The following chart provides system recommendations for running the Helix ALM Server application.

# of concurrently logged in users (across all projects)	# of records (issues, test cases, test runs, and requirements) across all projects			
	50K records	200K records	500K records	1M records
10	3 CPU cores 3 GB of RAM 100 GB on hard drive	4 CPU cores 6 GB of RAM 400 GB on hard drive *dedicated server*	6 CPU cores 12 GB of RAM 750 GB on hard drive *dedicated server*	8 CPU cores 24 GB of RAM 1.5 TB on hard drive *dedicated server*
50	4 CPU cores 3 GB of RAM 100 GB on hard drive	6 CPU cores 6 GB of RAM 400 GB on hard drive *dedicated server*	8 CPU cores 12 GB of RAM 750 GB on hard drive *dedicated server*	10 CPU cores 24 GB of RAM 1.5 TB on hard drive *dedicated server*
100	6 CPU cores 4 GB of RAM 120 GB on hard drive *dedicated server*	8 CPU cores 8 GB of RAM 400 GB on hard drive *dedicated server*	10 CPU cores 14 GB of RAM 750 GB on hard drive *dedicated server*	12 CPU cores 28 GB of RAM 1.5 TB on hard drive *dedicated server*
250	8 CPU cores 6 GB of RAM 150 GB on hard drive *dedicated server*	10 CPU cores 10 GB of RAM 500 GB on hard drive *dedicated server*	12 CPU cores 16 GB of RAM 1 TB on hard drive *dedicated server*	16 CPU cores 28 GB of RAM 2 TB on hard drive *dedicated server*
500	8 CPU cores 8 GB of RAM 150 GB on hard drive *dedicated server*	12 CPU cores 10 GB of RAM 500 GB on hard drive *dedicated server*	16 CPU cores 16 GB of RAM 1 TB on hard drive *dedicated server*	24 CPU cores 32 GB of RAM 2 TB on hard drive *dedicated server*
750	10 CPU cores 8 GB of RAM 200 GB on hard drive *dedicated server*	16 CPU cores 12 GB of RAM 600 GB on hard drive *dedicated server*	20 CPU cores 20 GB of RAM 1.2 TB on hard drive *dedicated server*	28 CPU cores 32 GB of RAM 2.5 TB on hard drive *dedicated server*
1000	12 CPU cores 10 GB of RAM 200 GB on hard drive *dedicated server*	20 CPU cores 14 GB of RAM 700 GB on hard drive *dedicated server*	24 CPU cores 20 GB of RAM 1.4 TB on hard drive *dedicated server*	32 CPU cores 36 GB of RAM 2.5 TB on hard drive *dedicated server*

Caveats:

- These estimates are for the Helix ALM Server application, not the Helix ALM Client application.
- If running SQL Server or Oracle on the same computer as the Helix ALM Server, additional RAM and CPU cores are needed.
- Increased RAM or CPU power may be recommended if the installation has an excessively large number of custom fields, workflow events, dashboard widgets, tracked email, folders, or other data.

Hard Drive: This chart roughly estimates the amount of hard drive space used by the typical Helix ALM database. This amount may be lower if you do not use any file attachments, but also may be higher if you use many large file attachments. This does not take into account the amount of hard drive space needed for other applications or the operating system.

RAM: This chart estimates the amount of RAM recommended for the Helix ALM Server. This amount may vary depending on the amount of information stored with the typical Helix ALM item (issue, test case, etc.). This does not take into account the amount of RAM required by other applications running on the same computer.

Processor: This chart estimates the processor speed needed for optimal performance by the Helix ALM Server. The recommended processor speed may be higher if you are running other large applications on the same computer. The processor usage will vary based on the activity level of logged in users. Hyperthreading is not considered a true core for these calculations.

Dedicated Server: Consider running the Helix ALM Server on a dedicated 64-bit server when your site starts to exceed 100,000 records or 100 simultaneous user connections. This should be a dedicated physical server, not a virtual machine. Running on a computer dedicated only to Helix ALM guarantees that other applications are not interfering with the RAM capacity and processor usage needed by the Helix ALM Server.

Virtual Machines: When running on a virtual machine (VM), RAM must be reserved for that VM and not shared with other VMs. To ensure the VM has sufficient processing power, do not oversubscribe CPU cores. If performance issues occur, Perforce Support may ask you to relocate VMs to temporarily free up resources while troubleshooting to isolate an application performance issue vs. a virtualization environment issue.

Project Size: Installations typically average between 10,000 to 100,000 records per project. Splitting the same number of records across a large number of projects increases RAM usage slightly because user options, filters, configuration data, and other project-specific information are duplicated. Storing 100,000 or more records of a single type (e.g., 100,000 issues) in a single project can increase CPU usage due to the time required to perform searches or generate reports because there are more records to search and results to return.

Last updated: 9/8/2021