Cisco Intersight: Enabling management of Cisco UCS and HyperFlex

Jeff Foster, Sr. Product Manager - UCS
Agenda

• Background
• Value Proposition & Offering
• Architecture
• Security
• Getting Started
• Server Management
• API
Challenges We’re Solving Against

- Physical and Virtual Sprawl, IoT, Microservices
- Scale, Speed, Complexity in Modern Data Centers is Unmanageable
- Building a Monster to Manage the Monster
Strategy for Next-Generation Systems Management

1. Connect Everything
2. Create Actionable Insight
3. Have Machines Manage Machines
Introducing Cisco Intersight

IT’S NOT A SERVER.

IT’S A SYSTEM.
Cisco Intersight Elements

Intuitive Experience

SaaS Delivered

Enhanced Support

Secure and Extensible

Proactive Guidance
Cisco Intersight: Enhanced Support

Connected TAC

Automated transmission of technical support files to the Cisco Technical Assistance Center (TAC) for accelerated troubleshooting

Vision: Telemetry collection, issue fingerprinting, proactive alerting & remediation
Cisco Intersight: Proactive Guidance

Recommendation Engine

- Alerts
- Baselining and Notifications
- Compliance
- Firmware Upgrades
- Proactive Tech Support
Key Features in Intersight Security Architecture

- Use of industry standard security protocols
- Encryption of all data
- Compliance with stringent Cisco InfoSec security and data handling standards
SaaS-Delivered

**UCS Director**
Infrastructure-as-a-Service and Orchestration
Third Party Infrastructure

**UCS Central**
Global Resource Pooling and Policy Management

**UCS Manager & IMC**
Policy-Based Automation
Unified Element Management

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**SaaS/Subscription Consumption Model**
Free UCS customers from care & feeding of management tools and eliminate upgrade dependencies

**Seamless Scalability**
Eliminate the hierarchy of tools and multiple management appliances

**Continuous Feature Integration**
Rapid development, delivery and customer feedback
Intersight Architecture
Manage Anywhere, 24/7/365, Cloud Scale

Control Nodes (Cisco DC)

Intersight Data Centers
Device Connector: Overview

A very light and autonomous piece of software allowing:

- Communication with the Intersight portal, wherever the portal is.
- Capability of inserting tasks / calls against the infrastructure (UCS Manager, Cisco IMC Software, HyperFlex, UCS Director) via the pluggable / extensible framework

Key Features

- Bundled with Firmware
- Embedded Product Feature
- Secure Communications
- Self Updated
- Autonomous Check-In
Intersight Continuous Integration and Delivery

Micro-services, DevOps, Independent Delivery, Always on, Rolling Upgrades, Horizontal scale

Developers → Micro-Services → Continuous Delivery Pipelines

- Build → Test → Release → Operate
- BUILD → TEST → RELEASE → OPERATE
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Intersight Value Proposition & Offering
Intersight: Initial Release

Telemetry Data Collection
- Cloud Connectors
- Supportability

Platform Compliance
- HW/FW Compatibility
- FW Upgrades

Deployment
- IMC Policy Framework
- HyperFlex Cloud Installer

Dashboard
- Fault Alerting
- Platform Inventory

SaaS Subscription

UI Launch
- UCSM, HXDP & IMC SW
Cisco Intersight Customer Outcomes

Pervasive Simplicity
Easy for development and operations

Actionable Intelligence
Best practices to enable proactive operations

Agile Delivery
Respond quickly to New requests
Cisco Intersight Delivers Simplified Management

**Unified Management**
Single pane of glass, consistent operations model and experience for managing all systems and solutions

**SaaS/Subscription**
Hosted management will free customers from care/feeding of management tools and eliminate upgrade dependencies

**Recommendation Engine**
Embedded recommendation platform with insights sourced from across Cisco installed base and tailored to each customer

**Enhanced Support Experience**
Hosted platform allows Cisco to address issues platform-wide and experience extends into TAC supported platforms

**Programmability**
End to end programmability with native API, SDK’s and popular DevOps toolsets will enable customers to consume natively

**No-Impact Transition**
IMC/UCSM/HX embedded connector will allow customers to start consuming benefits without forklift upgrade
Project Starship is now Cisco Intersight

Cisco Intersight Base live in December 2017
Cisco Intersight Base live on January 2018
Tech Preview (ucs-starship.com) accounts migrated to Intersight.com
Continued steady growth in connected devices (over 75,000!)
Cisco Intersight Packaging

Base
- SaaS
- Telemetry Collection

Essentials
- Analytics
- Monitoring
- Operations

Standard
- Orchestration
- Adaptive Assist

Available
- Centralized Inventory
- Basic Search
- Cloud Connect
- License Management
## Cisco Intersight: Edition Comparison

<table>
<thead>
<tr>
<th>Base Edition:</th>
<th>Essentials Edition:</th>
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<tbody>
<tr>
<td>• Supports Cisco UCS and HyperFlex Systems</td>
<td>• All functionality of the Base Edition</td>
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<tr>
<td>• Global inventory, health status, and customizable dashboard</td>
<td>• Server HCL compliance check</td>
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<td>• Tagging and basic global search</td>
<td>• Virtual Keyboard-Video-Mouse (vKVM) launch</td>
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<td>• Context-launch of element managers</td>
<td>• UCS C-Series policy-based configuration with Service Profiles</td>
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<td>• Cisco HyperFlex installation</td>
<td>• Detailed inventory and firmware management</td>
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Device Connector Availability

Cisco HyperFlex:
- HX v2.5.1 (or later)

Cisco UCS Manager:
- UCSM v3.2 (or later)

Standalone C-Series: (M5 Servers):
- IMC Software v3.1 (or later)
Intersight Enhanced Security

- Ensuring Connections
  - Durable websocket is used after initial connection
  - Two factor authentication when claiming a device: serial number and claim code
  - During subsequent transfers: identify, authenticate, and authorize
- All communication from device is outbound
  - Device initiates connection
  - No inbound connections are needed
Demo
Getting Started
Cisco Intersight Account Creation

• Users navigate to https://www.intersight.com and sign into portal with cisco.com ID/password – required
• Can create new account or sign into existing account
• Existing account accessed with account number
• New accounts created with device ID / claim code (IMC/UCSM/HX Cluster) – must accept offer agreement first
• Must claim a single device to create account
Cisco Intersight Device Claim

- Additional devices can be claimed from Devices tab – each device has a unique device ID and claim code
- Devices must be running supported firmware version that includes Intersight Device Connector
- Devices are claimed one at a time, bulk claim is a work in progress
Intersight Portal Status

https://status.intersight.com/

Overall Status of Portal Services Displayed

- Device Connector
- Inventory (Device Data Collection)
- Login/Account Authentication
- Techsupport
Feedback/Troubleshooting

[Email Address]: ucs-starship-feedback@cisco.com for feedback/issues

End of the Guided Site Tour references the feedback mailer

Settings->Audit Logs displays information on activity/timestamps

• Important to capture when submitting issues