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Cisco Intersight Workload Engine

Enterprise Virtualization for Intersight Kubernetes Service

A next-generation private cloud architecture for modern cloud-native workloads

With Cisco® Intersight Workload Engine, customers no longer need to cobble together open-source distributions, excessive virtualization licenses, multiple management panes, and disparate hardware to support their enterprise service applications on premises. The seamless integration of Cisco Intersight™, Intersight Workload Engine, Intersight Kubernetes Service, and HyperFlex™ Data Platform (HXDP) eliminates the complexity and risk associated with integration at different layers of the infrastructure and application. This makes the cloud-native journey for enterprise applications faster, more predictable, and more cost effective. Customers also get full stack support SLAs from Cisco's industry-leading Technical Assistance Center (TAC) teams.

Intersight Workload Engine (IWE) adds an enterprise virtualization extension at no additional licensing cost to the Intersight Kubernetes Service (IKS) Advantage tier. For customers, this means a simplified deployment of their Kubernetes clusters automating their networking, storage, compute, virtualization, and operating systems – all done from a single pane of glass in Cisco Intersight Cloud Operations Platform. This delivers cloud elasticity and agility for Kubernetes services on premises while maintaining strict hardening and security standards expected in enterprise deployments.

Benefits

- **Simplify operations** – Address any application workload with an all-in-one integrated platform, including hypervisor, operating system, Kubernetes clustering, and storage

- **Unify VM and container management** – Manage clusters from the cloud using one control point for upgrades, capacity expansion, repairs, and security with Cisco Intersight Cloud Operations Platform

- **Reduce costs** – Utilize infrastructure efficiently with a purpose-built hypervisor without adding the cost of third-party virtualization solutions

- **Intersight Kubernetes Service integration** – Automate balancing and optimization according to Kubernetes best practices

- **Full stack cloud management** – Simplify day-2 upgrades and enable faster resolution of issues with full stack visibility

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Learn more

Figure 1. Intersight Workload Engine full stack integration
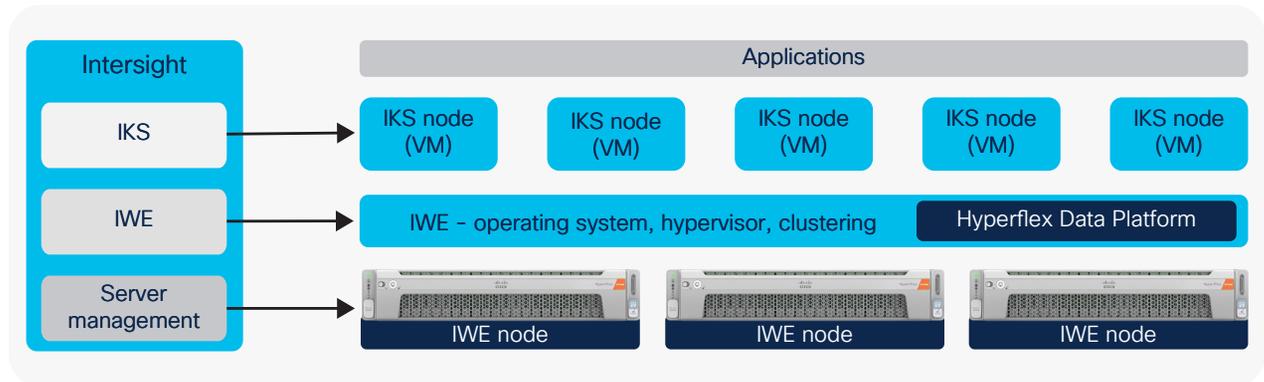
Key features

- Fully automated installer integrated in Cisco Intersight
- Operating system software maintained in Cisco Intersight repositories and automatically deployed on Intersight Workload Engine nodes
- Hypervisor with support for features like VM scheduling, VM migration, and CPU oversubscription
- Clustering software deployed with multiple control nodes to deliver system resiliency
- Automatically configured resilient network connectivity and segmented virtual networking for separation of system, user, and storage traffic
- Persistent enterprise storage based on Cisco HyperFlex deployed within Intersight Workload Engine nodes
- Unified Intersight management including inventory viewing, monitoring, and alerting at node, storage, and VM levels
- Connected TAC and secure access shells for cluster administration and support
- Node maintenance mode to allow for replacement of defective node components