

# Simplify Hyperconverged Cluster Management



Plan, size, and purchase



Deploy



Provision



Manage

## Simplicity is the difference between difficult and easy.

When it comes to managing hyperconverged infrastructure, simplicity is the key. Many management platforms are complex because the underlying infrastructure is inflexible and complex, and that complexity extends to the management. We believe that simplicity should be an explicit choice and that is the choice we have made.

With Cisco HyperFlex™ systems, we give you simplified management with a choice of tools so that you can use the ones that best fit your needs. 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:

- **VMware vSphere management plug-in** provides a seamless experience for those already administering clusters using VMware vSphere.
- **Cisco HyperFlex Connect** provides unified, intuitive, robust, secure, and simple management. It lets you manage and monitor your clusters from anywhere and at any time. It delivers a smart, insightful dashboard with metrics and trends to support your entire management lifecycle.
- **Cisco Intersight™** is cloud-based management as a service. It allows you to manage all your Cisco HyperFlex and Cisco Unified Computing System™ (Cisco UCS®) infrastructure—traditional, hyperconverged, edge, and remote and branch offices—through a single cloud-based GUI.

“Cisco HyperFlex took 80 percent less time to deploy than our previous solution, and speed equals efficiency.”

Derek DePasture  
Senior network engineer  
BluePearl Veterinary  
Partners.

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## Complete lifecycle management

Cisco HyperFlex Connect (Figure 1) and Cisco Intersight management as a service give you simple, unified, and information-driven lifecycle management for your hyperconverged infrastructure

### Manage

Cisco HyperFlex Connect is hosted on your premises and helps you manage all the features of your Cisco HyperFlex clusters regardless of location. Cisco Intersight™ subscription-based management as a service supports your Cisco HyperFlex systems and also your Cisco UCS servers—regardless of where they are installed. These tools simplify everything: from planning to ongoing management and redeployment of your resources.

### Plan, size, purchase

These tools can help you determine the best configuration for your needs by analyzing current and historical resource use. For example, if your application runs in vSphere and you are not sure what configuration would support it best, the Cisco HyperFlex Profiler can help you determine its needs. If you know that you want to move to Cisco HyperFlex systems but don't know what the configuration should be, you can use the Cisco HyperFlex Sizing tool to define the best configuration for your business. After you have a configuration plan, Cisco® Smart Licensing shows your license ownership and consumption. With these tools, it's easy to know what you own and how you are using it.

### Deploy

Deploying a cluster is simple regardless of whether you are

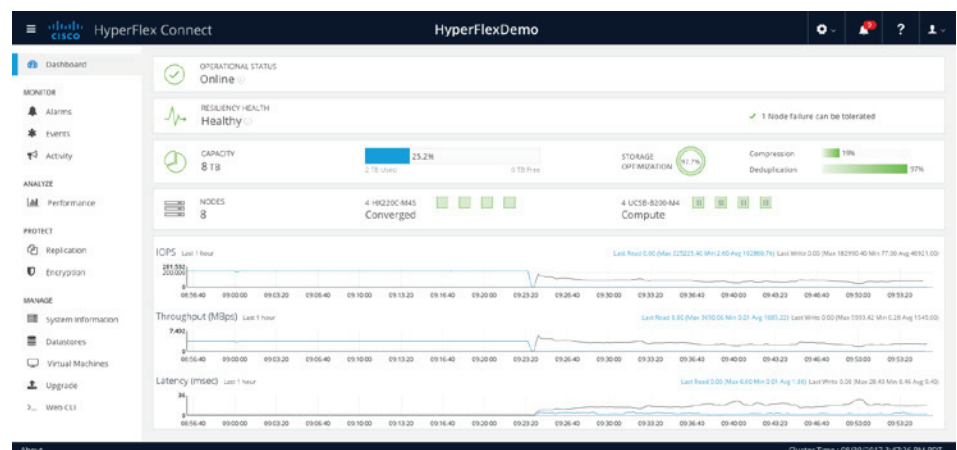


Figure 1 Cisco HyperFlex Connect dashboard delivers visibility across your Cisco HyperFlex systems within a cluster (mockup for illustration)

“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](#)

deploying with fabric interconnects in your data center or Cisco HyperFlex Edge (Figure 2) for your remote and branch office operations. The installation is complete in less than one hour through a prepackaged open virtual appliance (OVA). You are prompted for your network information and the entire system is installed using industry best-practices defaults. In the future, with Cisco Intersight services, all you will need to do is claim your servers and associate them with a cluster, and the installer will prepare your cluster configuration.

### Configure and provision

You can customize your cluster for your workloads with Cisco HyperFlex Connect, Cisco Intersight services, or the VMware vCenter web-based plug-in. All of these tools use the Cisco HyperFlex API. Not every administrator wants to use a GUI, so we also offer a command language interface (CLI) and representational state transfer (REST) APIs. Our APIs have also been incorporated into higher-level automation and workflow platforms such as [Cisco UCS Director](#).

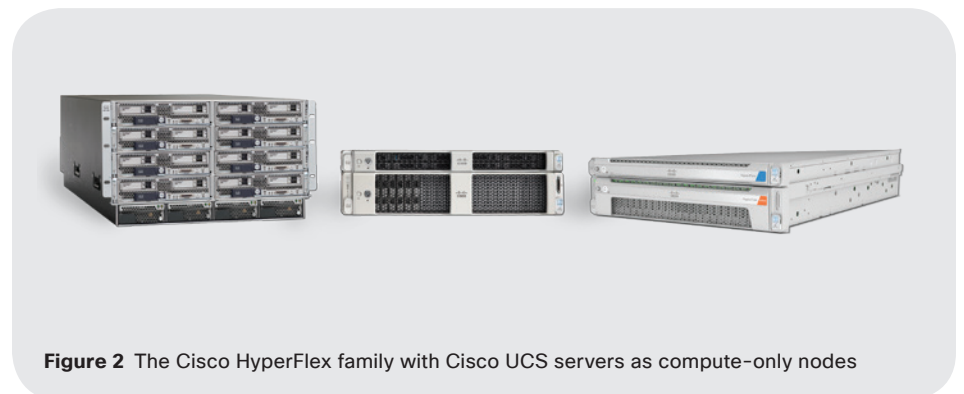
### Analyze, monitor, and maintain

After applications are operational, you can analyze, monitor, and maintain the systems to make sure they are running optimally. You can analyze and monitor the cluster's capacity, health, and performance with the intuitive interface. Out-of-the-box alarms will alert you to any impending problems without any work on your part. Because Cisco HyperFlex systems are programmable infrastructure, you can easily upgrade your nodes in a unified and uniform way rather than having to upgrade each one separately, as is the case with most products from other vendors. You even get analytics-based, proactive support through Cisco Smart Call Home capabilities.

### Native data protection and security

Cisco HyperFlex systems can secure and protect your nodes and your data. They provide:

- **Automated replication for disaster recovery:** This feature is integrated with the native Cisco HyperFlex HX Data Platform for snapshot-based replication.



**Figure 2** The Cisco HyperFlex family with Cisco UCS servers as compute-only nodes

## Be flexible

- Only Cisco HyperFlex systems give you the capability to adjust your storage-to-computing ratio to precisely match the needs of your applications.
- Choose hybrid or all-flash nodes to add CPU and storage resources.
- Choose Cisco UCS blade servers to add computing resources.
- Choose self-encrypting drives to secure your data at rest.

## For more information

- [Cisco HyperFlex](#)
- [HyperFlex Connect video](#)

- **Data-at-rest encryption:** The self-encrypting drive option uses self-encrypting solid-state disks (SSDs) and hard disk drives (HDDs) and is available for both hybrid and all-flash nodes. Cisco HyperFlex Connect interfaces with third-party key management systems to keep disk encryption keys safe.
- **Secure, role-based management:** Cisco HyperFlex systems integrate easily into existing environments and operationing processes.

## Manage from the data center to the edge and any cloud

Cisco HyperFlex systems are easy to deploy and manage from the data center to the network edge. Our installation wizard provides an automated configuration process that gets you up and running in less than an hour. You can manage your centralized and remote locations through the vSphere plug-in. You also can access all features through the Cisco HyperFlex Connect interface with an HTML 5 presentation layer accessible on desktop and laptop computers and mobile devices. Using Cisco Intersight services, you can manage all your clusters and Cisco UCS infrastructure through a single interface that can include hundreds of clusters at a time. Cisco Intersight software supports installation, inventory management, and day-to-day centralized control.

## Integrate with high-level tools

The cluster's management API supports integration into higher-level management tools from Cisco and more than a dozen independent software vendors (ISVs). Tools include monitoring and analysis tools such as vCenter and other deployment and configuration tools. The API supports service orchestration tools such as VMware vRealize Orchestrator. Cisco HyperFlex systems can be managed with the Cisco CloudCenter™ solution and Cisco UCS Director because of API integration with these tools.

## Integrate with DevOps processes

If your organization uses DevOps processes, you can use the Cisco HyperFlex API to manipulate the infrastructure from scripts and from tools including Puppet, Chef, and Ansible. Our infrastructure is truly programmable, and with these interfaces you can seamlessly integrate it with your script-based processes.

## Next steps

To talk with someone about your choices for managing Cisco hyperconverged infrastructure (HCI) and the power of this solution, call your Cisco representative or visit the [Cisco Partner Locator](#) to find your closest Cisco partner.