

Epic Hyperspace on Cisco HyperFlex Systems: Help Healthcare Providers Achieve More



Highlights

Simplified Operations

Cisco HyperFlex™ systems bring true hyperconvergence to Epic Hyperspace.

Flexible Scaling

Standardizing on Cisco HyperFlex systems enables you to scale your Hyperspace deployment quickly and easily as you grow.

Adaptive Infrastructure

Cisco HyperFlex systems follow Epic recommendations and guidelines to help ensure easy deployment and continuous reliability.

The Cisco HyperFlex™ system is a next-generation hyperconverged solution engineered on the proven Cisco Unified Computing System™ (Cisco UCS®) platform, bringing outstanding flexibility to Epic customers.

Whether your organization is an ambulatory clinic, small hospital, or large healthcare system, electronic medical records (EMRs) are mission critical to your success. Healthcare providers turn to Epic to help them organize and manage their EMR systems securely and efficiently.

Clinical staff interact with Epic through Epic Hyperspace. Hyperspace is the presentation component of the Epic suite. It reads and writes data from the Epic Caché database and presents it to the user. Although Hyperspace can be installed directly on client workstations, most healthcare organizations use application virtualization or virtual desktop infrastructure (VDI) to deliver applications. Citrix XenDesktop or XenApp or VMware Horizon View are commonly implemented to deliver Hyperspace to devices in the hospital.

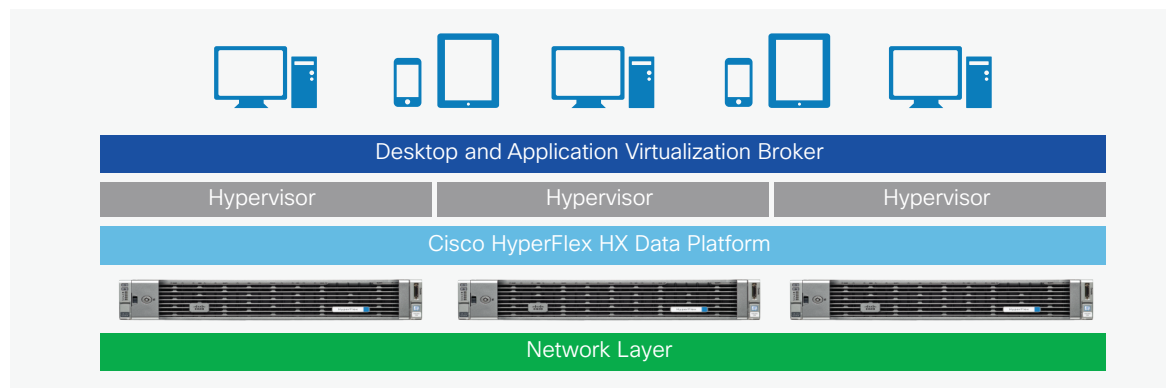
IT must provide an infrastructure that can securely deliver flawlessly performing virtual desktops and applications.

This infrastructure needs to offer:

- High-performance, low-latency user experience for care givers and staff.
- Capability to scale quickly and deliver the same level of high performance as the number of users increases.
- Consistent and predictable performance.
- Nondisruptive operations during upgrades and patches.
- Fully redundant architecture at the computing, network, and storage layers.

Cisco HyperFlex systems with Cisco UCS Unified Fabric and Unified Management are well suited for Epic Hyperspace. The Cisco HyperFlex system provides the flexibility and agility of embedded automation with a high density of virtualized desktops and applications and supports Citrix XenDesktop and XenApp and VMware Horizon virtualization software (Figure 1).

Figure 1. Epic Hyperspace on Cisco HyperFlex Systems



Cisco HyperFlex Systems Accelerate Epic Hyperspace Deployments

Cisco has a strong business relationship with Epic and understands the rigors and complexities of supporting Epic's large application suite. Cisco UCS is the foundation of Cisco's architecture for Epic and provides an excellent platform for all the Epic solution's components, including the Caché database.

Cisco HyperFlex systems are built on the Cisco UCS architecture and are well suited for delivering the presentation layer of Epic: Hyperspace. Powered by Intel® Xeon® processors, they combine computing, storage, and networking layers into a simplified, easy-to-use platform. These systems bring the pay-as-you-grow economics of the cloud to on-premises virtual infrastructure, providing greater agility, efficiency, and adaptability. With an integrated network fabric, powerful data optimization, and unified management, Cisco HyperFlex systems bring the full potential of hyperconvergence to your Hyperspace deployments.

The elements in Cisco HyperFlex systems are delivered as a preintegrated cluster that is up and running in an hour or less. The integrated management function detects any component plugged into the system, making the system easy to configure and self-integrating and helping it adapt quickly to changes in hardware configuration. Cisco UCS service profiles prepare every aspect of a node's identity, configuration, and connectivity, increasing efficiency and security and reducing deployment time.

The systems integrate easily into your environments and operation processes. Cisco UCS management handles all a cluster's hardware management functions, and the Cisco HyperFlex HX Data Platform is accessible through a VMware vSphere plug-in.

Cisco HyperFlex Systems Integrate with Your Overall Epic Platform

Cisco HyperFlex systems are part of the Cisco UCS platform and thus one component of Cisco's overall solution for Epic. Cisco UCS helps enable customers to run their Epic core EMR databases and their analytics databases, as well as other non-Epic applications, on an easily managed and cost-effective x86 architecture with vastly improved scalability and flexibility. Cisco HyperFlex systems and Cisco UCS share a common management platform, Cisco UCS Manager, bringing additional efficiency to the entire solution.

Cisco UCS Manager provides centralized management capabilities, creates a unified management domain, and serves as the central nervous system of Cisco UCS. It manages the entire solution as a single, cohesive system using an intuitive GUI, with both command-line interface (CLI) and XML API options. This centralized management accelerates configuration and reconfiguration of resources so that tasks that used to require days or hours now can be accomplished in minutes.

In addition, Cisco UCS Director provides the automation and orchestration needed across Cisco® and third-party hardware, allowing you to transparently increase or decrease infrastructure to rapidly align resources with business demand.

Both Cisco UCS and Cisco HyperFlex systems meet the stringent requirements to allow them to be listed in the Epic hardware guide. Customers thus can feel comfortable that the hyperconverged design of Cisco UCS and Cisco HyperFlex aligns with the following Epic guidance on hyperconverged architectures: "There are several hyperconverged storage technologies on the market today. In general, it is reasonable to use these technologies for the Epic Presentation tier and Web and Service Server tier workloads. We recommend against use of these technologies for Epic analytical and operational databases."

Benefits

Additional benefits of running Epic Hyperspace software on Cisco HyperFlex systems include:

Simplified architecture: Simplify deployment of your VDI environments with a hyperconverged solution that is up and running in less than an hour.

Agility: Deliver persistent and nonpersistent virtual desktops, full desktops, and streaming applications.

Adaptability: Increase virtual desktop density and reduce costs with a solution that lets you independently scale computing and storage capacity.

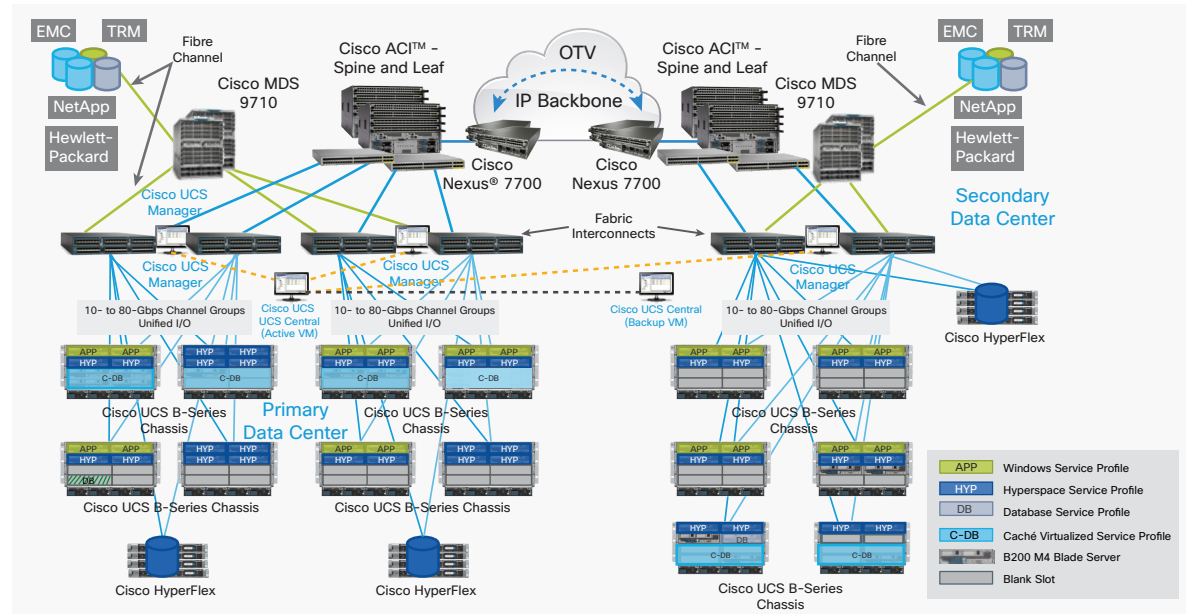
Reduced total cost of ownership (TCO): Reduce your initial investment costs with a pay-as-you-grow consumption model.

Resource optimization: Optimize your use of storage resources with a system that uses always-on deduplication and compression.

You can rely on Cisco HyperFlex systems to simplify and accelerate your Hyperspace deployment and empower your users to concentrate on serving their patients.

When supported by Cisco UCS and Cisco HyperFlex systems, Epic's best-in-class software solutions give you exceptional opportunities to run your clinical and business operations more efficiently while keeping pace with the changing demands of the healthcare industry (Figure 2).

Figure 2. Cisco UCS Healthcare Architecture: Cisco UCS and Cisco HyperFlex Configuration



Next Steps

Learn how Cisco HyperFlex systems and Cisco UCS can help ensure predictable delivery of your mission-critical Epic applications.

- For more information about Epic on Cisco UCS solutions, visit <http://demand.cisco.com/epic-on>.
- For more information about Cisco HyperFlex systems, visit www.cisco.com/go/hyperflex.
- For questions about Epic on Cisco, email epic-inform@cisco.com.