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Power Electronic Health Records

Cisco UCS Servers with AMD EPYC Processors and Epic software

Outstanding performance

Excellent scalability

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High memory and I/O capacity

Enhanced security features

Cisco UCS® servers with AMD EPYC™ processors deliver the speed and security features that Epic deployments need to perform.

Healthcare providers, clinics, and hospitals of all sizes use Epic applications to manage electronic health records (EHRs). Whether you are a large or small organization or one that supports millions of Epic I/O operations, you need a fast, reliable, and secure platform that makes it easy to keep pace.

Epic has tested, validated, and listed AMD EPYC processors in its recommended processor list for Epic Hyperspace application and Intersystems IRIS® database deployments. These powerful processors are available in Cisco UCS rack servers, delivering accelerated computing, exceptional memory bandwidth, and high-frequency operation for optimal performance in a compact form factor—with built-in security features to help protect sensitive patient data.

Highlights

· **Exceptional performance** for Epic workloads with fast AMD EPYC processors

· **Capability to scale** to support more EHR records, applications, and users

· **Low latency** for fast access to patient-critical data

· **Built-in security features** to help protect critical EHR systems and data

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Sized for your organization

The table below outlines a typical Epic deployment using Cisco UCS servers with AMD EPYC processors. Cisco experts are available to help you tune a solution for your specific primary and secondary data centers.

Cisco UCS domain
Cisco UCS fabric interconnects and Cisco Nexus® switches
Epic IRIS operational database
3 Cisco UCS C225 Rack Servers, each with 2 AMD EPYC processors, 32 GB memory
Clarity Cogito servers
3 Cisco UCS C225 Rack Servers, each with 2 AMD EPYC processors, 32 GB memory
Epic Hyperspace servers
Option 1: 17 Cisco UCS C225 servers with two 2.75 GHz AMD EPYC processors with 64 MB cache, 32 GB memory
Option 2: 15 Cisco UCS C225 servers with two 2.8 GHz AMD EPYC processors with 256 MB cache, 32 GB memory
Option 3: 19 Cisco UCS C225 servers with two 3.2 GHz AMD EPYC processors with 256 MB cache, 32 GB memory

The right platform for Epic deployments

Epic workloads take advantage of a lot of processing power to manage production databases. Designed to support thousands of users and operations, Cisco UCS rack servers with AMD EPYC processors provide a scalable foundation for robust Epic application deployment.

Massive processing power

As the number of medical records grows, Epic Hyperspace applications and back-end InterSystems IRIS and Clarity Cogito databases must deliver high performance to keep pace with demand. Cisco UCS rack servers with AMD EPYC processors offer exceptional processing power to accelerate these deployments. Processing power comes from 3rd Gen AMD EPYC processors with up to 64 high-performance cores, fast execution pipelines, 4 MB L2 cache, and up to 256 MB shared L3 cache per processor.

With these powerful servers, you can:

- Quickly retrieve, process, and store EHR data
- Accelerate information flow for patient care
- Meet Epic Honor Roll Good Maintenance Grant Program performance requirements
- Distribute data-loading and workload tasks across more processors and cores

Low latency for fast access

Large amounts of data can be moved and stored close to the high-performance processors to reduce latency and support EHR users and applications. With up to eight memory channels, memory channel interleaving, and 160 lanes of PCIe Gen 4 I/O throughput for two CPUs, these servers take performance beyond conventional constraints. High-speed connections between cores and memory, combined with a fabric clock that is coupled to run at maximum memory speeds, help reduce memory latency and accelerate data access and processing.

Scalability to meet demand

Cisco solutions bring consistency and flexibility to Epic EHR deployments. Smaller organizations can use a single system to run the entire primary Epic application deployment. Organizations with larger deployments today, or mid-size deployments that may grow over time, can deploy multiple servers to accommodate demand. (See sidebar)

Built-in security features

Protecting sensitive patient and business information is essential. AMD EPYC Processors are 'hardened at the core' with AMD Infinity Guard[1] security features which include the AMD Secure Processor, AMD Secure Memory Encryption (SME), and Secure Encrypted Virtualization (SEV). These features help decrease potential attack surfaces as software boots, executes, and accesses data.

Learn more

We make it easy to accelerate and help safeguard your Epic workloads. Contact your Cisco sales team or partner for a technical presentation or detailed solution sizing.