** of **2** means a stub of 2k has been requested.
- The **targetStubScale** is always **1024**.
- The **existingStubSize** of **4** means a stub of 4k exists on disk; the 2k was rounded up to the 4k file system block size.
- The **existingStubScale** is always **1024**.

Example of File State: File Stored and Truncated (8k Stub Defined)

```
% fsfileinfo -F json junk | egrep "location|Stub"  
"location": "ARCHIVE",  
"targetStubSize": 8,  
"targetStubScale": 1024,  
"existingStubSize": 8,  
"existingStubScale": 1024,
```

- The location of **ARCHIVE** means the file is stored and truncated.
- The **targetStubSize** of **8** means a stub of 8k has been requested.
- The **targetStubScale** is always **1024**.
- The **existingStubSize** of **8** means a stub of 8k exists on disk.
- The **existingStubScale** is always **1024**.

Java

The example below uses the Jersey library. Download the latest version of Jersey library online at: <https://jersey.java.net/download.html>.

In the following example, a file info call is performed, similar to the example illustrated in the section [Run the Web Services on page 224](#).

```
// Get the client configuration  
ClientConfig config = getClientConfig();  
  
// Setup SSL for https connection  
setupSSL(useHttps, config);  
  
// Configure the client
```

```
Client client = configureClient(userName, password, config);

// Create the service
WebResource service = client.resource(getBaseURI(hostName, port, useHttps));

// Obtain the right media type based on the format requested by the user
String mediaType = getMediaType(format);

// Invoke the web service and obtain the response back as a String
String response = service.path("sws/v2/file/fsfileinfo")
    .queryParams("file", filePath)
    .queryParams("format", format)
    .accept(mediaType).get(String.class);
```

First, get the client configuration.

```
private ClientConfig getClientConfig() {
    ClientConfig config = new DefaultClientConfig();
    return config;
}
```

Now, configure for an **https** request. The code is optional and only required if **https** is the protocol.

```
private void setupSSL(boolean useHttps, ClientConfig config) {
    if (useHttps) {
        TrustManager[] certs = new TrustManager[] { new X509TrustManager() {
            public X509Certificate[] getAcceptedIssuers() {
                return null;
            }

            public void checkServerTrusted(X509Certificate[] chain,
                String authType) throws CertificateException {
            }

            public void checkClientTrusted(X509Certificate[] chain,
                String authType) throws CertificateException {
            }
        } };

        SSLContext ctx = null;
        try {
            ctx = SSLContext.getInstance("TLS");
            ctx.init(null, certs, new SecureRandom());
        } catch (java.security.GeneralSecurityException ex) {
        }
        HttpURLConnection.setDefaultSSLSocketFactory(ctx.getSocketFactory
    ());

        try {
            config.getProperties().put(
                HTTPSProperties.PROPERTY_HTTPS_PROPERTIES,
                new HTTPSProperties(new HostnameVerifier() {
                    public boolean verify(String hostname,
                        SSLSession session) {
                        return true;
                    }
                }, ctx));
        } catch (Exception e) {
        }
    }
}
```

Next, configure the client.

```
private static final int CONNECT_TIMEOUT = 30000; // 30 secs
private static final int READ_TIMEOUT = 30000; // 30 secs

private Client configureClient(String userName, String password,
    ClientConfig config) {
    Client client = Client.create(config);
    client.setConnectTimeout(CONNECT_TIMEOUT);
    client.setReadTimeout(READ_TIMEOUT);
    if (userName != null && userName.length() > 0 && password != null) {
        client.addFilter(new HTTPDigestAuthFilter(userName, password));
    }
    return client;
}
```

In the next step, create the service.

```
// Create the service
WebResource service = client.resource(getBaseURI(hostName, port, useHttps));

protected URI getBaseURI(String host, String port, boolean https)
{
    String protocol = https ? "https://" : "http://";
    if (port != null) {
        return UriBuilder.fromUri(protocol + host + ":" + port +
"/").build();
    } else {
        return UriBuilder.fromUri(protocol + host + "/").build();
    }
}
```

Next, obtain the proper media type in order to send the response correctly.

```
private String getMediaType(String format) {
    String mediaType = MediaType.TEXT_PLAIN;
    if (format != null) {
        if (format.equalsIgnoreCase("json")) {
            mediaType = MediaType.APPLICATION_JSON;
        }
    }
}
```

```
        } else if (format.equalsIgnoreCase("xml")) {
            mediaType = MediaType.APPLICATION_XML;
        }
    }
    return mediaType;
}
```

Finally, invoke the web service and obtain the response as a **String**.

```
String response = service.path("sws/v2/file/fsfileinfo")
    .queryParams("file", filePath)
    .queryParams("format", format)
    .accept(mediaType).get(String.class);
```

Below is an example of the response appears.

```
{
  "header": {
    "commandName": "fsfileinfo",
    "commandLine": "/usr/adic/TSM/bin/fsfileinfo -F json
/stornext/snfx1/smp3data/command.config",
    "commandDescription": "Generate a report about files known to
the Tertiary Manager",
    "localDateISO": "2015-08-21T23:48:16",
    "localDate": "2015-08-21",
    "localTime": "23:48:16",
    "localDayOfWeek": 5,
    "gmtDateISO": "2015-08-22T05:48:16Z",
    "gmtDate": "2015-08-22",
    "gmtTime": "05:48:16",
    "gmtDayOfWeek": 5
  },
  "fileInfos": [
    {
      "fileName": "/stornext/snfx1/smp3data/command.config",
      "storedPathFileName":
"/stornext/snfx1/smp3data/command.config",
      "storedPathSameAsFileName": true,
      "lastModificationDateString": "31-jul-2015 01:44:07",
      "lastModificationDate": "2015-07-31",
```

```
"lastModificationDayOfWeek": 5,  
"lastModificationTime": "01:44:07",  
"owner": "root",  
"location": "DISK AND ARCHIVE",  
"group": "root",  
"existingCopies": 2,  
"access": 644,  
"targetCopies": 2,  
"targetStubSize": 0,  
"targetStubScale": 1024,  
"existingStubSize": "n/a",  
"fileSize": 1435,  
"store": "MINTIME",  
"affinity": "n/a",  
"reloc": "MINTIME",  
"class": "smp3",  
"trunc": "MINTIME",  
"cleanDBInfo": "NO",  
"medias": [  
  { "message": "unknown" },  
  { "mediaId": "sdisk1", "copy": 2 }  
],  
"checksums": [  
  { "summary": "N" }  
],  
"encryptions": [  
  { "summary": "Y" }  
],  
"compressions": [  
  { "summary": "Y" }  
],  
"objects": [  
  { "summary": "Y" }  
]  
}  
],  
"statuses": [  
  {  
    "statusCode": "FS0000",  
    "statusNumber": 0,  
    "dayOfMonth": 21,  
    "requestId": 153265,  
    "commandName": "/usr/adic/TSM/bin/fsfileinfo",
```

```
        "commandStatus": "completed",
        "statusText": "Command Successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-08-21T23:48:16",
    "localDateEnd": "2015-08-21",
    "localTimeEnd": "23:48:16",
    "localDayOfWeekEnd": 5,
    "gmtDateISOEnd": "2015-08-22T05:48:16Z",
    "gmtDateEnd": "2015-08-22",
    "gmtTimeEnd": "05:48:16",
    "gmtDayOfWeekEnd": 5,
    "elapsedTimeInSeconds": "0.0013"
}
}
```

If the **Authentication Type** is configured to **User**, the **username** and **password** also requires to be passed as a query string.

```
String response = service.path("sws/v2/file/fsfileinfo")
    .queryParams("file", filePath)
    .queryParams("format", format)
    .queryParams("username", userName)
    .queryParams("password", password)
    .accept(mediaType).get
(String.class);
```

Execute the same request using **POST**; the response is the same.

```
String inputX = "file=" + filePath;
String response = service.path("sws/v2/file/fsfileinfo")
    .accept(mediaType).post(String.class, inputX);
```

Below is the full source code with other functions.

```
import java.net.URI;
import java.security.SecureRandom;
import java.security.cert.CertificateException;
```

```
import java.security.cert.X509Certificate;

import javax.net.ssl.HostnameVerifier;
import javax.net.ssl.HttpsURLConnection;
import javax.net.ssl.SSLContext;
import javax.net.ssl.SSLSession;
import javax.net.ssl.TrustManager;
import javax.net.ssl.X509TrustManager;
import javax.ws.rs.core.MediaType;
import javax.ws.rs.core.UriBuilder;

import com.sun.jersey.api.client.Client;
import com.sun.jersey.api.client.WebResource;
import com.sun.jersey.api.client.config.ClientConfig;
import com.sun.jersey.api.client.config.DefaultClientConfig;
import com.sun.jersey.api.client.filter.HTTPDigestAuthFilter;
import com.sun.jersey.client.urlconnection.HTTPSPProperties;

public class SWSV2Samples {
    private static final int CONNECT_TIMEOUT = 30000;
    private static final int READ_TIMEOUT = 30000;

    public String getFsFileInfo(boolean useHttps, String userName,
        String password, String hostName, String port, String format,
        String filePath) {
        ClientConfig config = getClientConfig();

        setupSSL(useHttps, config);
        Client client = configureClient(userName, password, config);
        WebResource service = client.resource(getBaseURI(hostName, port,
            useHttps));
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/file/fsfileinfo")
            .queryParams("file", filePath).queryParams("format", format)
            .queryParams("username", userName).queryParams("password", password)
            .accept(mediaType).get(String.class);

        return response;
    }
}
```



```
public String postFsFileInfo (boolean useHttps, String userName,
    String password, String hostName, String port, String format,
    String filePath) {
    ClientConfig config = getClientConfig();

    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
    String inputX = "file=" + filePath;
    String mediaType = getMediaType(format);
    String response = service.path("sws/v2/file/fsfileinfo")
        .accept(mediaType).post(String.class, inputX);

    return response;
}

public String getFsClassInfo(boolean useHttps, String userName,
    String password, String hostName, String port, String format,
    String className) {
    ClientConfig config = getClientConfig();

    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
    String mediaType = getMediaType(format);
    String response = service.path("sws/v2/policy/fsclassinfo")
        .queryParams("policy", className).queryParams("format", format)
        .queryParams("username", userName).queryParams("password", password)
        .accept(mediaType).get(String.class);

    return response;
}

public String getFsDirClass(boolean useHttps, String userName,
    String password, String hostName, String port, String format,
    String filePath) {
    ClientConfig config = getClientConfig();
```

```
        setupSSL(useHttps, config);
        Client client = configureClient(userName, password, config);
        WebResource service = client.resource(getBaseURI(hostName, port,
            useHttps));
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/policy/fsdirclass")
            .queryParams("directory", filePath).queryParams("format", format)
            .queryParams("username", userName).queryParams("password", password)
            .accept(mediaType).get(String.class);

        return response;
    }

    public String getFsStore(boolean useHttps, String userName,
        String password, String hostName, String port, String format,
        String filePath, int copies) {
        ClientConfig config = getClientConfig();

        setupSSL(useHttps, config);
        Client client = configureClient(userName, password, config);
        WebResource service = client.resource(getBaseURI(hostName, port,
            useHttps));
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/file/fsstore")
            .queryParams("file", filePath)
            .queryParams("copies", Integer.toString(copies))
            .queryParams("format", format).accept(mediaType)
            .queryParams("username", userName).queryParams("password", password)
            .get(String.class);

        return response;
    }

    public String getFsRmDiskCopy(boolean useHttps, String userName,
        String password, String hostName, String port, String format,
        String filePath) {
        ClientConfig config = getClientConfig();

        setupSSL(useHttps, config);
        Client client = configureClient(userName, password, config);
```

```
        WebResource service = client.resource(getBaseURI(hostName, port,
            useHttps));
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/file/fsrmdiskcopy")
            .queryParams("file", filePath).queryParams("format", format)
            .queryParams("username", userName).queryParams("password", password)
            .accept(mediaType).get(String.class);

        return response;
    }

    public String getFsRetrieve(boolean useHttps, String userName,
        String password, String hostName, String port, String format,
        String filePath) {
        ClientConfig config = getClientConfig();

        setupSSL(useHttps, config);
        Client client = configureClient(userName, password, config);
        WebResource service = client.resource(getBaseURI(hostName, port,
            useHttps));
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/file/fsretrieve")
            .queryParams("file", filePath).queryParams("format", format)
            .queryParams("username", userName).queryParams("password", password)
            .accept(mediaType).get(String.class);

        return response;
    }

    public String getCreateSnQuota(boolean useHttps, String userName,
        String password, String hostName, String port, String format,
        String fspath, String dirPath) {
        ClientConfig config = getClientConfig();

        setupSSL(useHttps, config);
        Client client = configureClient(userName, password, config);
        WebResource service = client.resource(getBaseURI(hostName, port,
            useHttps));
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/quota/snquota")
```

```
        .queryParams("path", fspath).queryParams("directory", dirPath)
        .queryParams("action", "create").queryParams("format", format)
    .queryParams("username", userName).queryParams("password", password)
        .accept(mediaType).get(String.class);

    return response;
}

public String getSetSnQuota(boolean useHttps, String userName,
    String password, String hostName, String port, String format,
    String fspath, String dirPath, String hardLimit, String softLimit,
    String gracePeriod) {
    ClientConfig config = getClientConfig();

    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
    String mediaType = getMediaType(format);
    String response = service.path("sws/v2/quota/snquota")
        .queryParams("path", fspath).queryParams("directory", dirPath)
        .queryParams("action", "set").queryParams("hardlimit", hardLimit)
        .queryParams("softlimit", softLimit)
        .queryParams("graceperiod", gracePeriod)
    .queryParams("username", userName).queryParams("password", password)
        .queryParams("format", format).accept(mediaType)
        .get(String.class);

    return response;
}

public String getListSnQuota(boolean useHttps, String userName,
    String password, String hostName, String port, String format,
    String fsname) {
    ClientConfig config = getClientConfig();

    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
```

```
        String mediaType = getMediaType(format);
        String response = service.path("sws/v2/quota/snquota")
            .queryParams("fsname", fsname).queryParams("action", "listall")
            .queryParams("username", userName).queryParams("password", password)
            .queryParams("format", format).accept(mediaType)
            .get(String.class);

        return response;
    }

    private String getMediaType(String format) {
        String mediaType = MediaType.TEXT_PLAIN;
        if (format != null) {
            if (format.equalsIgnoreCase("json")) {
                mediaType = MediaType.APPLICATION_JSON;
            } else if (format.equalsIgnoreCase("xml")) {
                mediaType = MediaType.APPLICATION_XML;
            }
        }
        return mediaType;
    }

    private Client configureClient(String userName, String password,
        ClientConfig config) {
        Client client = Client.create(config);
        client.setConnectTimeout(CONNECT_TIMEOUT);
        client.setReadTimeout(READ_TIMEOUT);
        if (userName != null && userName.length() > 0 && password != null) {
            client.addFilter(new HTTPDigestAuthFilter(userName, password));
        }
        return client;
    }

    private void setupSSL(boolean useHttps, ClientConfig config) {
        if (useHttps) {
            TrustManager[] certs = new TrustManager[] { new X509TrustManager() {
                public X509Certificate[] getAcceptedIssuers() {
                    return null;
                }
            }
        }
    }
}
```

```
        public void checkServerTrusted(X509Certificate[] chain,
            String authType) throws CertificateException {
        }

        public void checkClientTrusted(X509Certificate[] chain,
            String authType) throws CertificateException {
        }
    } };

    SSLContext ctx = null;
    try {
        ctx = SSLContext.getInstance("TLS");
        ctx.init(null, certs, new SecureRandom());
    } catch (java.security.GeneralSecurityException ex) {
    }
    HttpsURLConnection.setDefaultSSLSocketFactory(ctx
        .getSocketFactory());

    try {
        config.getProperties().put(
            HTTPSProperties.PROPERTY_HTTPS_PROPERTIES,
            new HTTPSProperties(new HostnameVerifier() {
                public boolean verify(String hostname,
                    SSLSession session) {
                    return true;
                }
            }, ctx));
    } catch (Exception e) {
    }
}

private ClientConfig getClientConfig() {
    ClientConfig config = new DefaultClientConfig();
    return config;
}

protected URI getBaseURI(String host, String port, boolean https) {
    String protocol = https ? "https://" : "http://";
    if (port != null) {
```

```
        return UriBuilder.fromUri(protocol + host + ":" + port + "/")
            .build();
    } else {
        return UriBuilder.fromUri(protocol + host + "/").build();
    }
}
}
```

In the next few examples, the assumption is that the **Protocol** is **https** and **Authentication Type** is **User**. The **username** is **wsuser** and the **password** is **wspass**. Also, JSON is the format of response.

Consider a managed file system `smpltomedia` mounted at `/stornext/snfx1/smpltomedia` and a file named `foobar0` in the file system. We attempt to store the file, remove the disk copy and retrieve it using web services available in SWS V2. Refer the source code above.

First, check the file information. Use the **fsfileinfo** web service.

```
String response = caller.getFsFileInfo(true, "wsuser", "wspass",
                                       "192.168.36.128", "444", "json",
                                       "/stornext/snfx1/smpltomedia/foobar0");
System.out.println(response);
```

The output is shown below. Notice the location of the file is reported as **DISK** since the file has not yet been stored.

```
{
  "header": {
    "commandName": "fsfileinfo",
    "commandLine": "/usr/adic/TSM/bin/fsfileinfo -F json
/stornext/snfx1/smpltomedia/foobar0",
    "commandDescription": "Generate a report about files known to
the Tertiary Manager",
    "localDateISO": "2015-10-26T19:42:34",
    "localDate": "2015-10-26",
    "localTime": "19:42:34",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-10-27T01:42:34Z",
    "gmtDate": "2015-10-27",
    "gmtTime": "01:42:34",
```

```
    "gmtDayOfWeek": 1
  },
  "fileInfos": [
    {
      "fileName": "/stornext/snfx1/smpltomeia/foobar0",
      "storedPathFileName": "N/A",
      "storedPathSameAsFileName": false,
      "lastModificationDateString": "26-oct-2015 19:42:08",
      "lastModificationDate": "2015-10-26",
      "lastModificationDayOfWeek": 1,
      "lastModificationTime": "19:42:08",
      "owner": "root",
      "location": "DISK",
      "group": "root",
      "existingCopies": 0,
      "access": 664,
      "targetCopies": 1,
      "targetStubSize": 0,
      "targetStubScale": 1024,
      "existingStubSize": "n/a",
      "fileSize": 10485760,
      "store": "MINTIME",
      "affinity": "n/a",
      "reloc": "MINTIME",
      "class": "smpltomeia",
      "trunc": "MINTIME",
      "cleanDBInfo": "NO",
      "altStoreLocation": "Disabled",
      "medias": [
        { "message": "None" }
      ],
      "checksums": [
        { "summary": "N" }
      ],
      "encryptions": [
        { "summary": "N" }
      ],
      "compressions": [
        { "summary": "N" }
      ],
      "objects": [
        { "summary": "N" }
      ]
    }
  ]
}
```



```
    }
  ],
  "statuses": [
    {
      "statusCode": "FS0000",
      "statusNumber": 0,
      "dayOfMonth": 26,
      "requestId": 176855,
      "commandName": "/usr/adic/TSM/bin/fsfileinfo",
      "commandStatus": "completed",
      "statusText": "Command Successful."
    }
  ],
  "footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-26T19:42:34",
    "localDateEnd": "2015-10-26",
    "localTimeEnd": "19:42:34",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-10-27T01:42:34Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "01:42:34",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0006"
  }
}
```

Now, try to find out what policy this file path is associated with. Use the `fsdirclass` web service.

```
String response = caller.getFsDirClass(true, "wsuser", "wspass",
                                     "192.168.36.128", "444", "text",
                                     "/stornext/snfx1/smpltomediamedia");
System.out.println(response);
```

The output is shown below. Notice the path is associated with the `smpltomediamedia` policy.

```
{
  "header": {
    "commandName": "fsdirclass",
    "commandLine": "/usr/adic/TSM/bin/fsdirclass
/stornext/snfx1/smpltomediamedia -F json",
```

```
    "commandDescription": "Report the policy class associated with a
directory.",
    "localDateISO": "2015-10-26T19:44:07",
    "localDate": "2015-10-26",
    "localTime": "19:44:07",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-10-27T01:44:07Z",
    "gmtDate": "2015-10-27",
    "gmtTime": "01:44:07",
    "gmtDayOfWeek": 1
  },
  "directories": [
    {
      "directoryName": "/stornext/snfx1/smpltomeia",
      "classId": "smpltomeia"
    }
  ],
  "statuses": [
    {
      "statusCode": "FS0000",
      "statusNumber": 0,
      "dayOfMonth": 26,
      "requestId": 176858,
      "commandName": "/usr/adic/TSM/bin/fsdirclass",
      "commandStatus": "completed",
      "statusText": "Command Successful."
    }
  ],
  "footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-26T19:44:07",
    "localDateEnd": "2015-10-26",
    "localTimeEnd": "19:44:07",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-10-27T01:44:07Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "01:44:07",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0001"
  }
}
```

Now, review the `smpltomeia` policy. Use the `fsclassinfo` web service.

```
String response = caller.getFsClassInfo(true, "wsuser", "wspass",  
                                         "192.168.36.128", "444", "json", "smpltomedia");  
System.out.println(response);
```

The output is shown below.

```
{  
  "header": {  
    "commandName": "fsclassinfo",  
    "commandLine": "/usr/adic/TSM/bin/fsclassinfo smpltomedia -F  
json",  
    "commandDescription": "Report policy class processing  
parameters, associated directory paths, and affinity lists.",  
    "localDateISO": "2015-10-26T19:45:13",  
    "localDate": "2015-10-26",  
    "localTime": "19:45:13",  
    "localDayOfWeek": 1,  
    "gmtDateISO": "2015-10-27T01:45:13Z",  
    "gmtDate": "2015-10-27",  
    "gmtTime": "01:45:13",  
    "gmtDayOfWeek": 1  
  },  
  "classes": [  
    {  
      "classId": "smpltomedia",  
      "softLimit": 20000,  
      "hardLimit": 25000,  
      "drivePool": "fs_F0drivepool",  
      "securityCode": "NONE",  
      "acctNumber": 12345,  
      "defCopies": 1,  
      "maxCopies": 4,  
      "maxInactiveVersions": 10,  
      "mediaType": "LTO",  
      "fileCleanup": "MINTIME",  
      "mediaCleanup": "SYSTEM",  
      "storeMinTime": "5m",  
      "storeMaxSetAge": "n/a",  
      "storeMinSetSize": "n/a",  
      "storeAutomatically": "yes",  
      "relocMinTime": "7d",  
      "truncMinTime": "3d",  
      "generateChecksum": "DISABLED",
```

```
        "validateChecksum": "DISABLED",
        "cleanOnRemove": "DISABLED",
        "targetStubSize": 0,
        "encryption": "None",
        "altStoreLocation": "DISABLED",
        "masterKeyName": "",
        "compression": "None"
    }
],
"statuses": [
    {
        "statusCode": "FS0000",
        "statusNumber": 0,
        "dayOfMonth": 26,
        "requestId": 176861,
        "commandName": "/usr/adic/TSM/bin/fsclassinfo",
        "commandStatus": "completed",
        "statusText": "Command Successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-26T19:45:13",
    "localDateEnd": "2015-10-26",
    "localTimeEnd": "19:45:13",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-10-27T01:45:13Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "01:45:13",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0002"
}
}
```

Store the foobar0 file using the **fsstore** web service; only store one copy of the file.

```
String response = caller.getFsStore(true, "wsuser", "wspass",
    "192.168.36.128", "444", "json",
    "/stornext/snfx1/smpltomedia/foobar0", 1);
System.out.println(response);
```

The output is shown below.

```
{
  "header": {
    "commandName": "fsstore",
    "commandLine": "/usr/adic/TSM/bin/fsstore -c 1 -F json
/stornext/snfx1/smpltomediamedia/foobar0",
    "commandDescription": "Request the storage of a file that
currently resides on disk to media",
    "localDateISO": "2015-10-26T19:46:30",
    "localDate": "2015-10-26",
    "localTime": "19:46:30",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-10-27T01:46:30Z",
    "gmtDate": "2015-10-27",
    "gmtTime": "01:46:30",
    "gmtDayOfWeek": 1
  },
  "statuses": [
    {
      "statusCode": "FS0589",
      "statusNumber": 589,
      "dayOfMonth": 26,
      "requestId": 176864,
      "commandName": "/usr/adic/TSM/bin/fsstore",
      "commandStatus": "interim",
      "statusText": "Tertiary Manager software request received."
    },
    {
      "statusCode": "FS0799",
      "statusNumber": 799,
      "dayOfMonth": 26,
      "requestId": 176864,
      "commandName": "/usr/adic/TSM/bin/fsstore",
      "commandStatus": "interim",
      "statusText": "1 file store request(s) have been sent to
Tertiary Manager."
    },
    {
      "statusCode": "FS0346",
      "statusNumber": 346,
      "dayOfMonth": 26,
      "requestId": 176864,
      "commandName": "fsstore",
      "commandStatus": "interim",

```

```
        "statusText": "File /stornext/snfx1/smpltomedia/foobar0 copy  
1 has been stored."  
    },  
    {  
        "statusCode": "FS0390",  
        "statusNumber": 390,  
        "dayOfMonth": 26,  
        "requestId": 176864,  
        "commandName": "fsstore",  
        "commandStatus": "completed",  
        "statusText": "1 out of 1 statuses were successful."  
    },  
    {  
        "statusCode": "FS0000",  
        "statusNumber": 0,  
        "dayOfMonth": 26,  
        "requestId": 176864,  
        "commandName": "fsstore",  
        "commandStatus": "completed",  
        "statusText": "Command Successful."  
    }  
],  
"footer": {  
    "returnCode": 0,  
    "localDateISOEnd": "2015-10-26T19:46:33",  
    "localDateEnd": "2015-10-26",  
    "localTimeEnd": "19:46:33",  
    "localDayOfWeekEnd": 1,  
    "gmtDateISOEnd": "2015-10-27T01:46:33Z",  
    "gmtDateEnd": "2015-10-27",  
    "gmtTimeEnd": "01:46:33",  
    "gmtDayOfWeekEnd": 1,  
    "elapsedTimeInSeconds": "3.0097"  
}  
}
```

When the file is stored, execute the `fsfileinfo` web service again to ensure the file is stored.

```
String response = caller.getFsFileInfo(true, "wsuser", "wspass",  
    "192.168.36.128", "444", "json",  
    "/stornext/snfx1/smpltomedia/foobar0");  
System.out.println(response);
```

Notice the location reads **DISK AND ARCHIVE**, which signifies the file is stored.

```
{
  "header": {
    "commandName": "fsfileinfo",
    "commandLine": "/usr/adic/TSM/bin/fsfileinfo -F json
/stornext/snfx1/smpltomediamedia/foobar0",
    "commandDescription": "Generate a report about files known to
the Tertiary Manager",
    "localDateISO": "2015-10-26T19:47:45",
    "localDate": "2015-10-26",
    "localTime": "19:47:45",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-10-27T01:47:45Z",
    "gmtDate": "2015-10-27",
    "gmtTime": "01:47:45",
    "gmtDayOfWeek": 1
  },
  "fileInfos": [
    {
      "fileName": "/stornext/snfx1/smpltomediamedia/foobar0",
      "storedPathFileName": "/stornext/snfx1/smpltomediamedia/foobar0",
      "storedPathSameAsFileName": true,
      "lastModificationDateString": "26-oct-2015 19:42:08",
      "lastModificationDate": "2015-10-26",
      "lastModificationDayOfWeek": 1,
      "lastModificationTime": "19:42:08",
      "owner": "root",
      "location": "DISK AND ARCHIVE",
      "group": "root",
      "existingCopies": 1,
      "access": 664,
      "targetCopies": 1,
      "targetStubSize": 0,
      "targetStubScale": 1024,
      "existingStubSize": "n/a",
      "fileSize": 10485760,
      "store": "MINTIME",
      "affinity": "n/a",
      "reloc": "MINTIME",
      "class": "smpltomediamedia",
      "trunc": "MINTIME",
      "cleanDBInfo": "NO",
      "altStoreLocation": "Disabled",
      "medias": [
```

```
        { "mediaId": "000005", "copy": 1 }
    ],
    "checksums": [
        { "summary": "N" }
    ],
    "encryptions": [
        { "summary": "N" }
    ],
    "compressions": [
        { "summary": "N" }
    ],
    "objects": [
        { "summary": "N" }
    ]
}
],
"statuses": [
    {
        "statusCode": "FS0000",
        "statusNumber": 0,
        "dayOfMonth": 26,
        "requestId": 176872,
        "commandName": "/usr/adic/TSM/bin/fsfileinfo",
        "commandStatus": "completed",
        "statusText": "Command Successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-26T19:47:45",
    "localDateEnd": "2015-10-26",
    "localTimeEnd": "19:47:45",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-10-27T01:47:45Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "01:47:45",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0007"
}
}
```

Remove the disk copy of the file using the `fsrmdiskcopy` web service.

```
String response = caller.getFsRmDiskCopy(true, "wsuser", "wspass",
```



```
        "192.168.36.128", "444", "json",  
        "/stornext/snfx1/smpltomedia/foobar0");  
System.out.println(response);
```

The output is shown below.

```
{  
  "header": {  
    "commandName": "fsrmdiskcopy",  
    "commandLine": "/usr/adic/TSM/bin/fsrmdiskcopy -F json  
/stornext/snfx1/smpltomedia/foobar0",  
    "commandDescription": "Remove file data blocks from disk after  
the file was stored to a medium",  
    "localDateISO": "2015-10-26T19:49:58",  
    "localDate": "2015-10-26",  
    "localTime": "19:49:58",  
    "localDayOfWeek": 1,  
    "gmtDateISO": "2015-10-27T01:49:58Z",  
    "gmtDate": "2015-10-27",  
    "gmtTime": "01:49:58",  
    "gmtDayOfWeek": 1  
  },  
  "statuses": [  
    {  
      "statusCode": "FS0266",  
      "statusNumber": 266,  
      "dayOfMonth": 26,  
      "requestId": 176881,  
      "commandName": "/usr/adic/TSM/bin/fsrmdiskcopy",  
      "commandStatus": "interim",  
      "statusText": "Data disk blocks for file  
/stornext/snfx1/smpltomedia/foobar0 were successfully removed."  
    },  
    {  
      "statusCode": "FS0390",  
      "statusNumber": 390,  
      "dayOfMonth": 26,  
      "requestId": 176881,  
      "commandName": "/usr/adic/TSM/bin/fsrmdiskcopy",  
      "commandStatus": "completed",  
      "statusText": "1 out of 1 disk copy removes were  
successful."  
    }  
  ]  
}
```

```
    ],  
    "footer": {  
        "returnCode": 0,  
        "localDateISOEnd": "2015-10-26T19:49:58",  
        "localDateEnd": "2015-10-26",  
        "localTimeEnd": "19:49:58",  
        "localDayOfWeekEnd": 1,  
        "gmtDateISOEnd": "2015-10-27T01:49:58Z",  
        "gmtDateEnd": "2015-10-27",  
        "gmtTimeEnd": "01:49:58",  
        "gmtDayOfWeekEnd": 1,  
        "elapsedTimeInSeconds": "0.0005"  
    }  
}
```

Verify the file is removed using the `fsfileinfo` command.

```
String response = caller.getFsFileInfo(true, "wsuser", "wspass",  
    "192.168.36.128", "444", "json",  
    "/stornext/snfx1/smpltomediamedia/foobar0");  
System.out.println(response);
```

Notice the location of the file is **ARCHIVE** which signifies the disk copy is removed.

```
{  
    "header": {  
        "commandName": "fsfileinfo",  
        "commandLine": "/usr/adic/TSM/bin/fsfileinfo -F json  
/stornext/snfx1/smpltomediamedia/foobar0",  
        "commandDescription": "Generate a report about files known to  
the Tertiary Manager",  
        "localDateISO": "2015-10-26T19:53:15",  
        "localDate": "2015-10-26",  
        "localTime": "19:53:15",  
        "localDayOfWeek": 1,  
        "gmtDateISO": "2015-10-27T01:53:15Z",  
        "gmtDate": "2015-10-27",  
        "gmtTime": "01:53:15",  
        "gmtDayOfWeek": 1  
    },  
    "fileInfos": [  

```

```
{
  "fileName": "/stornext/snfx1/smpltomeia/foobar0",
  "storedPathFileName": "/stornext/snfx1/smpltomeia/foobar0",
  "storedPathSameAsFileName": true,
  "lastModificationDateString": "26-oct-2015 19:42:08",
  "lastModificationDate": "2015-10-26",
  "lastModificationDayOfWeek": 1,
  "lastModificationTime": "19:42:08",
  "owner": "root",
  "location": "ARCHIVE",
  "group": "root",
  "existingCopies": 1,
  "access": 664,
  "targetCopies": 1,
  "targetStubSize": 0,
  "targetStubScale": 1024,
  "existingStubSize": 0,
  "existingStubScale": 1024,
  "fileSize": 10485760,
  "store": "MINTIME",
  "affinity": "n/a",
  "reloc": "MINTIME",
  "class": "smpltomeia",
  "trunc": "MINTIME",
  "cleanDBInfo": "NO",
  "altStoreLocation": "Disabled",
  "medias": [
    { "mediaId": "000005", "copy": 1 }
  ],
  "checksums": [
    { "summary": "N" }
  ],
  "encryptions": [
    { "summary": "N" }
  ],
  "compressions": [
    { "summary": "N" }
  ],
  "objects": [
    { "summary": "N" }
  ]
},
```

```
"statuses": [  
  {  
    "statusCode": "FS0000",  
    "statusNumber": 0,  
    "dayOfMonth": 26,  
    "requestId": 176888,  
    "commandName": "/usr/adic/TSM/bin/fsfileinfo",  
    "commandStatus": "completed",  
    "statusText": "Command Successful."  
  }  
],  
"footer": {  
  "returnCode": 0,  
  "localDateISOEnd": "2015-10-26T19:53:15",  
  "localDateEnd": "2015-10-26",  
  "localTimeEnd": "19:53:15",  
  "localDayOfWeekEnd": 1,  
  "gmtDateISOEnd": "2015-10-27T01:53:15Z",  
  "gmtDateEnd": "2015-10-27",  
  "gmtTimeEnd": "01:53:15",  
  "gmtDayOfWeekEnd": 1,  
  "elapsedTimeInSeconds": "0.0004"  
}  
}
```

Retrieve the file using the `fsretrieve` web service.

```
String response = caller.getFsRetrieve(true, "wsuser", "wspass",  
    "192.168.36.128", "444", "json",  
    "/stornext/snfx1/smpltomedia/foobar0");  
System.out.println(response);
```

Notice the retrieve operation is successful.

```
{  
  "header": {  
    "commandName": "fsretrieve",  
    "commandLine": "/usr/adic/TSM/bin/fsretrieve -F json  
/stornext/snfx1/smpltomedia/foobar0",  
    "commandDescription": "Retrieve files from media and place on  
disk",
```

```
"localDateISO": "2015-10-26T19:54:45",
"localDate": "2015-10-26",
"localTime": "19:54:45",
"localDayOfWeek": 1,
"gmtDateISO": "2015-10-27T01:54:45Z",
"gmtDate": "2015-10-27",
"gmtTime": "01:54:45",
"gmtDayOfWeek": 1
},
"statuses": [
  {
    "statusCode": "FS0589",
    "statusNumber": 589,
    "dayOfMonth": 26,
    "requestId": 176893,
    "commandName": "/usr/adic/TSM/bin/fsretrieve",
    "commandStatus": "interim",
    "statusText": "Tertiary Manager software request received."
  },
  {
    "statusCode": "FS0347",
    "statusNumber": 347,
    "dayOfMonth": 26,
    "requestId": 176893,
    "commandName": "fsretrieve",
    "commandStatus": "interim",
    "statusText": "File /stornext/snfx1/smpltomeia/foobar0 has
been retrieved."
  },
  {
    "statusCode": "FS0390",
    "statusNumber": 390,
    "dayOfMonth": 26,
    "requestId": 176893,
    "commandName": "fsretrieve",
    "commandStatus": "completed",
    "statusText": "1 out of 1 retrieves were successful."
  }
],
"footer": {
  "returnCode": 0,
  "localDateISOEnd": "2015-10-26T19:54:46",
  "localDateEnd": "2015-10-26",
```

```
    "localTimeEnd": "19:54:46",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-10-27T01:54:46Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "01:54:46",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0679"
  }
}
```

Execute **fsfileinfo** one last time to ensure the file is retrieved.

```
String response = caller.getFsFileInfo(true, "wsuser", "wspass",
    "192.168.36.128", "444", "json",
    "/stornext/snfx1/smpltomedia/foobar0");
System.out.println(response);
```

Notice the location reads **DISK AND ARCHIVE** which signifies the file is retrieved.

```
{
  "header": {
    "commandName": "fsfileinfo",
    "commandLine": "/usr/adic/TSM/bin/fsfileinfo -F json
/stornext/snfx1/smpltomedia/foobar0",
    "commandDescription": "Generate a report about files known to
the Tertiary Manager",
    "localDateISO": "2015-10-26T19:57:04",
    "localDate": "2015-10-26",
    "localTime": "19:57:04",
    "localDayOfWeek": 1,
    "gmtDateISO": "2015-10-27T01:57:04Z",
    "gmtDate": "2015-10-27",
    "gmtTime": "01:57:04",
    "gmtDayOfWeek": 1
  },
  "fileInfos": [
    {
      "fileName": "/stornext/snfx1/smpltomedia/foobar0",
      "storedPathFileName": "/stornext/snfx1/smpltomedia/foobar0",
      "storedPathSameAsFileName": true,
      "lastModificationDateString": "26-oct-2015 19:42:08",
```

```
"lastModificationDate": "2015-10-26",
"lastModificationDayOfWeek": 1,
"lastModificationTime": "19:42:08",
"owner": "root",
"location": "DISK AND ARCHIVE",
"group": "root",
"existingCopies": 1,
"access": 664,
"targetCopies": 1,
"targetStubSize": 0,
"targetStubScale": 1024,
"existingStubSize": "n/a",
"fileSize": 10485760,
"store": "MINTIME",
"affinity": "n/a",
"reloc": "MINTIME",
"class": "smpltomedia",
"trunc": "MINTIME",
"cleanDBInfo": "NO",
"altStoreLocation": "Disabled",
"medias": [
  { "mediaId": "000005", "copy": 1 }
],
"checksums": [
  { "summary": "N" }
],
"encryptions": [
  { "summary": "N" }
],
"compressions": [
  { "summary": "N" }
],
"objects": [
  { "summary": "N" }
]
}
],
"statuses": [
  {
    "statusCode": "FS0000",
    "statusNumber": 0,
    "dayOfMonth": 26,
    "requestId": 176898,
```

```
        "commandName": "/usr/adic/TSM/bin/fsfileinfo",
        "commandStatus": "completed",
        "statusText": "Command Successful."
    }
],
"footer": {
    "returnCode": 0,
    "localDateISOEnd": "2015-10-26T19:57:04",
    "localDateEnd": "2015-10-26",
    "localTimeEnd": "19:57:04",
    "localDayOfWeekEnd": 1,
    "gmtDateISOEnd": "2015-10-27T01:57:04Z",
    "gmtDateEnd": "2015-10-27",
    "gmtTimeEnd": "01:57:04",
    "gmtDayOfWeekEnd": 1,
    "elapsedTimeInSeconds": "0.0007"
}
}
```

There are several other operations to perform using the SWS V2 web services. For example, you can create a quota on a directory in a managed file system and set the quota limits.

i Note: Ensure quotas are enabled before you run the web services. For information on how to enable quotas, see **Add a File System** online at the [StorNext Documentation Center](#).

Create a quota for a directory /smpltomedia/media in the snfx1 filesystem. Refer to sample code above.

```
String response = caller.getCreateSnQuota(true, "wsuser", "wspass",
    "192.168.36.128", "444", "json", "/stornext/snfx1",
    "/smpltomedia/media");
System.out.println(response);
```

The output is shown below. An exit code of 0 signifies the quota is created.

```
{
    "returnCode": 0
}
```

Set the high limit to 10 GB, soft limit to 1 GB and grace period to 1 week.

```
String response = caller.getSetSnQuota(true, "wsuser", "wspass",
```



```
        "192.168.36.128", "444", "text", "/stornext/snfx1",  
        "/smpltomedia/media", "10g", "1g", "1w");  
System.out.println(response);
```

The output displays the quota limits are set.

```
{  
  "directoryQuotas": [  
    {  
      "hardLimit": "10G",  
      "softLimit": "1.0G",  
      "gracePeriod": "1w",  
      "curSize": 0,  
      "status": "Under",  
      "type": "dir",  
      "name": "/smpltomedia/media"  
    }  
  ],  
  "returnCode": 0  
}
```

To verify, use the **snquota** web service to retrieve a list of quotas for snfx1.

```
String response = caller.getListSnQuota(true, "wsuser", "wspass",  
    "192.168.36.128", "444", "text", "snfx1");  
System.out.println(response);
```

The output shown below displays the quota values are set.

```
{  
  "userQuotas": [  
    {  
      "hardLimit": 0,  
      "softLimit": 0,  
      "gracePeriod": "0m",  
      "curSize": "4.6G",  
      "status": "NoLimit",  
      "type": "user",  
      "name": "root"  
    }  
  ]  
}
```

```
    ],  
    "groupQuotas": [  
      {  
        "hardLimit": 0,  
        "softLimit": 0,  
        "gracePeriod": "0m",  
        "curSize": "4.6G",  
        "status": "NoLimit",  
        "type": "group",  
        "name": "root"  
      }  
    ],  
    "directoryQuotas": [  
      {  
        "hardLimit": "10G",  
        "softLimit": "1.0G",  
        "gracePeriod": "1w",  
        "curSize": 0,  
        "status": "Under",  
        "type": "dir",  
        "name": "/smp1tomed1a/media"  
      },  
      {  
        "hardLimit": 0,  
        "softLimit": 0,  
        "gracePeriod": "0m",  
        "curSize": 0,  
        "status": "NoLimit",  
        "type": "dirfiles",  
        "name": "/smp1tomed1a/media"  
      }  
    ],  
    "returnCode": 0  
  }  
}
```

You can also run SWS V2 web services asynchronously. This is especially helpful for long running processes like storing several files or retrieving them. First, write the code to send a `fsretrieve` request with `async` mode. For this example, we will assume that we are running a `fsretrieve` operation asynchronously on 10 files in a particular directory.

```
public String getFsRetrieveAsync(boolean useHttps, String userName,  
    String password, String hostName, String port, String format) {  
    ClientConfig config = getClientConfig();
```

```
    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
    String mediaType = getMediaType(format);
    MultivaluedMap<String, String> params = new MultivaluedMapImpl();
    for (int i=1; i<=10; i++) {
        params.add("file", "/stornext/snfx1/smp1data/foobar" + i);
    }

    String response = service.path("sws/v2/file/fsretrieve")
        .queryParams(params)
        .QueryParam("mode", "async")
        .QueryParam("format", format).accept(mediaType)
        .get(String.class);

    return response;
}
```

Notice the use of a `MultivaluedMap` to populate a list of 10 files. If you have just one file, ignore this. Next, the code must find the job status (for example, if the job is running or completed).

```
public String getJobStatus(boolean useHttps, String userName,
    String password, String hostName, String port, String jobID) {
    ClientConfig config = getClientConfig();

    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
    String mediaType = getMediaType("text");
    String response = service.path("sws/v2/job/info")
        .QueryParam("job", jobID).accept(mediaType)
        .get(String.class);

    return response;
}
```

A detailed job status with interim transfer details is available for store (`fsstore`) and retrieve (`fsretrieve`) operations.

```
// Only available for fsstore and fsretrieve
public String getMoverJobStatus(boolean useHttps, String userName,
    String password, String hostName, String port, String... jobIDList) {
    ClientConfig config = getClientConfig();

    setupSSL(useHttps, config);
    Client client = configureClient(userName, password, config);
    WebResource service = client.resource(getBaseURI(hostName, port,
        useHttps));
    MultivaluedMap<String, String> params = new MultivaluedMapImpl();
    for (String job: jobIDList) {
        params.add("job", job);
    }
    String mediaType = getMediaType("json");
    String response = service.path("sws/v2/job/mover/info")
        .queryParams(params).accept(mediaType)
        .get(String.class);

    return response;
}
```

Below is an example of a job status query. The **job** parameter displays the job ID of the job. The **state** parameter displays the current state of the job. The valid values for state are **READY**, **QUEUED**, **RUNNING**, **COMPLETED** and **ERROR**.

```
{
  "jobList": [
    {
      "jobInfo": {
        "job": "27",
        "state": "RUNNING"
      }
    }
  ]
}
```

Below is an example of a detailed mover job status query.

Parameter	Description
"moverRequestList"	<p>This section displays the jobs that are executed by the storage manager. This section displays a requestId assigned by the storage manager.</p> <ul style="list-style-type: none">• The requestType can either be Store or Retrieve.• The state parameter displays the current state of the job. The valid values for state are READY, QUEUE, PROCESS, FORMAT, COPY and COMPLETE.• The positioninqueue parameter displays the position of the job in the storage manager queue.
"moverProgressList"	<p>This section displays the job that is currently running in the storage manager.</p> <ul style="list-style-type: none">• The host parameter displays the hostname of the system in which this job is being executed. The storage manager assigns the requestId when the job is registered under storage manager for execution.• The deviceAlias is the alias for the drive on which this job is being executed.• The runTime parameter displays the time that has elapsed since the job started.• The totalFiles parameter displays the number of files that will be copied for this job.• The filesCopied parameter displays the files that have already been completed.• The filesFailed parameter displays the number of files that could not be copied.
"completedJobList"	<p>This section displays the jobs that have completed execution and begins with header information in the header node.</p> <ul style="list-style-type: none">• The jobInfo node displays details about a particular job.• The statuses node contains individual status of files that are being copied in this particular job.• The footer section contains footer information.
"pendingJobList"	<p>This section displays the jobs that are waiting to be executed by the storage manager.</p> <ul style="list-style-type: none">• The job parameter displays the job Id.• The positioninagentqueue is the position of the job in the agent queue.• The exitcode parameter displays the current exit code.• The state of waiting jobs is shown. In general, state for a waiting job is QUEUED.

```
[
  {
    "moverRequestList": [
      {
        "requestId": "177193",
        "requestType": "Retrieve",
        "state": "COPY",
        "positioninqueue": 1
      },
      {
        "requestId": "177194",
        "requestType": "Retrieve",
        "state": "READY",
        "positioninqueue": 2
      },
      {
        "requestId": "177205",
        "requestType": "Retrieve",
        "state": "READY",
        "positioninqueue": 3
      },
      {
        "requestId": "177213",
        "requestType": "Retrieve",
        "state": "READY",
        "positioninqueue": 4
      }
    ],
    "moverProgressList": [
      {
        "host": "REDHAT5-DEMO",
        "requestId": "177193",
        "deviceAlias": "archives_dr1",
        "runTime": "00:00:03",
        "totalFiles": "3",
        "filesCopied": "1",
        "filesFailed": "0"
      }
    ]
  }
],
```

```
{
  "completedJobList": [
    {
      "header": {
        "commandName": "fsretrieve",
        "commandLine": "/usr/adic/TSM/bin/fsretrieve -F json
/stornext/snfx1/smp2data/soobar1 /stornext/snfx1/smp2data/soobar2
/stornext/snfx1/smp2data/soobar3 /stornext/snfx1/smp2data/soobar4
/stornext/snfx1/smp2data/soobar5",
        "commandDescription": "Retrieve files from media and place on
disk",
        "localDateISO": "2015-10-27T17:05:09",
        "localDate": "2015-10-27",
        "localTime": "17:05:09",
        "localDayOfWeek": 2,
        "gmtDateISO": "2015-10-27T23:05:09Z",
        "gmtDate": "2015-10-27",
        "gmtTime": "23:05:09",
        "gmtDayOfWeek": 2
      },
      "jobInfo": {
        "job": "24",
        "exitcode": 0,
        "datecompleted": "2015-10-27 17:05:20",
        "state": "COMPLETED"
      },
      "statuses": [
        {
          "statusCode": "FS0005",
          "statusNumber": 5,
          "dayOfMonth": 27,
          "requestId": 177191,
          "commandName": "/usr/adic/TSM/bin/fsretrieve",
          "commandStatus": "interim",
          "statusText": "No retrieve needed, the data is already
present on the disk for file /stornext/snfx1/smp2data/soobar1."
        },
        {
          "statusCode": "FS0589",
          "statusNumber": 589,
          "dayOfMonth": 27,
```

```
received."
    "requestId": 177191,
    "commandName": "/usr/adic/TSM/bin/fsretrieve",
    "commandStatus": "interim",
    "statusText": "Tertiary Manager software request
},
{
    "statusCode": "FS0347",
    "statusNumber": 347,
    "dayOfMonth": 27,
    "requestId": 177191,
    "commandName": "fsretrieve",
    "commandStatus": "interim",
    "statusText": "File /stornext/snfx1/smp2data/soobar2 has
been retrieved."
},
{
    "statusCode": "FS0347",
    "statusNumber": 347,
    "dayOfMonth": 27,
    "requestId": 177191,
    "commandName": "fsretrieve",
    "commandStatus": "interim",
    "statusText": "File /stornext/snfx1/smp2data/soobar3 has
been retrieved."
},
{
    "statusCode": "FS0347",
    "statusNumber": 347,
    "dayOfMonth": 27,
    "requestId": 177191,
    "commandName": "fsretrieve",
    "commandStatus": "interim",
    "statusText": "File /stornext/snfx1/smp2data/soobar4 has
been retrieved."
},
{
    "statusCode": "FS0347",
    "statusNumber": 347,
    "dayOfMonth": 27,
```



```
        "requestId": 177191,  
        "commandName": "fsretrieve",  
        "commandStatus": "interim",  
        "statusText": "File /stornext/snfx1/smp2data/soobar5 has  
been retrieved."  
    },  
    {  
        "statusCode": "FS0654",  
        "statusNumber": 654,  
        "dayOfMonth": 27,  
        "requestId": 177191,  
        "commandName": "fsretrieve",  
        "commandStatus": "completed",  
        "statusText": "1 out of 5 files were already on disk."  
    },  
    {  
        "statusCode": "FS0390",  
        "statusNumber": 390,  
        "dayOfMonth": 27,  
        "requestId": 177191,  
        "commandName": "fsretrieve",  
        "commandStatus": "completed",  
        "statusText": "5 out of 5 retrieves were successful."  
    }  
],  
"footer": {  
    "returnCode": 0,  
    "localDateISOEnd": "2015-10-27T17:05:20",  
    "localDateEnd": "2015-10-27",  
    "localTimeEnd": "17:05:20",  
    "localDayOfWeekEnd": 2,  
    "gmtDateISOEnd": "2015-10-27T23:05:20Z",  
    "gmtDateEnd": "2015-10-27",  
    "gmtTimeEnd": "23:05:20",  
    "gmtDayOfWeekEnd": 2,  
    "elapsedTimeInSeconds": "10.0878"  
}  
},  
{  
    "header": {
```

```
        "commandName": "fsretrieve",
        "commandLine": "/usr/adic/TSM/bin/fsretrieve -F json
/stornext/snfx1/smp2data/foobar1 /stornext/snfx1/smp2data/foobar2
/stornext/snfx1/smp2data/foobar3",
        "commandDescription": "Retrieve files from media and place on
disk",
        "localDateISO": "2015-10-27T17:05:09",
        "localDate": "2015-10-27",
        "localTime": "17:05:09",
        "localDayOfWeek": 2,
        "gmtDateISO": "2015-10-27T23:05:09Z",
        "gmtDate": "2015-10-27",
        "gmtTime": "23:05:09",
        "gmtDayOfWeek": 2
    },
    "jobInfo": {
        "job": "25",
        "exitcode": 0,
        "datecompleted": "2015-10-27 17:05:26",
        "state": "COMPLETED"
    },
    "statuses": [
        {
            "statusCode": "FS0589",
            "statusNumber": 589,
            "dayOfMonth": 27,
            "requestId": 177192,
            "commandName": "/usr/adic/TSM/bin/fsretrieve",
            "commandStatus": "interim",
            "statusText": "Tertiary Manager software request
received."
        },
        {
            "statusCode": "FS0347",
            "statusNumber": 347,
            "dayOfMonth": 27,
            "requestId": 177192,
            "commandName": "fsretrieve",
            "commandStatus": "interim",
            "statusText": "File /stornext/snfx1/smp2data/foobar1 has
been retrieved."
        }
    ]
}
```

```
    },  
    {  
      "statusCode": "FS0347",  
      "statusNumber": 347,  
      "dayOfMonth": 27,  
      "requestId": 177192,  
      "commandName": "fsretrieve",  
      "commandStatus": "interim",  
      "statusText": "File /stornext/snfx1/smp2data/foobar2 has  
been retrieved."  
    },  
    {  
      "statusCode": "FS0347",  
      "statusNumber": 347,  
      "dayOfMonth": 27,  
      "requestId": 177192,  
      "commandName": "fsretrieve",  
      "commandStatus": "interim",  
      "statusText": "File /stornext/snfx1/smp2data/foobar3 has  
been retrieved."  
    },  
    {  
      "statusCode": "FS0390",  
      "statusNumber": 390,  
      "dayOfMonth": 27,  
      "requestId": 177192,  
      "commandName": "fsretrieve",  
      "commandStatus": "completed",  
      "statusText": "3 out of 3 retrieves were successful."  
    }  
  ],  
  "footer": {  
    "returnCode": 0,  
    "localDateISOEnd": "2015-10-27T17:05:26",  
    "localDateEnd": "2015-10-27",  
    "localTimeEnd": "17:05:26",  
    "localDayOfWeekEnd": 2,  
    "gmtDateISOEnd": "2015-10-27T23:05:26Z",  
    "gmtDateEnd": "2015-10-27",  
    "gmtTimeEnd": "23:05:26",
```

```
        "gmtDayOfWeekEnd": 2,  
        "elapsedTimeInSeconds": "16.0902"  
    }  
  }  
]  
,  
{  
  "pendingJobList": [  
    {  
      "jobInfo": {  
        "job": "30",  
        "positioninagentqueue": 1,  
        "exitcode": 0,  
        "state": "QUEUED"  
      }  
    }  
  ]  
}  
]
```

Perl

See [Sample Perl Script on page 276](#).

Python

See [Sample Python Script on page 294](#).

Troubleshooting

Issue	Tips
Web Service Reported Off	On the StorNext GUI, click Services , and then click Web Services (V2) . Ensure the State parameter is enabled

Issue	Tips
Browser Error on Invoking a Web Service	<p>Check the protocol and the port number for the request.</p> <p>If the protocol and the port number do not match the web server configuration, SWS V2 does not receive the request. For example, if the Protocol is http and port used is 443, the web service request may not work.</p>
Web Service is Not Working	<p>The root cause may be that the web server that hosts the web services is offline.</p> <p>Ensure you can start the StorNext GUI using the same IP and port. If the StorNext GUI cannot be started, the web server is down. Contact your System Administrator.</p>
Sent a XML Request, but Response is Not XML	<p>There are certain web services that only support TEXT and JSON.</p> <p>For information on the supported formats for a particular web service, see the <i>StorNext Web Services Guide</i> online at http://www.quantum.com/snsdocs.</p> <p>Quantum recommends JSON as the preferred format since most web services support this format. XML is also supported, but it is primarily used for compatibility with existing applications.</p>



Appendix A: Sample Perl Script

Sample Perl Script

Download the Sample Perl Script



Download a .zip file containing a text version of the sample Perl script.

```
001: #!/usr/bin/env perl
002:
003: use LWP::UserAgent;
004: use LWP::Simple;
005: use File::Find;
006: use Getopt::Long;
007:
008: use strict;
009: use warnings;
010:
011: our $VERBOSE          = 0;
012: our $IP                = '';
013: our $FORMAT           = '';
014: our $PROTOCOL         = '';
```

```
015: our $AUTHENTICATE = '';
016: our $FAILURES     = 0;
017: our $USERNAME     = '';
018: our $PASSWORD     = '';
019:
020: our $ua            = LWP::UserAgent->new;
021: our $rsp;
022:
023: GetOptions ("authenticate=s" => \$AUTHENTICATE,
024:           "protocol=s"      => \$PROTOCOL,
025:           "ip=s"            => \$IP,
026:           "format=s"        => \$FORMAT,
027:           "verbose"         => \$VERBOSE)
028: or die("Error in command line arguments\n");
029:
030: # check protocol, should be either http or https
031: #
032: unless (($PROTOCOL eq 'http') or ($PROTOCOL eq 'https')) {
033:     print "Protocol should be either 'http' or 'https'\n";
034:     exit;
035: }
036:
037:
038: # check format, should be json, text, or xml
039: #
040: unless (($FORMAT eq 'json') or ($FORMAT eq 'text') or ($FORMAT eq 'xml')) {
041:     print "Format should be either 'json', 'text', or 'xml'\n";
042:     exit;
043: }
044:
045:
```



```
046: # check the ip, standard 4 numbers '.' separated
047: #
048: if ($IP !~ /^\\d{1,3}\\.\\d{1,3}\\.\\d{1,3}\\.\\d{1,3}$/) {
049:     print "ip not in correct format: $IP\\n";
050:     exit;
051: }
052:
053: # check authentication
054: #
055: if ($AUTHENTICATE eq '') {
056:     ;
057: } elsif ($AUTHENTICATE =~ /\\/) {
058:     my ($username, $password) = split( /\\/, $AUTHENTICATE);
059:     $USERNAME = $username . '_pl';
060:     $PASSWORD = $password . '_pl';
061: } else {
062:     print 'Authenticate argument must have '/' between the username and password:\\n';
063:     print "value: $AUTHENTICATE\\n";
064:     exit;
065: }
066:
067: #     $prefix = "#{$protocol}://sws:sws@#{$ip}:81/sws/v2"
068:
069: print "VERBOSE:          $VERBOSE\\n";
070: print "IP:                $IP\\n";
071: print "FORMAT:            $FORMAT\\n";
072: print "PROTOCOL:          $PROTOCOL\\n";
073: print "AUTHENTICATE: $AUTHENTICATE\\n";
074:
075:
076: sub check_job_status {
```

```

077:     my ($rsp,@more) = @_;
078:     print "$rsp\n";
079:     if ($rsp =~ /Job has been successfully submitted/i) {
080:         $rsp =~ /"job" : "(\\d+)"/i;
081:         my $jobno = $1;
082:         my $myrsp;
083:         my $myrsp2;
084:         $myrsp2 = do_webservices_cmd( '/job/mover/info',
085:                                     "job=$jobno");
086:         print "$myrsp2\n";
087:         $myrsp = do_webservices_cmd( '/job/info',
088:                                     "job=$jobno");
089:         my $count = 0;
090:         while ($myrsp =~ /RUNNING/i) {
091:             sleep(1);
092:             $myrsp2 = do_webservices_cmd( '/job/mover/info',
093:                                         "job=$jobno");
094:             print "$myrsp2\n";
095:             $myrsp = do_webservices_cmd( '/job/info',
096:                                         "job=$jobno");
097:             print "$myrsp\n";
098:             $count += 1;
099:         }
100:         $myrsp2 = do_webservices_cmd( '/job/mover/info',
101:                                     "job=$jobno");
102:         print "$myrsp2\n";
103:         print "Checked for completion: $count times\n";
104:         print "$myrsp\n";
105:         if ($myrsp =~ /ERROR/i) {
106:             print "Job had error -----\n";
107:             $FAILURES += 1;

```

```

108:     }
109: } else {
110:     print "Job not submitted correctly -----
\n";
111:     $FAILURES += 1;
112: }
113: }
114:
115:
116: sub do_webservices_cmd {
117:     my ($cmd, @pieces) = @_;
118:     #? print "cmd: $cmd\n"; #?
119:     #? print "pieces: @pieces\n"; #?
120:     #? for my $piece (@pieces) { #?
121:         #?     print "piece: $piece\n"; #?
122:     #? } #?
123:
124:     # set up the URL prefix
125:     #
126:     my $prefix;
127:     if ($cmd =~ /wsconfig/i) {
128:         $prefix = "http://$IP:81/sws/v2";
129:     } elsif ($PROTOCOL =~ /https/i) {
130:         $prefix = "https://$IP/sws/v2";
131:     } else {
132:         $prefix = "http://$IP:81/sws/v2";
133:     }
134:
135:
136:     my $ws = $prefix . $cmd;
137:

```

```
138:     if ($AUTHENTICATE ne '') {
139:         push( @pieces, "username=$USERNAME");
140:         push( @pieces, "password=$PASSWORD");
141:     }
142:
143:     # add any passed parameters to URL
144:     #
145:     if (scalar(@pieces) > 0) {
146:         $ws .= '?' . join( '&', sort(@pieces));
147:     }
148:
149:     # if we do not already have a format parameter
150:     #
151:     unless ($ws =~ /format=/i) {
152:         # add '?' if this is the first parameter, otherwise add '&'
153:         #
154:         if ($ws =~ /\?/) {
155:             $ws .= '&';
156:         } else {
157:             $ws .= '?';
158:         }
159:         $ws .= "format=$FORMAT";    # ask for appropriate formatting for the web-service
160:     }
161:
162:     # add login parameters if we need to authenticate
163:     #
164:     # all web-service URLs are lowercase
165:     #
166:     $ws = lc( $ws);
167:
168:     if ($VERBOSE) {
```

```

169:         print "\n";
170:         print "WS: $ws\n";
171:         print "=====\n" if ($ws =~ /mover/);
172:     }
173:
174:     my $req = new HTTP::Request GET => $ws;
175:     my $res = $ua->request($req);
176:
177:     if ( $res->is_success ) {
178:         my $rsp = $res->content;
179:         return $rsp;
180:     }
181:     else {
182:         print "**** HTTP ERROR: " . $res->status_line . "... \n";
183:         $FAILURES += 1;
184:         return 1;
185:     }
186: }
187:
188: my $ws_rsp;
189:
190: #Description of Web Services sample programs:
191:
192: # 0) Please turn on web-services using the StorNext GUI
193: #     Also choose protocol and authentication through the SN GUI
194:
195: # 1) Do WS system info, returning TEXT, XML and JSON
196:
197: # /sws/v2/system/info?format=text
198: $ws_rsp = do_webservices_cmd( '/system/info',
199:                               "format=text");

```

```
200: print "$ws_rsp\n";
201:
202: # /sws/v2/system/info?format=xml
203: $ws_rsp = do_webservices_cmd( '/system/info',
204:                               "format=xml");
205: print "$ws_rsp\n";
206:
207: # /sws/v2/system/info?format=json
208: $ws_rsp = do_webservices_cmd( '/system/info',
209:                               "format=json");
210: print "$ws_rsp\n";
211:
212: # 2) Create a policy for a managed file system
213:
214: # 3) 3 directories should exist:
215: # a) Directory for single-file manipulation
216:
217: my $singles_path = '/stornext/snfs1/sample_dir_singles/pl';
218: my @singles_paths_sync = ();
219: my @singles_paths_async = ();
220:
221: # b) Directory for directory manipulation
222:
223: my $dirs_path_sync = '/stornext/snfs1/sample_dir_dirs_sync/pl';
224: my @dirs_paths_sync = ();
225: my $dirs_path_async = '/stornext/snfs1/sample_dir_dirs_async/pl';
226: my @dirs_paths_async = ();
227:
228: # c) Directory for multi-file manipulation
229:
230: my $multi_path = '/stornext/snfs1/sample_dir_multi/pl';
```

```
231: my @multi_paths_sync = ();
232: my @multi_paths_async = ();
233:
234: # 4) Create arrays with path names of both files in each of those directories
235:
236: for my $i (0,1) {
237:     my $filename = "file.$i";
238:
239:     push @singles_paths_sync, "$singles_path/$filename";
240:
241:     push @dirs_paths_sync,     "$dirs_path_sync/$filename";
242:
243:     push @dirs_paths_async,    "$dirs_path_async/$filename";
244:
245:     push @multi_paths_sync,    "$multi_path/$filename";
246: }
247:
248: for my $i (2,3) {
249:     my $filename = "file.$i";
250:
251:     push @singles_paths_async, "$singles_path/$filename";
252:
253:     push @multi_paths_async,   "$multi_path/$filename";
254: }
255:
256:
257: # 5) Use WS fsstore to save both files from the first directory to TAPE
258:
259: # /sws/v2/file/fsstore?file=<filepath>
260: for my $filepath (@singles_paths_sync) {
261:     $ws_rsp = do_webservices_cmd( '/file/fsstore',
```

```

262:             "file=$filepath");
263:     print "$ws_rsp\n";
264: }
265:
266: # /sws/v2/file/fsfileinfo?file=<filepath>
267: for my $filepath (@singles_paths_sync) {
268:     $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
269:             "file=$filepath");
270:     print "$ws_rsp\n";
271: }
272:
273: # 6) Use WS fsstore to save the second directory to TAPE
274:
275: # /sws/v2/file/fsstore?directory=<dirpath>
276: $ws_rsp = do_webservices_cmd( '/file/fsstore',
277:             "directory=$dirs_path_sync");
278: print "$ws_rsp\n";
279:
280: # /sws/v2/file/fsfileinfo?directory=<dirpath>
281: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
282:             "directory=$dirs_path_sync");
283: print "$ws_rsp\n";
284:
285: # 7) Use WS fsstore to save both files from the third directory to TAPE
286:
287: # /sws/v2/file/fsstore?file=<f1>&file=<f2>
288: $ws_rsp = do_webservices_cmd( '/file/fsstore',
289:             "file=$multi_paths_sync[0]",
290:             "file=$multi_paths_sync[1]");
291: print "$ws_rsp\n";
292:

```



```
293:
294: # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
295: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
296:                               "file=$multi_paths_sync[0]",
297:                               "file=$multi_paths_sync[1]");
298: print "$ws_rsp\n";
299:
300:
301: # 8) Use WS rmdiskcopy to truncate both files in each of 3 directories
302:
303: # /sws/v2/file/fsrmdiskcopy
304: for my $filepath (@singles_paths_sync) {
305:     $ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
306:                                   "file=$filepath");
307:     print "$ws_rsp\n";
308: }
309:
310: for my $filepath (@dirs_paths_sync) {
311:     $ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
312:                                   "file=$filepath");
313:     print "$ws_rsp\n";
314: }
315:
316: for my $filepath (@multi_paths_sync) {
317:     $ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
318:                                   "file=$filepath");
319:     print "$ws_rsp\n";
320: }
321:
322: # 9) Use WS fsretrieve to restore both files to first directory from TAPE
323:
```

```
324: # /sws/v2/file/fsretrieve?file=<filepath>
325: for my $filepath (@singles_paths_sync) {
326:     $ws_rsp = do_webservices_cmd( '/file/fsretrieve',
327:                                   "file=$filepath");
328:     print "$ws_rsp\n";
329: }
330:
331: # /sws/v2/file/fsfileinfo?file=<filepath>
332: for my $filepath (@singles_paths_sync) {
333:     $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
334:                                   "file=$filepath");
335:     print "$ws_rsp\n";
336: }
337:
338: # 10) Use WS fsretrieve to restore the second directory from TAPE
339:
340: # /sws/v2/file/fsretrieve?directory=<dirpath>
341: $ws_rsp = do_webservices_cmd( '/file/fsretrieve',
342:                               "directory=$dirs_path_sync");
343: print "$ws_rsp\n";
344:
345: # /sws/v2/file/fsfileinfo?directory=<dirpath>
346: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
347:                               "directory=$dirs_path_sync");
348: print "$ws_rsp\n";
349:
350: # 11) Use WS fsretrieve to restore both files in the third directory from TAPE
351:
352: # /sws/v2/file/fsretrieve?file=<f1>&file=<f2>
353: $ws_rsp = do_webservices_cmd( '/file/fsretrieve',
354:                               "file=$multi_paths_sync[0]",
```

```
355:                                     "file=$multi_paths_sync[1]");
356: print "$ws_rsp\n";
357:
358:
359: # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
360: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
361:                               "file=$multi_paths_sync[0]",
362:                               "file=$multi_paths_sync[1]");
363: print "$ws_rsp\n";
364:
365:
366: # 12-18) Repeat steps 5-11 using async mode
367:
368: # 12) Use WS fsstore to save both files from the first directory to TAPE
369:
370: # /sws/v2/file/fsstore?file=<filepath>
371: for my $filepath (@singles_paths_async) {
372:     $ws_rsp = do_webservices_cmd( '/file/fsstore',
373:                                   "file=$filepath",
374:                                   "mode=async");
375:     check_job_status( $ws_rsp);
376: }
377:
378: # /sws/v2/file/fsfileinfo?file=<filepath>
379: for my $filepath (@singles_paths_async) {
380:     $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
381:                                   "file=$filepath");
382:     print "$ws_rsp\n";
383: }
384:
385: # 13) Use WS fsstore to save the second directory to TAPE
```

```
386:
387: # /sws/v2/file/fsstore?directory=<dirpath>
388: $ws_rsp = do_webservices_cmd( '/file/fsstore',
389:                               "directory=$dirs_path_async",
390:                               "mode=async");
391: check_job_status( $ws_rsp);
392:
393: # /sws/v2/file/fsfileinfo?directory=<dirpath>
394: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
395:                               "directory=$dirs_path_async");
396: print "$ws_rsp\n";
397:
398: # 14) Use WS fsstore to save both files from the third directory to TAPE
399:
400: # /sws/v2/file/fsstore?file=<f1>&file=<f2>
401: $ws_rsp = do_webservices_cmd( '/file/fsstore',
402:                               "file=$multi_paths_async[0]",
403:                               "file=$multi_paths_async[1]",
404:                               "mode=async");
405: check_job_status( $ws_rsp);
406:
407:
408: # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
409: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
410:                               "file=$multi_paths_async[0]",
411:                               "file=$multi_paths_async[1]");
412: print "$ws_rsp\n";
413:
414:
415: # 15) Use WS rmdiskcopy to truncate both files in each of 3 directories
416:
```

```
417: # /sws/v2/file/fsrmdiskcopy
418: for my $filepath (@singles_paths_async) {
419:     $ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
420:                                   "file=$filepath");
421:     print "$ws_rsp\n";
422: }
423:
424: for my $filepath (@dirs_paths_async) {
425:     $ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
426:                                   "file=$filepath");
427:     print "$ws_rsp\n";
428: }
429:
430: for my $filepath (@multi_paths_async) {
431:     $ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
432:                                   "file=$filepath");
433:     print "$ws_rsp\n";
434: }
435:
436: # 16) Use WS fsretrieve to restore both files to first directory from TAPE
437:
438: # /sws/v2/file/fsretrieve?file=<filepath>
439: for my $filepath (@singles_paths_async) {
440:     $ws_rsp = do_webservices_cmd( '/file/fsretrieve',
441:                                   "file=$filepath",
442:                                   "mode=async");
443:     check_job_status( $ws_rsp);
444: }
445:
446: # /sws/v2/file/fsfileinfo?file=<filepath>
447: for my $filepath (@singles_paths_async) {
```

```
448:     $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
449:                                     "file=$filepath");
450:     print "$ws_rsp\n";
451: }
452:
453: # 17) Use WS fsretrieve to restore the second directory from TAPE
454:
455: # /sws/v2/file/fsretrieve?directory=<dirpath>
456: $ws_rsp = do_webservices_cmd( '/file/fsretrieve',
457:                               "directory=$dirs_path_async",
458:                               "mode=async");
459: check_job_status( $ws_rsp);
460:
461: # /sws/v2/file/fsfileinfo?directory=<dirpath>
462: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
463:                               "directory=$dirs_path_async");
464: print "$ws_rsp\n";
465:
466: # 18) Use WS fsretrieve to restore both files in the third directory from TAPE
467:
468: # /sws/v2/file/fsretrieve?file=<f1>&file=<f2>
469: $ws_rsp = do_webservices_cmd( '/file/fsretrieve',
470:                               "file=$multi_paths_async[0]",
471:                               "file=$multi_paths_async[1]",
472:                               "mode=async");
473: check_job_status( $ws_rsp);
474:
475:
476: # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
477: $ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
478:                               "file=$multi_paths_async[0]",
```

```
479:                                     "file=$multi_paths_async[1]");
480: print "$ws_rsp\n";
481:
482:
483: # 19) Get policy information
484:
485: $ws_rsp = do_webservices_cmd( '/policy/fsdirclass',
486:                               "directory=$dirs_path_async");
487: print "$ws_rsp\n";
488:
489: $ws_rsp = do_webservices_cmd( '/policy/fsclassinfo',
490:                               "policy=policy_min_i");
491: print "$ws_rsp\n";
492:
493:
494: print "\n";
495: print "Number of failures: $FAILURES\n";
496:
497:
498: #                                     Copyright 2015 Quantum Corporation
```



Appendix B: Sample Python Script

Sample Python Script

Download the Sample Python Script



Download a .zip file containing a text version of the sample Python script.

```
001: #! /opt/quantum/python27/bin/python
002:
003: import requests
004: import argparse
005: import re
006: import sys
007: import urllib
008: from time import sleep
009:
010: global failures
011: failures = 0
012: global args
013: global username
014: global password
```

```
015: global verbose
016:
017: def check_job_status( ws_rsp):
018:     global args
019:     global failures
020:     global verbose
021:
022:     print "%s" % (ws_rsp,)
023:     m = re.search( '"message" : "Job has been successfully submitted."', ws_rsp)
024:     if m:
025:         m = re.search( '"job" : "(\\d+) "', ws_rsp)
026:         if m:
027:             jobno = m.group(1)
028:         else:
029:             print "job not found -----"
030:             return
031:         ws_rsp2 = do_webservices_cmd( '/job/mover/info',
032:                                     { 'job' : jobno } )
033:         print ws_rsp2
034:         ws_rsp = do_webservices_cmd( '/job/info',
035:                                     { 'job' : jobno } )
036:         count = 0
037:         while re.search( 'RUNNING', ws_rsp):
038:             sleep(1)
039:             ws_rsp2 = do_webservices_cmd( '/job/mover/info',
040:                                         { 'job' : jobno } )
041:             print ws_rsp2
042:             ws_rsp = do_webservices_cmd( '/job/info',
043:                                         { 'job' : jobno } )
044:             print ws_rsp
045:             count += 1
```

```

046:         ws_rsp2 = do_webservices_cmd( '/job/mover/info',
047:                                       { 'job' : jobno } )
048:         print ws_rsp2
049:         print "Checked for completion: %d times" % (count,)
050:         print ws_rsp
051:         if re.search( 'Status: ERROR', ws_rsp):
052:             print "Job had error -----"
053:             failures += 1
054:     else:
055:         print "Job not submitted correctly -----"
056:         failures += 1
057:
058:
059:
060: def process_args():
061:     global args
062:     global username
063:     global password
064:     global verbose
065:
066:     parser = argparse.ArgumentParser()
067:     parser.add_argument("--verbose",
068:                         action='store_true',
069:                         dest='verbose',
070:                         help=" Be verbose in output.")
071:     parser.add_argument("--authenticate",
072:                         action='store',
073:                         dest='authenticate',
074:                         metavar='[authentication]',
075:                         default='',
076:                         help=" Authenticate all WS calls, value is 'username/password'.")

```

```
077:     parser.add_argument("--protocol",
078:                          action='store',
079:                          dest='protocol',
080:                          metavar='[PROTOCOL]',
081:                          choices=['http', 'https'],
082:                          help=" The protocol to use.")
083:     parser.add_argument("--format",
084:                          action='store',
085:                          dest='format',
086:                          choices=['text', 'json', 'xml'],
087:                          default='json',
088:                          help=" The format for response.")
089:     parser.add_argument("--ip",
090:                          action='store',
091:                          dest='ip',
092:                          default='',
093:                          help=" The ip of the MDC.")
094:
095:     # Parse the command-line
096:     args = parser.parse_args()
097:
098:     print "authenticate: %s" % (args.authenticate,)
099:     print "format:      %s" % (args.format,)
100:     print "ip:         %s" % (args.ip,)
101:     print "protocol:   %s" % (args.protocol,)
102:     print "verbose:    %s" % (args.verbose,)
103:     verbose = args.verbose
104:
105:     # check the ip, standard 4 numbers '.' separated
106:     #
107:     m = re.compile( '^\\d{1,3}\\.\\d{1,3}\\.\\d{1,3}\\.\\d{1,3}$')
```

```
108:     if not m.match( args.ip):
109:         print "ip not in correct format: %s" % (args.ip,)
110:         sys.exit(1)
111:
112:     # check authentication
113:     #
114:     if args.authenticate == '':
115:         username = ''
116:         password = ''
117:     elif '/' in args.authenticate:
118:         username, password = args.authenticate.split( '/')
119:         username = username + '_py'
120:         password = password + '_py'
121:     else:
122:         print 'Authenticate argument must have '/' between the username and password:'
123:         print "value: %s" % (args.authenticate,)
124:         sys.exit(1)
125:
126:
127: def do_webservices_cmd( cmd, pieces={}):
128:     global args
129:     global failures
130:     global username
131:     global password
132:     global verbose
133:
134:     # set up the URL prefix
135:     #
136:     if 'wsconfig' in cmd:
137:         prefix = "http://%s:81/sws/v2" % (args.ip,)
138:     elif 'https' in args.protocol:
```

```
139:     prefix = "https://%s:81/sws/v2" % (args.ip,)
140: else:
141:     prefix = "http://%s:81/sws/v2" % (args.ip,)
142:
143:     #? print "prefix: %s" % (prefix,) #?
144:
145:     ws = prefix + cmd
146:
147:     # if we do not already have a format parameter
148:     #
149:     if 'format' not in pieces:
150:         #if 'job' not in cmd:
151:             pieces['format'] = args.format
152:
153:     # add login parameters if we need to authenticate
154:     #
155:     if args.authenticate != '':
156:         pieces['username'] = username
157:         pieces['password'] = password
158:
159:     # all web-service URLs are lowercase
160:     #
161:     ws = ws.lower()
162:
163:     response = requests.get( ws, pieces, verify=False)
164:     if verbose:
165:         print
166:         print "WS: %s" % (urllib.unquote(response.url),)
167:
168:     rsp = response.text
169:     #? print "rsp; %s" % (rsp,) #?
```

```
170:     if response.status_code == 200:
171:         return rsp
172:     else:
173:         failures += 1
174:         return "Fail: %s" % (rsp,)
175:
176:
177: if __name__ == '__main__':
178:     global username
179:     global password
180:
181:     process_args()
182:
183:     #Description of Web Services sample programs:
184:
185:     # 0) Please turn on web-services using the StorNext GUI
186:     #     Also choose protocol and authentication through the SN GUI
187:
188:     # 1) Do WS system info, returning TEXT, XML and JSON
189:     # /sws/v2/system/info?format=text
190:
191:     ws_rsp = do_webservices_cmd( '/system/info',
192:                                 { 'format' : 'text' } )
193:     print ws_rsp
194:
195:     # /sws/v2/system/info?format=xml
196:
197:     ws_rsp = do_webservices_cmd( '/system/info',
198:                                 { 'format' : 'xml' } )
199:     print ws_rsp
200:
```

```
201:     # /sws/v2/system/info?format=json
202:
203:     ws_rsp = do_webservices_cmd( '/system/info',
204:                                 { 'format' : 'json' } )
205:     print ws_rsp
206:
207:     # 2) Create a policy for a managed file system
208:
209:     # 3) 3 directories should exist:
210:     # a) Directory for single-file manipulation
211:
212:     singles_path = '/stornext/snfs1/sample_dir_singles/py'
213:     singles_paths_sync = []
214:     singles_paths_async = []
215:
216:     # b) Directory for directory manipulation
217:
218:     dirs_path_sync = '/stornext/snfs1/sample_dir_dirs_sync/py'
219:     dirs_paths_sync = []
220:     dirs_path_async = '/stornext/snfs1/sample_dir_dirs_async/py'
221:     dirs_paths_async = []
222:
223:     # c) Directory for multi-file manipulation
224:
225:     multi_path = '/stornext/snfs1/sample_dir_multi/py'
226:     multi_paths_sync = []
227:     multi_paths_async = []
228:
229:     # 4) Create arrays with path names of both files in each of those directories
230:     # for single and multi commands, files 0 and 1 are for sync, files 2 and 3 are for async
231:     # for directory commands, there is a directory for sync and one for async
```



```
232:
233:     for i in [0,1]:
234:         filename = "file.%d" % (i,)
235:         singles_paths_sync.append( "%s/%s" % (singles_path, filename))
236:         dirs_paths_sync.append(     "%s/%s" % (dirs_path_sync, filename))
237:         dirs_paths_async.append(    "%s/%s" % (dirs_path_async, filename))
238:         multi_paths_sync.append(    "%s/%s" % (multi_path, filename))
239:
240:     for i in [2,3]:
241:         filename = "file.%d" % (i,)
242:         singles_paths_async.append( "%s/%s" % (singles_path, filename))
243:         multi_paths_async.append(    "%s/%s" % (multi_path, filename))
244:
245:
246:     # 5-11) steps 5-11 use sync mode, steps 12-18 use async mode
247:
248:     # 5) Use WS fsstore to save both files from the first directory to TAPE
249:     # /sws/v2/file/fsstore?file=<filepath>
250:
251:     for filepath in singles_paths_sync:
252:         ws_rsp = do_webservices_cmd( '/file/fsstore',
253:                                     { 'file' : filepath } )
254:         print ws_rsp
255:
256:     # /sws/v2/file/fsfileinfo?file=<filepath>
257:
258:     for filepath in singles_paths_sync:
259:         ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
260:                                     { 'file' : filepath } )
261:         print ws_rsp
262:
```

```
263:     # 6) Use WS fsstore to save the second directory to TAPE
264:     # /sws/v2/file/fsstore?directory=<dirpath>
265:
266:     ws_rsp = do_webservices_cmd( '/file/fsstore',
267:                                 { 'directory' : dirs_path_sync } )
268:     print ws_rsp
269:
270:     # /sws/v2/file/fsfileinfo?directory=<dirpath>
271:
272:     ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
273:                                 { 'directory' : dirs_path_sync } )
274:     print ws_rsp
275:
276:     # 7) Use WS fsstore to save both files from the third directory to TAPE
277:     # /sws/v2/file/fsstore?file=<f1>&file=<f2>
278:
279:     ws_rsp = do_webservices_cmd( '/file/fsstore',
280:                                 { 'file' : [ multi_paths_sync[0],
281:                                             multi_paths_sync[1] ] } )
282:     print ws_rsp
283:
284:
285:     # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
286:
287:     ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
288:                                 { 'file' : [ multi_paths_sync[0],
289:                                             multi_paths_sync[1] ] } )
290:     print ws_rsp
291:
292:
293:     # 8) Use WS rmdiskcopy to truncate both files in each of 3 directories
```

```
294:     # /sws/v2/file/fsrmdiskcopy
295:
296:     for filepath in singles_paths_sync:
297:         ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
298:                                     { 'file' : filepath } )
299:         print ws_rsp
300:
301:     for filepath in dirs_paths_sync:
302:         ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
303:                                     { 'file' : filepath } )
304:         print ws_rsp
305:
306:     for filepath in multi_paths_sync:
307:         ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
308:                                     { 'file' : filepath } )
309:         print ws_rsp
310:
311:     # 9) Use WS fsretrieve to restore both files to first directory from TAPE
312:     # /sws/v2/file/fsretrieve?file=<filepath>
313:
314:     for filepath in singles_paths_sync:
315:         ws_rsp = do_webservices_cmd( '/file/fsretrieve',
316:                                     { 'file' : filepath } )
317:         print ws_rsp
318:
319:     # /sws/v2/file/fsfileinfo?file=<filepath>
320:
321:     for filepath in singles_paths_sync:
322:         ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
323:                                     { 'file' : filepath } )
324:         print ws_rsp
```

```
325:
326: # 10) Use WS fsretrieve to restore the second directory from TAPE
327: # /sws/v2/file/fsretrieve?directory=<dirpath>
328:
329: ws_rsp = do_webservices_cmd( '/file/fsretrieve',
330:                             { 'directory' : dirs_path_sync } )
331: print ws_rsp
332:
333: # /sws/v2/file/fsfileinfo?directory=<dirpath>
334:
335: ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
336:                             { 'directory' : dirs_path_sync } )
337: print ws_rsp
338:
339: # 11) Use WS fsretrieve to restore both files in the third directory from TAPE
340: # /sws/v2/file/fsretrieve?file=<f1>&file=<f2>
341:
342: ws_rsp = do_webservices_cmd( '/file/fsretrieve',
343:                             { 'file' : [ multi_paths_sync[0],
344:                                         multi_paths_sync[1] ] } )
345: print ws_rsp
346:
347:
348: # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
349:
350: ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
351:                             { 'file' : [ multi_paths_sync[0],
352:                                         multi_paths_sync[1] ] } )
353: print ws_rsp
354:
355:
```

```
356:     # 12-18) Repeat steps 5-11 using async mode
357:
358:     # 12) Use WS fsstore to save both files from the first directory to TAPE
359:     # /sws/v2/file/fsstore?file=<filepath>
360:
361:     for filepath in singles_paths_async:
362:         ws_rsp = do_webservices_cmd( '/file/fsstore',
363:                                     { 'file' : filepath,
364:                                       'mode' : 'async' } )
365:         check_job_status( ws_rsp)
366:
367:     # /sws/v2/file/fsfileinfo?file=<filepath>
368:
369:     for filepath in singles_paths_async:
370:         ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
371:                                     { 'file' : filepath } )
372:         print ws_rsp
373:
374:     # 13) Use WS fsstore to save the second directory to TAPE
375:     # /sws/v2/file/fsstore?directory=<dirpath>
376:
377:     ws_rsp = do_webservices_cmd( '/file/fsstore',
378:                                 { 'directory' : dirs_path_async,
379:                                   'mode' : 'async' } )
380:     check_job_status( ws_rsp)
381:
382:     # /sws/v2/file/fsfileinfo?directory=<dirpath>
383:
384:     ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
385:                                 { 'directory' : dirs_path_async } )
386:     print ws_rsp
```

```
387:
388: # 14) Use WS fsstore to save both files from the third directory to TAPE
389: # /sws/v2/file/fsstore?file=<f1>&file=<f2>
390:
391: ws_rsp = do_webservices_cmd( '/file/fsstore',
392:                             { 'file' : [ multi_paths_async[0],
393:                                         multi_paths_async[1] ],
394:                             'mode' : 'async' } )
395:
396: check_job_status( ws_rsp)
397:
398: # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
399:
400: ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
401:                             { 'file' : [ multi_paths_async[0],
402:                                         multi_paths_async[1] ] } )
403:
404: print ws_rsp
405:
406: # 15) Use WS rmdiskcopy to truncate both files in each of 3 directories
407: # /sws/v2/file/fsrmdiskcopy
408:
409: for filepath in singles_paths_async:
410:     ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
411:                                 { 'file' : filepath } )
412:     print ws_rsp
413:
414: for filepath in dirs_paths_async:
415:     ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
416:                                 { 'file' : filepath } )
417:     print ws_rsp
```

```
418:     for filepath in multi_paths_async:
419:         ws_rsp = do_webservices_cmd( '/file/fsrmdiskcopy',
420:                                     { 'file' : filepath } )
421:         print ws_rsp
422:
423:     # 16) Use WS fsretrieve to restore both files to first directory from TAPE
424:     # /sws/v2/file/fsretrieve?file=<filepath>
425:
426:     for filepath in singles_paths_async:
427:         ws_rsp = do_webservices_cmd( '/file/fsretrieve',
428:                                     { 'file' : filepath,
429:                                       'mode' : 'async' } )
430:         check_job_status( ws_rsp)
431:
432:     # /sws/v2/file/fsfileinfo?file=<filepath>
433:
434:     for filepath in singles_paths_async:
435:         ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
436:                                     { 'file' : filepath } )
437:         print ws_rsp
438:
439:     # 17) Use WS fsretrieve to restore the second directory from TAPE
440:     # /sws/v2/file/fsretrieve?directory=<dirpath>
441:
442:     ws_rsp = do_webservices_cmd( '/file/fsretrieve',
443:                                 { 'directory' : dirs_path_async,
444:                                   'mode' : 'async' } )
445:     check_job_status( ws_rsp)
446:
447:     # /sws/v2/file/fsfileinfo?directory=<dirpath>
448:
```

```
449:     ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
450:                                   { 'directory' : dirs_path_async } )
451:     print ws_rsp
452:
453:     # 18) Use WS fsretrieve to restore both files in the third directory from TAPE
454:     # /sws/v2/file/fsretrieve?file=<f1>&file=<f2>
455:
456:     ws_rsp = do_webservices_cmd( '/file/fsretrieve',
457:                                   { 'file' : [ multi_paths_async[0],
458:                                               multi_paths_async[1] ],
459:                                   'mode' : 'async' } )
460:     check_job_status( ws_rsp)
461:
462:     # /sws/v2/file/fsfileinfo?file=<f1>&file=<f2>
463:
464:     ws_rsp = do_webservices_cmd( '/file/fsfileinfo',
465:                                   { 'file' : [ multi_paths_async[0],
466:                                               multi_paths_async[1] ] } )
467:
468:     # 19) Get policy information
469:
470:     ws_rsp = do_webservices_cmd( '/policy/fsdirclass',
471:                                   { 'directory' : dirs_path_async } )
472:     print ws_rsp
473:
474:     ws_rsp = do_webservices_cmd( '/policy/fsclassinfo',
475:                                   { 'policy' : 'policy_min_i' } )
476:     print ws_rsp
477:
478:     print
479:     print "Number of failures: %d" % (failures,)
```



```
480:  
481:  
482: #           Copyright 2015 Quantum Corporation
```