

Cisco IT Brief

HyperFlex Edge: simpler remote office infrastructure—from core services to supply chain

Data center infrastructure may get more attention, but remote office infrastructure also has a big impact on our IT costs and agility. We provide IaaS in 75 remote locations for Sales, Manufacturing, and core IT services, so our remote office infrastructure has a big impact on IT costs and agility. “Making it as easy as possible to deploy and manage remote servers and storage frees up time for strategy and innovation,” says Joe DeSanto, Cisco IT storage architect. And keeping our infrastructure footprint as small as possible lowers power and cooling requirements—good for the environment as well as our budget.

So when Cisco HyperFlex™ Edge became available, we decided to put it to work, initially for core services such as domain name services (DNS), enterprise management, and DHCP. HyperFlex combines compute, storage, and hypervisor (VMware ESX) in one package. Traditionally we’ve deployed core services in remote sites on three Cisco rack servers with VMware ESX and third-party storage. We had to stand up each server according to our standard policies, install VMware ESXi, configure the VMware network, and provision datastores. Each deployment required experts from different teams and took about eight man-hours.

We’re customer zero for HyperFlex

Cisco IT is “customer zero” for new products like HyperFlex. That means that when you receive a new release, we’ve already put it through its paces for our business and given our feedback to the business unit. The current release of HyperFlex includes our suggestions, such as scaling to 64 nodes per cluster (up from 8 in the original release), an all-flash storage and NVMe cache option, support for containers on VMware and bare metal, and availability zones.

Business value of HyperFlex Edge to date

Today we’re using HyperFlex Edge for core services in remote offices: Boxborough, Sydney, Bangalore, Dubai, Bedford Lakes, and Amsterdam. So far we’re seeing the following benefits:

- **4x faster deployment.** A 3-node HyperFlex Edge system with VMware ESX takes just four hours to deploy compared to eight hours for three rack servers with third-party storage. “We just cable up HyperFlex, load the installer, and then we’re off and running,” says John Thomas, senior IT engineer. Saving six hours in each of 75 offices will work out to 450 hours, or 56 days. That’s time our staff can redirect to strategic projects.
- **OpEx savings.** “We’ll eventually spend about 50% less time on management because there is no requirement of multiple compute and storage admins managing the deployment: one person can do it all,” says Srikanth Makineni, senior IT engineer. And with built-in storage instead of separate storage, HyperFlex is lowering power and cooling costs.
- **CapEx savings.** Compared to three rack servers with third-party storage, CapEx for a 3-node HyperFlex Edge is about 20-28% less.

We recently launched proofs of concepts for two other use cases: supply chain and unified communications. In supply chain locations, HyperFlex will run quality control and testing software. “Since our manufacturing locations are spread across the globe, we want infrastructure that’s cost-effective, quick and easy to deploy, and can be managed from the cloud,” says Ashish Nanjiani, senior IT manager. “HyperFlex is just what we were looking for.”

Next steps: centralized management through Intersight

To make managing HyperFlex even simpler we're planning to use [Cisco Intersight](#)[™], a cloud service that works with all recent Cisco servers: blade, rack, or hyperconverged. With Intersight we'll be able to centrally manage all of our HyperFlex systems instead of logging into each system one by one. "We're looking forward to the convenience of using a single interface to upgrade HyperFlex software, UCS firmware, and—coming soon—VMware ESX," says Bharath Malapaka, IT architect.

Managing HyperFlex from the same interface we use to manage UCS blade and rack servers will also make it simpler to track global inventory—for example, to find all servers anywhere in the world that need a firmware upgrade. The more HyperFlex systems we deploy, the more time we'll save.

For more information

[Cisco HyperFlex Edge](#)

[New Data Center in 2 Months, with HyperFlex](#)