

Extending the Cisco UCS Portfolio with AMD EPYC 7003 Series Processors

General

- Q** **What did Cisco announce on March 21, 2022?**
- A** Support for the new AMD EPYC™ 7003 Series Processors with AMD 3D V-Cache™ Technology on the Cisco UCS® C225 M6 and Cisco UCS C245 M6 servers.
- Q** **What is AMD 3D V-Cache Technology?**
- A** It adds a third dimension to the processor cache. It vertically stacks additional L3 cache capacity on top of each processor die using a copper-to-copper hybrid bonding process. Each CPU with AMD 3D V-Cache Technology has 768 MB of L3 cache, three times the cache of standard AMD EPYC processors. This industry-leading enhancement is designed to accelerate memory-hungry technical computing workloads including Electronic Design Automation (EDA), Computational Fluid Dynamics (CFD), and Finite Element Analysis (FEA).
- Q** **Which AMD EPYC CPUs are supported on the C225/C245 M6 servers?**
- A** Both 3rd Gen and 2nd Gen AMD EPYC CPUs are supported.
- Q** **How many cores do the 3rd Gen AMD EPYC CPUs support?**
- A** Each CPU supports from 8 to 64 cores.
- Q** **Did Cisco announce any updates to the Cisco UCS C125 M5 Rack Server Node or to the Cisco UCS C4200 Rack Server Chassis?**
- A** No. The C125 M5 will continued to be offered with 1st and 2nd Gen AMD EPYC CPUs.
- Q** **How are these servers managed?**
- A** There are multiple ways to manage the AMD-based servers, as with all Cisco UCS servers. The preferred way is through Cisco Intersight™. Intersight is a cloud-based SaaS management platform that supports infrastructure management as well as many other services. The other option is through the Cisco® Integrated Management Controller (IMC) as stand-alone servers.
- Q** **What workloads are these servers for?**
- A** The C225 M6 and C245 M6 can be used for most applications but excel in high-performance applications that can maximize multiple cores, such as VSI, EDA, HPC, and analytics.

Product details – Cisco UCS C225 M6 Rack Server

- Q** **How much memory is supported?**
A At launch, 4 TB (2 TB per socket) is supported.
- Q** **What version of PCIe is supported for I/O and storage?**
A PCIe 4.0 (the UCS C225 M6 and UCS 245 M6 are Cisco’s first PCIe 4.0 servers).
- Q** **How many PCIe slots are supported?**
A Up to three PCIe 4.0 expansion slots are supported per server.
- Q** **Is a PCIe slot the only way to add networking?**
A No, there is also a combination slot that supports mLOM or OCP, which means that all PCIe slots are available for other options.
- Q** **The Cisco UCS C225 M6 Rack Server is described as “single-socket optimized.” What does this mean?**
A All server I/O (storage, expansion slots, etc.) goes through CPU 1. This means that you get all server capabilities even if only one CPU is installed.
- Q** **What is the advantage of a single-socket server?**
A If an application can run with 2 TB of memory or less, and needs 64 cores or fewer, you can save money in server costs and potentially in software licenses.
- Q** **How many disk drives are supported?**
A There are two different configurations. There is an all-NVMe and a SAS/SATA version. Both support 10 disks.

Product details – Cisco UCS C245 M6 Rack Server

- Q** **How much memory is supported?**
A At launch, 4 TB (2 TB per socket) is supported.
- Q** **What version of PCIe is supported for I/O and storage?**
A PCIe 4.0 (the UCS 245 M6 and UCS C225 M6 are Cisco’s first PCIe 4.0 servers).
- Q** **How many PCIe slots are supported?**
A Up to eight PCIe 4.0 expansion slots are supported per server.
- Q** **How many disk drives are supported?**
A Up to 28 drives with up to eight NVMe drives per server.
- Q** **What do you mean by “up to” for PCIe expansion slots and drives?**
A There are 24 front-facing drives on each server. PCIe riser cages come in multiple versions. Four PCIe slots can be used for NVMe storage instead.
- Q** **Is a PCIe slot the only way to add networking?**
A No, there is also a combination slot that supports mLOM or OCP, which means that all PCIe slots are available for other options.