

Tuning Uinta 1.0 for Performance

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Achieving optimal performance by your Uinta deployment requires that you do the following:

- ♦ Assess system needs and plan to meet those needs as outlined in the [Uinta 1.0 Planning Your Uinta Deployment—Best Practices](#) guide.
- ♦ Deploy Uinta according to your plan by following the basic order outlined in “[Creating an Expandable Uinta Deployment](#)” in the *Uinta 1.0: Installation, Deployment, and Upgrade Guide*.
- ♦ Adjust and tune system settings and resources on an ongoing basis as workload details become clearer and Uinta usage increases.

Ultimately, each Uinta deployment is unique. Therefore, we can only offer the general guidelines in the sections that follow.

- ♦ “[Ensure That Hardware Recommendations Are Met or Exceeded](#)” on page 1
- ♦ “[Ensure Optimal Network and Disk Bandwidth for /vashare](#)” on page 1
- ♦ “[Use Hardware-based SSL Termination](#)” on page 1
- ♦ “[Deploy At Least Two Uinta Appliances](#)” on page 1
- ♦ “[Understand Your User Activity Workload](#)” on page 1
- ♦ “[Rely on Ganglia for Help with Optimizing RAM and CPU Allocation](#)” on page 2

Ensure That Hardware Recommendations Are Met or Exceeded

As a general rule, you should ensure that your virtual machine host hardware, disk subsystems, network hardware, and so on, are at least on par with the resources of your file servers. Otherwise, your Uinta deployment could hinder rather than enhancing file access.

As a minimum, ensure that your Uinta deployment meets the requirements outlined in *Uinta 1.0 Planning Your Uinta Deployment—Best Practices*.

Ensure Optimal Network and Disk Bandwidth for /vashare

Ensure that the network connection with the NFS or CIFS server that your Uinta appliances target is high-speed and that the disk subsystems on that server are highly performant.

Use Hardware-based SSL Termination

Terminate SSL on a hardware device that is connected to your Uinta appliances through a secure link that is reviewed and approved by your organization's security team.

Deploy At Least Two Uinta Appliances

Every large, expandable (clustered) Uinta deployment should have at least two Uinta appliances for failover and splitting the workload.

Understand Your User Activity Workload

Estimating the file-activity workload for your Uinta deployment, requires that you understand how your users work, what kinds of tasks they perform, how often they do them, which clients they use, and so on.

- ♦ “[Tasks and System Load](#)” on page 1
- ♦ “[Task Frequency](#)” on page 2
- ♦ “[Client Access Method](#)” on page 2

TASKS AND SYSTEM LOAD

Typical Uinta user tasks can include the following:

- ♦ Uploading files
- ♦ Downloading files
- ♦ Viewing files
- ♦ Sharing files

- ♦ Commenting on files
- ♦ Searching file content

Determining the system load for these tasks is not as straight-forward as might be assumed. For example, in some situations, commenting on a file could cause a greater load than downloading a small file.

You need to clearly understand the tasks your users perform in order to properly monitor your system and understand which adjustments will provide the most benefit.

TASK FREQUENCY

That task frequency is also important is quite obvious. Will your users be logged in to Uinta and constantly performing various tasks, or will they only occasionally access Uinta? Or do they fall somewhere between the two extremes?

It is a good practice to assess how frequently users will access Uinta.

CLIENT ACCESS METHOD

The desktop clients are more resource-intensive than the web application or mobile clients.

- ♦ **Desktop Clients:** Background synchronization continues regardless of whether the user is actively using the client. An inactive desktop user puts more load on Uinta than an active mobile client or web user.
- ♦ **Mobile Clients:** Although requests from mobile clients are similar to desktop requests because of REST, they are single requests and don't involve any background synchronization.
- ♦ **Uinta Web Application:** These requests are simple HTTPS requests to Uinta.

Rely on Ganglia for Help with Optimizing RAM and CPU Allocation

Access Ganglia regularly to monitor usage and system load. As RAM and CPU usage and load rise, allocate more resources to the Uinta VMs.

Deploy additional Uinta appliances as needed.