Healthcare Providers Achieve More

With Epic Hyperspace on Cisco HyperFlex Systems



Simplified architecture



Epic application delivery



EMR access



Clinician efficiency

Epic Hyperspace delivers clinician access

Whether your organization is an ambulatory clinic, small hospital, or large healthcare system, electronic medical records (EMR) are critical to your success. Chances are you use Epic software to organize and manage your EMR systems, and your clinical staff interact through Epic Hyperspace. Although Hyperspace can be installed directly on client workstations, many healthcare organizations like yours use application virtualization or virtual desktop infrastructure (VDI) to deliver access.

Demanding IT infrastructure requirements

Delivering virtual desktops and applications requires IT infrastructure that can:

- Present a high-performance, low-latency user experience for caregivers and staff
- Scale quickly and deliver consistent performance as the number of users increases
- Support nondisruptive operations during upgrades and patches
- Offer redundant architecture at the computing, network, and storage layers

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- **Simplify deployment** with hyperconverged systems that are up and running in a couple of hours
- **Scale faster** with the ability to independently scale computing and storage capacity
- **Optimize storage resources** with a system that uses always-on deduplication and compression
- **Lower TCO** with a pay-as-you-grow consumption model



A new level of hyperconvergence

- **Efficiency.** Our solutions offer compute-only nodes and independent scaling of computing, storage, and network resources so that you can match the needs of your Epic applications and environments.
- **Only the storage you need.** Continuous data deduplication and compression, fast, space-efficient clones, thin provisioning, and optional hardware-accelerated compression all contribute to lowering the cost of your storage.
- **Built-in data protection.** You can use native Cisco HyperFlex HX Data Platform snapshot and replication capabilities with the same data protection solutions you use in your data center because HyperFlex systems interoperate with leading backup tools.

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Cisco HyperFlex systems

Cisco HyperFlex™ systems, powered by Intel® Xeon® Scalable processors, bring the pay-as-you-grow economics of public clouds to IT infrastructure. An innovative server cluster design that can be stretched across geographies combines with an integrated network fabric, powerful data optimization, storage management, and your choice of hypervisor to bring the full potential of hyperconvergence to your Epic Hyperspace deployments.

Designed to help your organization be more agile, efficient, and adaptable, these solutions are fast to deploy, simple to manage, and easy to scale. They arrive ready to provide you with a pool of infrastructure resources to power your virtual machines and Epic Hyperspace deployments as your business needs dictate (Figure 1).

Fast and flexible scaling

Cisco HyperFlex systems provide a cluster configuration that scales resources independently to closely match the resource needs of your VDI environments. You can start small and support tens or hundreds of users and easily and cost-effectively scale to support thousands. After a system is deployed, you simply add nodes to the cluster, and data is automatically rebalanced across all shared resources. You can easily tailor the configuration to support persistent and nonpersistent desktops and deliver full desktop infrastructure or application streaming, depending on the needs of your workforce.

Adaptable, optimized IT infrastructure

With Cisco HyperFlex systems, you can reduce your data footprint and optimize your infrastructure cost. Unlike VDI solutions that use traditional storage area networks (SAN) or network-attached storage (NAS) infrastructure, Cisco HyperFlex systems take a different approach, combining solid-state disk (SSD) drives and all-NVMe drives into a single distributed, multitier, object-based data store. An innovative caching tier stores



Figure 1 Cisco HyperFlex systems with compute-only nodes

"With Cisco HyperFlex systems, we can respond much faster to business and application needs because CPU, storage, and network resources are independently scalable."

Paul Bauwens
IT architect
Meander Medisch Centrum
Read the story

frequently and recently used information to accelerate performance. In addition, native inline deduplication and compression are always on to help ensure that your storage resources are used optimally without adversely affecting virtual desktop and application performance.

Easy integration

No matter how you deploy your EMR applications, Cisco HyperFlex systems are an ideal platform for running the Epic Hyperspace presentation layer and they integrate easily into existing deployments and operation processes. For example, you can run core EMR and analytic databases alongside non-Epic applications on Cisco Unified Computing System™ (Cisco UCS®) platforms, and Epic Hyperspace on HyperFlex systems, to allow application tiers to take advantage of underlying system capabilities and performance characteristics (Figure 2).

Simplified management

Cisco UCS and HyperFlex systems were designed with embedded management,

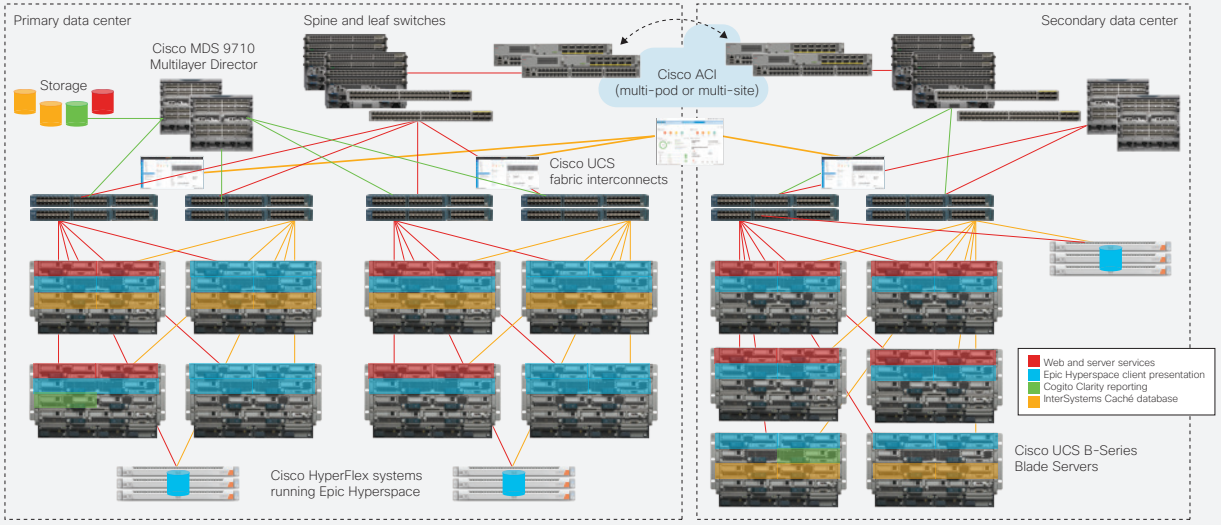


Figure 2 Epic Hyperspace deployment on Cisco systems

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For more information

For more information about Cisco solutions for healthcare, visit cisco.com/go/healthcare.

For more information about Cisco hyperconverged infrastructure, visit cisco.com/go/hxsolutions.

For more information about Cisco desktop and application virtualization solutions, visit cisco.com/go/vdi.

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giving you unprecedented control over your IT resources. Because we designed our systems to be deployed, provisioned, and managed through an API, our products are simpler, and so are our tools. Your choices include the following:

- Cisco Intersight™ is a software-as-a-service lifecycle management platform for your infrastructure, regardless of where it resides. You can manage your traditional, hyperconverged, edge, and remote and branch offices through a single cloud-based GUI.
- Cisco HyperFlex Connect works with Cisco Intersight to deliver unified, intuitive, robust, and secure management and monitoring of clusters from anywhere and at any time. A smart, insightful dashboard with metrics and trends supports the cluster management lifecycle.
- Cisco UCS Manager supports the entire Cisco UCS server and HyperFlex infrastructure portfolios. It enables server, fabric, and storage provisioning, as well as device discovery, inventory, configuration, diagnostics, monitoring, fault detection, auditing, and statistics collection. You can extend these capabilities to thousands of servers in multiple domains with Cisco UCS Central Software.
- Third-party management plug-ins provide a seamless experience for those already administering clusters using VMware vSphere, Microsoft Hyper-V, and other tools.

Trust a proven solution

When medical staff and patients need health information fast, running Epic Hyperspace on Cisco HyperFlex systems can help. Our systems meet stringent requirements, allowing them to be listed in the Epic hardware guide. You can be confident that the design of HyperFlex systems aligns with Epic guidance on hyperconverged architectures.

Whether you choose to run Epic Hyperspace on a bare-metal server or within VDI solutions, look no further. Our solutions deliver the adaptive environments you need. With lower costs, flexible scaling, and predictable performance, Cisco HyperFlex systems can support your existing and future Epic application deployments.

