



# Power Epic Software Using Cisco UCS Servers with AMD EPYC Processors



Outstanding performance



**Excellent scalability** 



High memory and I/O capacity



Enhanced security features



# 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





Cisco UCS compute nodes and rack 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 small or large 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 on the Cisco UCS® X215c M8 Compute Node and Cisco UCS C225 M8 and Cisco UCS C245 M8 rack servers. They deliver accelerated computing, exceptional memory bandwidth, and high-frequency operation for optimal performance in compact form factors—with built-in security features to help protect sensitive patient data.

Cisco UCS compute nodes and rack servers are the right platforms for Epic deployments

Epic workloads utilize a lot of processing power to manage production databases. Designed to support thousands of users and operations, the Cisco UCS X215c M8 Compute Node, Cisco UCS C225 M8 and Cisco UCS C245 M8 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
need to continue to deliver high performance to
keep pace with demand. The Cisco UCS X215c
M8 Compute Node and Cisco UCS C225 M8
and Cisco UCS C245 M8 rack servers with AMD
EPYC processors offer exceptional processing
power to accelerate these deployments.
Processing power comes from 4th and 5th Gen
AMD EPYC processors with high-performance
cores, fast execution pipelines and a selection of
storage suited to your needs (SAS, SATA, NVMe).

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

 Easily manage your environment with Cisco Intersight®, our cloud operations platform.
 Cisco Intersight infrastructure services include the deployment, monitoring, management, and support of your physical and virtual infrastructure.

# 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. Our Cisco UCS X215c M8 Compute Node is unique in that it is the leading AMD blade offering in the market today that offers up to 160 cores, 384 MB of L3 cache, up to six TB of memory, and up to six hot-pluggable SSD or NVMe storage options. Along with Intersight, 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.





# 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

Three Cisco UCS X215c M8 Compute Nodes, each with two AMD EPYC processors and 64GB memory modules

### Clarity Cogito servers

Three Cisco UCS X215c M8 Compute Nodes, each with two AMD EPYC processors and 128GB memory modules

# **Epic Hyperspace servers**

17 M8 Compute Nodes each with two AMD EPYC processors and 64GB memory modules

# Scalability to meet demand

Cisco® solutions bring consistency and flexibility to Epic EHR deployments. Smaller organizations can use a single system to run their 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 Guard¹ 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. Refer to <a href="https://www.cisco.com/go/ucs-amd">https://www.cisco.com/go/ucs-amd</a> for more information on all our UCS AMD compute and server nodes.

<sup>&</sup>lt;sup>1</sup> AMD Infinity Guard features vary by EPYC Processor generations. Infinity Guard security features must be enabled by server OEMs and/or Cloud Service Providers to operate. Check with your OEM or provider to confirm support of these features. Learn more about Infinity Guard at <a href="https://www.amd.com/en/technologies/infinity-guard.GD-183">https://www.amd.com/en/technologies/infinity-guard.GD-183</a>.