Manage Your Infrastructure Anywhere
With Cisco Intersight software as a service

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

Cisco Intersight™ is a lifecycle management platform for your infrastructure, regardless of where it resides. In your enterprise data center, at the edge, in remote and branch offices, at retail and industrial sites—all these locations present unique management challenges and have typically required separate tools. Cisco Intersight software as a service (SaaS) unifies and simplifies your experience of the Cisco Unified Computing System™ (Cisco UCS®) and Cisco HyperFlex™ systems.

Intersight software delivers a new level of cloud-powered intelligence that supports lifecycle management with continuous improvement. It is tightly integrated with the Cisco® Connected Technical Assistance Center (TAC) and Smart Call Home. Expertise and information flow seamlessly between Cisco Intersight and the Cisco UCS and HyperFlex users. Remediation and problem resolution are supported with automated upload of error logs for rapid root-cause analysis.

Automate your infrastructure
We have a strong track record for management solutions that deliver policy-based automation to daily operations. Intersight SaaS is a natural evolution of our strategies. We designed Cisco UCS and HyperFlex to be 100 percent programmable. Cisco Intersight simply moves the control plane from the network into the cloud. Now you can manage your Cisco UCS and HyperFlex infrastructure wherever it resides through a single interface.

Deploy your way
If you need to control how your management data is handled, comply with data locality regulations, or consolidate the number of outbound connections from servers, you can use the new Cisco Intersight Virtual Appliance for an on-premises experience. Our new virtual appliance is continuously updated just like the SaaS version, so regardless of which approach you implement, you never have to worry about whether your management software is up to date.

Pervasive simplicity
- Simplify the user experience by managing your infrastructure regardless of where it is installed.
- Automate updates to Cisco HyperFlex™ cluster firmware, software, and hypervisor updates to reduce complexity and manual efforts.

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

Agile delivery
- Respond quickly to new requests
- Deploy in the data center and at the edge with massive scale.
DevOps ready

If you are implementing DevOps practices, you can use the Cisco Intersight API with either the cloud-based or virtual appliance offering. Through the API you can configure and manage infrastructure as code—you are not merely configuring an abstraction layer, you are managing the real thing. Through the API and support from Ansible playbooks, Microsoft PowerShell scripts, or Python software, you can automate the deployment of settings and software for both physical and virtual layers. Using the API, you can simplify infrastructure lifecycle operations and increase the speed of continuous application delivery.

SaaS-based management

Intersight management helps translate your intent—what you want to accomplish—into infrastructure configuration, ongoing management, and proactive optimization. Cisco UCS and HyperFlex systems are fully programmable, so you can manage everything in software from the cloud. The automation is declarative and the policies specify the end state, so there is no configuration drift. Because Intersight can reach anywhere your infrastructure resides, it’s ready for your enterprise data center, colocation center, and distributed computing environments at the edge in remote office, branch office, and colocation facilities.

We are developing Intersight software using a continuous integration (CI) and continuous deployment (CD) approach, so you never have to worry about whether your software is up to date—even the Cisco Intersight Virtual Appliance is automatically updated.

Infrastructure lifecycle management

One of the biggest challenges organizations face is managing data center servers while extending services wherever data or users reside, with massive scale. Imagine using a single interface that can access hundreds of centralized and remote locations, with support for the entire infrastructure lifecycle.

Configure

Contrary to traditional approaches, the first step in the Cisco Intersight management lifecycle is to configure your systems. Configuration captures your intent so that when you deploy servers and clusters you get exactly what you ask for. You can use server profiles to capture more than 100 parameters that completely specify a rack server’s identity, configuration, and connectivity, from firmware revisions to the number and type of I/O devices.

Figure 1 Intersight software helps you manage your infrastructure lifecycle
Main features

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

**SaaS-based management**
Software as a service 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.

If you are configuring Cisco HyperFlex clusters, you can use cluster profiles to specify everything about the cluster, including data platform settings and the entire software stack—from firmware to the hypervisor. If you specify something that is noncompliant, for example an unsupported combination of software revisions, the Intersight recommendation engine will check the hardware compatibility list for any conflicts.

If you engage in DevOps practices, you can manage your infrastructure as code. Your software can use the Cisco Intersight API to create profiles and can deploy itself right down to the servers, fabric, and clusters it runs on.

**Deploy**
All you have to accomplish to deploy Cisco UCS C-Series Rack Servers and Cisco HyperFlex clusters is to connect power and network cables and claim the servers in the user interface. Apply a server profile to a rack server or a cluster profile to a HyperFlex cluster and your systems or clusters are configured automatically in minutes.

Because we built our servers to be 100 percent programmable, you can bring up infrastructure from the moment it is powered on. This is especially important because you can deploy hyperconverged clusters worldwide and not need specialized technicians to configure your infrastructure.

You can place your systems in logical groupings that might identify a location (such as an edge site), a function (such as database servers), or a cluster (such as data center virtualization or Cisco HyperFlex cluster). With your inventory consolidated in Cisco Intersight, you never lose track or control of infrastructure that you have deployed.

**Monitor**
The Intersight dashboard 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 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 its utilization information.

Dashboards and detailed status screens give you the ability 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.

Monitoring alerts you to problems, and telemetry information is
Main features, continued

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

Intuitive experience
Help your administrators and DevOps teams be more effective, less burdened with details, and more productive.

For more information
cisco.com/go/intersight

optionally shared with Cisco TAC so that Cisco can respond to situations that may arise and provide an enhanced support experience (see “Support” below).

Maintain
Intersight software maintains each rack server and cluster in the state you desire, highlighting any configuration drift that could cause systems to become noncompliant.

For HyperFlex clusters, software upgrades can be initiated, and the software performs a rolling, nondisruptive upgrade across the clusters you specify.

For Cisco UCS C-Series Rack Servers, firmware updates can be accomplished regardless of where the servers reside. Other vendors can’t do this because they don’t build their servers to be brought up from a bare-metal state programmatically.

Support
Regardless of vendor, problems occur at one point or another. Getting support typically involves recognizing a problem, opening a support case, creating and sending log files for troubleshooting, and working with a technical support engineer to resolve the problem.

The Intersight platform does this all automatically through Cisco Connected TAC. If telemetry data reveals errors that indicate a hard failure, the platform can automatically upload diagnostic information to the Cisco TAC for rapid root-cause analysis.

Through continuous integration of new features, more support capabilities are planned to provide an even more flawless experience.

Conclusion
We lead the industry in simplified management and automation, and we are well equipped to lead the industry into the next generation of lifecycle management capabilities.

Cisco Intersight SaaS simplifies lifecycle management, making daily tasks easier for your development and operations teams. It scales to support whatever quantity of infrastructure you deploy, wherever you deploy it. The platform continues to learn and evolve over time, and as it does, 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 to respond more quickly to the unpredictable.

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