Veritas Access 7.2.1 Getting Started Guide

Linux

7.2.1

VERITAS™

Veritas Access Getting Started Guide

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Veritas Services and Operations Readiness Tools (SORT)

Veritas Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet:

https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

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Chapter 1

Introducing Veritas Access

This chapter includes the following topics:

- About Veritas Access

About Veritas Access

Veritas Access is a software-defined scale-out network-attached storage (NAS) solution for unstructured data that works on commodity hardware. Veritas Access provides resiliency, multi-protocol access, and data movement to and from the public or private cloud based on policies.

You can use Veritas Access in any of the following ways.

Table 1-1 Interfaces for using Veritas Access

Interface	Description
GUI	Centralized dashboard with operations for managing your storage. See the GUI and the online Help for more information.
RESTful APIs	Enables automation using scripts, which run storage administration commands against the Veritas Access cluster. See the *Veritas Access RESTful API Guide* for more information.
Command-line interface (CLI or CLISH)	Single point of administration for the entire cluster. See the manual pages for more information.

Table 1-2 describes the features of Veritas Access.

Table 1-2 Veritas Access key features

Feature	Description
Multi-protocol access	Veritas Access includes support for the following protocols: ■ Amazon S3 ■ CIFS ■ FTP ■ NFS ■ Oracle Direct NFS ■ SMB 3
Flexible Storage Sharing (FSS)	Enables cluster-wide network sharing of local storage.
Scale-out file system	The following functionality is provided for a scale-out file system: ■ File system that manages a single namespace spanning over both on-premises storage as well as cloud storage, which provides better fault tolerance for large data sets. ■ Highly available NFS and S3 shares. You use scale-out file systems if you want to store a large capacity of data in a single namespace (3 PB is the maximum file system size).
Cloud as a tier for a scale-out file system	Veritas Access supports adding a cloud service as a storage tier for a scale-out file system. You can move data between the tiers based on file name patterns and when the files were last accessed or modified. Use scheduled policies to move data between the tiers on a regular basis. Veritas Access moves the data from the on-premises tier to Amazon Glacier, Amazon Web Services (AWS) S3, or AWS S3-compatible directly based on automated policy management. You can also retrieve data archived in Amazon Glacier.
ISCSI target	ISCSI target support for block storage serving was introduced as a Technical Preview feature.
SmartIO	Veritas Access supports read caching on solid state drives (SSDs) for applications running on Veritas Access file systems.
SmartTier	Veritas Access's built-in SmartTier feature can reduce the cost of storage by moving data to lower-cost storage. Veritas Access storage tiering also facilitates the moving of data between different drive architectures and on-premises.

Table 1-2 Veritas Access key features *(continued)*

Feature	Description
Snapshot	Veritas Access supports snapshots for recovering from data corruption. If files, or an entire file system, are deleted or become corrupted, you can replace them from the latest uncorrupted snapshot.
Deduplication	You can run post-process periodic deduplication in a file system, which eliminates duplicate data without any continuous cost.
Compression	You can compress files to reduce the space used, while retaining the accessibility of the files and having the compression be transparent to applications. Compressed files look and behave almost exactly like uncompressed files: the compressed files have the same name, and can be read and written as with uncompressed files.
NetBackup integration	Built-in NetBackup client for backing up your file systems to a NetBackup master or media server. Once data is backed up, a storage administrator can delete unwanted data from Veritas Access to free up expensive primary storage for more data. Veritas Access as backup storage for NetBackup over S3 with OpenDedup.
OpenStack plug-in	Integration with OpenStack: ■ OpenStack Cinder integration that allows OpenStack instances to use the storage hosted by Veritas Access. ■ OpenStack Manila integration that lets you share Veritas Access file systems with virtual machines on OpenStack Manila.
Quotas	Support for setting file system quotas, user quotas, and hard quotas.
Replication	Periodic replication of data over IP networks.
Support for LDAP, NIS, and AD	Veritas Access uses the Lightweight Directory Access Protocol (LDAP) for user authentication.

Table 1-2 Veritas Access key features *(continued)*

Feature	Description
Partition Directory	With support for partitioned directories, directory entries are redistributed into various hash directories. These hash directories are not visible in the name-space view of the user or operating system. For every new create, delete, or lookup, this feature performs a lookup for the respective hashed directory and performs the operation in that directory. This leaves the parent directory inode and its other hash directories unobstructed for access, which vastly improves file system performance. By default this feature is not enabled. See the `storage_fs`(1) manual page to enable this feature.
Isolated storage pools	Enables you to create an isolated storage pool, which contains its own configuration files. An isolated storage pool protects the pool from losing the associated metadata if a disk in another storage pool fails.
Performance and tuning	Workload-based tuning for the following workloads: ■ Media server - Streaming media represents a new wave of rich Internet content. Recent advancements in video creation, compression, caching, streaming, and other content delivery technology have brought audio and video together to the Internet as rich media. You can use Veritas Access to store your rich media, videos, movies, audio, music, and photos. ■ Virtual machine

Chapter 2

Getting started with the Veritas Access GUI

This chapter includes the following topics:

- Where to find the Veritas Access GUI

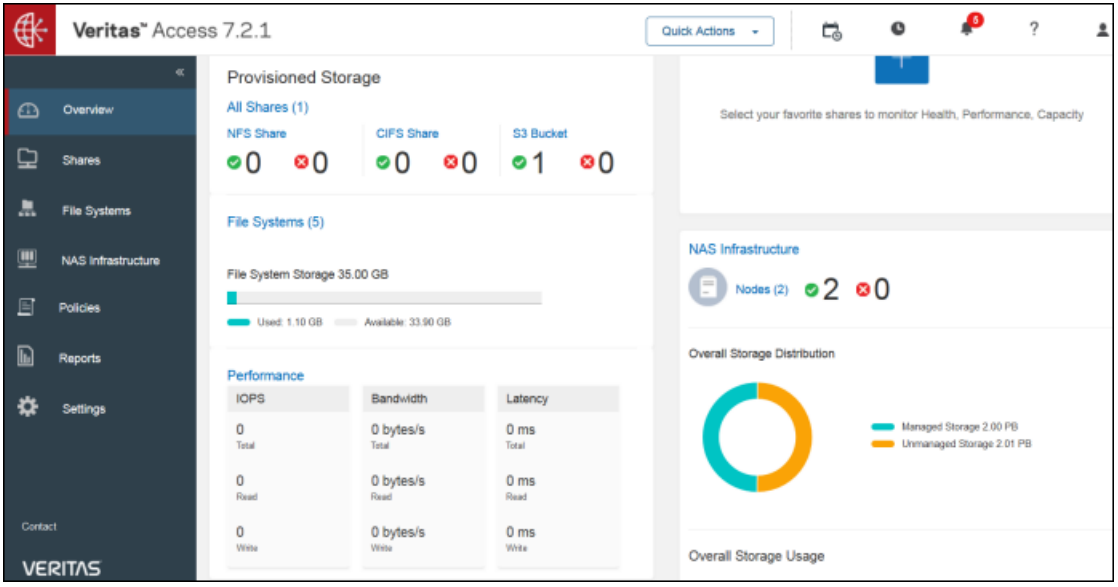
Where to find the Veritas Access GUI

The Veritas Access GUI is automatically installed with the Veritas Access installer.

After the installation, the following URL is generated: http://*consoleIP*:14161/.

The URL for accessing the GUI is displayed after logging on to the Veritas Access CLI.

Open a browser window and copy in the generated URL to access the GUI. See the online Help for information on all the GUI operations. Click ? to access the online Help.


Veritas™ Access 7.2.1
Quick Actions
Overview
Shares
File Systems
NAS Infrastructure
Policies
Reports
Settings
Contact
VERITAS
Provisioned Storage
All Shares (1)
NFS Share
0 0
CIFS Share
0 0
S3 Bucket
1 0
File Systems (5)
File System Storage 35.00 GB
Used: 1.10 GB
Available: 33.90 GB
Performance
IOPS
0
Total
0
Read
0
Write
Bandwidth
0 bytes/s
Total
0 bytes/s
Read
0 bytes/s
Write
Latency
0 ms
Total
0 ms
Read
0 ms
Write
Select your favorite shares to monitor Health, Performance, Capacity
NAS Infrastructure
Nodes (2) 2 0
Overall Storage Distribution
Managed Storage 2.00 PB
Unmanaged Storage 2.01 PB
Overall Storage Usage

Chapter 3

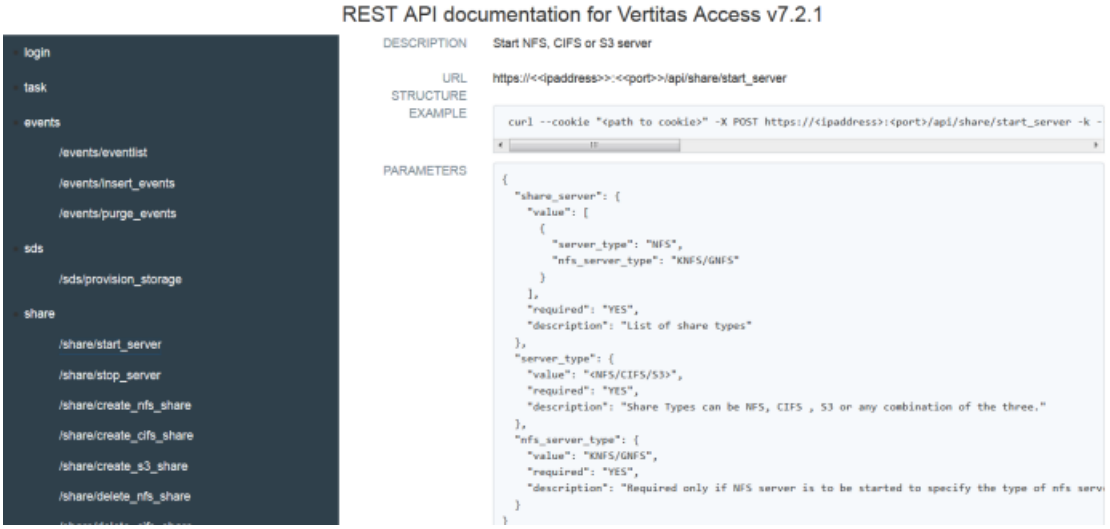
Getting started with the Veritas Access RESTful APIs

This chapter includes the following topics:

- Where to find more information on using the Veritas Access RESTful APIs

Where to find more information on using the Veritas Access RESTful APIs

You can find more information on where to access and how to use the Veritas Access RESTful APIs in the *Veritas Access RESTful API Guide*.


REST API documentation for Vertitas Access v7.2.1
login
task
events
/events/eventlist
/events/insert_events
/events/purge_events
sds
/sds/provision_storage
share
/share/start_server
/share/stop_server
/share/create_nfs_share
/share/create_cifs_share
/share/create_s3_share
/share/delete_nfs_share
DESCRIPTION
Start NFS, CIFS or S3 server
URL STRUCTURE
https://<<ipaddress>>:<<port>>/api/share/start_server
EXAMPLE
curl --cookie "<path to cookie>" -X POST https://<ipaddress>:<port>/api/share/start_server -k -
PARAMETERS
{
"share_server": {
"value": [
{
"server_type": "NFS",
"nfs_server_type": "KNFS/GNFS"
}
],
"required": "YES",
"description": "List of share types"
},
"server_type": {
"value": "<NFS/CIFS/S3>",
"required": "YES",
"description": "Share Types can be NFS, CIFS , S3 or any combination of the three."
},
"nfs_server_type": {
"value": "KNFS/GNFS",
"required": "YES",
"description": "Required only if NFS server is to be started to specify the type of nfs serv
}
}

Chapter 4

Getting started with the Veritas Access CLI

This chapter includes the following topics:

- Accessing the Veritas Access CLI
- Navigating the Veritas Access CLI
- Workflow for configuring and managing storage using the Veritas Access CLI
- Workflow for moving on-premises storage to cloud storage for NFS shares

Accessing the Veritas Access CLI

To access the Veritas Access CLI

1. After installation, connect to the management console using the console IP address you assigned during the installation.
2. Log on to the management console node using the following credentials:

   User name: `master`

   Default password: `master`

   You are prompted to change your password after the initial logon.
3. For subsequent logons, use the user name `master` with the new password that you created.

   You can add additional users at any time.

   The End User License Agreement (EULA) is displayed the first time you log on to the Veritas Access CLI.

Navigating the Veritas Access CLI

All of the Veritas Access CLI commands are organized in different command modes depending on the operation you want to perform. You can get a list of the different command modes with descriptions of all the available modes by typing a question mark (`?`) at the CLI prompt.

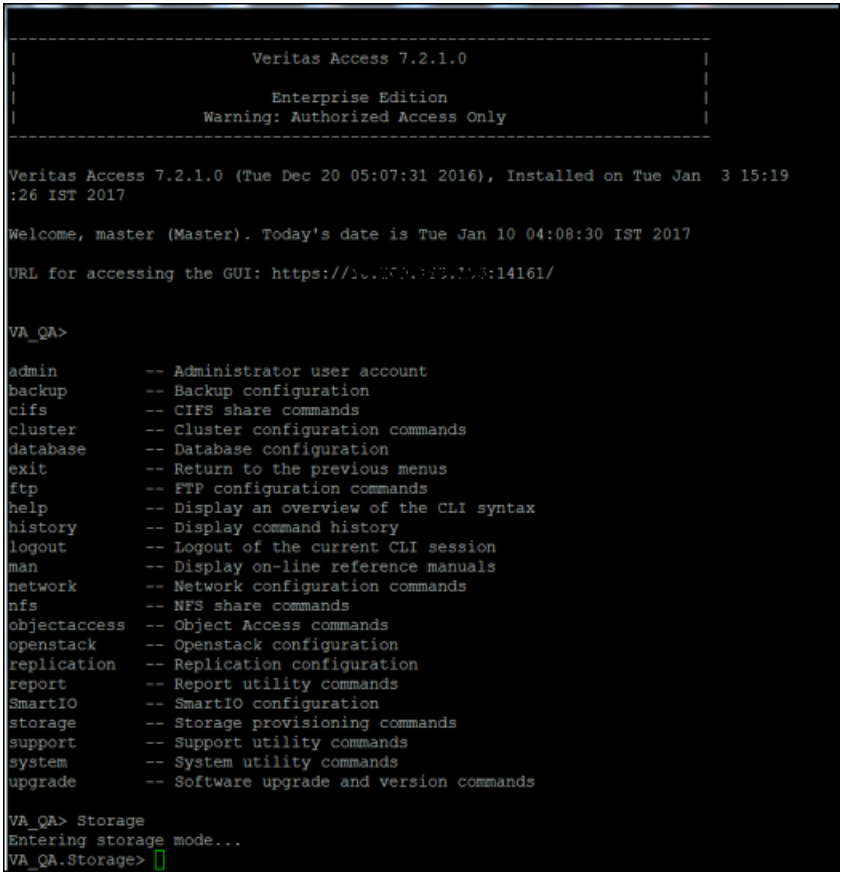
If you are using the support account to log on to Veritas Access, you can use `su - master` in the terminal of the console IP to access the Veritas Access CLI.

To navigate the Veritas Access CLI

1. After logging on to the Veritas Access CLI, type a question mark (`?`) to see the available command modes.
2. Enter the `Storage>` mode by typing `storage` for example.

   You can see that you are in the `Storage>` mode because the cluster name now displays with the command mode.

   clustername`.Storage`

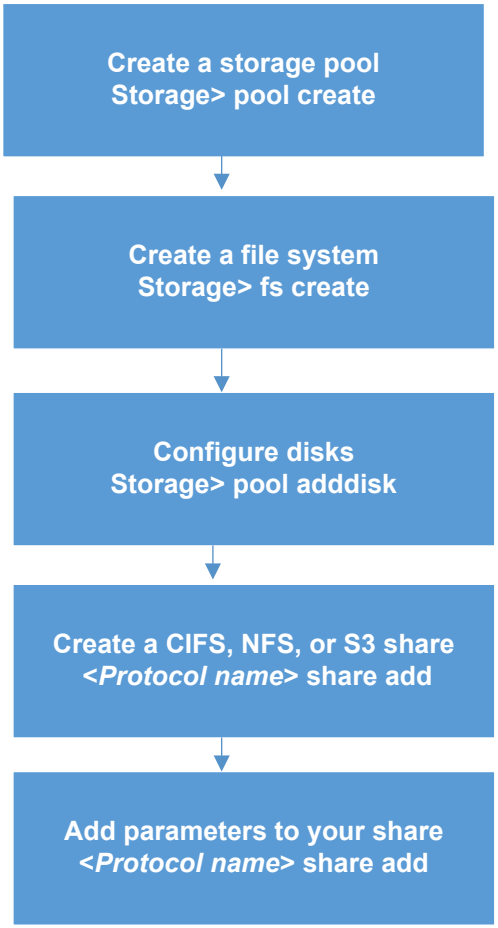


Workflow for configuring and managing storage using the Veritas Access CLI

Figure 4-1 describes configuring and managing storage using the Veritas Access CLI.

See the Veritas Access manual pages for the detailed syntax for completing the operations.

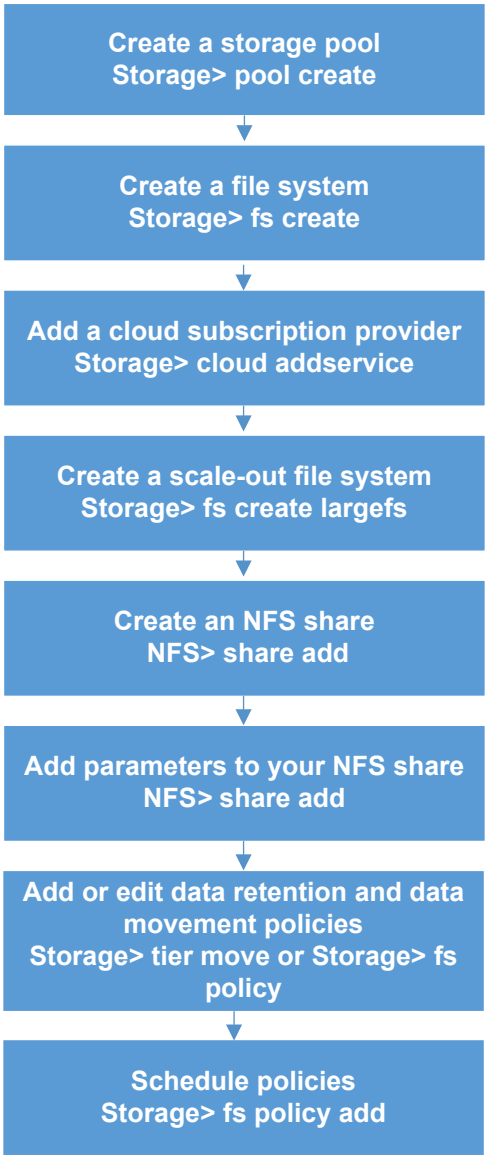
Figure 4-1 Workflow for configuring and managing Veritas Access storage using the CLI



Workflow for moving on-premises storage to cloud storage for NFS shares

Figure 4-2 describes the workflow for moving your on-premises storage to cloud storage for NFS shares for a scale-out file system.

Figure 4-2 Workflow for moving on-premises storage to cloud storage for NFS shares for a scale-out file system



Chapter 5

Where to find the documentation

This chapter includes the following topics:

- Using the Veritas Access product documentation

Using the Veritas Access product documentation

The latest version of the Veritas Access product documentation is available on the Veritas Services and Operations Readiness Tools (SORT) website.

https://sort.veritas.com/documents

You need to specify the product and the platform and apply other filters for finding the appropriate document.

Make sure that you are using the current version of documentation. The document version appears on page 2 of each guide. The publication date appears on the title page of each document. The documents are updated periodically for errors or corrections.

See the *Veritas Access Release Notes* for information on documentation changes in this release.

The following documents are available on the SORT site:

- *Veritas Access Amazon Web Services Cloud Storage Tiering Solutions Guide*
- *Veritas Access on Amazon Web Services Cloud - Deployment Guide*
- *Veritas Access Getting Started Guide*
- *Veritas Access Installation Guide*
- *Veritas Access NetBackup Solutions Guide*

- *Veritas Access Quick Start Guide*
- *Veritas Access Release Notes*
- *Veritas Access RESTful API Guide*
- *Veritas Access Third-Party License Agreements*
- *Veritas Access Troubleshooting Guide*