



# Understanding more about quotas

## Active IQ Unified Manager 9.8

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# Understanding more about quotas

Understanding the concepts about quotas helps you to manage your user quotas and user group quotas efficiently.

## Overview of the quota process

Quotas can be soft or hard. Soft quotas cause ONTAP to send a notification when specified limits are exceeded, and hard quotas prevent a write operation from succeeding when specified limits are exceeded.

When ONTAP receives a request from a user or user group to write to a FlexVol volume, it checks to see whether quotas are activated on that volume for the user or user group and determines the following:

- Whether the hard limit will be reached  
If yes, the write operation fails when the hard limit is reached and the hard quota notification is sent.
- Whether the soft limit will be breached  
If yes, the write operation succeeds when the soft limit is breached and the soft quota notification is sent.
- Whether a write operation will not exceed the soft limit  
If yes, the write operation succeeds and no notification is sent.

## About quotas

Quotas provide a way to restrict or track the disk space and number of files used by a user, group, or qtree. You specify quotas using the `/etc/quotas` file. Quotas are applied to a specific volume or qtree.

## Why you use quotas

You can use quotas to limit resource usage in FlexVol volumes, to provide notification when resource usage reaches specific levels, or to track resource usage.

You specify a quota for the following reasons:

- To limit the amount of disk space or the number of files that can be used by a user or group, or that can be contained by a qtree
- To track the amount of disk space or the number of files used by a user, group, or qtree, without imposing a limit
- To warn users when their disk usage or file usage is high

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