

# Cisco HyperFlex Multicloud Platform

Accelerate multicloud IT with hyperconverged infrastructure



Ready for any application



Ready for any cloud



Ready for any scale

**You need to be ready to host any application anywhere. Our solution adapts to support all of your applications with the simplicity of hyperconvergence.**

If your IT organization is like most, you are stretched thin in supporting your developers as they create multicloud-native applications that they deploy across public and private clouds. And you still need to support line-of-business managers with traditional applications as they use both monolithic and cloud deployment models. If your data center is like most, the new Cisco HyperFlex™ multicloud platform with Intel® Xeon® Scalable processors is ready for you:

- **Ready for any application.** This flexible hyperconverged platform adapts to support all of your applications from enterprise applications with industry-leading performance to multicloud-native, containerized applications that deploy in your own private cloud and across public cloud services.
- **Ready for any cloud.** We provide complete cloud services to efficiently and economically manage any application tier anywhere. Not only are you able to deploy to any cloud, you have the insight you need to decide where to deploy for best price and performance.
- **Ready for any scale.** You can scale your Cisco HyperFlex systems with increased resiliency to protect against the impact of failures. You can stretch clusters between locations for continuous availability, and you can deploy your clusters from the cloud with Cisco Intersight™ management as a service.

Cisco HyperFlex™  
Systems with Intel®  
Xeon® Scalable  
processors



85%

of organizations are evaluating or using public cloud services

87%

of organizations have a hybrid cloud strategy

94%

of organizations will use multiple public clouds

Source: IDC CloudView Survey, July 2017

## Changing landscape

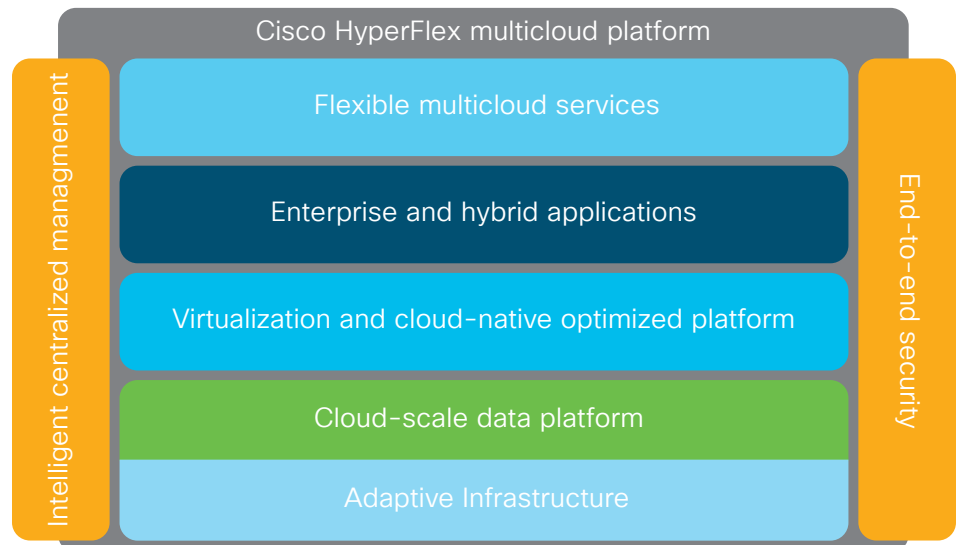
Applications are at the heart of the digital business transformation. The changing landscape demands support for both traditional, monolithic workloads as well as distributed microservice architectures. To help your business organization through this challenge you need infrastructure that is:

- **Simplified.** You need hyper-converged infrastructure that integrates networking, high-performance computing, and a purpose-built, high-performance, low-latency distributed file system.
- **Multicloud.** You need to support deployment in your private cloud but also into the public cloud, with tools for automatic deployment regardless of location.
- **Flexible.** Today's application architectures are evolving. They

need support for monolithic applications as they transition to a more scalable, cloud-like model. Big data and analytics applications need unprecedented scalability. And cloud-native architectures need to run containerized applications across multiple clouds with automatic deployment and scaling.

## Cisco HyperFlex multicloud platform

To help you meet these challenges, we introduce the Cisco HyperFlex multicloud platform, an adaptive system with speed and simplicity, deployment on premises or in the cloud, and capable of powering more workloads. This document describes the platform described in Figure 1 from the bottom up.



**Figure 1** The Cisco HyperFlex multicloud platform helps you deploy any application, in any cloud, at any scale

## Adaptive infrastructure

Now you can deploy all of your applications from small edge and remote locations to large-scale enterprise data centers. We start with a [new data platform](#) that is designed to adapt to a rapidly evolving hardware ecosystem (Figure 2). This enables us to quickly incorporate new innovations from Cisco Unified Computing System™ (Cisco UCS®) into the platform.

## Cloud-scale data platform

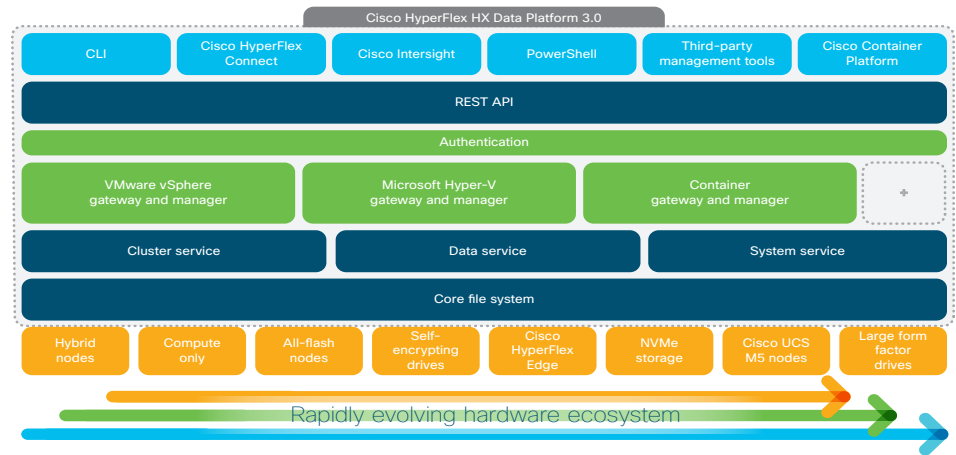
We have extended the data platform with new features that can help support your enterprise applications and cloud-native ones. Features include stretch clusters for continuous operation and greater scale with increased resiliency.

## Virtualization and cloud-native optimized platform

In addition to VMWare vSphere, we now support [Microsoft Windows 2016 Hyper-V](#), and a prepackaged Kubernetes platform for containerized application deployment.

## Enterprise and hybrid application support

Cisco HyperFlex systems have already proven value for virtual



**Figure 2** The Cisco HyperFlex multicloud platform is based on a new cloud-scale data platform

server infrastructure, virtual desktop infrastructure, and big data and analytic applications.

We are also ready for your mission-critical enterprise applications. Our engineering team has developed [Cisco® Validated Designs](#) that demonstrate our readiness for applications including Oracle Database, Microsoft SQL Server, Microsoft Exchange Server, and both Citrix and VMware virtual desktop environments.

## Flexible multicloud services

The platform described thus far gives you everything you need to deploy virtualized, cloud, and multicloud applications. These tools help you do it better.

### Cloud mobility services

[Cisco HyperFlex with CloudCenter](#) simplifies with self-service deployment. It helps define how an application is to be structured and then deploys it in a Cisco

HyperFlex cluster, a public cloud, or a multicloud environment. CloudCenter eliminates the complexity of having to adapt to different public cloud models, making it easy to deploy and move applications based on changing business, workload, or economic factors.

### Application placement

[Cisco Workload Optimization Manager](#) for HyperFlex helps you optimize where your workloads run so that they get the resources they need for best performance.

It continuously analyzes workload consumption, cost, and compliance constraints to give you the best possible intelligence on where to deploy your workloads initially and where to move them should conditions change.

### Application performance modeling

HyperFlex with CloudCenter and AppDynamics® software gives you complete multicloud lifecycle

“HyperFlex’s approach ensures high performance of Microsoft SQL and Oracle databases and critical applications with faster delivery of the environment, lower costs, and more effective management.”

Edivaldo Rocha  
CEO  
CorpFlex  
[Read the story](#)

management. It combines the decision engine of Cisco Workload Optimization Manager with the deployment engine of Cisco CloudCenter. The AppDynamics platform adds instrumentation and performance monitoring to help continuously evaluate your deployment decisions for excellent application performance.

## Intelligent centralized management

With Cisco HyperFlex systems you have a choice of management tools to suit your existing environment.

### Cisco Intersight platform

This [cloud-based interface](#) gives you instant access to all of your clusters—including installation capabilities—regardless of where they are located. This means that you can ship your nodes to the facility of your choosing and install them remotely. High-level resource inventory and status is provided by the Intersight dashboard, with drill down into specific clusters and nodes provided by Cisco HyperFlex Connect.

### Cisco HyperFlex Connect

This [intuitive, data center-hosted HTML5-based management tool](#) gives you access to all cluster features through any device, anywhere.

## End-to-end security

In addition to the [built-in security](#) of our platform are the [security tools](#) that you expect from Cisco.

- **Cisco Application Centric Infrastructure** (Cisco ACI™) with Tetration secures the multiple layers of infrastructure with contracts that allow only specified traffic between application layers.
- **Cisco Adaptive Security Appliances** (Cisco ASA) protect your network perimeter by blocking known threats and command-and-control callbacks while providing dynamic analysis for unknown malware and threats.
- **Cisco Stealthwatch Enterprise** helps to outsmart emerging threats in your digital business with industry-leading machine learning and behavioral modeling.

## Next steps

Let’s talk about your need to deploy any application, in any cloud, and at any scale. If you would like to learn more about the power of this solution, call your Cisco representative or visit the [Cisco Partner Locator](#) to find your closest Cisco partner. You can learn more at [cisco.com/go/hyperflex](https://cisco.com/go/hyperflex).