



# **Monitor volume usage with ONTAP File System Analytics**

**ONTAP 9**

NetApp  
November 04, 2021

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# Monitor volume usage with ONTAP File System Analytics

## Monitor volume usage with ONTAP File System Analytics

File System Analytics is a framework for collecting and displaying data about the contents of a FlexGroup or FlexVol volume. File System Analytics present detailed information at each level of the volume’s file system hierarchy, allowing you to:

- assess capacity usage and trends
- monitor file and directory counts
- evaluate file activity and history

When enabled in ONTAP 9.8 and later releases, File System Analytics can be displayed using ONTAP System Manager. You can also use ONTAP REST APIs to access the data programmatically.

Enabling File System Analytics is expected to have a performance impact. You might choose not to enable analytics if maximal performance is required in your environment. You can also disable analytics if your testing shows that the performance impact is unacceptable. When you disable analytics, previously collected data is no longer displayed for that volume.

Beginning with ONTAP 9.9.1, File System Analytics is available for volumes transitioned from 7-mode systems. Nonetheless, because file system analytics can consume storage space, it should not be run on transitioned volumes that are close to maximum capacity. ONTAP 9.9.1 also introduces the ability to set custom inactivity periods for data monitoring.

Beginning with ONTAP 9.10.1, the File System Analytics framework enables you to monitor the highest traffic and throughputs with Activity Tracking. Activity Tracking displays Read IOPs, Write IOPs, Read Throughputs, and Write Throughputs in four areas: files, clients, users, and directories.

File System Analytics is not currently available for the following volume types:

- FlexCache destination volumes
- SnapMirror destination volumes



If you have enabled file system analytics on volumes whose containing SVM is in a protection relationship, the analytics data is not replicated to the destination SVM. If the source SVM must be resynchronized in a recovery operation, you must manually reenables analytics on desired volumes after recovery.

- SnapLock volumes
- volumes containing LUNs
- volumes used only to hold SMB audit logs (MDV volumes)
- node root volumes (/mroot) **Feature availability by release**

	ONTAP 9.8	ONTAP 9.9.1	ONTAP 9.10.1
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Visualization in System Manager	X	X	X
Capacity analytics	X	X	X
Inactive Data information	X	X	X
Availability for volumes transitioned from 7-mode systems		X	X
Option to change Inactive period in System Manager		X	X
Activity Tracking			X
Download to CSV (Activity Tracking)			X

## Enable File System Analytics

The File System Analytics framework enables you to monitor data usage. This article explains how to enable File System Analytics for capacity analytics and monitoring inactive data and to enable [Activity Tracking](#).

### File System Analytics

You can enable File System Analytics when you create a new FlexGroup or FlexVol volume, or when you upgrade a system to ONTAP 9.8 or later. After upgrading, be sure that all upgrade processes have completed before enabling analytics.

Depending on the size and contents of the volume, enabling analytics might take some time while ONTAP processes existing data in the volume.

#### Step

1. Enable file system analytics:

```
volume analytics on -vserver svm_name -volume volume_name [-foreground {true|false}]
```

By default, the command runs in the foreground; ONTAP displays progress and presents analytics data when complete. If you need more precise information, you can run the command in the background by using the `-foreground false` option and then use the `volume analytics show` command to display initialization progress.

### Activity Tracking

Beginning in ONTAP 9.10.1, you can enable Activity Tracking to view information on high traffic and high throughput activity on a volume.

#### Step

1. Enable Activity Tracking:

```
volume activity-tracking on -vsserver svm_name -volume volume_name
```

You can check if the Activity Tracking state for a volume is on or off with the command:

```
volume activity-tracking show -vsserver svm_name -volume volume_name -state
```

**After you finish**

Use ONTAP System Manager or ONTAP REST APIs to display the analytic or Activity Tracking data.

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