

# Move to Adaptive Computing with Cisco Intersight Cloud-Based Management



## Pervasive simplicity

- Use a GUI or API to meet the needs of your development teams.
- Simplify the user experience with the capability to manage your infrastructure regardless of where it is installed.



## Actionable intelligence

- Use best practices to enable faster, proactive operations.
- Gain actionable insight for ongoing improvement and problem avoidance.



## Agile delivery

- Respond quickly to new requests and manage the unpredictable.
- Deploy edge clusters as quickly as you deploy virtual machines in your data center.

## To keep up with your operational and development demands, you need adaptive infrastructure with cloud-powered intelligence.

Cisco Intersight™ is cloud-based management for all your infrastructure, regardless of where it resides. In your enterprise data center, at the network edge, in remote and branch offices—all these locations present unique management challenges and have typically required separate tools. Cisco Intersight services unify and simplify your experience for your Cisco Unified Computing System™ (Cisco UCS®) and Cisco HyperFlex™ systems.

Cisco Intersight delivers a new level of cloud-powered intelligence that enables advanced functions and continuous improvement. It is tightly integrated with Cisco® Technical Assistance Center (TAC) support and the Cisco UCS community, so expertise and information flow seamlessly. Remediation and problem resolution are provided quickly and proactively.

### Designed for DevOps

We have a strong track record for management solutions that deliver software-defined intelligence to automate daily operations. Cisco Intersight cloud-based management is part of a natural evolution of our strategies. We designed Cisco UCS as a stateless computing platform that is fully programmable, with element management integrated into the network fabric itself. Cisco UCS management supports an intuitive GUI, a unified API with bindings to languages such as Cisco UCS PowerTool and Python, and integration with both Cisco and third-party tools. Cisco UCS Director advanced the state of the art to bring you infrastructure as a service (IaaS) with workflows to automate and orchestrate your infrastructure.

Cisco Intersight and the connected systems are DevOps enabled through APIs. Users from operations and development teams are able to access Cisco Intersight management through portals that are designed for various personas. Using Cisco Intersight, you can simplify infrastructure lifecycle operations and increase the speed of continuous application delivery.

## Introducing Cisco Intersight cloud-based management

Cisco Intersight offers management as a service (MaaS) that enables intent-based and adaptive infrastructure. Just as the Cisco Meraki™ platform has provided superior cloud-based network management, Cisco Intersight provides a superior management model that allows your IT organization to analyze, simplify, and automate your environments in ways that were not possible with device-focused tools. Cloud-based management has proven itself in remote, edge, and branch-office environments. Cisco Intersight management services are ready for your enterprise data center, co-location, and distributed computing environments.

## Cloud-based management

Cisco Intersight MaaS helps you translate your intent—what you want to accomplish—into infrastructure configuration, ongoing management, and proactive optimization. With this cloud-based, subscription-model solution, all you have to do is claim your servers in the user interface, license your service, place your servers in logical groupings (such as remote-office and branch-office [ROBO] locations or virtualization clusters), and use role- and policy-based interfaces to configure and manage your infrastructure wherever it is located.

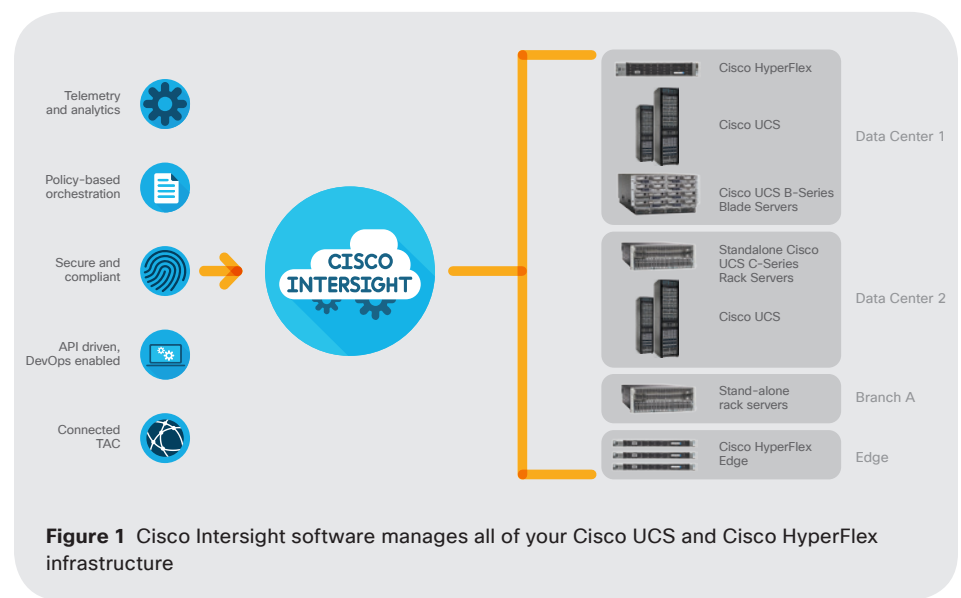
Because we host Cisco Intersight services in the cloud, we can continuously improve it without your having to be concerned about versions and upgrades. Cisco Intersight management scales seamlessly, so you can implement it in the way that works best for your organization with no disruption. You get the benefits of the monitoring and functions illustrated on the left in Figure 1, and Cisco Intersight services implement your intent through device connectors that know how to manage specific devices.

We integrate the services with the Cisco TAC to gain insights and provide more proactive support. This integration makes initiation of service requests easier and enables you to provide feedback more directly to our products. This tight integration with the TAC also

expands the service scope and enhances our continuous-delivery capabilities to further accelerate fixes and future development.

## More than a dashboard

Both the Base and Essentials editions of Cisco Intersight include customizable dashboards. They show you status of all your equipment and provide an inventory so that you know where every physical and logical component is located and how it is being used. They can quickly provide health status information and statistics. The recommendation engine provides alerts and easy-to-understand prompts for corrective actions. The engine can also help you plan for the future with capacity and utilization information.



**Figure 1** Cisco Intersight software manages all of your Cisco UCS and Cisco HyperFlex infrastructure

## Main features

We deliver three main features that help you simplify your management and that help your infrastructure adapt to the rapid pace of software development and application deployment:



### Cloud-based management

MaaS delivers global management with frequent updates that don't impede your operations



### Proactive guidance

The recommendation engine provides notifications, insights, and actionable intelligence to ease daily operations.



### Security and extensibility

The service is designed for secure connection and data access with an extensible architecture for third-party integrations.

This approach gives you a global perspective on your infrastructure and its status, helping you proactively recognize situations that might otherwise develop into real problems. You don't just see components—you view logical configurations: for example, the collection of nodes in a Cisco HyperFlex™ cluster, or servers tagged as database servers. You can drill down into any specific component and see its physical configuration, its firmware revisions, and utilization information for components such as disk drives.

Dashboards and detailed status screens give you the capability to keep track of all your infrastructure regardless of its location anywhere in the world. Imagine the ease of exporting an inventory list for use in managing your capital equipment, and the benefits of audit trails that help keep you in compliance with industry and governmental regulations.

## Configure and manage your infrastructure

After you have claimed your equipment and licensed it through the user interface, you have powerful tools to configure and manage your infrastructure. We understand that as the pace of change in your data center and edge locations quickens, your DevOps team may want to include infrastructure management in its scripting activities. This is easy to do because Cisco Intersight

management offers an API that facilitates automation through Python and Microsoft PowerShell scripts so that you can run your business in whatever way is best for you.

### Install from the cloud

Cisco Intersight installers bring up your infrastructure quickly and easily regardless of location. For example, the Cisco HyperFlex cloud installer can bring up a cluster from bare metal in your central data center or a Cisco HyperFlex Edge configuration at a set of remote locations.

### Intent-based configuration and management

Cisco UCS Manager pioneered the use of Cisco UCS service profiles, which incorporate every aspect of a server's identity, configuration, and connectivity. Service profiles and templates automate server provisioning so that your servers are always configured consistently with policies that you define. They make provisioning fast and repeatable, so configuring 100 servers is as easy as configuring one. Because of this automation, your implementations are always aligned with your best practices. These concepts also underlay Cisco Intersight management, which uses the Cisco UCS Manager API to implement your choices.

When you choose to use our rack and storage servers as standalone systems, we support server profiles that use direct connections to the Cisco Integrated Management Controller (IMC) to automate systems that you have not

## Main features



### Enhanced support

Enhanced capabilities and Cisco TAC integration help you proactively respond to problems before they affect operations.



### Intuitive experience

Make your administrators and DevOps teams more effective, less burdened with details, and more productive.

## For more information

[cisco.com/go/intersight](https://cisco.com/go/intersight)

incorporated as part of a Cisco UCS instance.

Regardless of whether you run servers in Cisco UCS instances or as standalone systems, you can manage firmware updates through Cisco Intersight services as part of the service or server, fabric, storage, and related profiles that dictate every aspect of configuration.

Operating system and hypervisor deployment can be managed through Cisco Intersight services, so everything up through the initial operating system software stack can be managed centrally and on a global level.

## Anticipate problems before they affect you

The cloud-based management service includes a proactive recommendation engine that helps anticipate problems before you encounter them. It collects data from your infrastructure, including inventory and failure information. It correlates this information with our entire set of connected systems to identify any trends that may emerge. If we notice, for example, a spike in disk failures for a particular serial number range, the recommendation engine can proactively initiate replacements before you ever encounter a failure. Cisco Intersight services are tightly integrated with the Cisco TAC and the Cisco UCS community, so expertise and information flow smoothly.

## Deploy on all your Cisco infrastructure

We are developing Cisco Intersight services using a continuous improvement model, so new devices will be supported and more extensive features rolled out over time. You can use Cisco Intersight with your Cisco UCS, Cisco HyperFlex, and Cisco HyperFlex Edge systems. It supports Cisco UCS rack and storage servers both as standalone systems and as part of a Cisco UCS instance.

## Conclusion

Cisco UCS is a system, not just a server. We lead the industry in simplified management and automation, and we are well equipped to lead the industry into the next generation of management capabilities.

Cisco Intersight simplifies your operations, making daily tasks easier for your development and operations teams. As it continues to learn and evolve over time, it will improve your capability to optimize your infrastructure with insights that help you continuously adapt to change. And it makes you more agile, so you can respond more quickly to the unpredictable.