

The background is a vibrant, abstract graphic featuring a spectrum of colors from red and orange on the left to blue and green on the right. The colors are arranged in a series of overlapping, wavy bands that create a sense of movement and depth. A bright, white, starburst-like light emanates from the right side, casting rays of light across the entire scene.

cisco *Live!*

Let's go

#CiscoLiveAPJC



The bridge to possible

Achieving faster delivery, simplified operations, and continuous optimization with Intersight

A technical introduction to the Cisco Intersight Platform

Jason McGee, Principal Architect
jason.mcgee@cisco.com
BRKCLD-1666



#CiscoLiveAPJC

Cisco Webex App

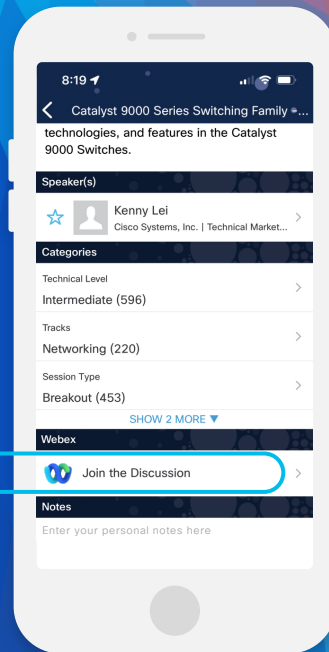
Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until December 22, 2023.



<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKCLD-1666>

Agenda

Introduction

Faster Delivery

Simplified
Operations

Automation

Architecture

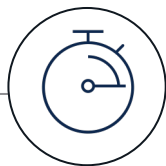
Intelligent
Support

3rd Party Ecosystem

Wrap-up

Introduction

What if customer could..



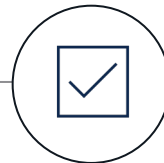
Deploy and configure infrastructure in minutes, not hours, anywhere?



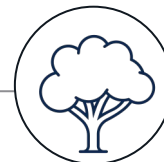
Operate their entire environment from one dashboard?



Continuously identify and close security gaps?



Address potential hardware, OS, or software issues before they impact users, or minimize them when they do?



Monitor and track server power use and energy consumption and increase efficiency in their data centers?

Infrastructure Operations, Simplified

Cisco Intersight

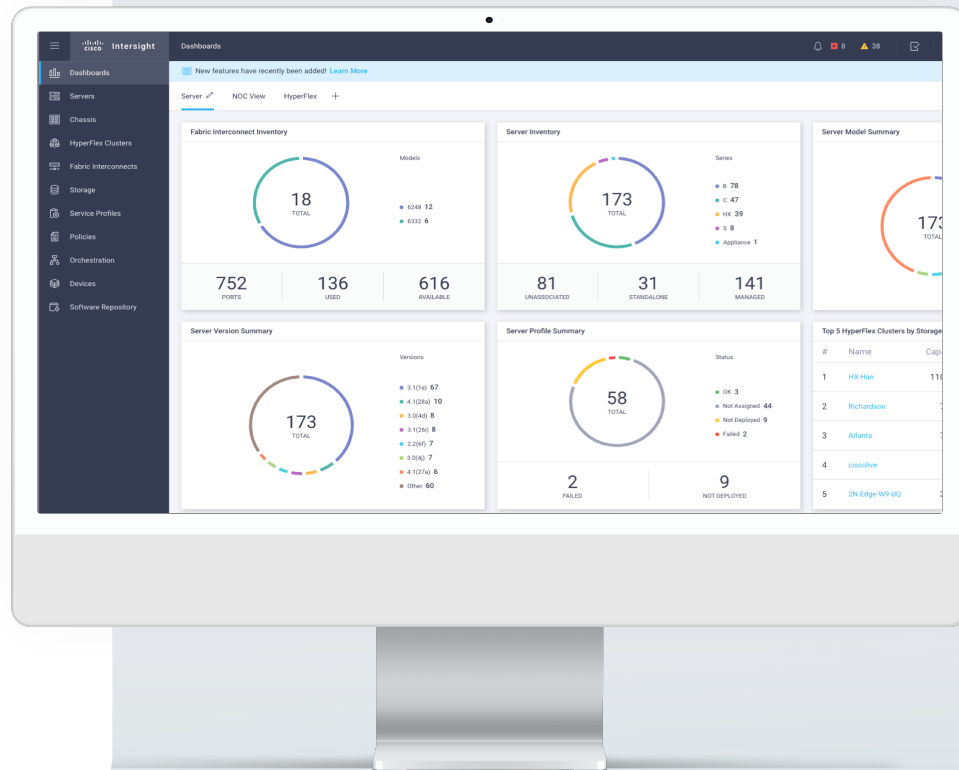
Cisco's SaaS-delivered infrastructure operations platform

See your global on-premises, cloud, and edge environments

Connect your infrastructure operations across compute, networking and storage

Secure operations with built-in advisories and continuous risk mitigation

Automate deployments, configuration, workflows, and day-0 to day-N tasks



Infrastructure Operations, Simplified

Cisco Intersight

See your global on-premises, cloud, and edge environments

- ~1 million servers in Intersight

Secure operations with built-in advisories and continuous risk mitigation

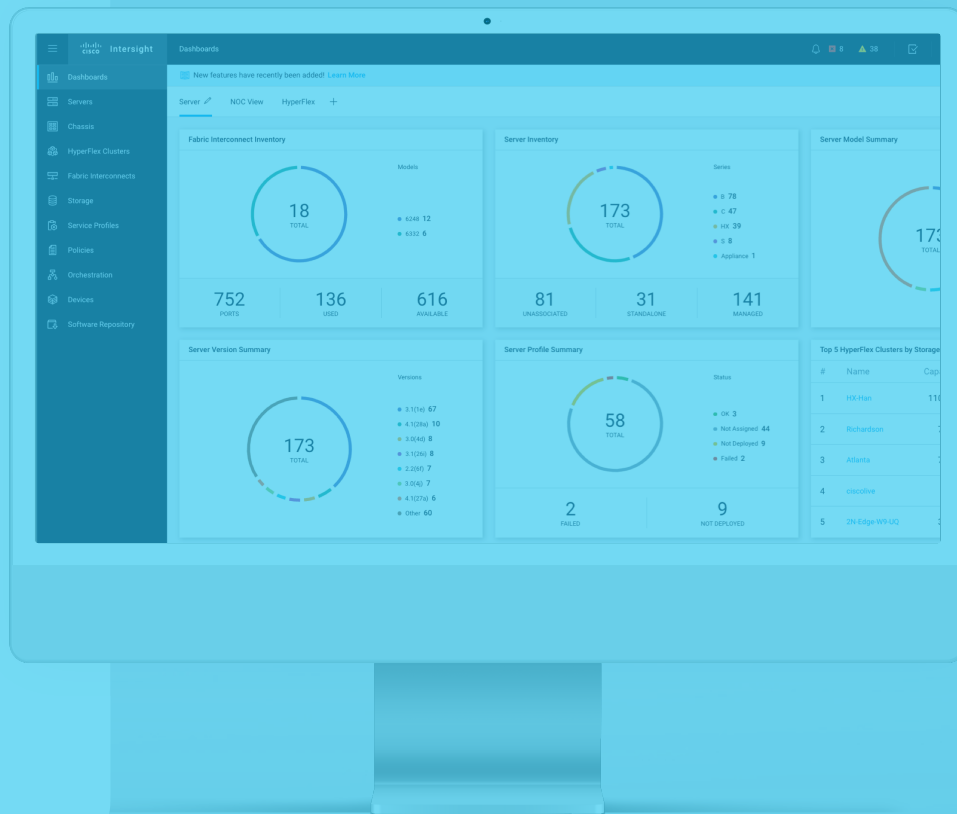
- 263,135 hours saved
- Outbound notifications of critical issues

Connect your infrastructure operations across compute and storage

- 13,000 data points per second gathered

Automate deployments, configuration, workflows, and day-0 to day-N tasks

- 350,847 automatic tech support files generated
- 203 CI/CD releases



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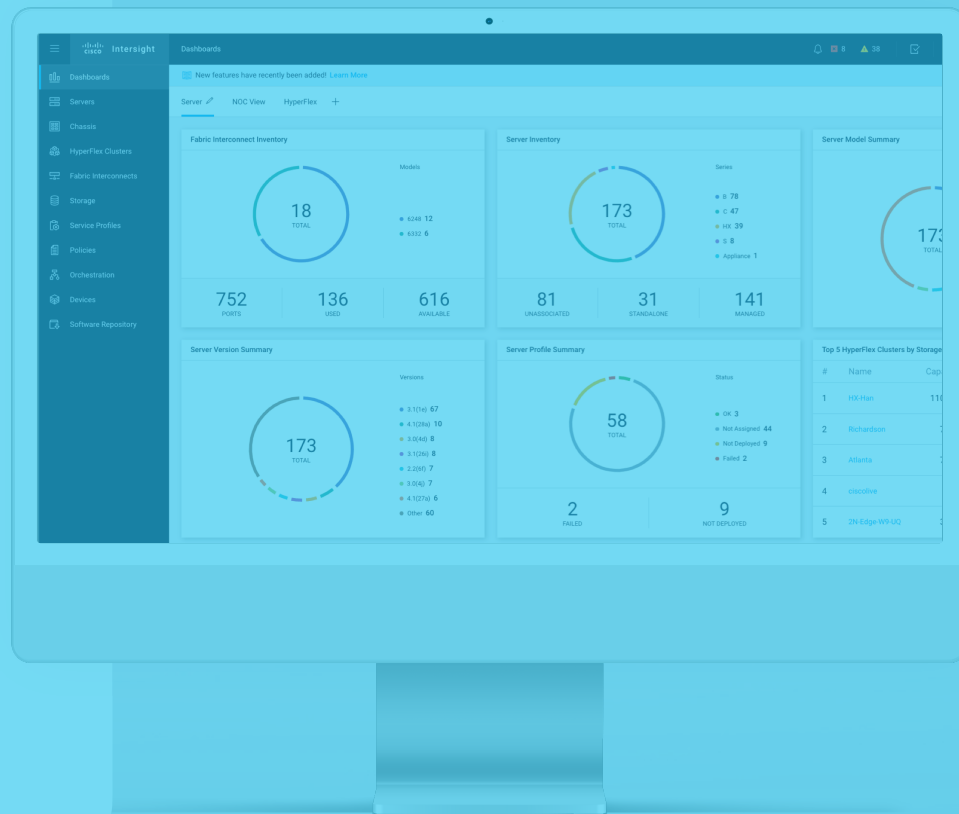
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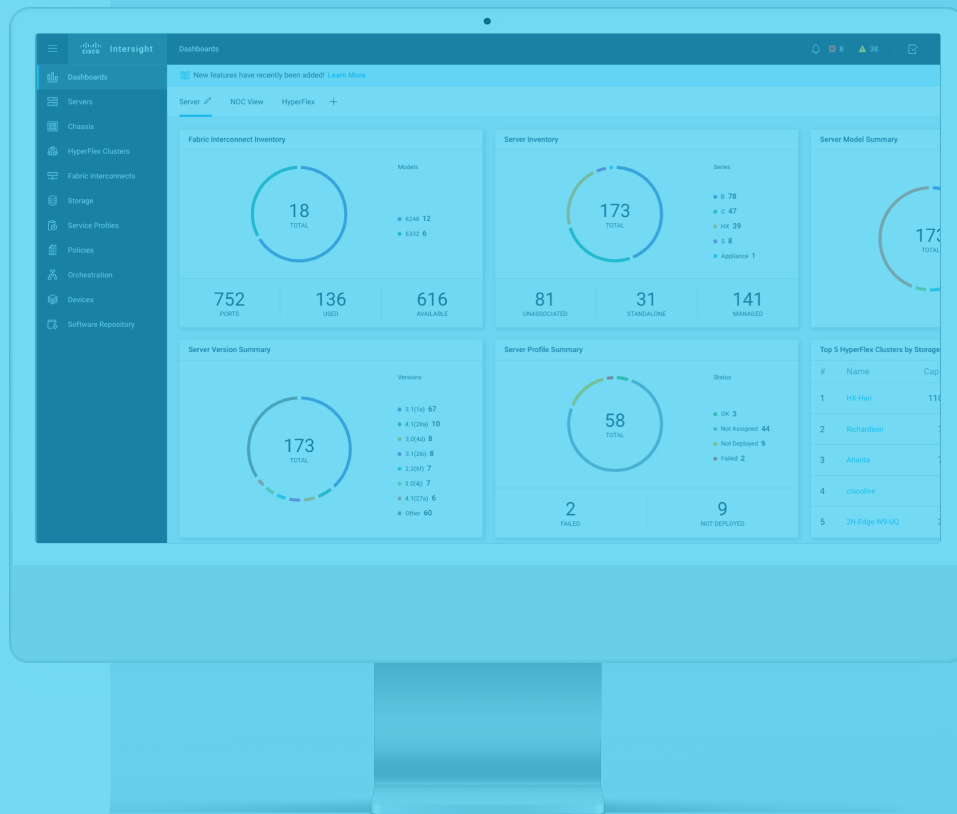
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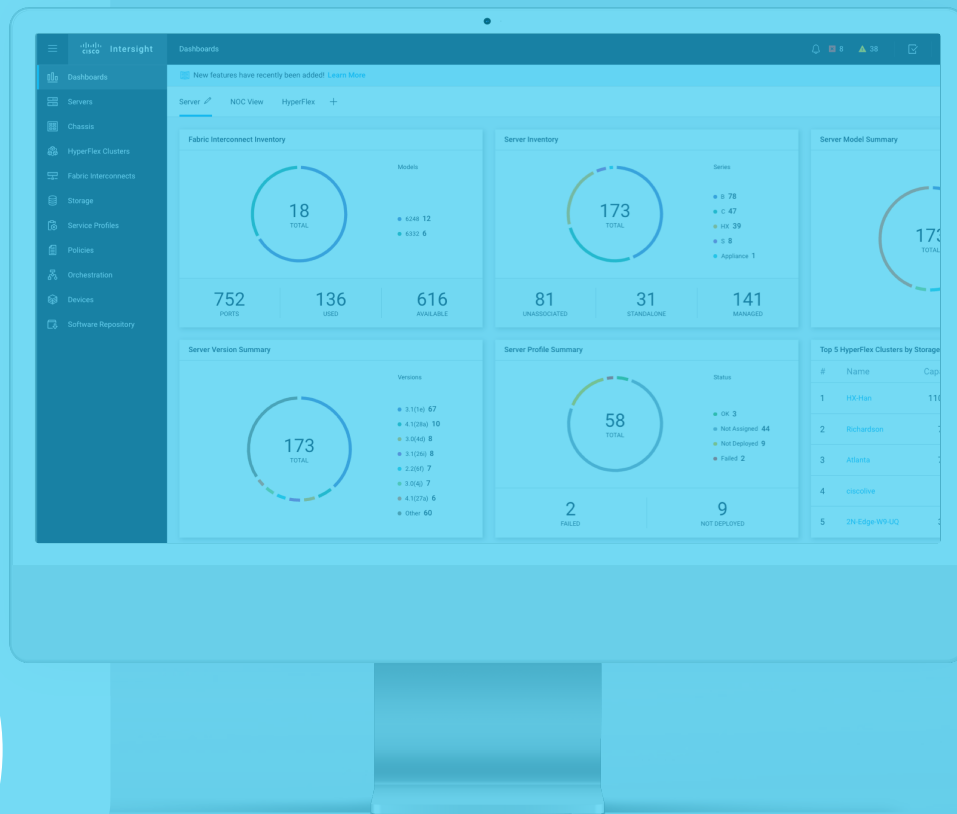
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Cisco Inter sight Infrastructure Service



UCSM Provider



Global Policies



Proactive RMAs



Advisories



Connected TAC

Inter sight Infrastructure Service (IIS)

UCS Manager + UCS Central

Fabric Interconnect

Fabric Interconnect

UCS X-Series

UCS B-Series

Nutanix / UCS C-Series

UCSM Managed Mode

IMC

Cisco UCS C-Series

C-Series (rack-mount
servers)
Standalone Mode

Fabric Interconnect

Fabric Interconnect

UCS X-Series

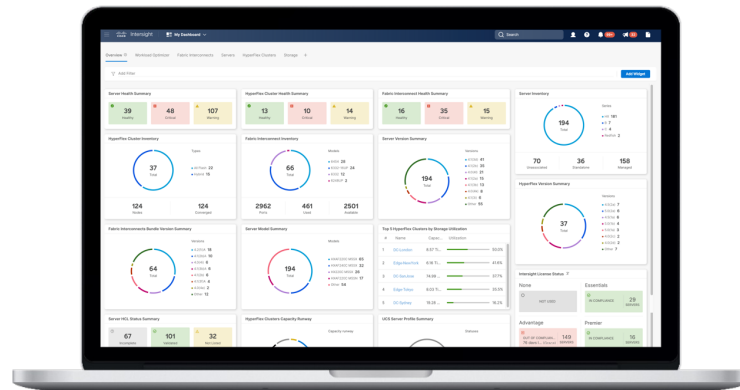
UCS B-Series

UCS C-Series

Inter sight Managed Mode

View in one place

- View in one place
- Your global Cisco and third-party infrastructure
- Servers, virtual machines, third-party servers, storage, and networking
- Real-time status, UCS domain connectivity issues, security advisories, field notices, and hardware compatibility status
- Selected historical data (up to two years)



The customizable dashboard uses widgets for a single view of the health and inventory status of managed devices.

“[Cisco] Intersight® allowed us to quickly find a problem that would have taken us months to troubleshoot without the visibility that Intersight provides.”

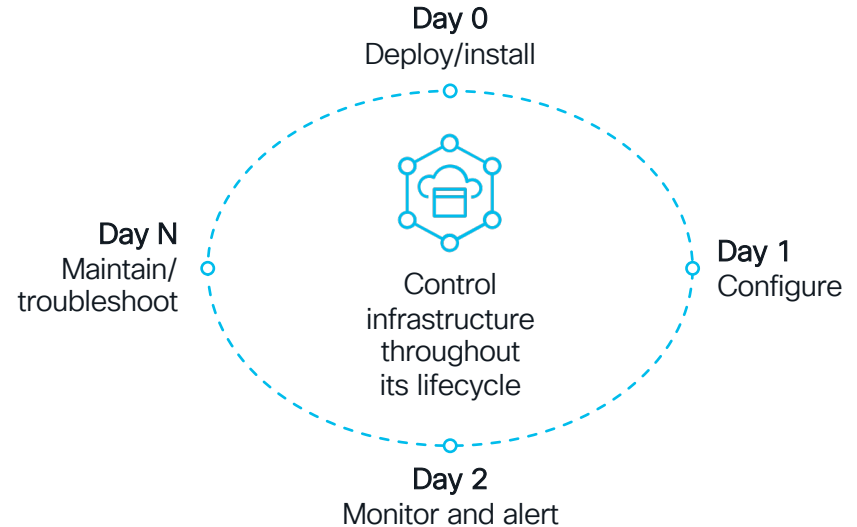
Director of IT and Communications, regional medical center

“With Cisco Intersight, I can now see information that I did not have before. It is one of the first places that we go to when we have performance issues or if a tech upgrade is requested.”

Director of IT, state governmental agency

Manage infrastructure throughout its lifecycle

Deploy, monitor, manage, and support your physical and virtual infrastructure throughout its lifecycle from one place—anytime, anywhere



“[Cisco] Intersight® has reduced the weight of routine deployment and monitoring tasks so we can focus on the work that helps our business.”

Director of IT and Communications, regional medical center

Manage infrastructure security

Built

with security top-of-mind

- Supports industry-standard security protocols including HTTPS, TLS, and AES
- Complies with Cisco® InfoSec security and data handling standards, including encryption of all data
- ISO 27001 certified, SOC 2 Type 2 certified
- Trusted Cloud Provider of the Cloud Security Alliance with STAR Level One security trust assurance

Operates

with security top-of-mind

- Security advisories identified by Cisco's Product Security Incident Response Team alert you to potential risks and provide recommended remediations
- Audit logs record all actions taken on your infrastructure to facilitate SecOps investigations
- Integrates with Security Information and Event Management (SIEM) platforms such as Splunk through the Cisco Intersight® API
- Integrates with webhooks to enable automatic notifications when threats or vulnerabilities in your infrastructure are identified



“As threats to organizations’ cybersecurity become more sophisticated and successful cyberattacks become more common, your business needs (now, more than ever) to implement an infrastructure lifecycle management strategy that emphasizes the security of your IT infrastructure.”*

*Infrastructure Lifecycle Management Best Practices, IT Infrastructure

Prevent and Resolve

Infrastructure issues with custom insights and automated support

- Reduce troubleshooting by 45-60 minutes*
- Close RMA cases up to two days faster*

*Reported by Cisco Intersight® Infrastructure Service customers

- Topology views
- Real-time and historical data
- Security advisories and field notices
- HCL baselining and notifications
- Proactive RMAs
- Connected support (Cisco® TAC)
- Firmware upgrades
- Compliance

“You know you are being proactive when an engineer replaces a hard drive that was displaying anomalies before it fails and causes problems downstream.”

Distinguished Engineer, global technology conglomerate

Monitor and manage energy use

- Monitor power consumption of Cisco UCS servers
- Track overall energy use through metrics
- Manage server energy use through policies at the server and chassis levels



“Energy-efficiency focus is going to expand to include the IT equipment itself.”*

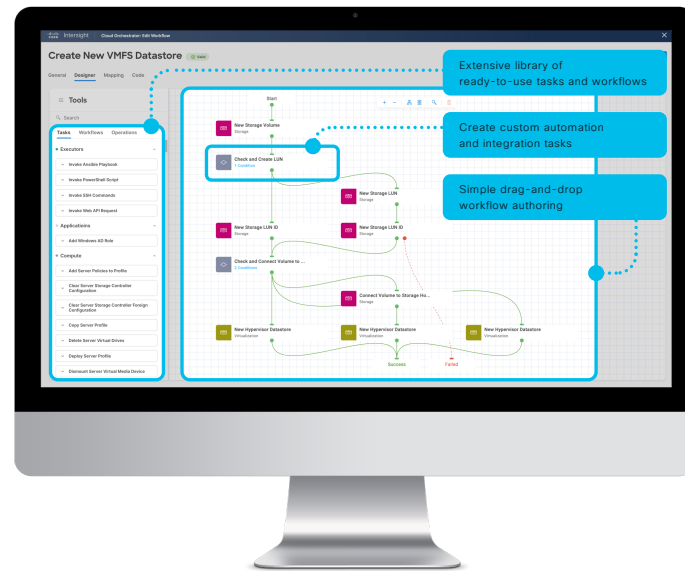
*Networkworld, January 2023

Create Automated workflows

- Accelerate delivery of applications and infrastructure
- Reduce risk with standardization
- Simplify cross-domain orchestration

Two options

- Workflow designer
Drag-and-drop workflow authoring
- APIs/SDKs
For using your existing automation tools (Ansible, Terraform, etc.)



“With consistent and repeatable workflows offered by Cisco Intersight®, IT teams can save time and decrease operational costs.”

ESG

Integrate

Cisco® converged infrastructure with UCS® X-Series



See converged infrastructure inventory, including servers, SAN switching, storage, VMware virtualization, and Cisco fabric interconnects

Incorporate into orchestrated workflows

Storage plugins



See storage capacity, controllers, configuration, snapshots, and replication



Automate storage management and orchestration



Use storage task library to create and execute workflows

ServiceNow plugin



Service Graph Connector for Cisco Intersight®

Ingest data from Cisco Intersight-connected servers, storage, data center networking, and virtual machines into ServiceNow

Resolve issues faster

Third-party server support



Dell PowerEdge / HPE ProLiant



- See inventory and health
- Add to automated workflows

API/SDKs

Cisco Intersight® API



Easily integrate existing tools into Intersight

Get the best of Intersight and your current tools

Maximize your investments

SDKs



Prepackaged API clients

Easy way to start programming against Intersight

Full access to the API

Current SDKs



ANSIBLE



python™



HashiCorp

Terraform

Benefits

CISCO
INTERINSIGHT®
INFRASTRUCTURE
SERVICE

Strengthen compliance

Increase uptime

Bolster security

Improve productivity

Accelerate operations

Control energy use

IT operations. Simplified.

Faster Delivery

Profiles

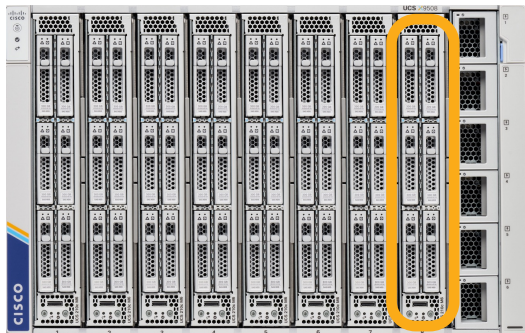
Fabric



Domain Profiles

Configures a Fabric Interconnect pair through reusable policies - Streamlining the deployment of Fabric Interconnect pairs, while allowing for configuration of the ports, port channels, and configuration of the VLANs and VSANs in the network

Chassis



Chassis Profiles

Enables chassis policies for an Intersight Managed Mode claimed chassis (B-Series and X-Series)

Server Node

Server Profiles

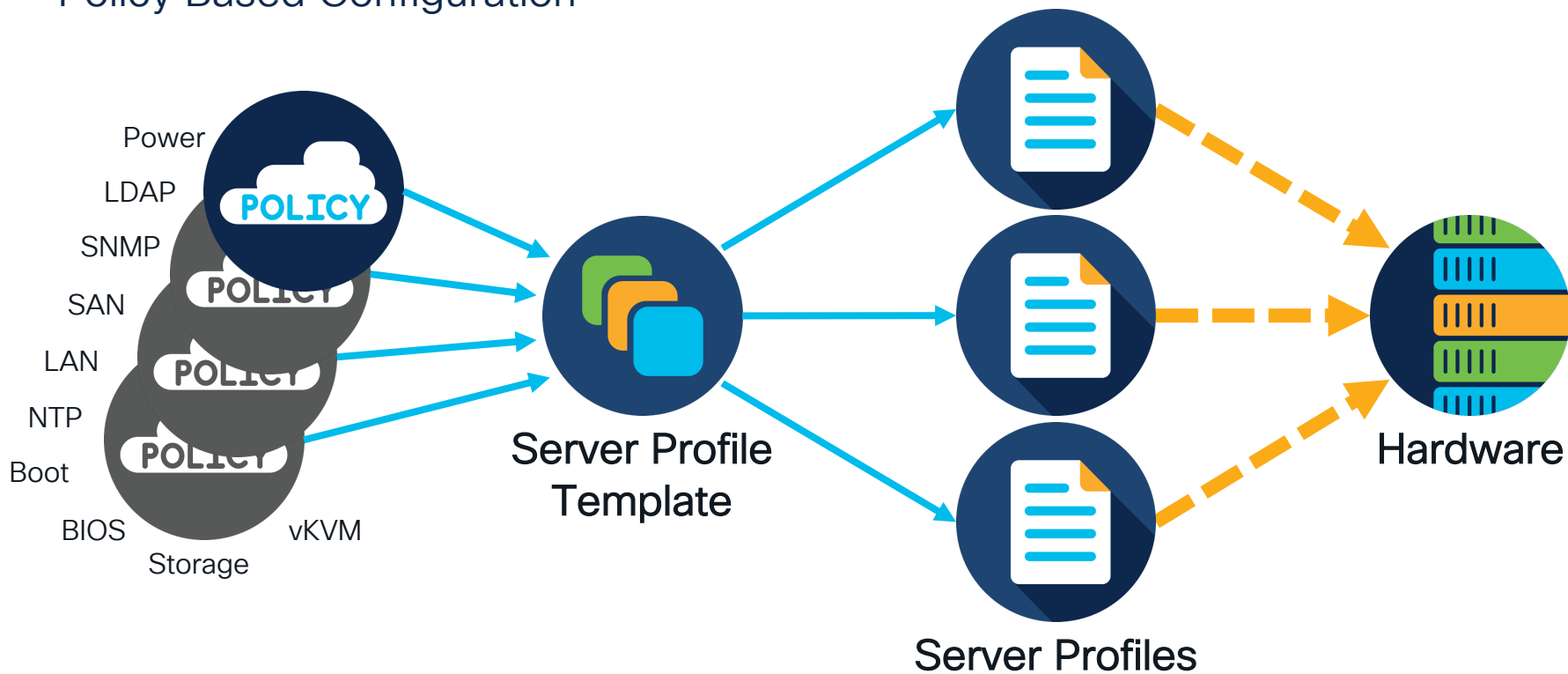
Built of policies and pools and used to define the desired configuration and map that configuration to a target server

Rack Server

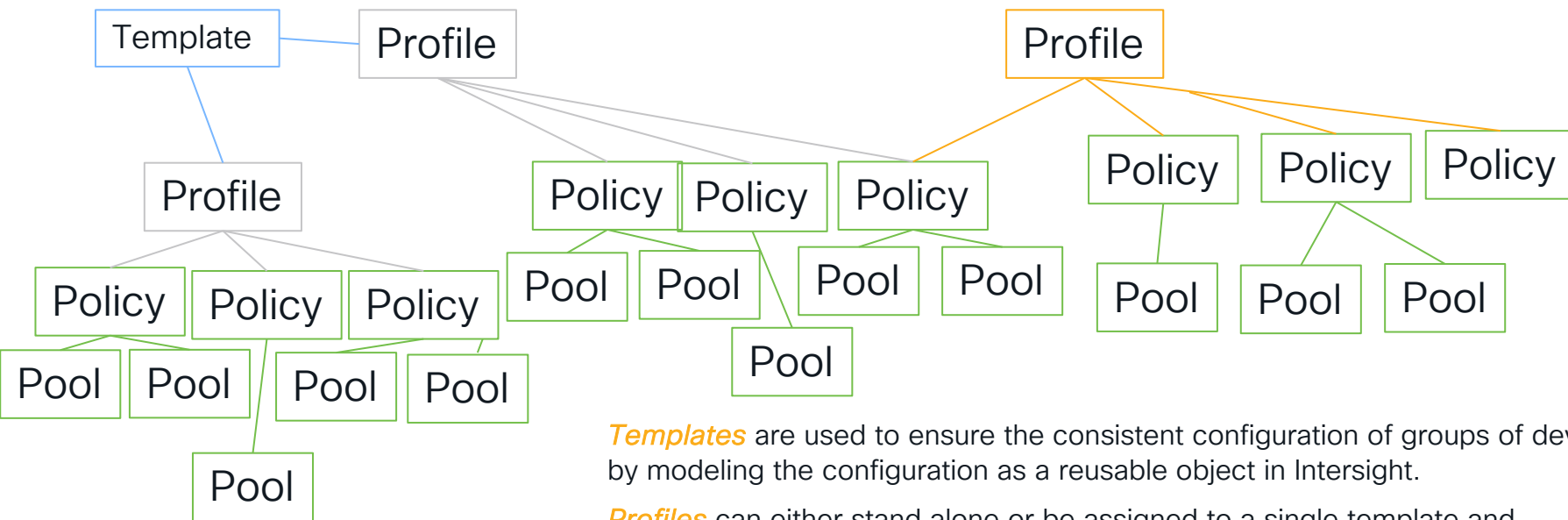


Consistent Delivery

Policy Based Configuration



Putting it all together



Templates are used to ensure the consistent configuration of groups of devices by modeling the configuration as a reusable object in InterSight.

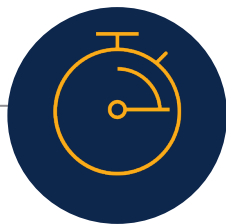
Profiles can either stand alone or be assigned to a single template and contains all the best practices typically found within a Cisco Validated Design (CVD) but is completely orchestrated by InterSight

*can only be mapped 1:1 with a device, or unassigned

Policies are reusable and **Pools** are persistent

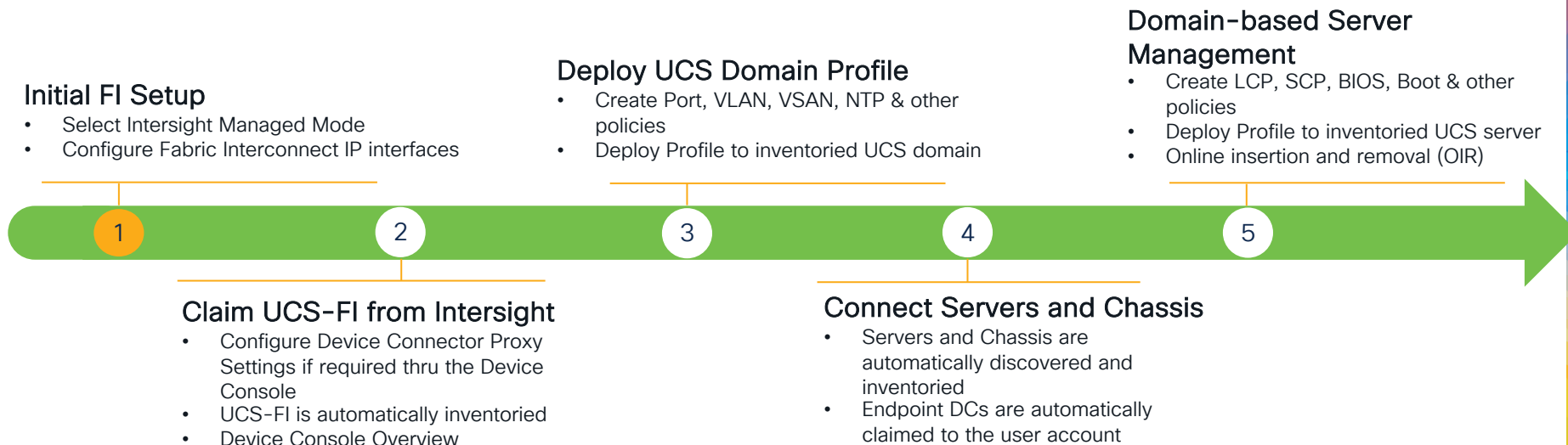
*can be used across Profiles

What if you could...



Deploy and configure
infrastructure in minutes,
not hours, anywhere?

Configuration Journey



1

Initial FI Config

```

Type 'reboot' to abort configuration and reboot system
or Type 'X' to cancel GUI configuratuion and go back to console  or Press any other key to see the
installation progress from GUI (reboot/X) ? X

Enter the configuration method. (console/gui) ? console

Installer has detected the presence of a peer Fabric interconnect. This Fabric interconnect will be
added to the cluster. Continue (y/n) ? y

Enter the admin password of the peer Fabric interconnect:
Connecting to peer Fabric interconnect... done
Retrieving config from peer Fabric interconnect... done
Peer Fabric interconnect management mode   : intersight
Peer Fabric interconnect Mgmt0 IPv4 Address: 
Peer Fabric interconnect Mgmt0 IPv4 Netmask: 

Peer FI is IPv4 Cluster enabled. Please Provide Local Fabric Interconnect Mgmt0 IPv4 Address

Physical Switch Mgmt0 IP address : 

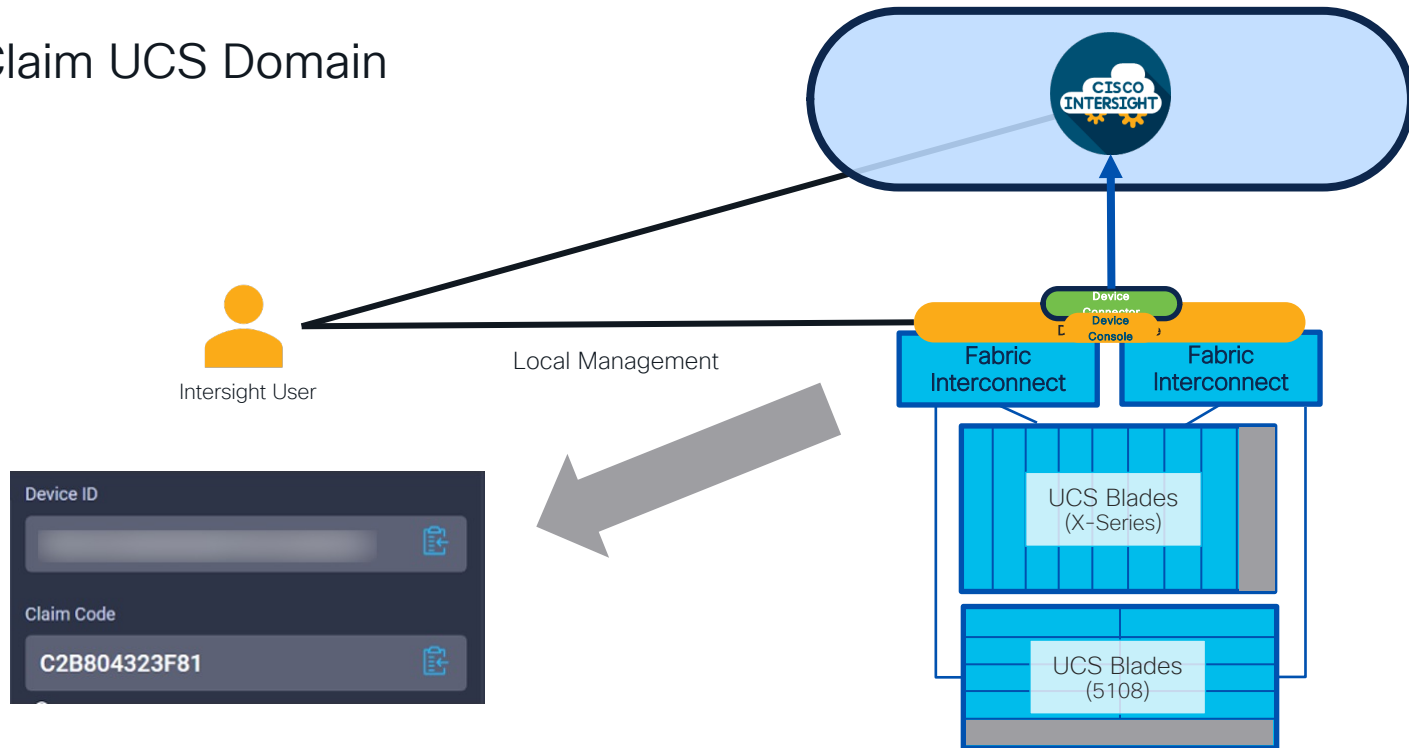
Local fabric interconnect model(UCS-FI-6454)
Peer fabric interconnect is compatible with the local fabric interconnect. Continuing with the ins
taller...

Apply and save the configuration (select 'no' if you want to re-enter)? (yes/no): yes

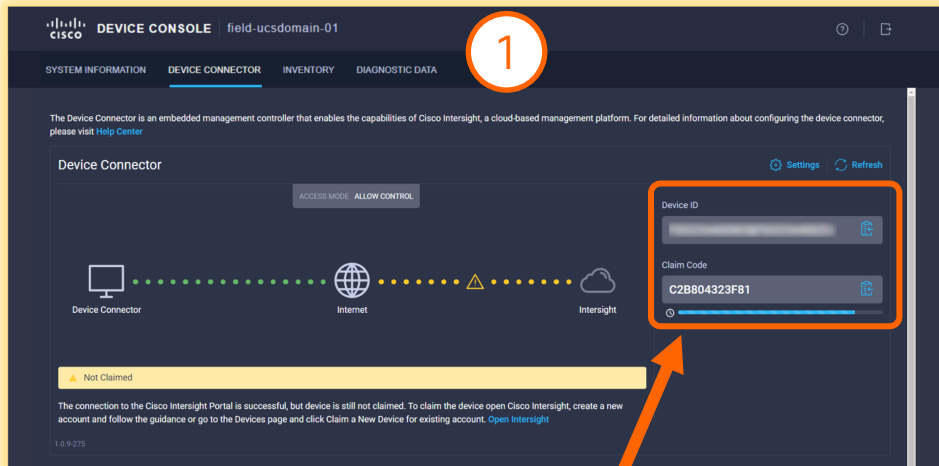
```

2 Claiming your Fabric Interconnect

Claim UCS Domain

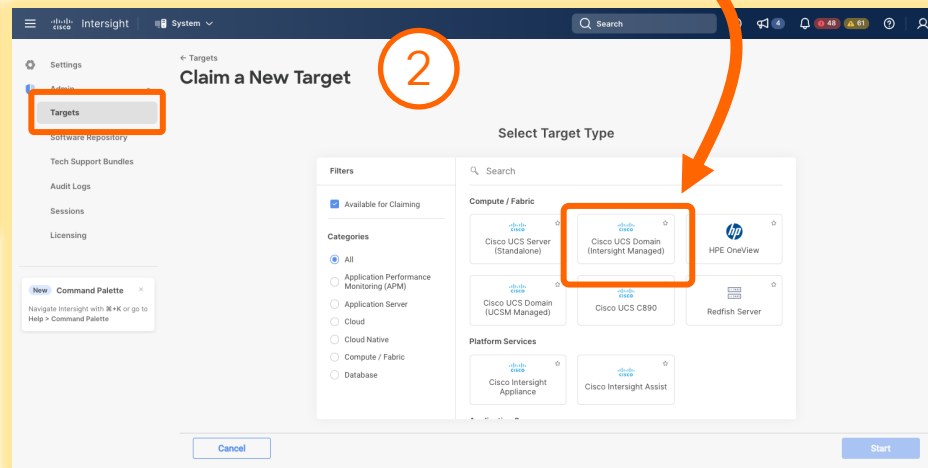


Claiming Domain with Device Connector



1. Use Device ID and Claim Code to claim Domain

2. From Intersight → System → Targets, claim domain by selecting "Cisco UCS Domain (Intersight Managed)"



Claiming Domain with Device Connector

The screenshot displays the Cisco Device Console interface for a domain named 'field-ucsdomain-01'. The 'DEVICE CONNECTOR' tab is active. A callout box with the number '3' points to the 'Device ID' field, which contains the text '3. Domain Claim successful, Domain claimed to account'. Below the 'Device ID' field, the 'Claimed to Account' status is shown as 'Claimed' with a green checkmark. The 'Unclaim' button is visible below the status. The interface also shows a diagram of the Device Connector connected to the Internet and then to the Intersight cloud. The 'ACCESS MODE' is set to 'ALLOW CONTROL'. The version number '1.0.9-966' is displayed at the bottom left.

Note: Upon completion of Domain Claim process, only FIs are inventoried

Claiming Domain with Device Connector

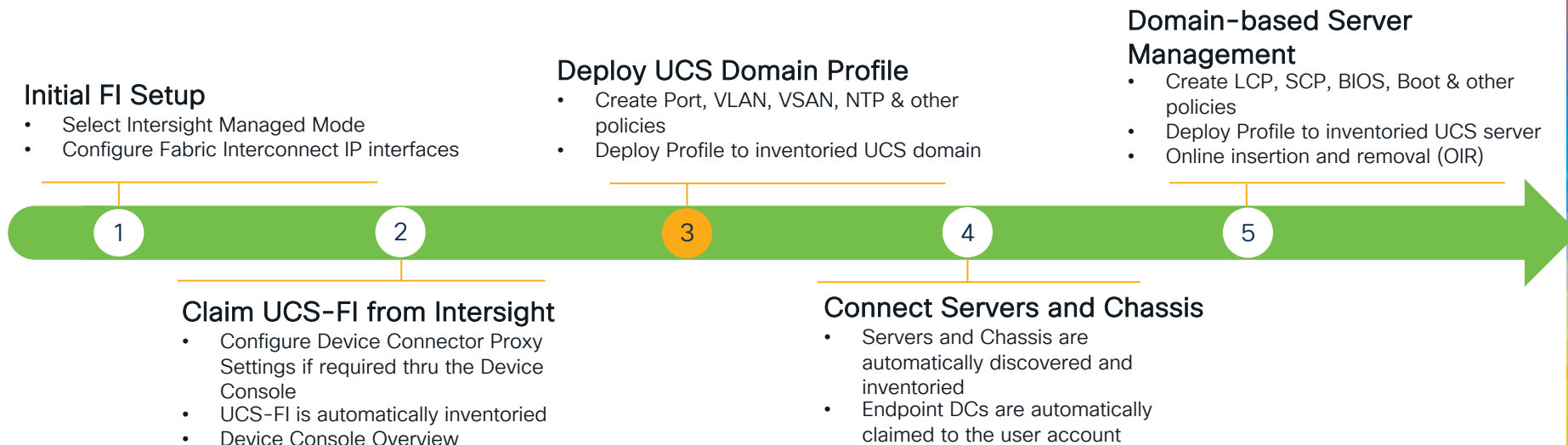
The screenshot displays the 'Targets' page in the Cisco Intersight interface. The left sidebar contains navigation links: Settings, Admin, Targets (selected), Software Repository, Tech Support Bundles, Audit Logs, Sessions, and Licensing. A 'New Command Palette' notification is visible at the bottom left.

The main content area is titled 'Claim a New Target' and 'Targets'. It features a summary section with three cards: 'Connection' (22 Connected, 3 Not Connected), 'Top Targets by Types' (25 total), and 'Vendor' (25 total). Below these is a table of targets.

Name	Status	Type	Claimed Time	Claimed By
C220-FCH2115V0T1	Connected	Standalone M4 Server	May 13, 2022 9:39 AM	...
C220-FCH2115V0M9	Connected	Standalone M4 Server	May 13, 2022 9:08 AM	...
C220-FCH2115V0FQ	Connected	Standalone M4 Server	May 13, 2022 9:41 AM	...
C220-FCH2114V304	Connected	Standalone M4 Server	May 13, 2022 10:01 AM	...
romanova	Connected	Intersight Managed Domain	May 31, 2022 9:31 AM	...
C220-FCH2115V0R1	Connected	Standalone M4 Server	Apr 13, 2022 12:41 PM	...
demo	Connected	Intersight Managed Domain	Feb 16, 2023 9:23 AM	...
C220-FCH2114V2E9	Connected	Standalone M4 Server	May 13, 2022 9:56 AM	...
C220-FCH2115V0FB	Connected	Standalone M4 Server	Apr 13, 2022 12:28 PM	...
C220-FCH2115V0T6	Connected	Standalone M4 Server	May 13, 2022 9:27 AM	...

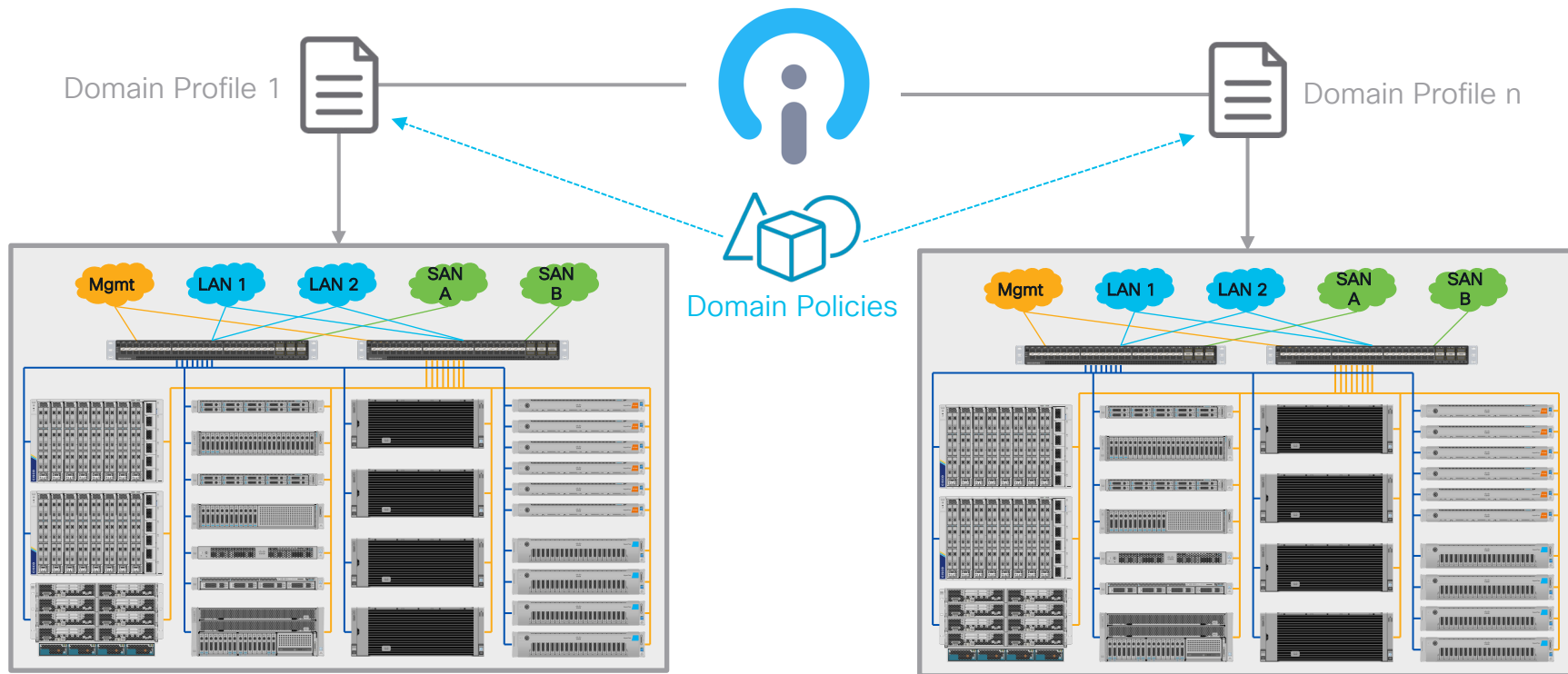
The 'demo' target is highlighted with an orange box. The table includes columns for Name, Status, Type, Claimed Time, and Claimed By. The status for all targets is 'Connected'.

Configuration Journey



3 Deploy UCS Domain Profiles

Policy based configuration of the UCS Fabric



UCS Domain Policies for the Domain Profile

← Policies

Select Policy Type

Filters

Platform Type

- ☐ All
- ☐ UCS Server
- ☒ UCS Domain
- ☐ UCS Chassis
- ☐ HyperFlex Cluster
- ☐ Kubernetes Cluster

☐ Ethernet Network Control

☐ Link Control

☐ Port

☐ System QoS

☐ Ethernet Network Group

☐ Multicast Policy

☐ SNMP

☐ VLAN

☐ Flow Control

☐ Network Connectivity

☐ Switch Control

☐ VSAN

☐ Link Aggregation

☐ NTP

☐ Syslog

[Cancel](#)[Start](#)

Create UCS Domain Profile Wizard

Create UCS Domain Profile

1

2

3

4

5

6

General

UCS Domain Assignment

VLAN & VSAN Configuration

Ports Configuration

UCS Domain Configuration

Summary

Ports ConfigurationVLAN & VSAN ConfigurationUCS Domain ConfigurationErrors / Warnings

Fabric Interconnect A

Ports ConfigurationdemoPort

PortsPort Channels

Ethernet Uplink Port Channel

Server

Unconfigured

Port Type

Ethernet

54

Port Role

Server

2

Unconfigured

50

Port Channel Type

Ethernet Uplink

1

Port Channel Role

Ethernet Uplink

2

Close

BackDeploy

BackNext

CISCO *Live!*

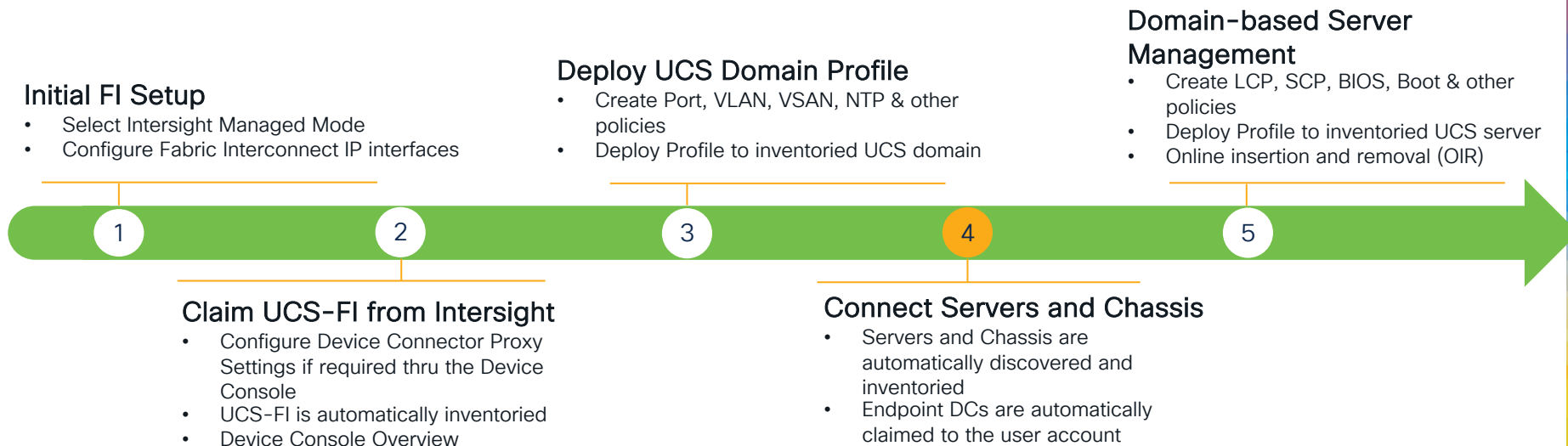
#CiscoLiveAPJC

BRKCLD-1666

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36

Configuration Journey



4 Connect Chassis and Servers

Chassis Auto Discovery

Chassis

* All Chassis ⓘ +

... ⓘ | 🔍 Add Filter

[Export](#) 3 items found 10 ▾ per page [K] < 1 of 1 > [X]

Health



Critical 1

Healthy 2

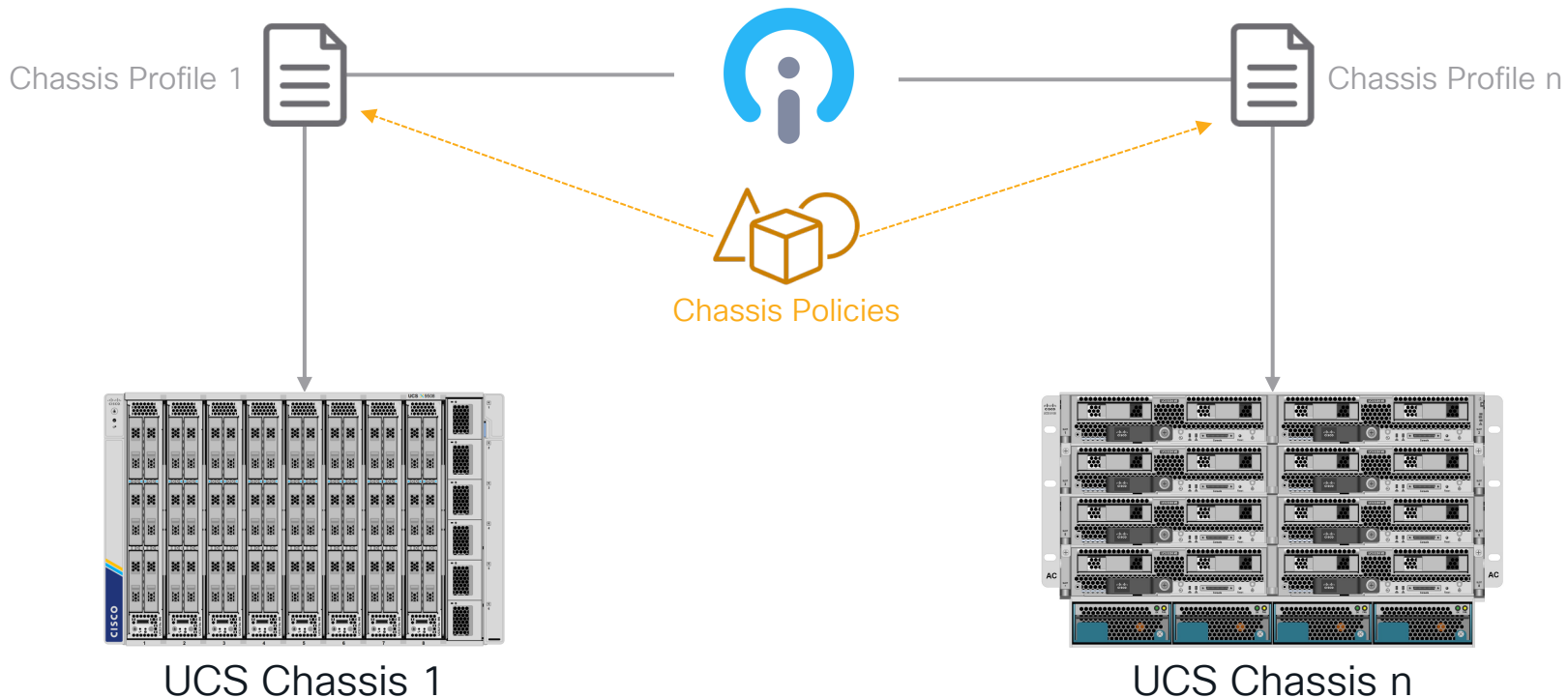
☐	Name	Health	UCS Domain	Model	Chassis Profile	⚡
☐	belova-1	🔴 Critical	belova	N20-C6508		...
☐	demo-1	🟢 Healthy	demo	UCSX-9508	demo 🟢	...
☐	romanova-1	🟢 Healthy	romanova	N20-C6508		...

... ⓘ

[K] < 1 of 1 > [X]

UCS Chassis Profiles

Policy-based configuration of the UCS chassis



UCS Chassis Policies for the Chassis Profile

← Policies

Select Policy Type

Filters

Platform Type

- ☐ All
- ☐ UCS Server
- ☐ UCS Domain
- ☒ UCS Chassis
- ☐ HyperFlex Cluster
- ☐ Kubernetes Cluster

☐ IMC Access

☐ Power

☐ SNMP

☐ Thermal

[Cancel](#)[Start](#)

Create UCS Chassis Profile Wizard

Verify details of the chassis profile and policies, resolve errors if any, and deploy.

✓ General

✓ Chassis Assignment

✓ Chassis Configuration

4 Summary

General

Organization

default

Status

✓ OK

Name

demo

Tags

-

Assigned Chassis

demo-1

Chassis Configuration

Errors/Warnings (0)

IMC Access

demoIMCAccess

Power

demo

Thermal

demo

<

Close

Back

Deploy

Confirm Chassis Assignment

Deploy, if desired

Domain-based Server Management

← Policies

Select Policy Type

Filters

Platform Type

- ☐ All
- ☒ UCS Server
- ☐ UCS Domain
- ☐ UCS Chassis
- ☐ HyperFlex Cluster
- ☐ Kubernetes Cluster

- ☐ Adapter Configuration
- ☐ BIOS
- ☐ Boot Order
- ☐ Certificate Management
- ☐ Device Connector
- ☐ Drive Security
- ☐ Ethernet Adapter
- ☒ Ethernet Network
- ☐ Ethernet Network Control
- ☐ Ethernet Network Group
- ☐ Ethernet QoS
- ☐ FC Zone
- ☐ Fibre Channel Adapter
- ☐ Fibre Channel Network
- ☐ Fibre Channel QoS
- ☐ Firmware
- ☐ IMC Access
- ☐ IPMI Over LAN
- ☐ iSCSI Adapter
- ☐ iSCSI Boot
- ☐ iSCSI Static Target
- ☐ LAN Connectivity
- ☐ LDAP
- ☐ Local User
- ☐ Network Connectivity
- ☐ NTP
- ☐ Persistent Memory
- ☐ Power
- ☐ SAN Connectivity
- ☐ SD Card
- ☐ Serial Over LAN
- ☐ SMTP
- ☐ SNMP
- ☐ SSH
- ☐ Storage
- ☐ Syslog
- ☐ Thermal
- ☐ Virtual KVM
- ☐ Virtual Media

[Cancel](#)[Start](#)

Derive Profiles from Template

Automatically create profiles to apply to 100s of servers automatically using a single template

The screenshot displays the Cisco UCS Manager interface. At the top, the 'Templates' section is visible, with a 'Create UCS Server Profile Template' button. Below this, the 'Derive' section is active, showing a 'General' tab. The 'General' tab contains a 'UCS Server Profile Template' section with fields for 'Name' (trainino01-template) and 'Organization' (ImmTraining01). Below the 'Derive' section, the 'Profiles' section is visible, showing a list of 'UCS Server Profiles'. The list is filtered to show 'All UCS Server Prof...'. The table has columns for 'Name', 'Status', 'Target Platform', 'UCS Server Template', 'Server', and 'Last Update'. Three profiles are listed, all with a status of 'OK'.

Name	Status	Target Platform	UCS Server Template	Server	Last Update
demoTemplate_DERIVED-1	OK	UCS Server (FI-Attached)	demoTemplate	demo-1-1	a day ago
demoTemplate_DERIVED-5	OK	UCS Server (FI-Attached)	demoTemplate	demo-1-5	Feb 26, 2023 2:08 AM
demoTemplate_DERIVED-3	OK	UCS Server (FI-Attached)	demoTemplate	demo-1-3	Feb 26, 2023 12:54 AM

Deploy Profiles

Deploy the newly created server profiles from the single server profile template

Profiles

HyperFlex Cluster Profiles UCS Chassis Profiles UCS Domain Profiles UCS Server Profiles Kubernetes Cluster Profiles

Create UCS Server Profile

* All UCS Server Prof... @ +

... Add Filter Export 19 items found 19 per page 1 of 1

☐	Name	Status	Target Platform	UCS Server Template	Server	Last Update	
☐	demoTemplate_DERIVED-1	OK	UCS Server (FI-Attached)	demoTemplate	demo-1-1	a day ago	...
☐	demoTemplate_DERIVED-5	OK	UCS Server (FI-Attached)	demoTemplate	demo-1-5	Feb 26, 2023	...
☐	demoTemplate_DERIVED-3	OK	UCS Server (FI-Attached)	demoTemplate	demo-1-3	Feb 26, 2023	...
☐	C220-FCH2115V0FB	OK	UCS Server (Standalone)		C220-FCH2115V0FB	Feb 6, 2023	...
☐	C220-FCH2114V1SH	OK	UCS Server (Standalone)		C220-FCH2114V1SH	Feb 6, 2023	...
☐	C220-FCH2115V0QZ	OK	UCS Server (Standalone)		C220-FCH2115V0QZ	Feb 6, 2023	...
☐	C220-FCH2115V0T1	OK	UCS Server (Standalone)		C220-FCH2115V0T1	Feb 6, 2023	...

Deploy

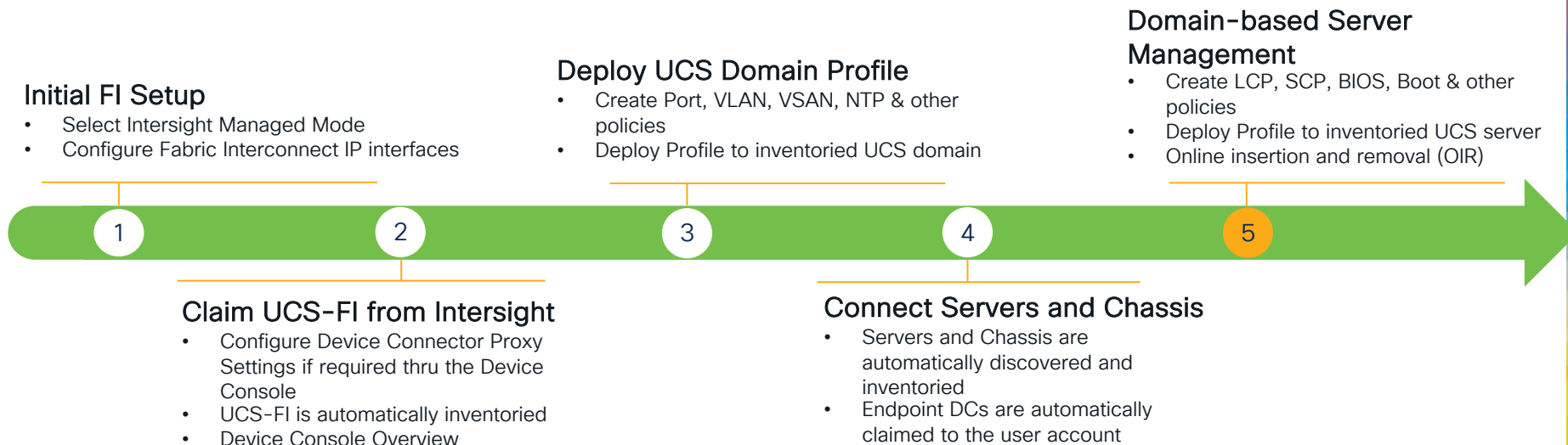
Clone

Edit

Delete

Detach from Template

Configuration Journey



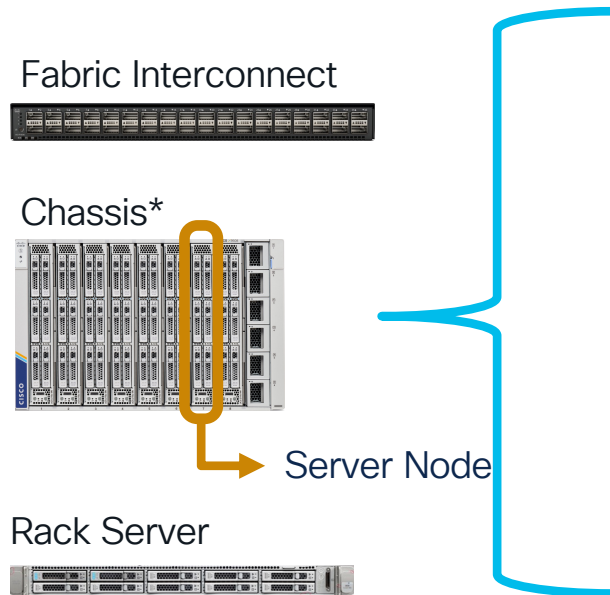
Simplified Operations



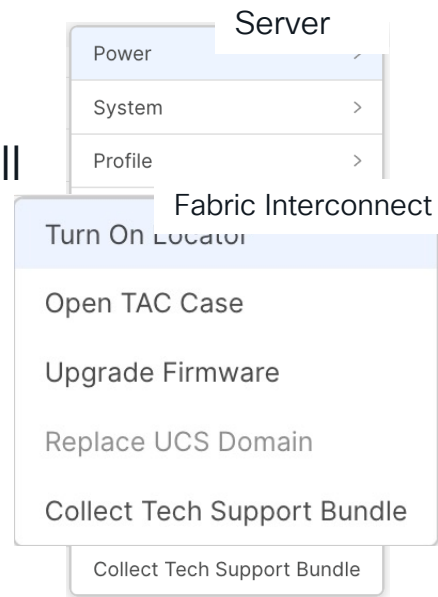
I have my server configured.
Now what?



Day 2 & Day N Operations at Scale

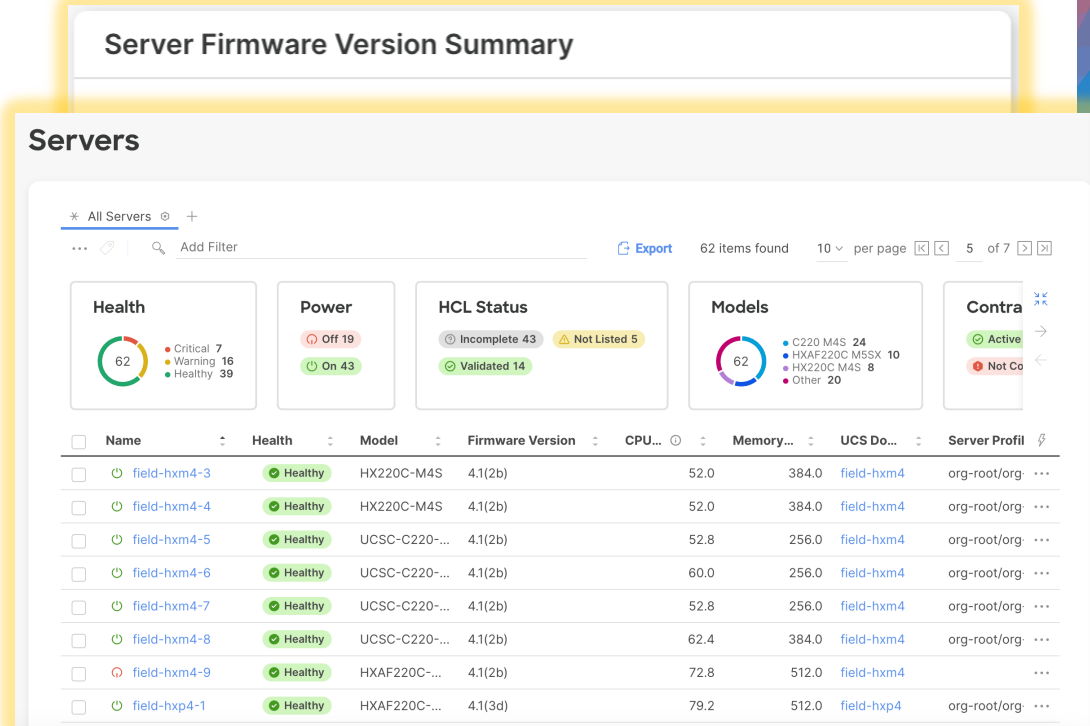


- Firmware Upgrade
- Operating System Install
- Power Operations
- System Operations
- Remote Connectivity
- Support
- Rediscover*
- Decommission*



Server Firmware Upgrade

- Ability to list/filter servers by firmware version
- View a summary of firmware versions across all servers
- Execution of upgrades from a single platform
- Firmware bundles downloaded from Intersight.com
- If part of a domain, verify if the fabric interconnect is upgraded



Fabric Interconnects Firmware Upgrade

← Requests

Upgrade Firmware

Details

Status
Success

Name
Upgrade Firmware

ID
63c1f4e7696f6e2d33938858

Target Type
Fabric Interconnect

Target Name
drstrange FI-A
drstrange FI-B

Source Type
Firmware Upgrade

Source Name
drstrange

Initiator
drstrange

Start Time
Jan 13, 2023 4:18 PM

End Time
Jan 17, 2023 9:34 AM

Wait for infra upgrade to complete. Jan 17, 2023 9:34 AM

Wait for user acknowledgement on primary Fabric Interconnect. Jan 17, 2023 9:23 AM

Wait for peer Fabric Interconnect activation to complete. Jan 17, 2023 9:02 AM
Waiting for User acknowledgement

Activate peer Fabric Interconnect. Jan 17, 2023 8:34 AM

Wait for a user acknowledgement for infra upgrade Jan 17, 2023 8:34 AM

Wait for image download to complete in UCS Manager. Jan 13, 2023 4:58 PM
ucs-6300-k9-bundle-infra.4.2.1n.A.bin downloaded.

Initiate image download to UCS Manager. Jan 13, 2023 4:54 PM

Wait for image download to complete in Fabric Interconnect. Jan 13, 2023 4:54 PM
Image ucs-6300-k9-bundle-infra.4.2.1n.A.bin successfully cached in Fabric Interconnect.

Initiate image download to Fabric Interconnect. Jan 13, 2023 4:18 PM
Download ucs-6300-k9-bundle-infra.4.2.1n.A.bin request is submitted successfully.

Validate if any upgrade is running in Fabric Interconnect. Jan 13, 2023 4:18 PM

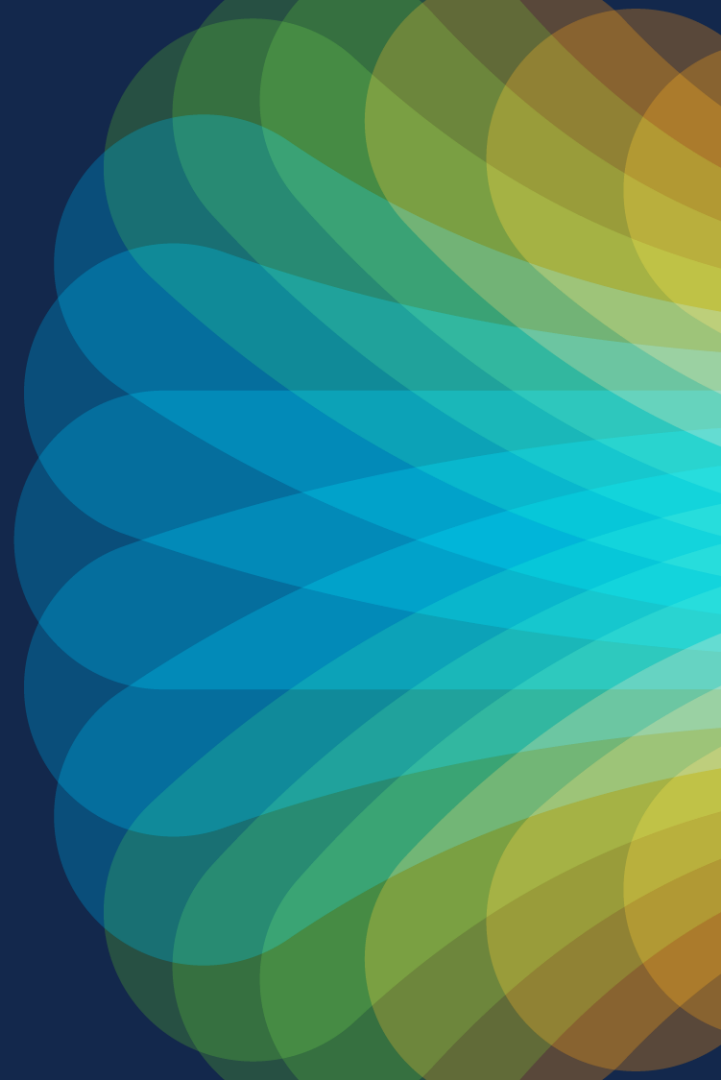
Validate prerequisites for the upgrade. Jan 13, 2023 4:18 PM
ucs-6300-k9-bundle-infra.4.2.1n.A.bin is not present in UCSM.

Validate the space availability prerequisite in the Fabric Interconnects. Jan 13, 2023 4:18 PM
Validation of pre-upgrade space availability completed successfully.

Cancel

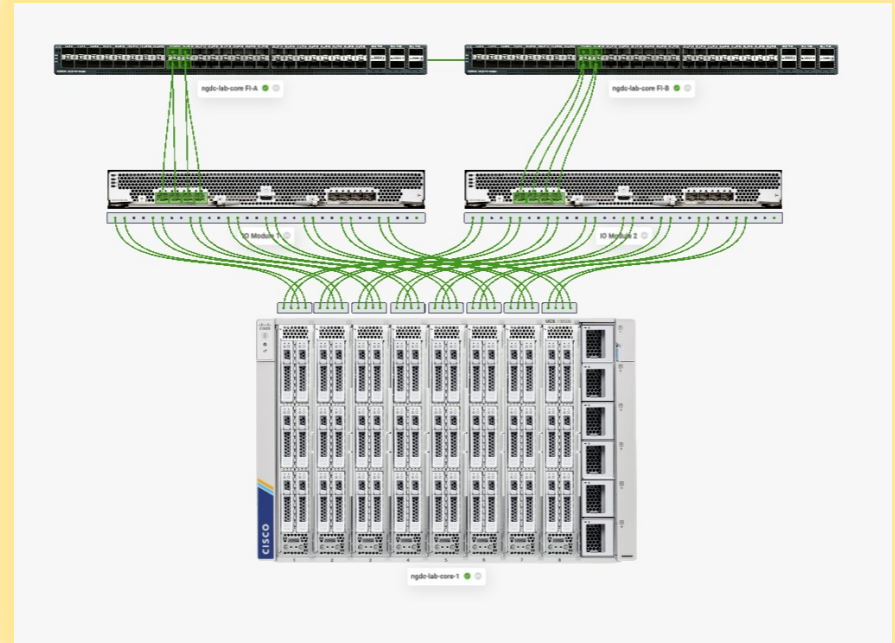
Back Upgrade

Monitoring



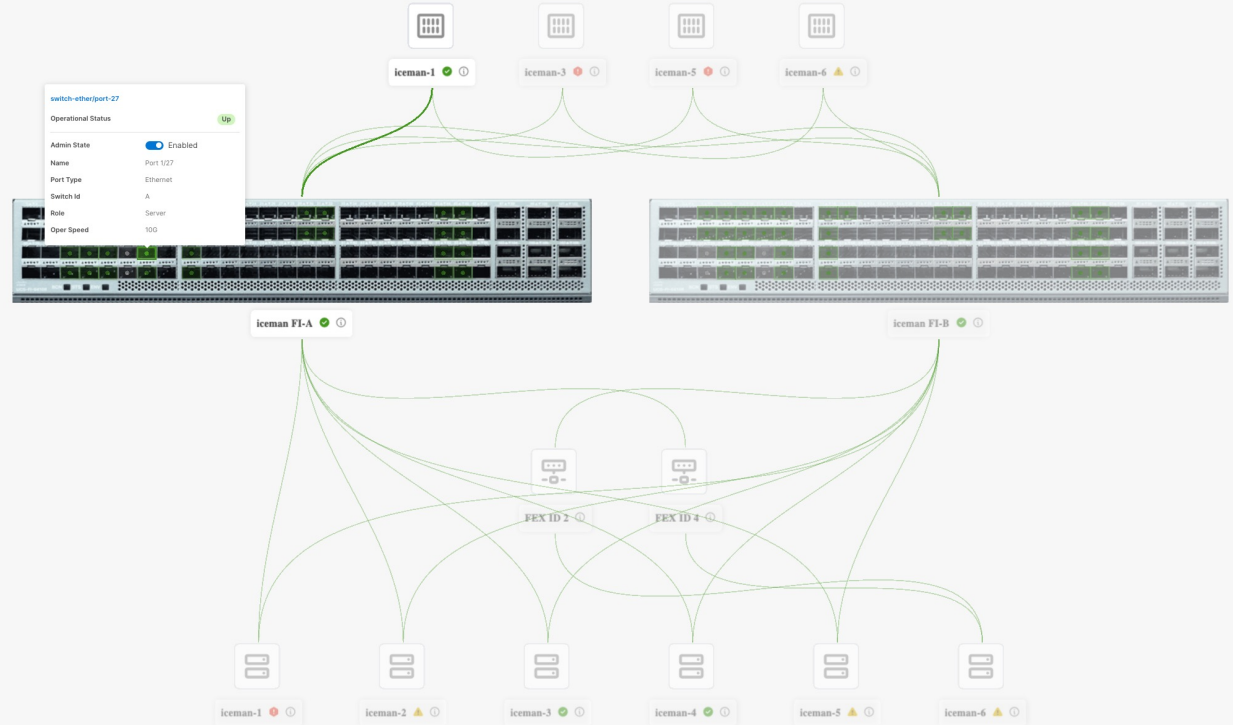
Overview

- Visual representation of components in Intersight-Managed UCS Domain
- Display connections and relationships between components
- Interconnected topology views for FIs, Chassis and servers
- Overlay of port and connection level health status
- Easily navigate the health of the environment



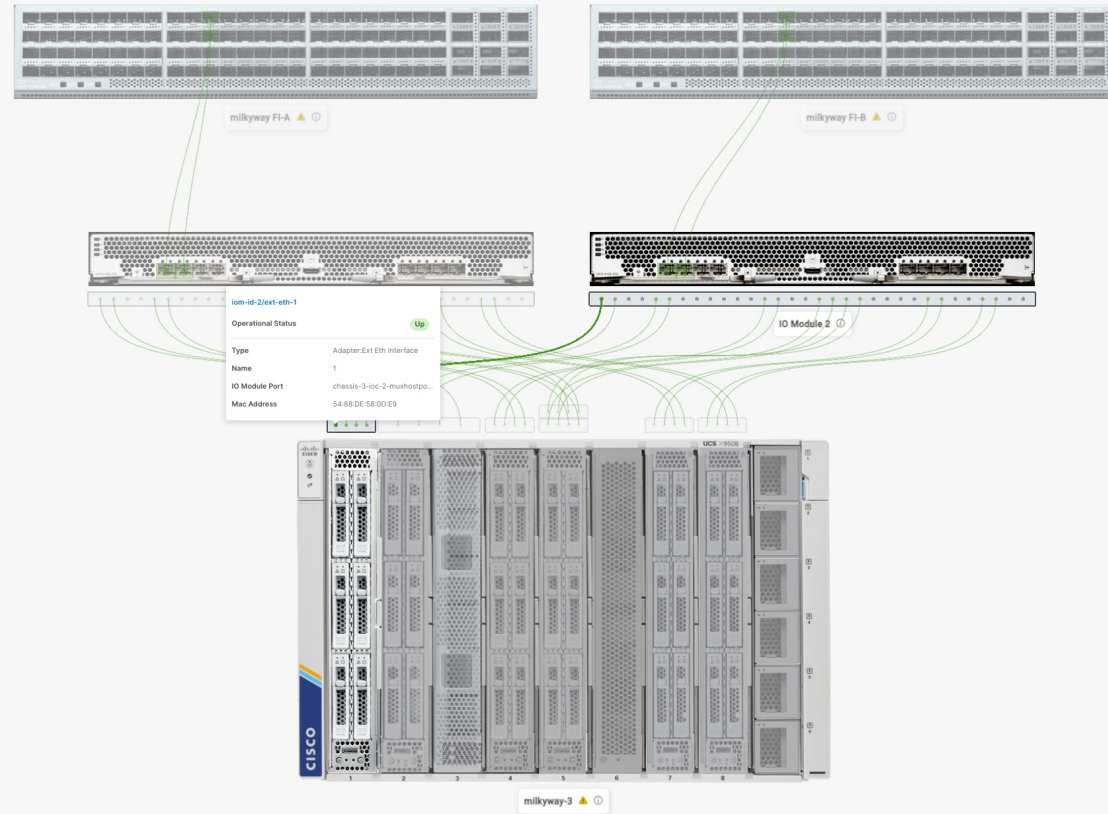
Fabric Interconnect Topology View

High Level view
showing all
connection
within a single
IMM domain



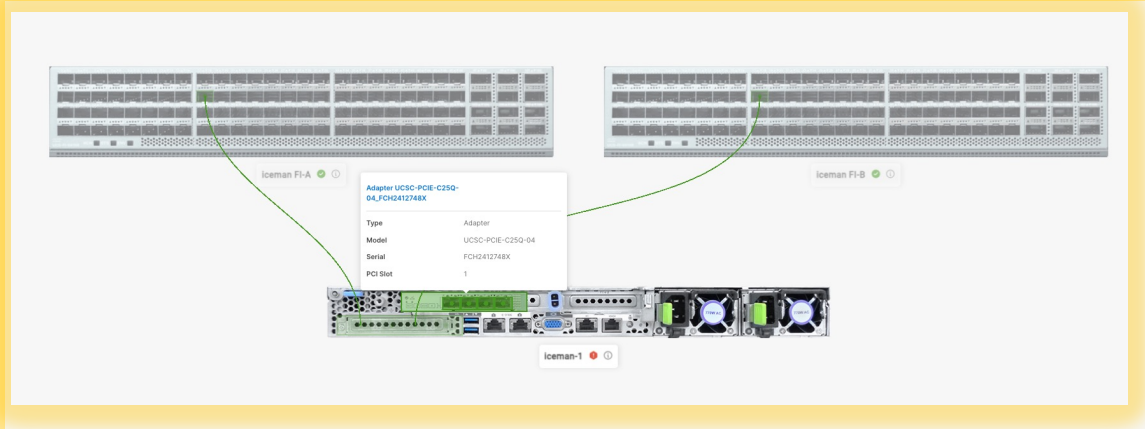
Chassis Topology View

- Detail view of connections withing a single chassis in the IMM domain
- Visibility to internal ports



Rack Server Topology View

- Detail view of connections from a single C-series server
- Visibility to internal ports



Intersight Monitoring

The new Intersight Monitoring feature will support Infrastructure and Operation (I&O) managers to have **historical** and **real-time visibility** of resource consumption and inventory health, create sophisticated **threshold policies*** and **anomaly detection*** on continuous resource telemetry, and rapidly act to consistently **improve SLAs and SLOs**

* Roadmap

Overview

- Monitor and visualize metrics for Fabric Interconnects and servers managed as IMM domains
- Leverage Metrics explorer to monitor your device, optimize performance and identify bottlenecks
- Proactively address potential issues
- Create custom metric queries to obtain specific data

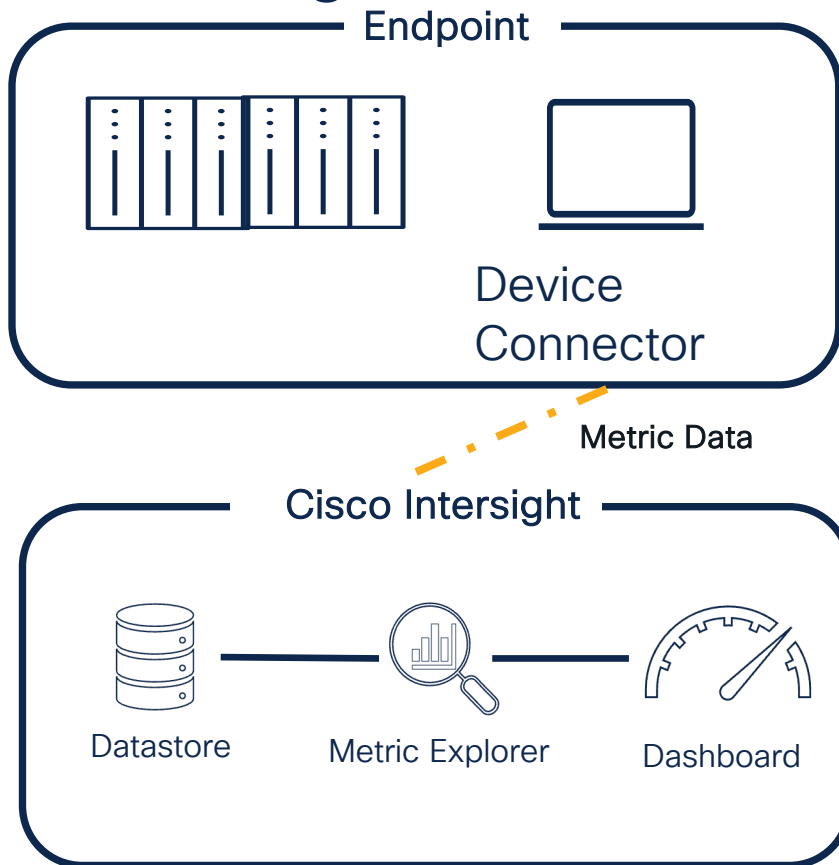


“Energy-efficiency focus is going to expand to include the IT equipment itself.”*

*Networkworld, January 2023

Data Collection Process on Intersight

- Metrics collected from Fabric Interconnects and Servers through Device Connectors and stored in Intersight at fixed time intervals
- Enables retrieving the statistics for the metrics and customer metric query creation
- During an outage, the Device Connector rolls up the data with a lower granularity



Data Storage

- Metrics are collected at a **10-minute interval** and stored for the first **15 days**
- Metrics are down-sampled, in which the existing historical data from **16 to 63 days** is re-sampled to a lower granularity and stored at a **30-minute** time interval.
- Metrics are down-sampled, in which historical data from **64 to 90 days** is re-sampled to a lower granularity and stored at a **60-minute** time interval.

NOTE: When an endpoint is removed from Intersight, the corresponding metrics for the endpoint are retained in the metric datastore. If the endpoint is claimed again in Intersight it is processed as a new endpoint and to access the historical metric data of this device, filter the metric query based on the Serial Number of the endpoint.

Metrics Explorer – Add Metrics

Explorer

Add Metrics

☒ Temperature - Average

Metrics* ⊙

Temperature - Temperature - Average ⌵

Filter by ⊙

License Tier = Essential ×

Group by ⊙

Sensor Location ×

Display ⊙

☒ All ☐ Top N

Aggregate Time Series ⊙

Select Aggregation ⌵

Chart Type

Line ⌵

STATISTICS (4)

Average

Minimum

Maximum

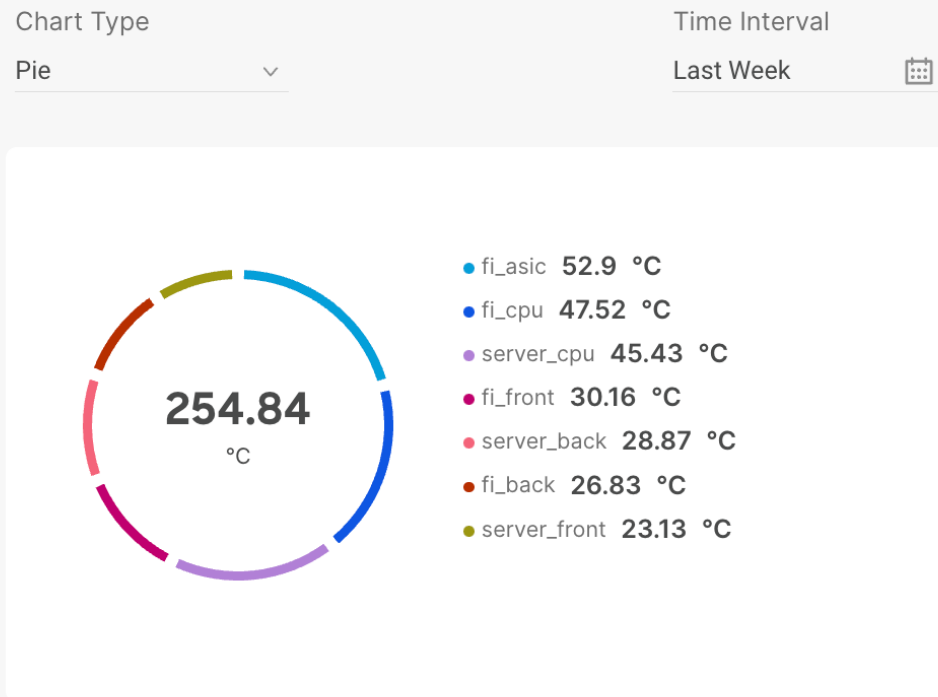
Sum

Cancel

Select

Metric Visualizations

Enables you to choose the way in which you want to visualize the results of the metric queries.



Metrics Query Data and Results

Displays the details about the results obtained from the metric query

Raw Data—Displays the read-only raw data for the metric definition

Display Options—Enables you to customize the orientation of the Y-axis for a bar or line chart

Code—Displays the read-only API request for the metric query

Result—Displays the read-only API response for the metric query.

The screenshot displays the Cisco Live! Metrics Query interface. The 'Raw Data' tab is active, showing a list of raw data entries. The 'Code' tab is also visible, showing the API request for the metric query. The 'Result' tab is partially visible on the right, showing the API response for the metric query.

Raw Data

1	2	3	4	5	6	7

Code

```
{
  "status": "fulfilled",
  "value": [
    {
      "version": "v1",
      "timestamp": "2023-07-23T16:14:00.000-07:00",
      "event": {
        "hw-temperature-Avg": 53.15625,
        "sensor_location": "fi_asic",
        "count": 96,
        "hw.temperature-Sum": 5103
      }
    },
    {
      "version": "v1",
      "timestamp": "2023-07-23T16:14:00.000-07:00",
      "event": {
        "hw-temperature-Avg": 25.760416666666668,
        "sensor_location": "fi_back",
        "count": 96,
        "hw.temperature-Sum": 2473
      }
    },
    {
      "version": "v1",
      "timestamp": "2023-07-23T16:14:00.000-07:00",
      "event": {
        "hw-temperature-Avg": 36.71875,
        "sensor_location": "fi_cpu",
        "count": 96,
        "hw.temperature-Sum": 3525
      }
    }
  ]
}
```

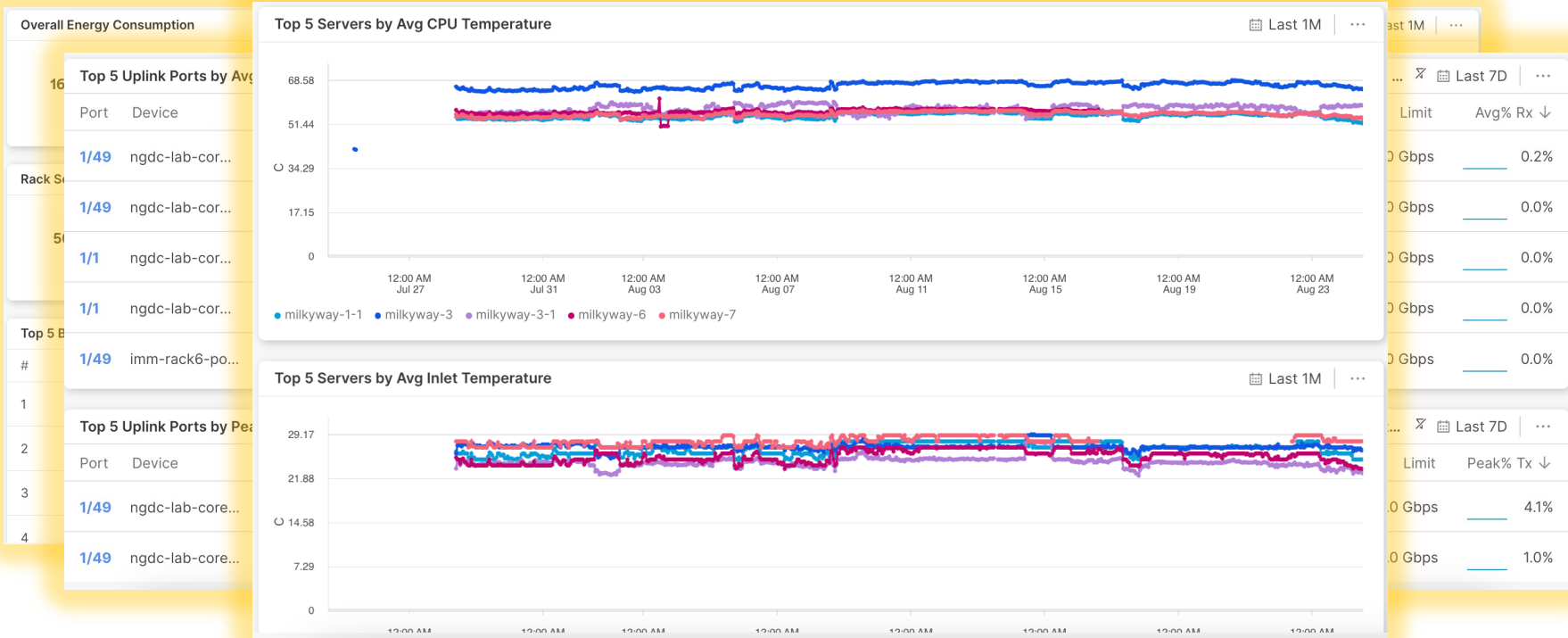
Result

of 118 > >> ⚙️

it

1 of 118 > >>

My Dashboards

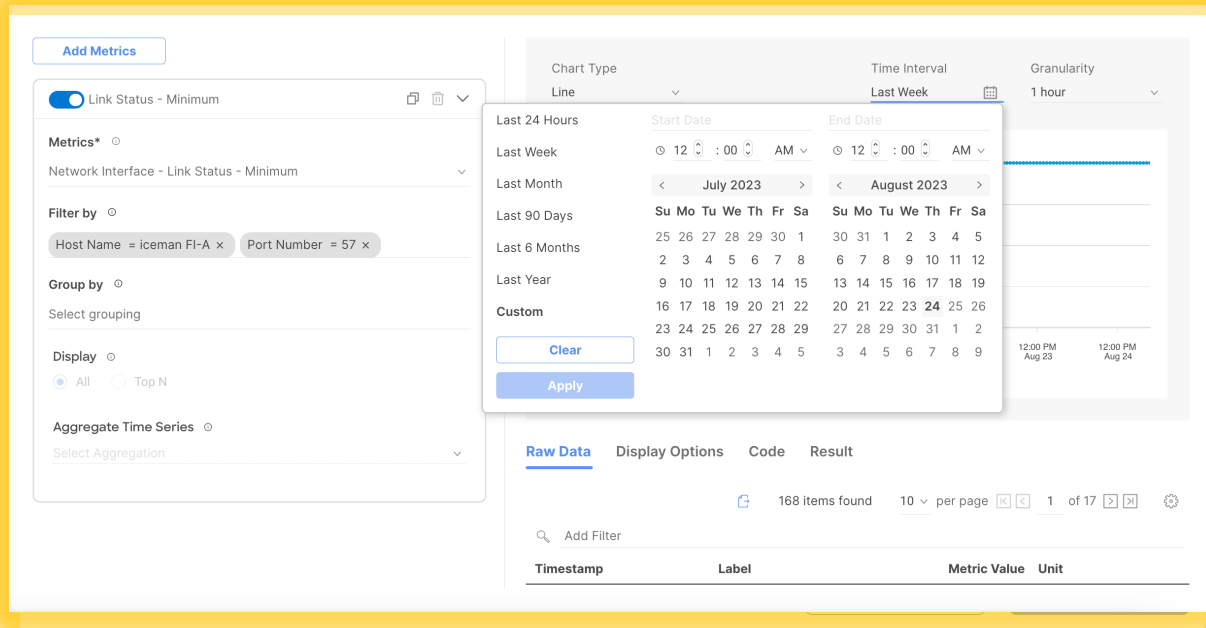


Use Case: Checking for UCS Domain network issues

IT administrator has noticed issues with a workload. The administrator must identify if this is a UCS networking problem. The administrator needs to verify the single/multiple links between the server and Fabric Interconnect, as well as between the Fabric Interconnect and upstream network

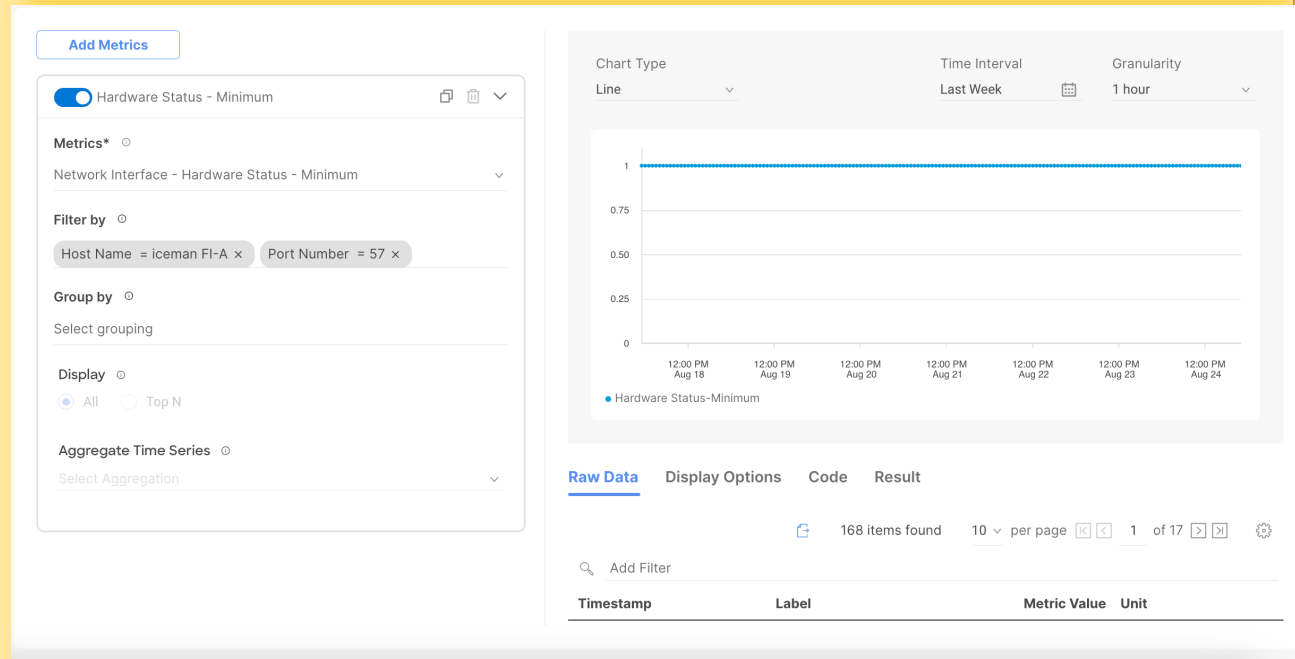
Step 1: Confirm if the link is online

- Check link status using the **Network Interface > Link Status** metrics
- Status of 0 implies that the link is down and status of 1 implies the link is up
- Setting **Minimum** for the Statistics allows to identify when it is down even for a short period of downtime
- Choose the FI and the uplink port number
- Adjust timeframe to accommodate time of the issue



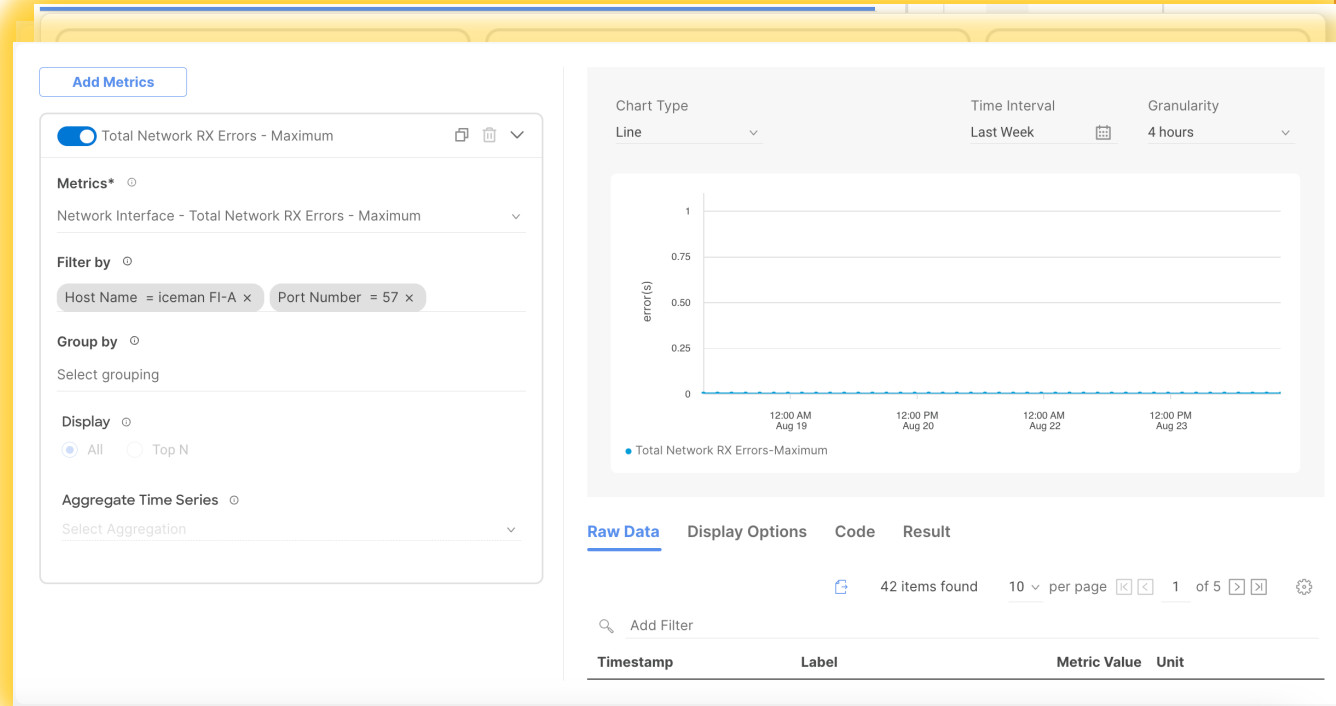
Step 2: Check hardware status of the network interface

- Identify issues with the underlying hardware
- Check hardware status status using the **Network Interface > Hardware Status** metrics
- Setting **Minimum** for the Statistics allows to identify an issue even for a short period of downtime
- Choose the FI and the uplink port number
- cccccckvljnebfc



Step 3: Check Network Utilization

- Identify if the link is overwhelmed with traffic
- Check RX Utilization using the **Network Interface > Network RX Utilization** metrics
- Setting **Maximum** for the Statistics allows to see maximum utilization per point on the chart
- Choose the FI and the uplink port number
- Identify the total network RX errors
- Repeat this for Network TX Utilization and errors



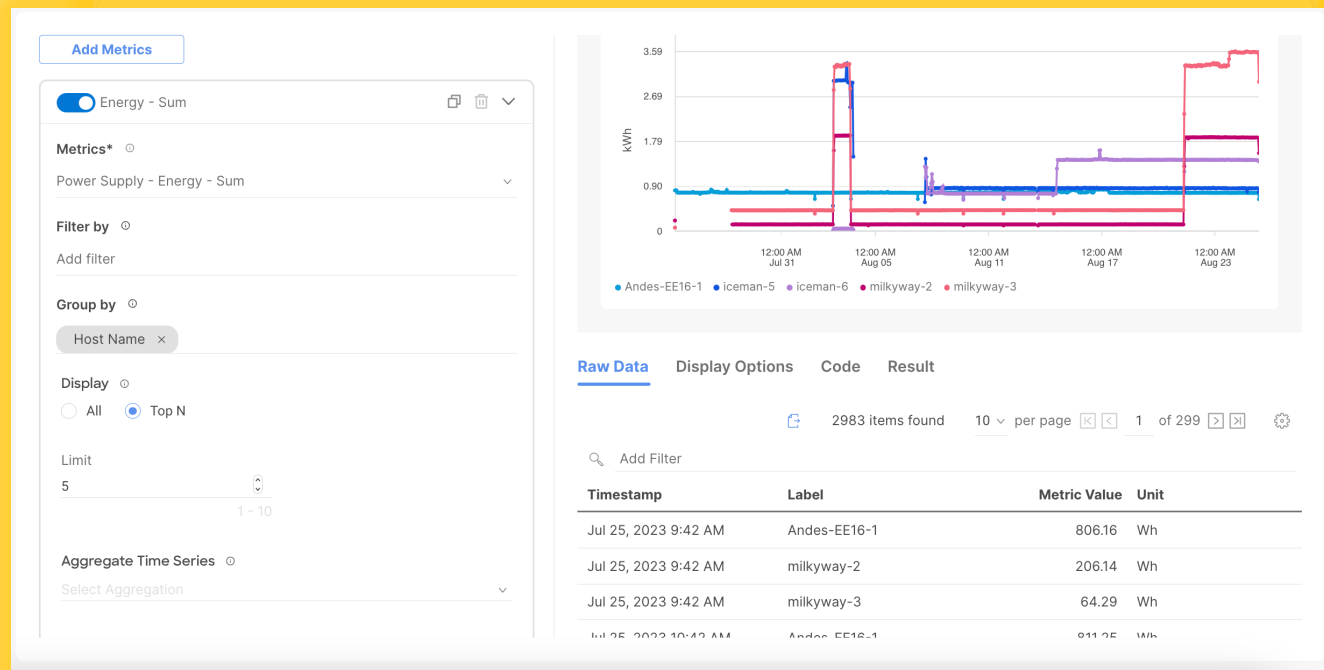
NOTE: Total Utilization averages both values and might hide potential problems

Use Case: Analyzing Energy Consumption

*Energy consumption in data centers is often a high cost that is overlooked. This consumption may also be a factor for environmental impact. The administrator needs to determine the **energy consumption** of your environment*

Step 1: Check Energy Consumption

- **Power** – Consumption at a specific instant in time measured in Watt
- **Energy** – Consumption over time measured in kWh
- Check sum of energy using **Power Supply > Energy > Sum** metrics
- Choose your time interval for consumption
- Get more details by grouping this data by host type or host name
- Leverage the raw data for further analysis

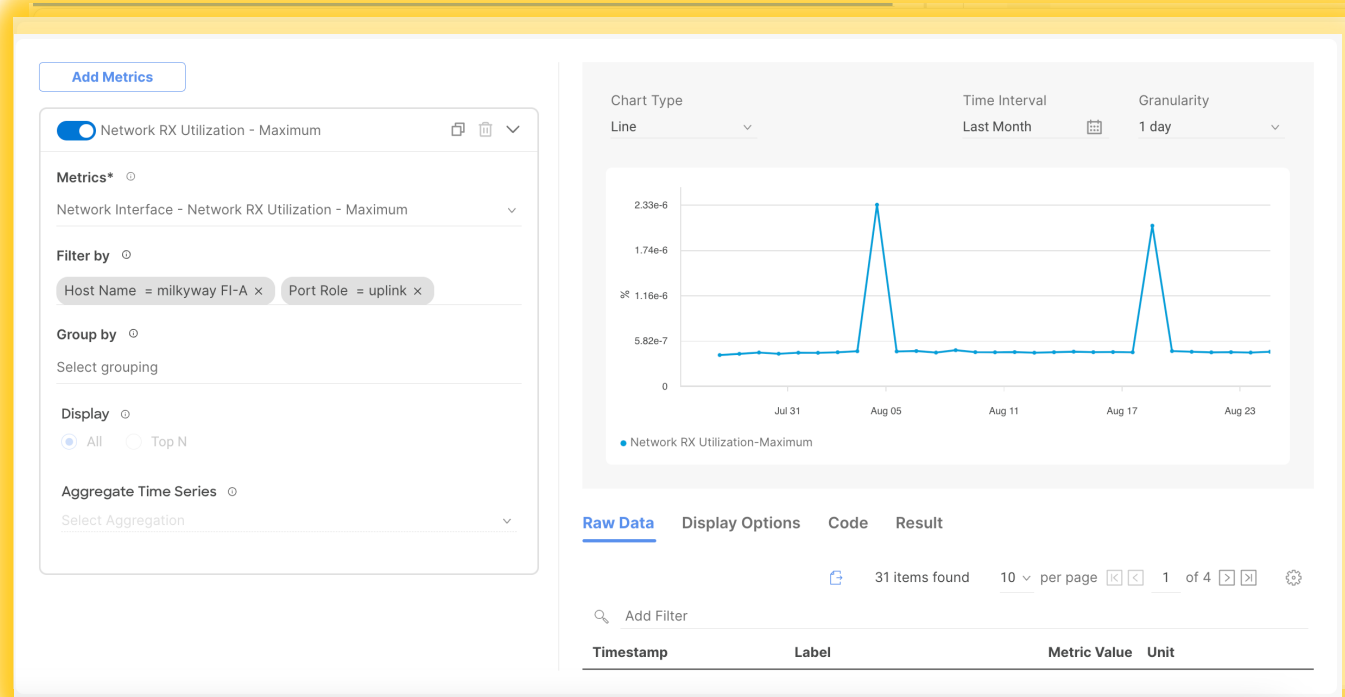


Use Case: Capacity Planning

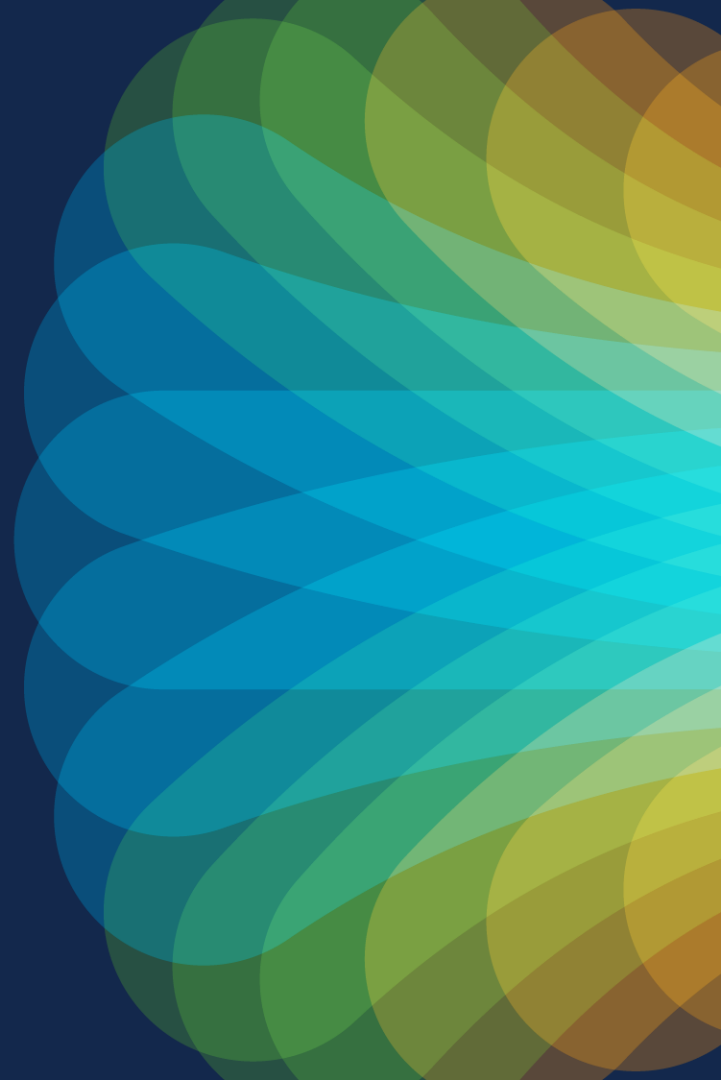
*With growing workloads there is also a demand for new infrastructure. To adapt to this demand, you may have to increase your UCS environment with a few more chassis. This will lead to increase traffic on the Fabric Interconnect uplinks. The administrator needs to **determine** if the current **uplink capacity** will be enough to handle the new infrastructure*

Step 1: Check uplink RX or TX Utilization

- Note the uplink ports for your Fabric Interconnect
- Check the utilization using the metric **Network Utilization > Network RX Utilization**
- When using **Maximum** statistics value, it condenses multiple values down to a single point on the timeline
- Given the utilization for all devices, filter this data down to a specific device
- Choose your time interval for consumption
- Perform similar analysis for TX utilization and then for the second fabric interconnect



Security and Compliance



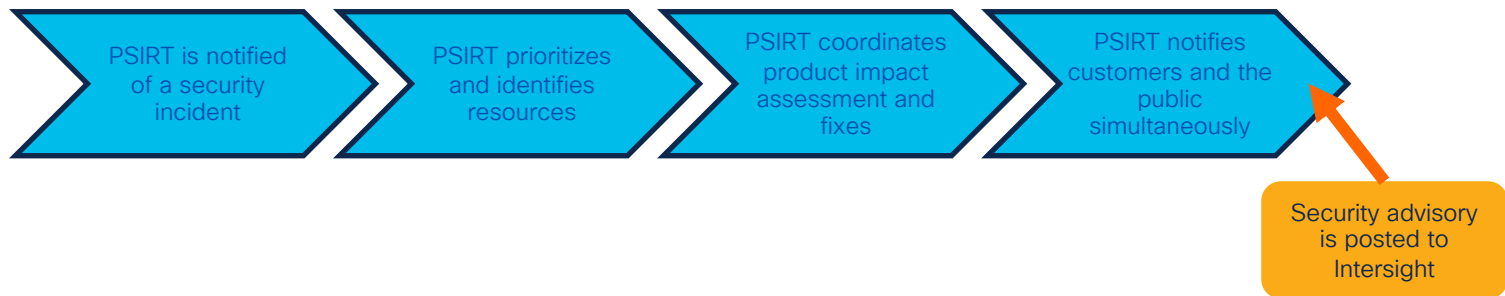
Do you want to reduce security threats
by getting automatic advisories and
recommended actions to mitigate risk?



Cisco PSIRT (Product Security Incident Response Team)

A dedicated, global team that receives, investigates, and publicly reports security vulnerability information that is related to Cisco products and networks.

Incident Handling Process



Security Advisories

- Prevents being blindsided by a known security issue
- Easily provide a list of affected devices to SecOps for remediation tracking and auditing
- Provides workarounds and a curated list of assets custom to the environment
- Prevents noise by only showing advisories relevant to the environment



Advisories



Security Advisories

Field Notices

End of Life Advisories

Acknowledged

1 Advisories for affected devices only are listed here. For a complete list of advisories and more information, see [Help Center](#)

* All Security Adviso... ⚙ +



Add Filter

4 items found

10 ▾

per page



1

of 1



Description



Severity



CVEs



Affected Devices

Last Update

[Intel 2022.1 IPU - BIOS Advisory](#)

High

CVE-2021-0154,CVE-2021-0153,C

36

Sep 22, 2022 7:00 PM

[Cisco FXOS and NX-OS Software Cisco Discovery Pr...](#)

Medium

CVE-2022-20625

2

Mar 1, 2022 11:35 AM

[Cisco FXOS and NX-OS Software Cisco Discovery Pro...](#)

High

CVE-2022-20824

2

Aug 24, 2022 11:00 AM

[Intel 2022.2 IPU - BIOS Advisory](#)

High

CVE-2021-33060

2

Aug 8, 2022 7:00 PM



1

of 1



← Advisories

INTEL-SA-00686

Details

Severity

High

ID

INTEL-SA-00686

CVEs

CVE-2021-33060

Published

Aug 8, 2022 7:00 PM

Last Update

Aug 8, 2022 7:00 PM

Base Score

7.8

General

Intel 2022.2 IPU - BIOS Advisory

Summary

A potential security vulnerability in the BIOS firmware for Cisco UCS M6 generation of servers using Intel® Processors may allow escalation of privilege. Cisco is releasing BIOS updates to mitigate this potential vulnerability.

Details

To learn more about this security vulnerability, the affected products, and other details, see: <https://www.intel.com/content/www/us/en/security-center/advisory/intel-sa-00686.html>

Affected Devices (2)

Advisory notifications are supported only for devices with Advantage or Premier license. Advisories for the devices are processed every 6 hours. If you update the device, it can take up to 24 hours for the updated status to be displayed for the device. For more info see [Help Center](#)

Summary

Details

Affected Devices (2)

Workarounds/Solutions

2 items found 10 per page 1 of 1

Name	Type	Model / Type	Firmware / Version
	Server	UCSB-B200-M6	4.2(1c)
	Server	UCSB-B200-M6	4.2(1c)

1 of 1



← Advisories



INTEL-SA-00686

Details

Severity

High

ID

INTEL-SA-00686

CVEs

CVE-2021-33060

Published

Aug 8, 2022 7:00 PM

Last Update

Aug 8, 2022 7:00 PM

Base Score

7.8

General

Intel 2022.2 IPU - BIOS Advisory

Workarounds/Solutions

There are no workarounds that address this vulnerability.

Fixed Releases

Below firmware releases and later versions have fixes for the above mentioned vulnerabilities.

UCS Servers Operating in Intersight Managed Mode

Platform Model	4.1(3) Release	4.2(1) Release	4.2(2) Release
ucs-c220-m6	NA	4.2(1j)	4.2(2f)
ucs-c240-m6	NA	4.2(1j)	4.2(2f)
ucs-b200-m6	NA	4.2(1h)	4.2(2d)
ucs-x210-m6	NA	5.0(1f)	5.0(2d)

UCS Servers Operating in Standalone Mode

Platform Model	4.1(2) Release	4.1(3) Release	4.2(1) Release	4.2(2) Release
ucs-c220-m6	NA	NA	4.2(1j)	4.2(2f)

Summary

Details

Affected Devices (2)

Workarounds/Solutions

Hardware Compatibility Lists (HCL)

- Display hardware compliance status for your Cisco UCS and Hyperflex systems
- No manual and error prone HW compatibility checks
- Avoid running into known issues, security threats and minimize downtime
- Keep the system running the latest supported version
- Get compliance checks with driver recommendations



Servers



* All Servers Jason's View +

... Add Filter

Export

22 items found

25 per page

1 of 1

Health

Critical 3
Healthy 19

Power

On 22

HCL Status

Incomplete 7 Not Listed 3

Validated 12

Models

HXAF220C M5SN 5
HX240C M4SX 4
HXAF220C M5SX 4
Other 9

Contract Status

Not Covered 19

Profile Sta



☐	Name	Health	Contract S...	Management IP	Model	Me...	UCS Domain	HX Cluster	
☐		Healthy	Not Covered		HXAF220C-M5SX	256.0			...
☐		Healthy	Not Covered		HX240C-M4SX	384.0			...
☐		Healthy	Not Covered		HXAF220C-M5SN	768.0			...
☐		Healthy	Not Covered		HXAF220C-M5SN	768.0			...
☐		Healthy	Not Covered		HXAF220C-M5SN	768.0			...
☐		Healthy	Not Covered		HXAF220C-M5SN	768.0			...
☐		Healthy	Not Covered		HXAF220C-M5SN	768.0			...
☐		Critical	Not Covered		UCSC-C240-M4SX	384.0			...
☐		Critical	Not Covered		HX240C-M4SX	384.0			...

 Servers



General Inventory **HCL** Statistics

Actions 

Details

HCL Status


[Get Recommended Drivers](#)

HCL Validation

1 [Server Hardware Compliance](#) 

2 [Server Software Compliance](#) 

OS Vendor
VMware ESXi

OS Version
6.7.0 3

3 [Adapter Compliance](#) 

 Add Filter 1 items found 10 per page 1 of 1 

Model	Hardwar...	Softwar...	Firmware ...	Dr...	Driver Version
UCSC-MLOM-C40Q-03 	Validated	Validated	4.5(1c) 	nenic	1.0.35.0-10EM.670.0.0.8169922

1 of 1

Servers

Healthy

Actions

General Inventory **HCL** Statistics

Details

HCL Status

Not Listed

Get Recommended Drivers

HCL Validation

1 Server Hardware Compliance Validated

2 Server Software Compliance Validated

OS Vendor

VMware ESXi

OS Version

7.0.3 3

3 Adapter Compliance Not Listed

Incompatible component firmware and driver for one or more components. Learn more at Help Center

Add Filter

3 items found 10 per page 1 of 1

Model	Hardw...	Software Sta...	F..	D...	Driver Version
UCSC-MLOM-CSC-02	Validated	Incompatible Driver	4.4(1i)	nenic	1.0.33.0-1vmw.703.0.20.19193900
UCSC-MLOM-CSC-02	Validated	Validated	4.4(1i)	nfnic	4.0.0.70-1vmw.703.0.20.19193900
Cisco 12G Modular SAS Pass t	Validated	Validated	13.00.C	lsi_msgp	17.00.12.00-1vmw.703.0.20.19193900

1 of 1



← Servers

Healthy

Actions

General Inventory HCL Statistics

Details

HCL Status

Not Listed

Get Recommended Drivers

Get Recommended Drivers



OS Vendor *

VMware (Current)



OS Version *

ESXi 7.0 U3 (Current)



Recommended Drivers

[Download Driver ISO](#)

Get Recommended Drivers

Add Filter

Model	Firm...	Current Driver	Driver Protocol	Recommended Driver Vers...
UCSC-MLOM-C	4.4(1i)	4.0.0.70-1vmw.7	nfnic	5.0.0.34-1OEM
UCSC-MLOM-C	4.4(1i)	1.0.33.0-1vmw.7	nenic	1.0.42.0-1OEM
UCSC-MLOM-C	4.4(1i)	-	nenic-ens	1.0.6.0-1OEM
Cisco 12G Modu	13.00.C	17.00.12.00-1vm	Isi_msgpt3	17.00.12.00-1vmw

Close

10 per page 1 of 1

Driver version

UCSC-MLOM-CSC-02

Validated

Validated

4.4(1i)

nfnic

4.0.0.70-1vmw.703.0.20.19193900

Cisco 12G Modular SAS Pass t

Validated

Validated

13.00.C

Isi_msgp

17.00.12.00-1vmw.703.0.20.19193900

1 of 1

Automation

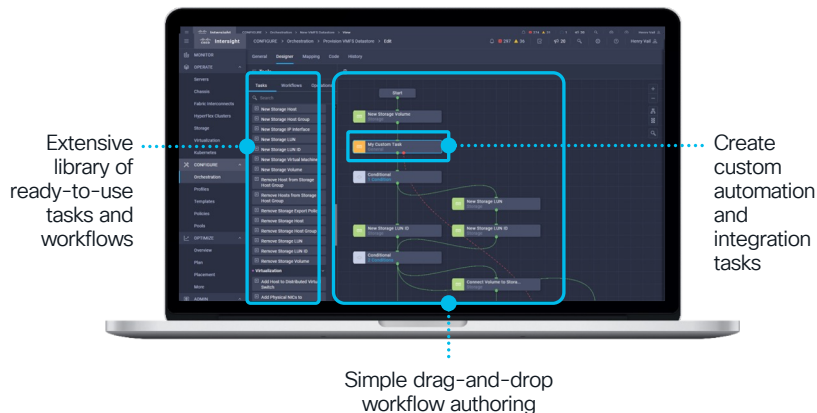
Automate

Create automated workflows to...

- Accelerate delivery of apps and infrastructure
- Reduce risk with standardization
- Simplify cross-domain orchestration

Two options

- **Workflow designer**
Drag-and-drop workflow authoring
- **APIs/SDKs**
For using your existing automation tools (Ansible, Terraform, etc.).

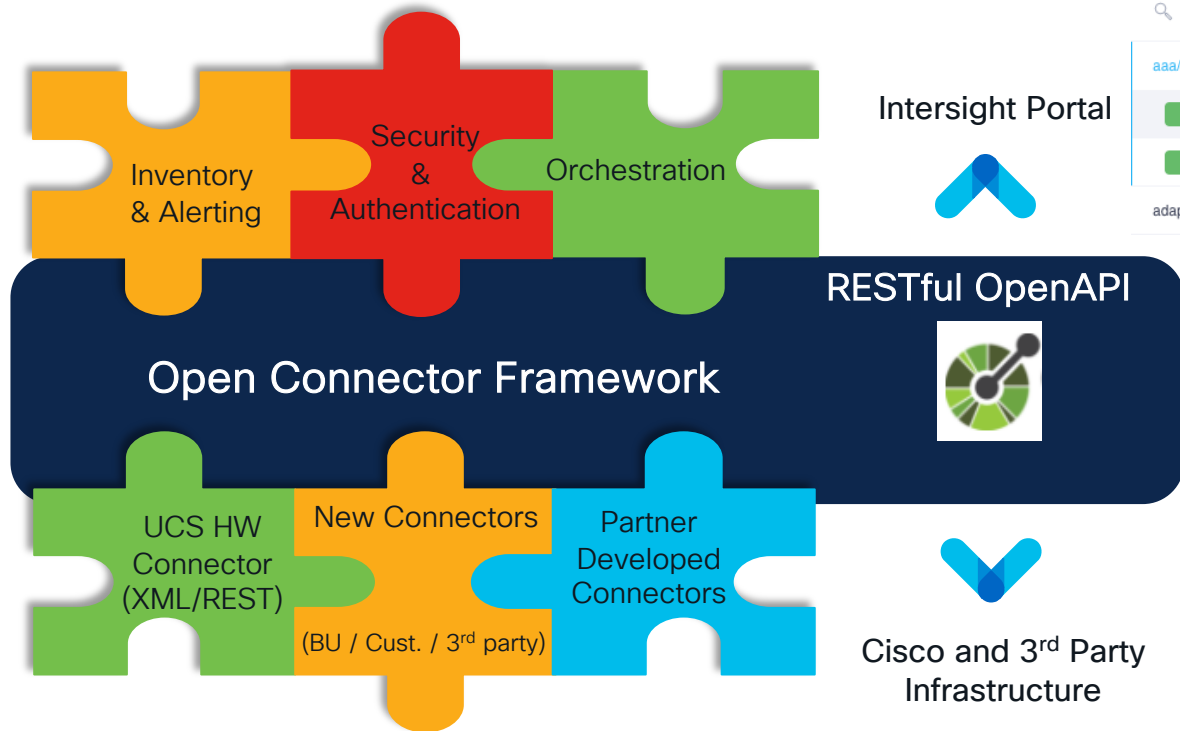
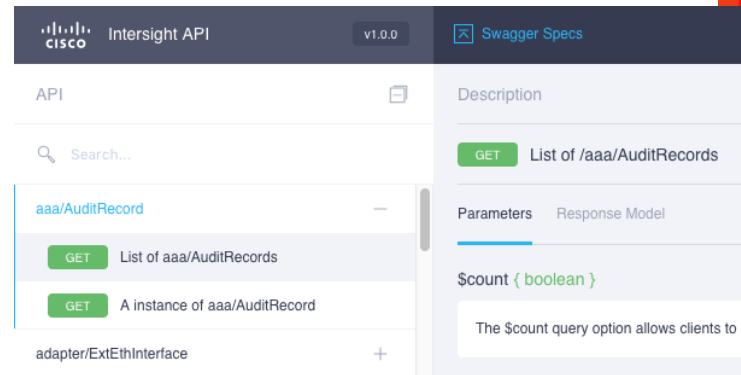


“With consistent and repeatable workflows offered by Cisco Intersight, IT teams can save time and decrease operational costs.”

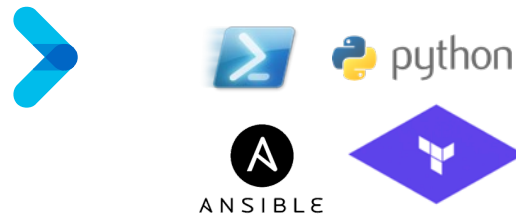
ESG

Single API Endpoint

Extensible Architecture for API Integrations

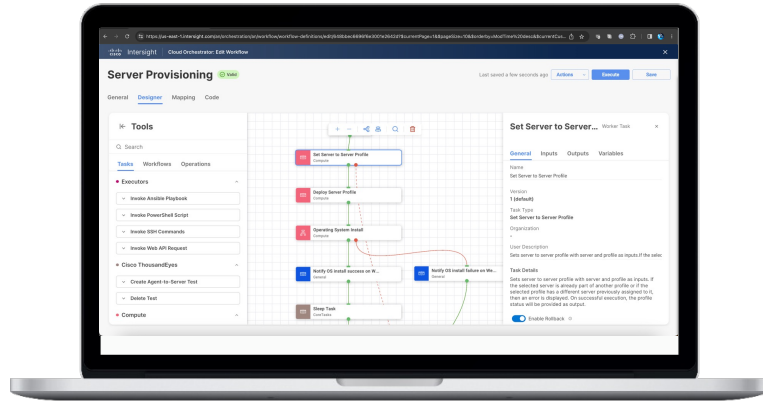


Example: Tools and SDK



Intersight Orchestration

Simplify your orchestration and automation across hybrid cloud



Automate anything, anywhere

Orchestrate infrastructure and workloads, across on-prem and public clouds

Drag-and-drop workflow designer

Create and execute complex workflows with a GUI-based designer

Boost IT operations

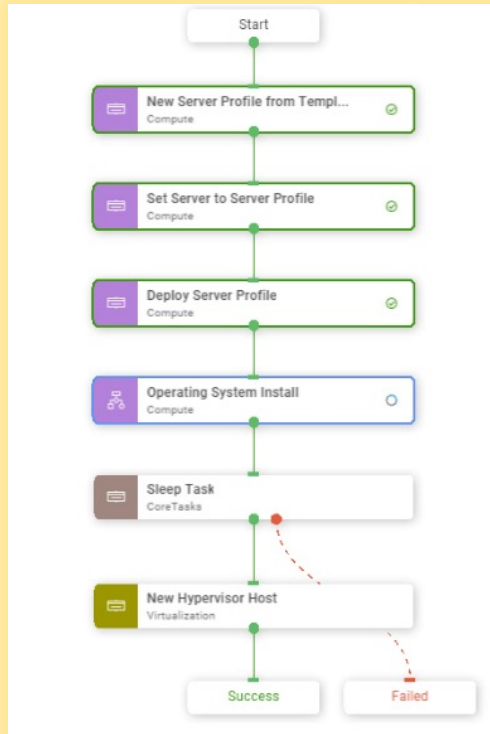
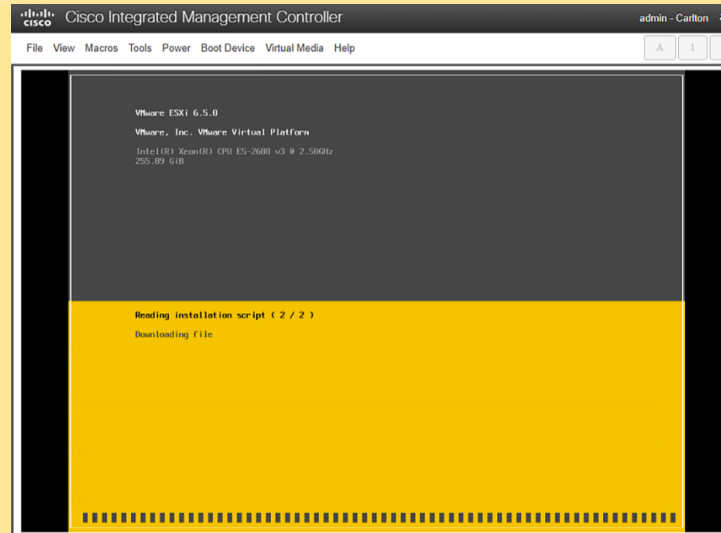
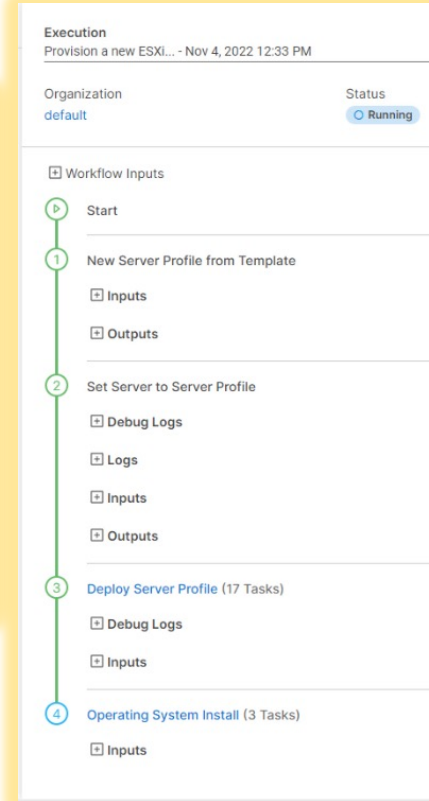
Benefit from a library of curated tasks and workflows

Accelerate delivery of apps and infrastructure

Reduce risk with standardization

Simplify cross-domain orchestration

Server Onboarding



Provision a new ESXi Host

Valid

Last saved a few seconds ago

Actions

Execute

Save

General Designer Mapping Code

Tools

Search

Tasks Workflows Operations

Executors

Invoke Ansible Playbook

Invoke PowerShell Script

Invoke SSH Commands

Invoke Web API Request

Compute

Add Server Policies to Profile

Clear Server Storage Controller Configuration

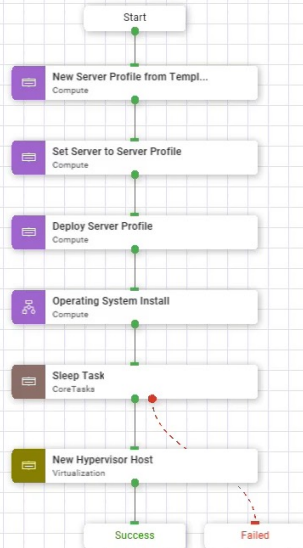
Clear Server Storage Controller Foreign Configuration

Copy Server Profile

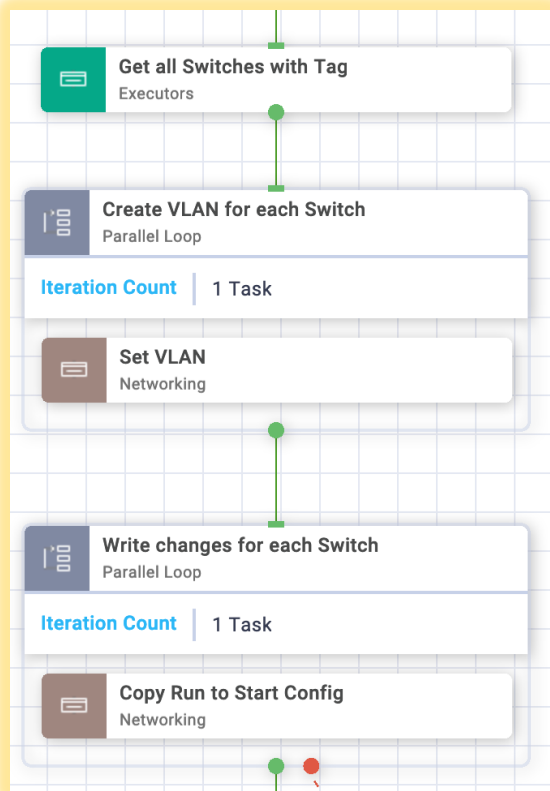
Delete Server Virtual Drives

Deploy Server Profile

Dismount Server Virtual Media Device



Network Onboarding



Get all Switches in group



Create new VLAN



Save Running Config

Supported Platforms



Cisco Nexus 9000
Cisco MDS 9000

Version requirement depends
on device

Architecture



Intersight Managed Mode Architecture



Intersight
(SaaS or Appliance)

Network

Legend

Existing UCSM
New to support IMM

DC: Device Connector
EP: End Point
Redfish: Redfish Servers

Fabric Interconnect

mgmt

DC (For IMM Mode)

NXOS

Intersight Network
Agent (INA)

DC Proxy

EP Proxy

CIMC

Redfish

CIMC Functions

Redfish

VIC

VIC Functions

C-Series
(stand alone)

CIMC

DC

Redfish

CIMC Functions

VIC

Redfish

VIC Functions

C-Series

CISCO *Live!*

CIMC

DC

Redfish

CIMC Functions

VIC

Redfish

VIC Functions

X210c

X-Series Chassis (9508)

IFM

DC

Redfish

CMC Func

9108

CIMC

DC

Redfish

CIMC Functions

VIC

Redfish

VIC Functions

B200

B-Series Chassis (5108)

IOM

DC

Redfish

CMC Func

2408

IOM

DC

Redfish

CMC Func

220x/2304

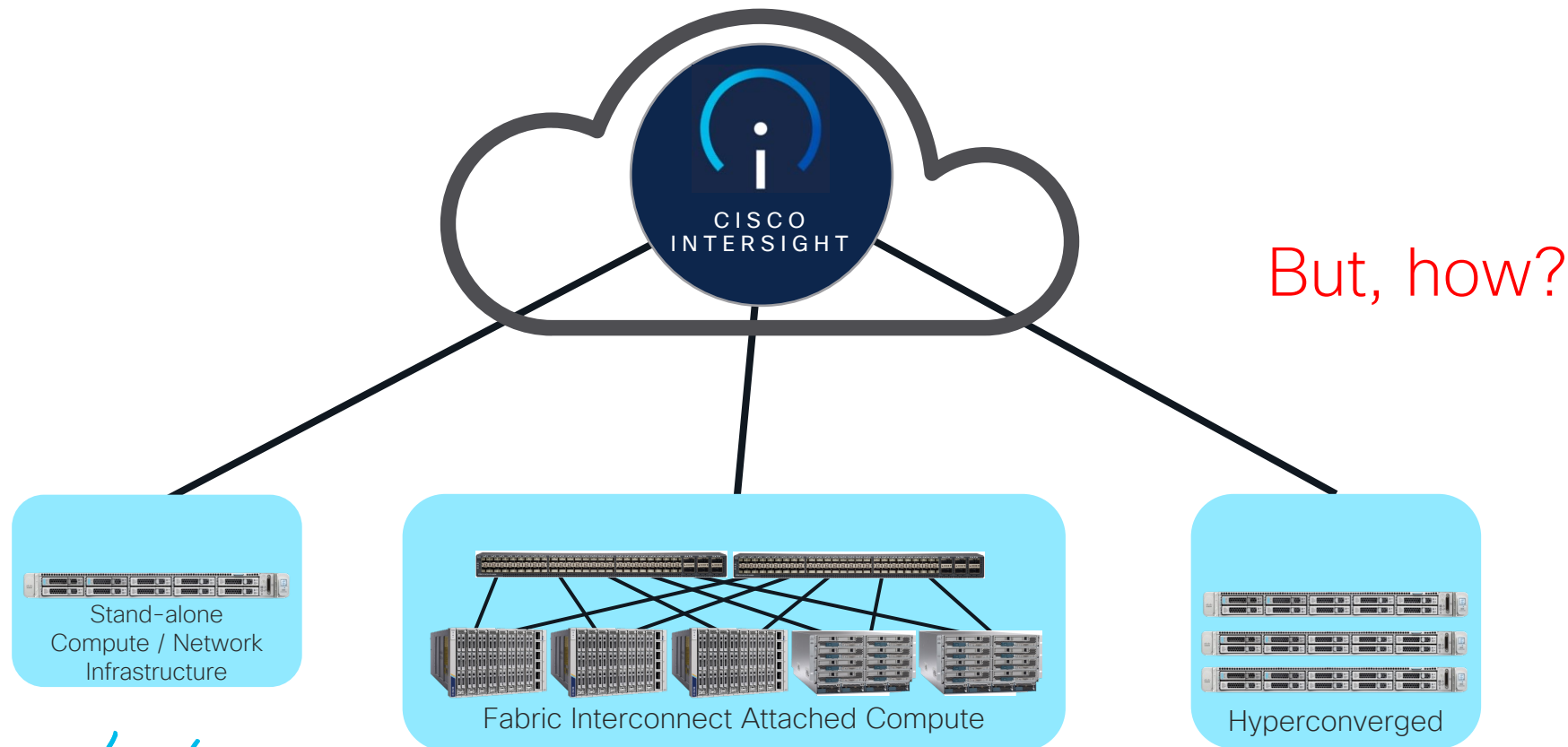
Why Redfish

- **Standard, Scalable, Secure** replacement for IPMI
- **RESTful API** with **JSON-formatted** data
 - Modern replacement for the UCS XML API
- Supports **OEM/vendor extensions**
 - VIC management
 - Firmware management
 - Custom actions (Reset CMOS, Clear TPM, ...)
- Available on many server platforms
 - **Support for third-party servers** (C890 M5, Dell, HPE)

```
GET /redfish/v1/Chassis/(ChassisId)/Thermal

1
2  "@odata.context": "/redfish/v1/$metadata#Thermal.Thermal",
3  "@odata.id": "/redfish/v1/Chassis/FCH22347N7W/Thermal",
4  "@odata.type": "#Thermal.v1_6_2.Thermal",
5  "Description": "Represents the properties for Temperature",
6  "Id": "Thermal",
7  "Name": "Thermal",
8  "Status": {
9    "Health": "OK",
10   "State": "Enabled"
11 },
12 "Temperatures": [
13   {
14     "@odata.id": "/redfish/v1/Chassis/FCH22347N7W/Thermal#/Temperatures/0",
15     "MemberId": "0",
16     "Name": "TEMP_SENS_FRONT",
17     "PhysicalContext": "Front",
18     "ReadingCelsius": 22,
19     "Status": {
20       "Health": "OK",
21       "State": "Enabled"
22     },
23     "UpperThresholdCritical": 75,
24     "UpperThresholdFatal": 85
25   },
26   {
27     "@odata.id": "/redfish/v1/Chassis/FCH22347N7W/Thermal#/Temperatures/1",
28     "MemberId": "1",
29     "Name": "TEMP_SENS_REAR",
30     "PhysicalContext": "Back",
31     "ReadingCelsius": 33,
32     "Status": {
33       "Health": "OK",
34       "State": "Enabled"
35     },
36     "UpperThresholdCritical": 75,
37     "UpperThresholdFatal": 85
38   }
39 ]
```

SaaS-enabled “configuration” and “operations”



Enabling the capabilities of Intersight

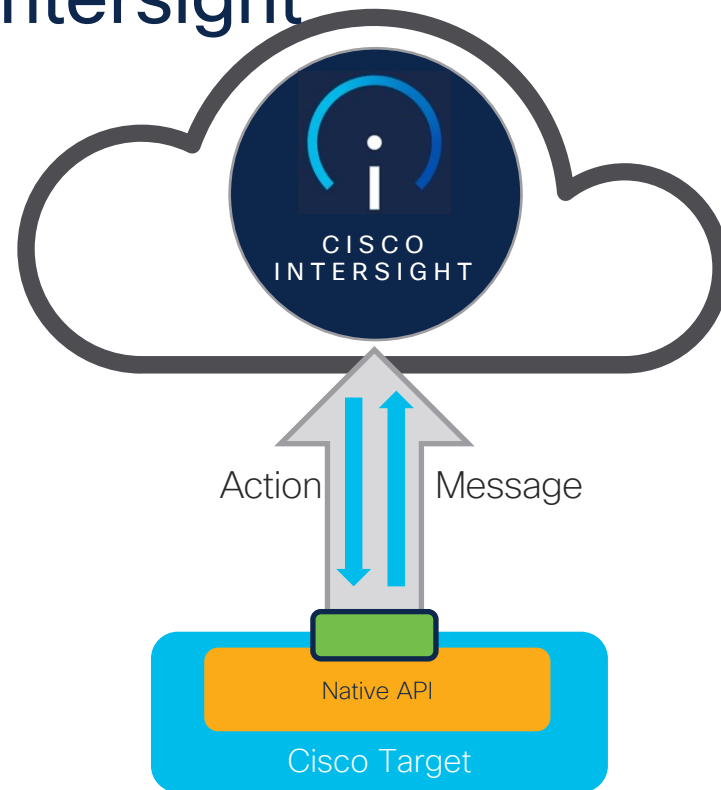
Intersight must be able to:

- Perform actions against targets
- Listen for messages from Targets

What makes this possible?

Two components are required:

1. Native API at target
2. Secure connection mechanism from target

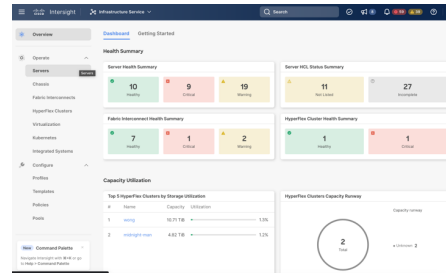
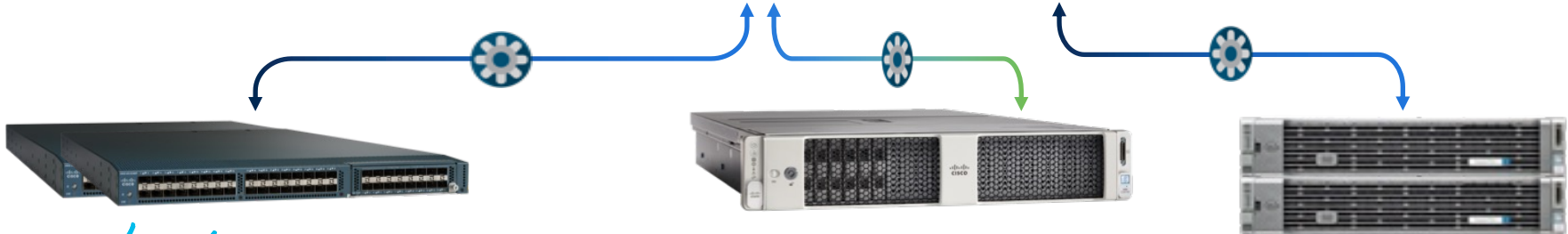


Device Connector - Overview

- 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



How is the Device Connector Deployed?

Part of Firmware/Management SW

- UCS Manager
- Standalone IMC
- HyperFlex (Controller VM)
- UCS Director

Connects to a known cloud manager

Device control of connectivity

- Device outbound initiated connections
- HTTPS on port 443 or through proxy

Device Connector

INTERSIGHT MANAGEMENT



Enabled 

Access Mode

☐ Read-only

☒ Allow Control

Agent Version: 1.0.5-2084

CONNECTION

[HTTPS PROXY SETTINGS](#)

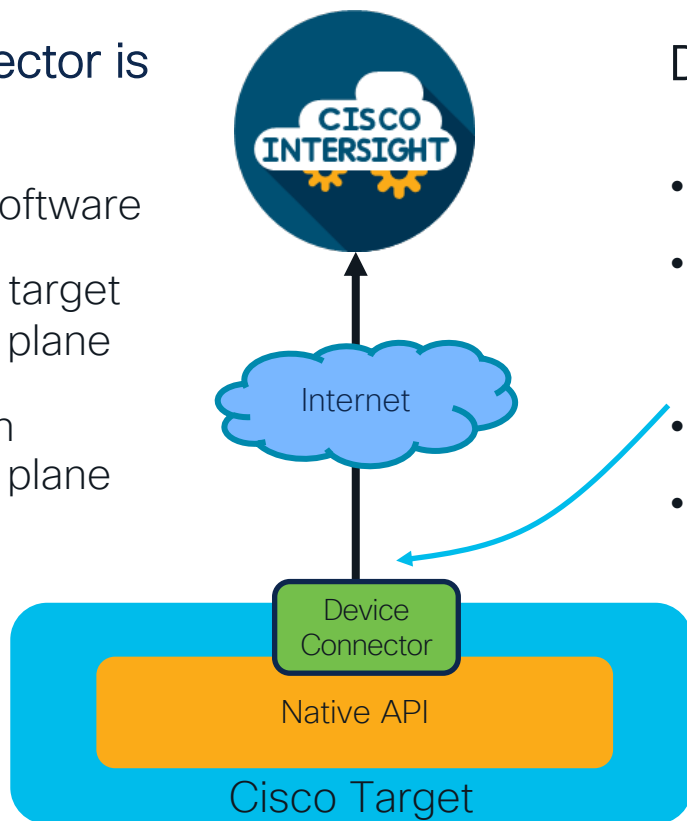
Status:  **Claimed**

Device ID: 

Device Connector Connectivity (Intersight.com)

Device Connector is built-in

- Lightweight software
- Embedded in target management plane
- Delivered with management plane firmware

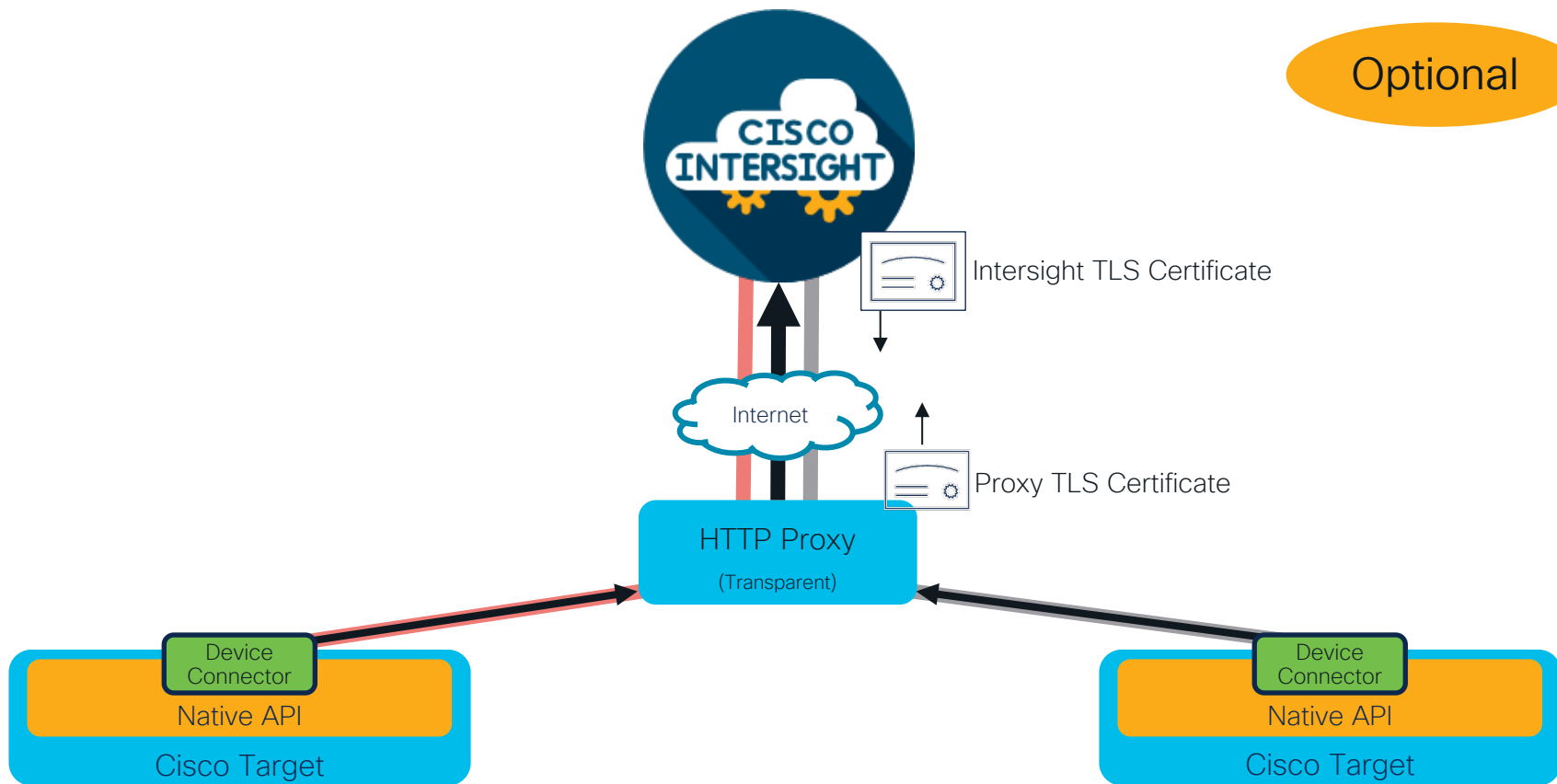


Device Connector connection:

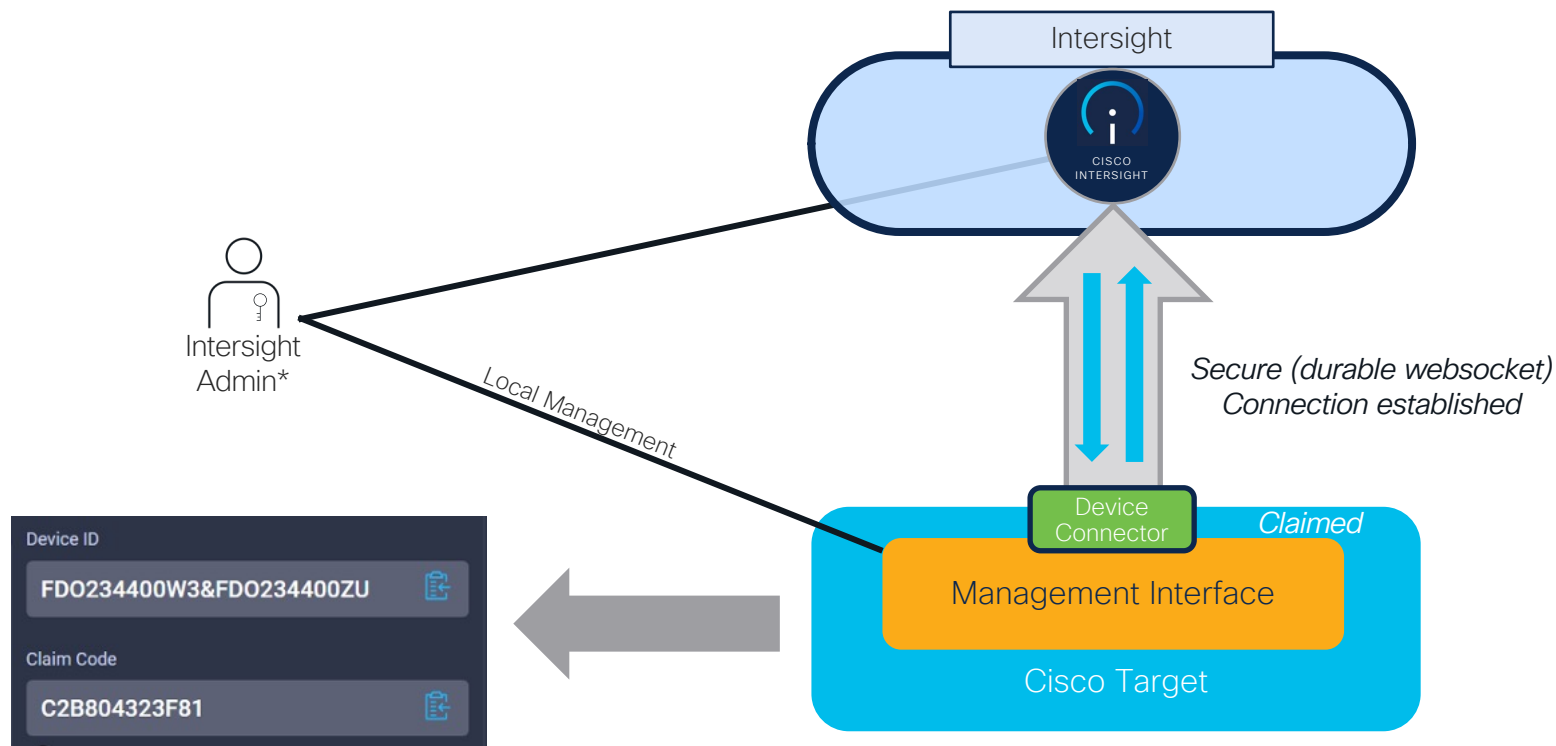
- Highly secure
- Outbound single-destination HTTPS URL
- Port 443 tunneled with TLS 1.2
- Durable websocket enabling bi-directional communication

Device Connector Connectivity with Proxy

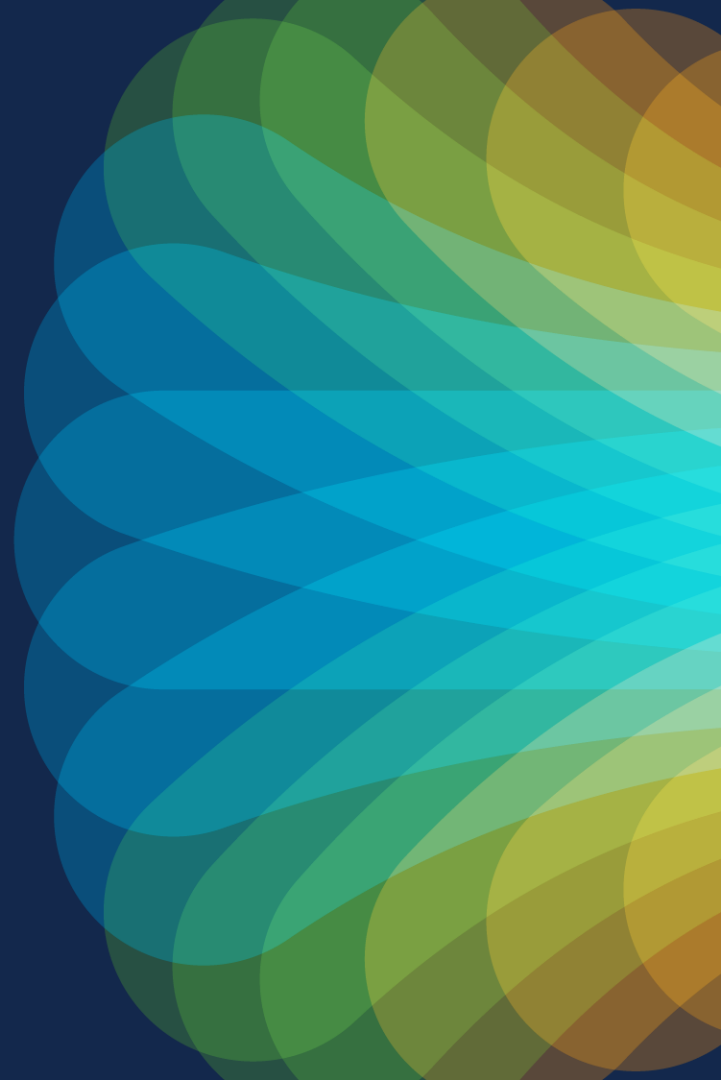
Optional



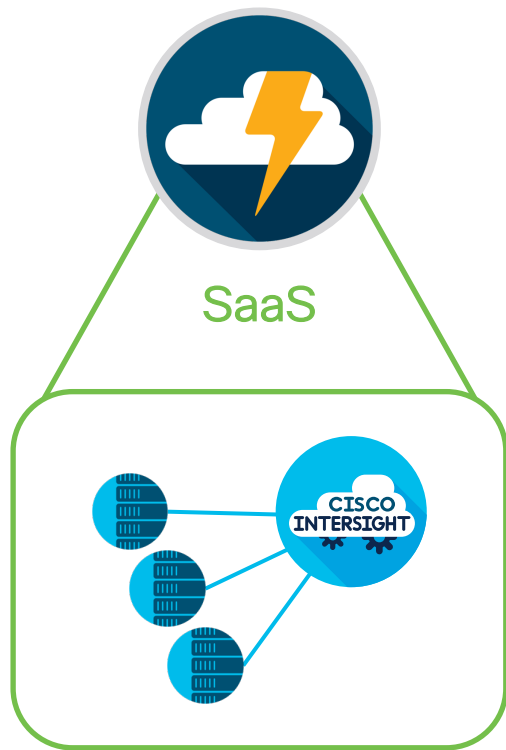
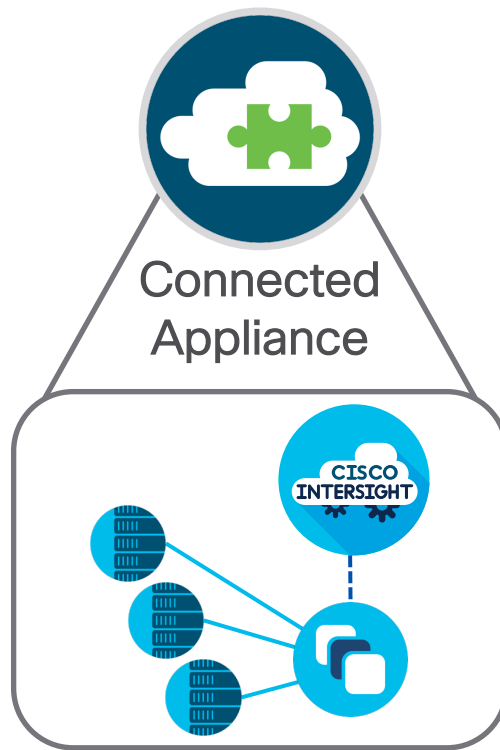
Target claim process



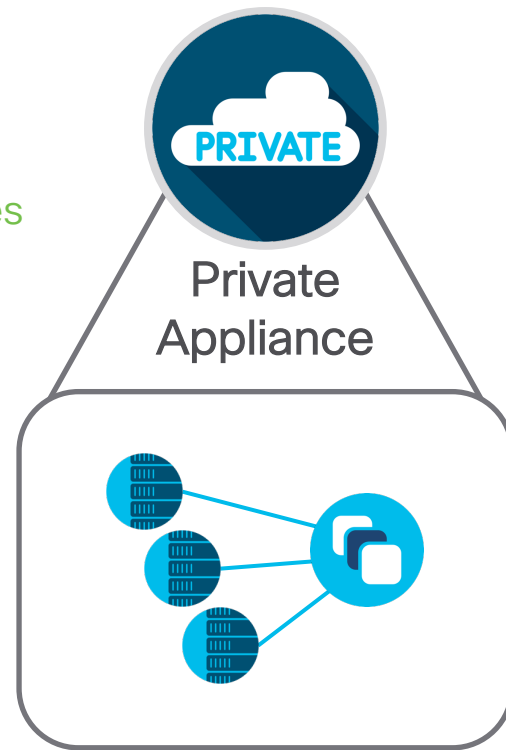
Consumption Models



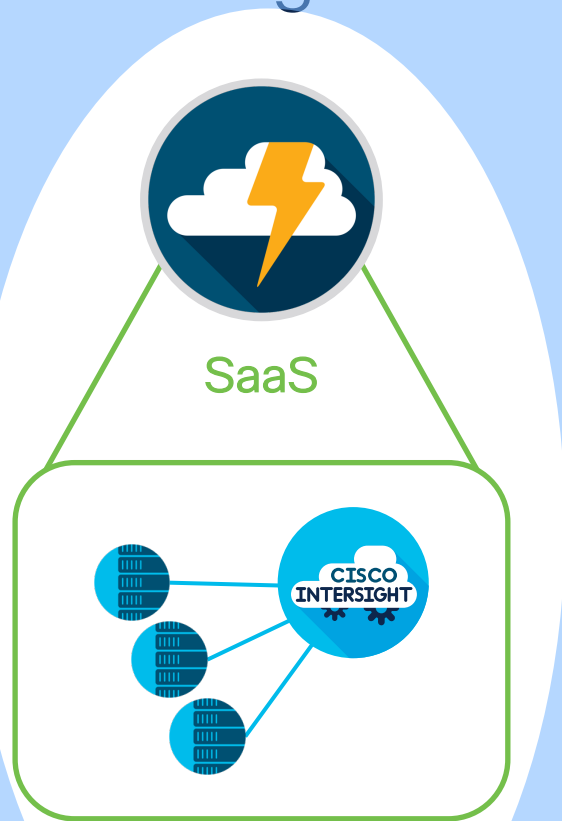
Intersight Consumption Models



On
Premises

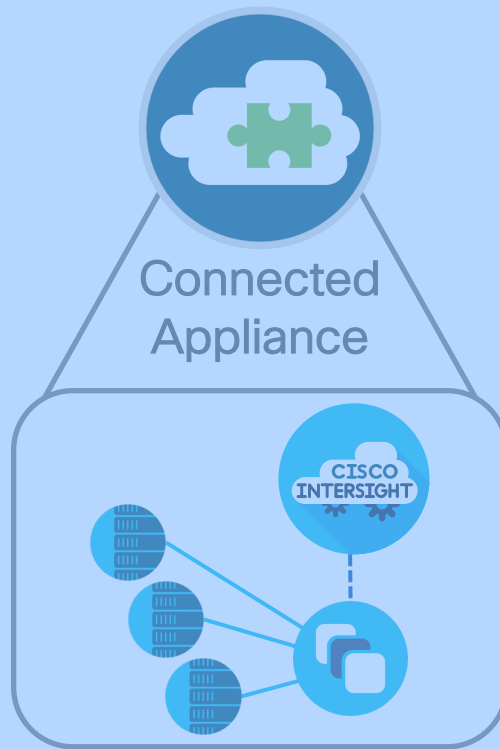


Intersight Consumption Models



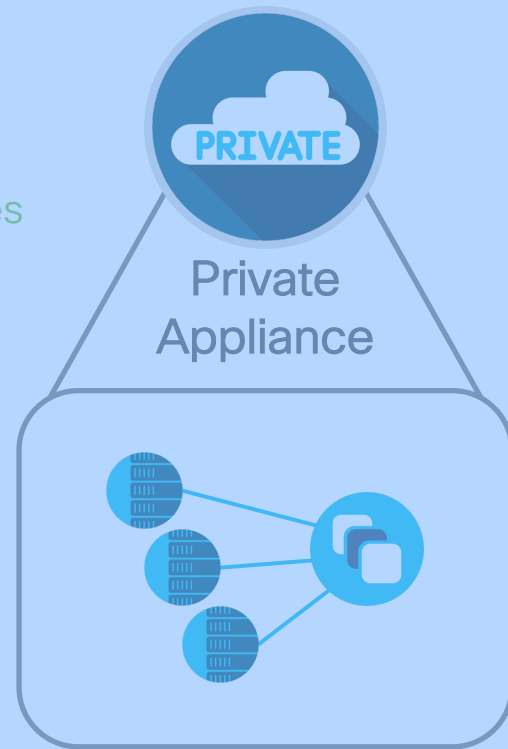
SaaS

CISCO *Live!*



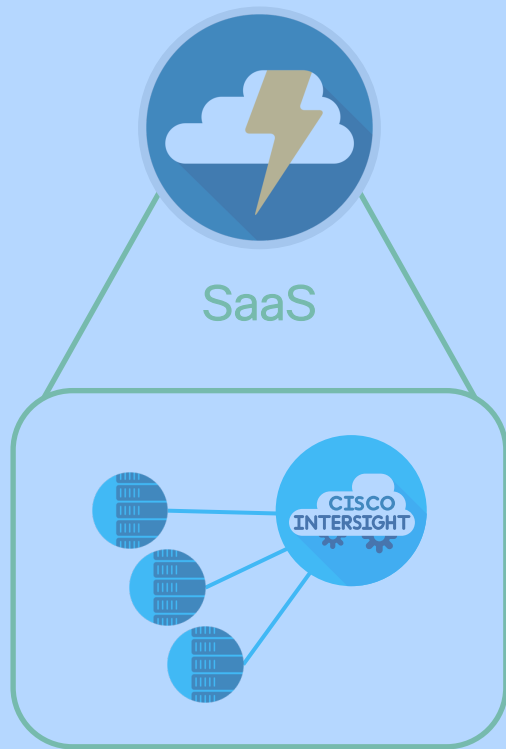
Connected
Appliance

On
Premises

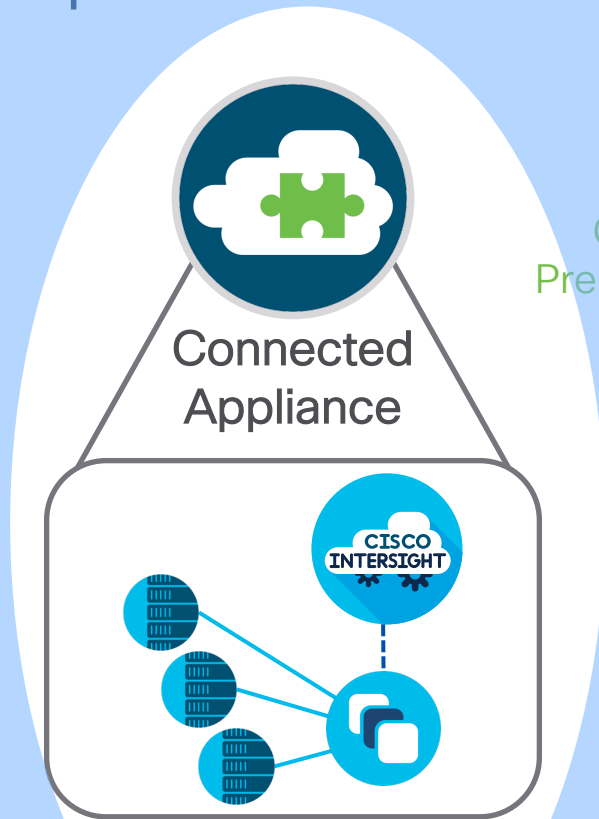


Private
Appliance

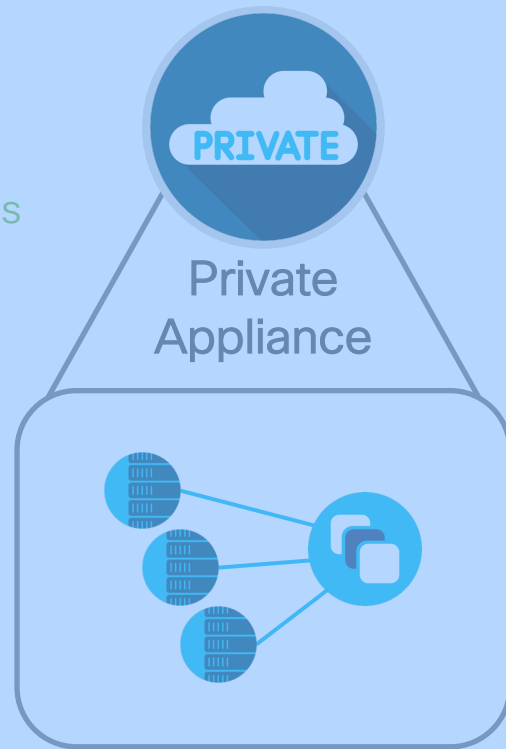
Intersight Consumption Models



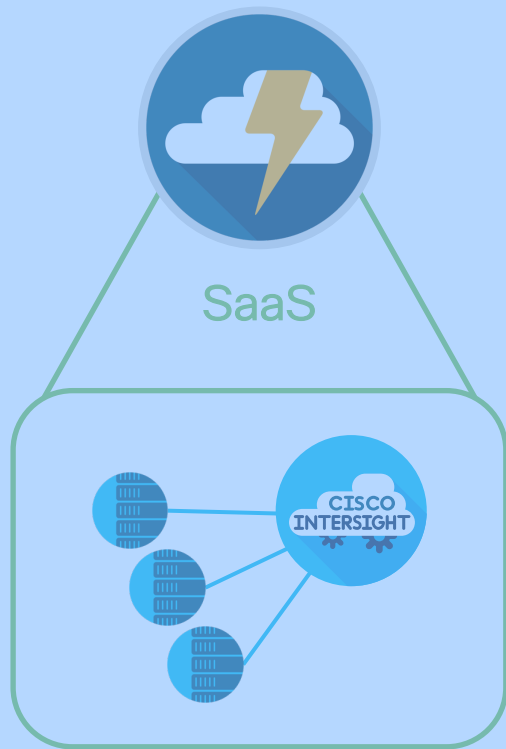
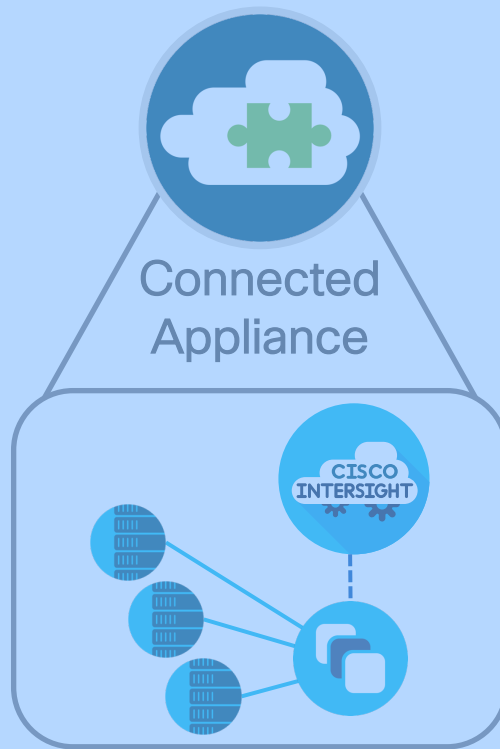
CISCO *Live!*



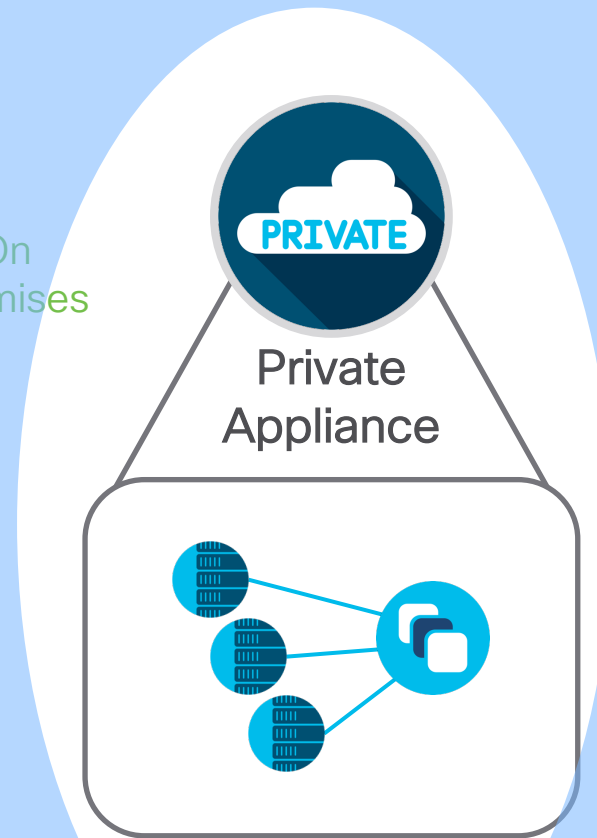
On
Premises



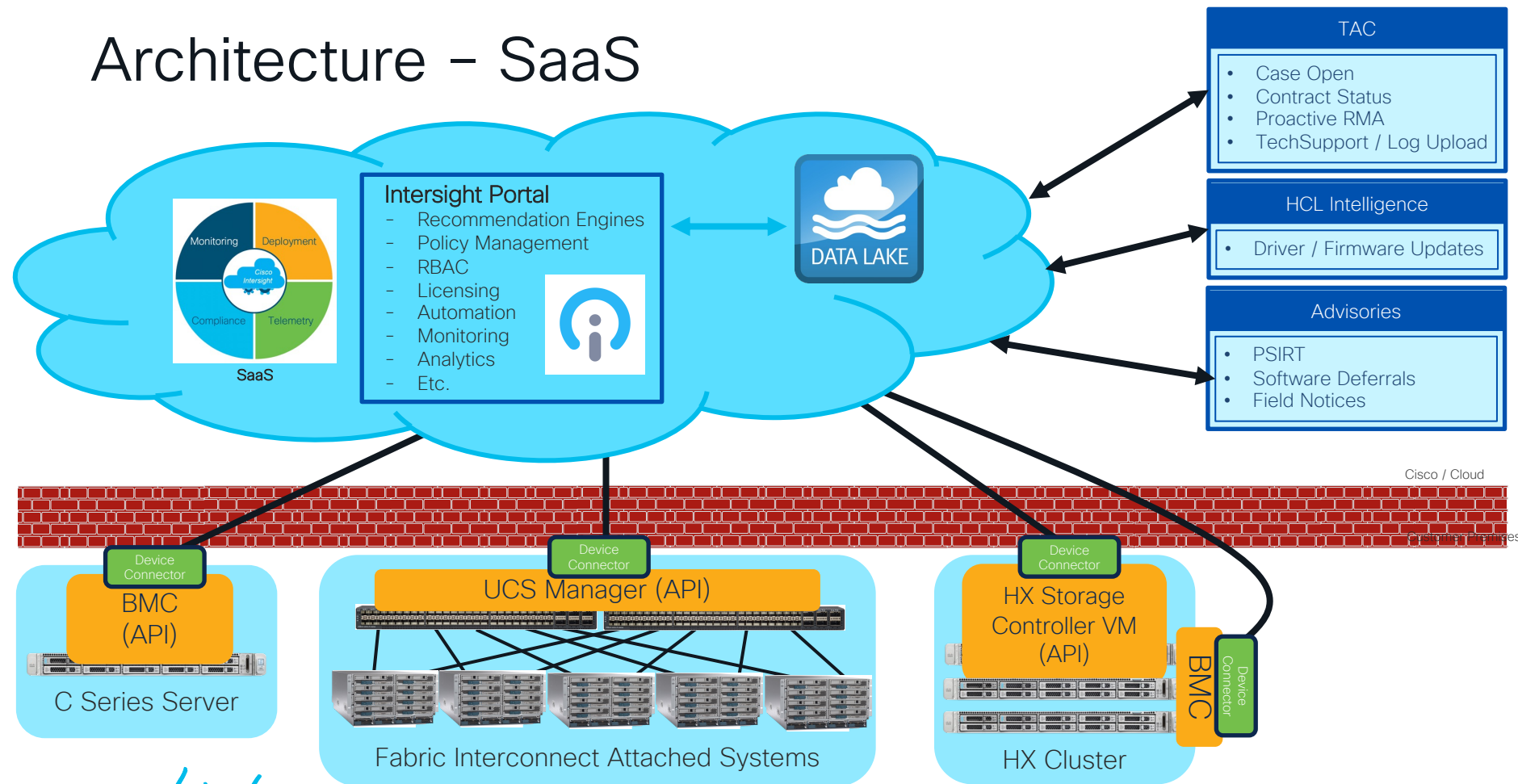
Intersight Consumption Models



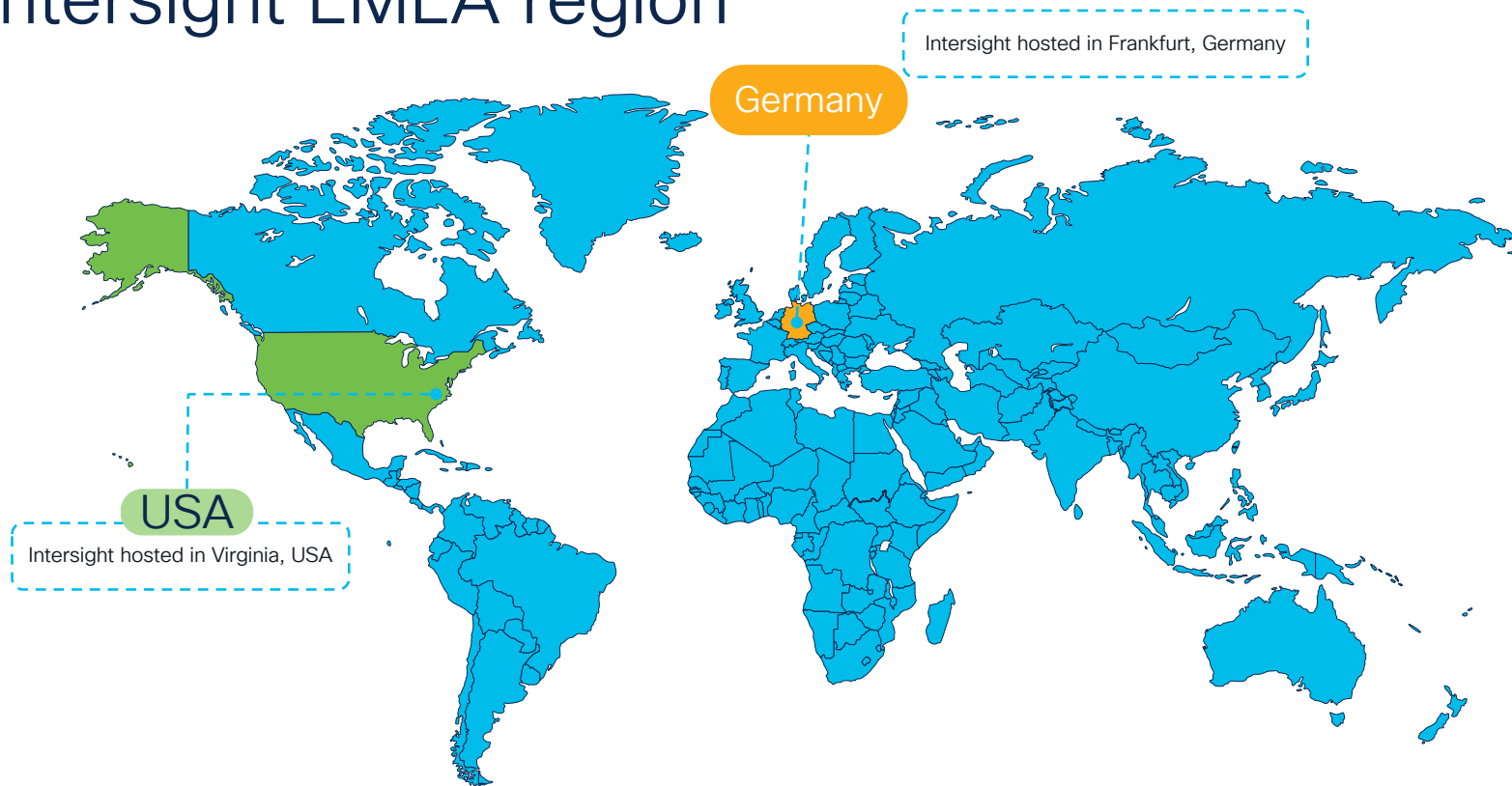
On
Premises



Architecture – SaaS



Intersight EMEA region

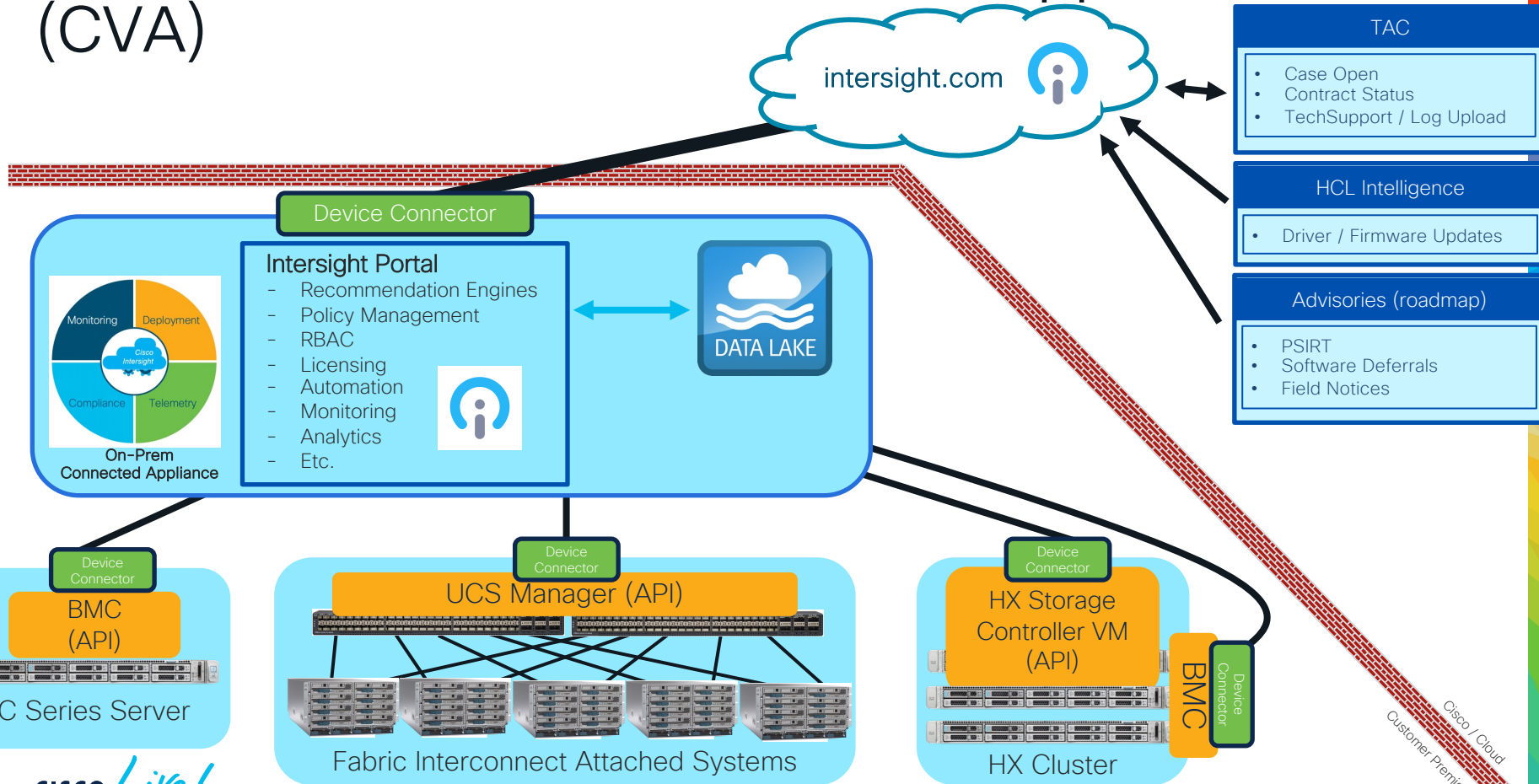




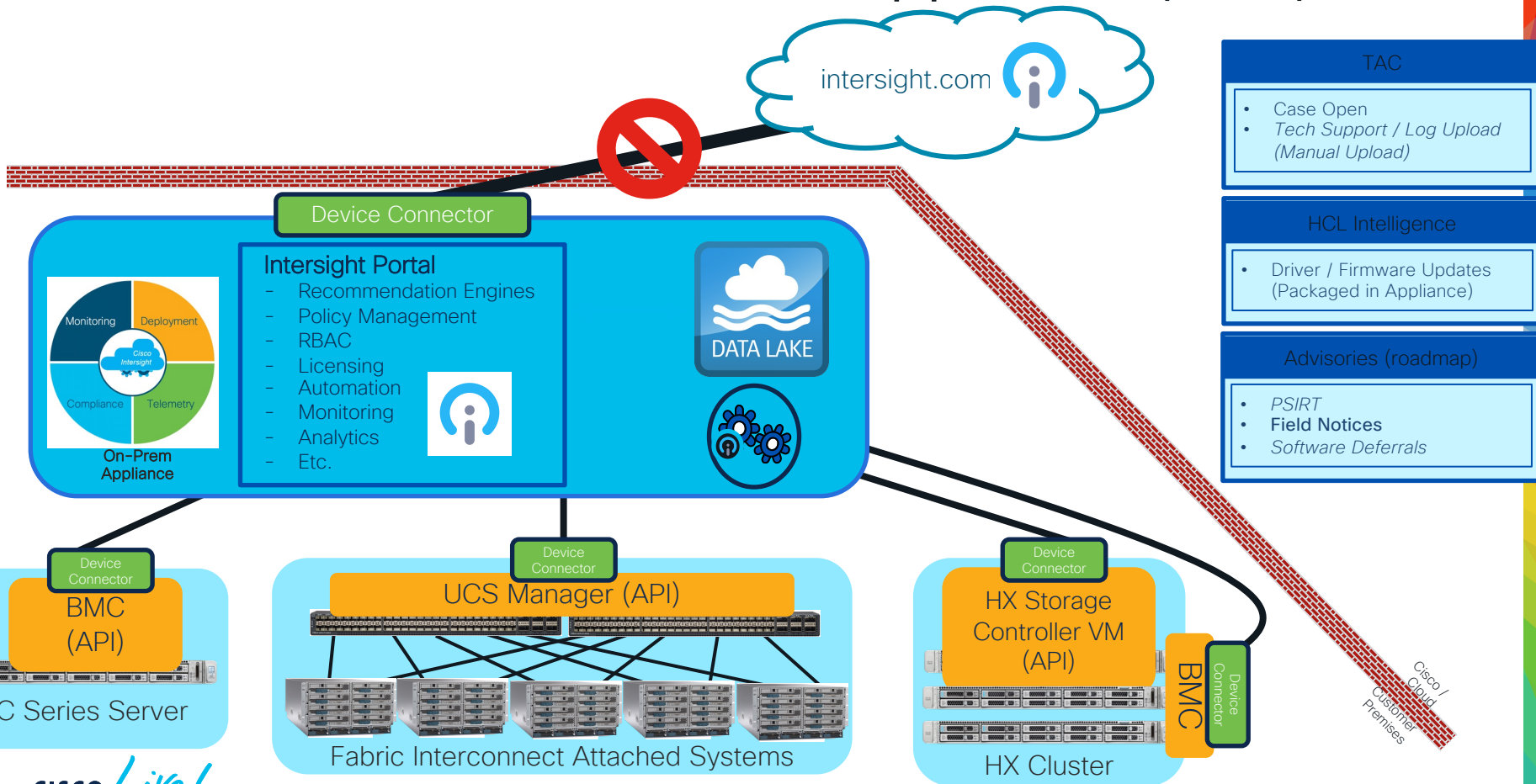
Only system with a true SaaS operating platform

- Intersight is / provides / delivers end-to-end visibility, operations and support
- Simplify – eliminate complexity with one tool to manage the entire environment
- Remove the burden of patching, updating and securing system management tools
- Continuous feature delivery – always have access to the latest features, functions and updates

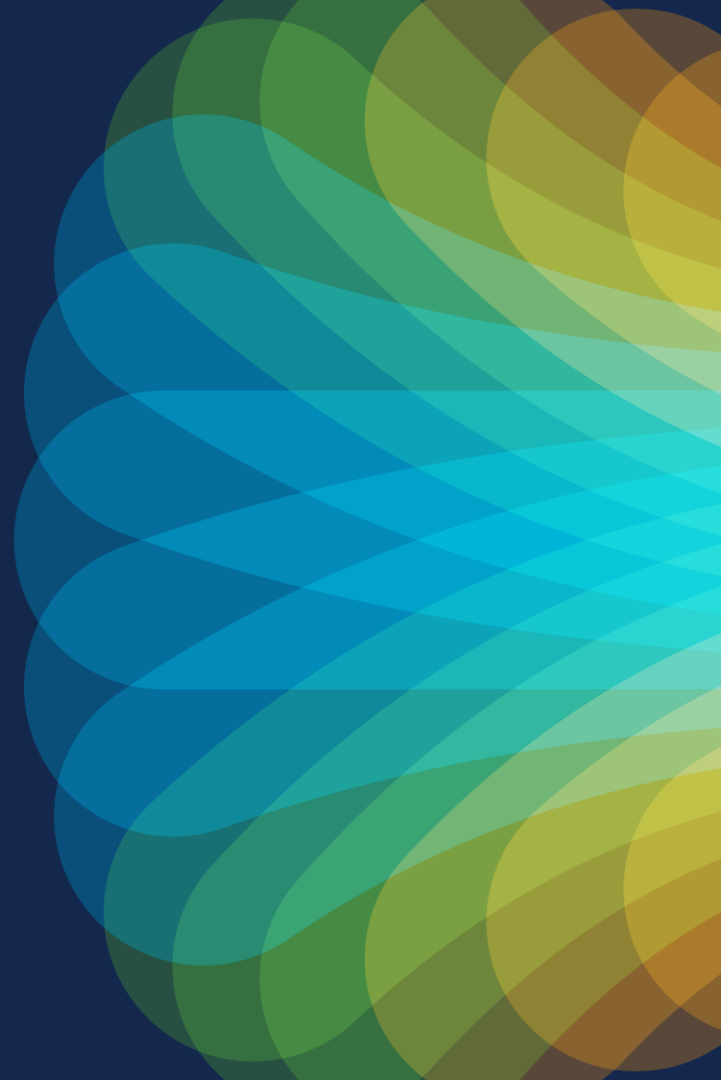
Architecture – Connected Virtual Appliance (CVA)



Architecture – Private Virtual Appliance (PVA)



Multi-node Appliance



Why Multi-node?

High Availability

Multi-node appliance can sustain node failures with zero downtime.

Application Resiliency

Protection against disruption providing zero downtime

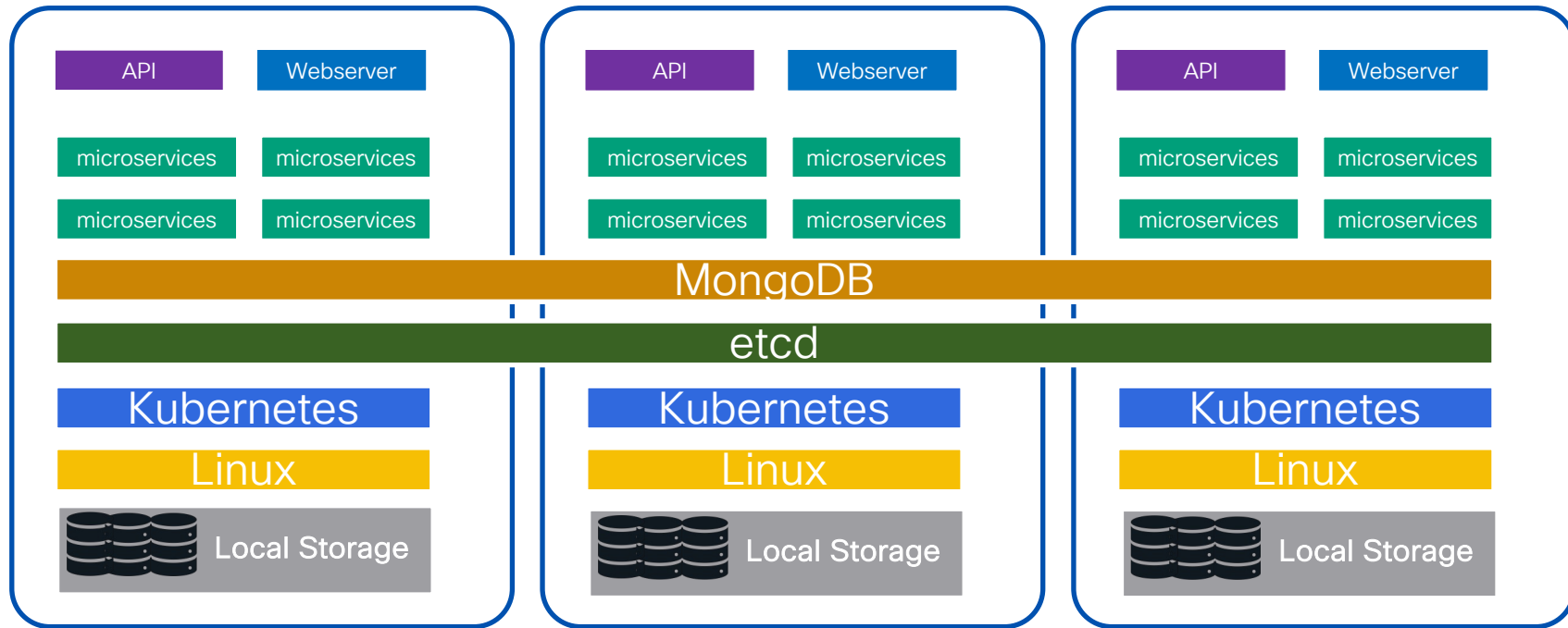
Configuration Flexibility

Virtual nodes within or across data centers based on latency and bandwidth requirements

Scope

✓ Connected Virtual Appliance ✓ Private Virtual Appliance ✗ Intersight Assist

Multi-node Architecture



- Minimum 3 Nodes
- No HAProxy, VIP Address or RoundRobin DNS
- 3 IP Addresses and 3 Host Names
- All Persistent services are clustered

Multi-Node Installation Steps

- Configure DNS
- Deploy the 3 nodes
- Create the single node
- Join the second and third node
- Validation

Settings

GENERAL

Account Details

Access Details

Notifications

Appliance

Backup

Banner Message

Software

NETWORKING

Cloud Connection

DNS

NTP

External Syslog

SMTP

AUTHENTICATION

LDAP/AD

Single Sign-On

Cisco ID

Health: Operational

Deployment Size: Medium

Cluster Status: Multi-node

Hostname: `ba-cva-node1.solar.local,ba-cva-node2.solar.local,ba-cva-node3.solar.local`

Version: `1.0.9-611`

Nodes

3 items found

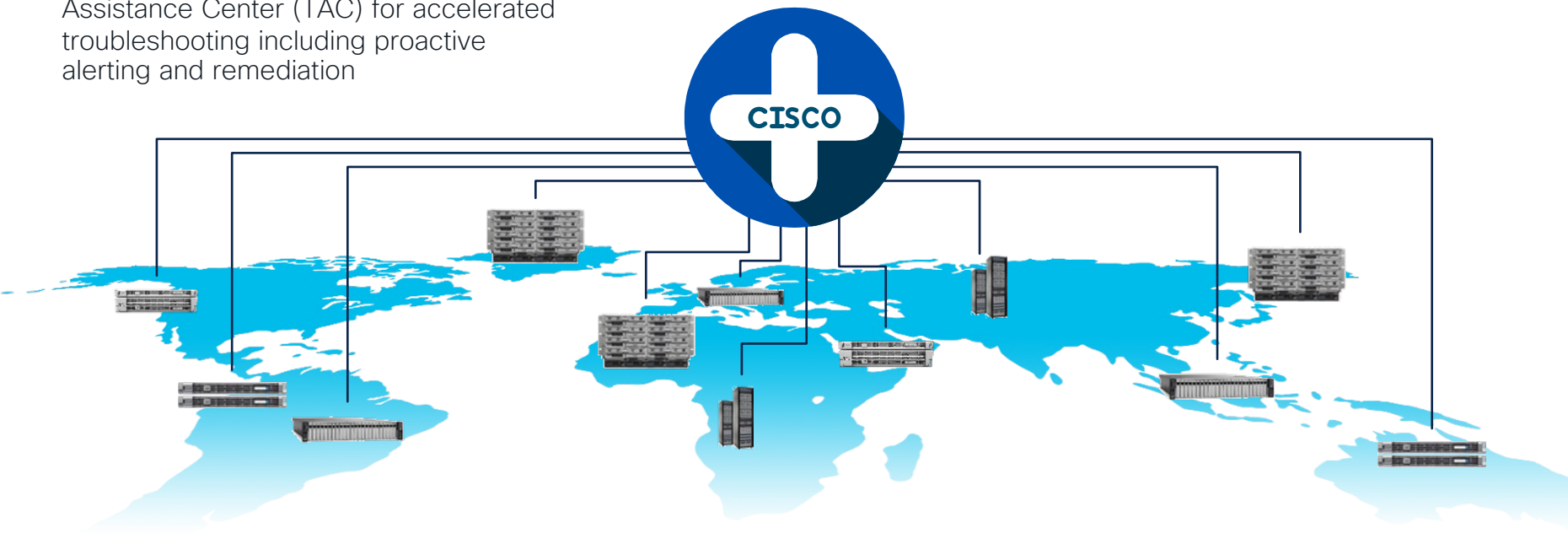
Hostname	Operational Status	Address	Gateway	Netmask
☐ ba-cva-node1.solar.local	Operational			172.18.198.0/24
☐ ba-cva-node2.solar.local	Operational			172.18.198.0/24
☐ ba-cva-node3.solar.local	Operational			172.18.198.0/24

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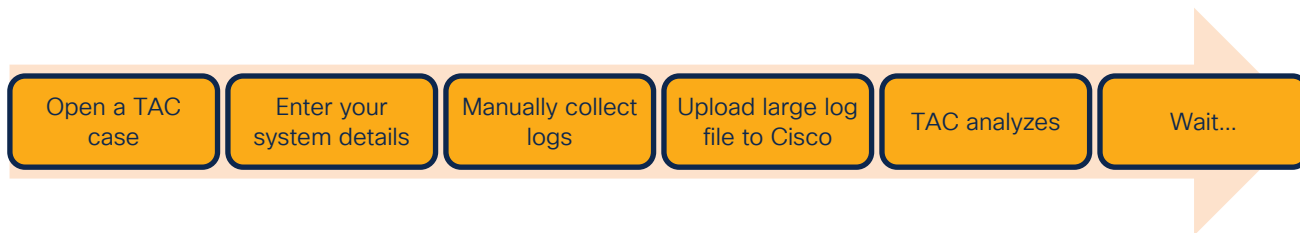
Intelligent Support

Cisco Intersight: Enhanced Support

Automated transmission of technical support files to the Cisco Technical Assistance Center (TAC) for accelerated troubleshooting including proactive alerting and remediation



Issue Resolution: TAC Support



Intersight (2 ways to handle issues)



* Saves customers > 45 mins per case

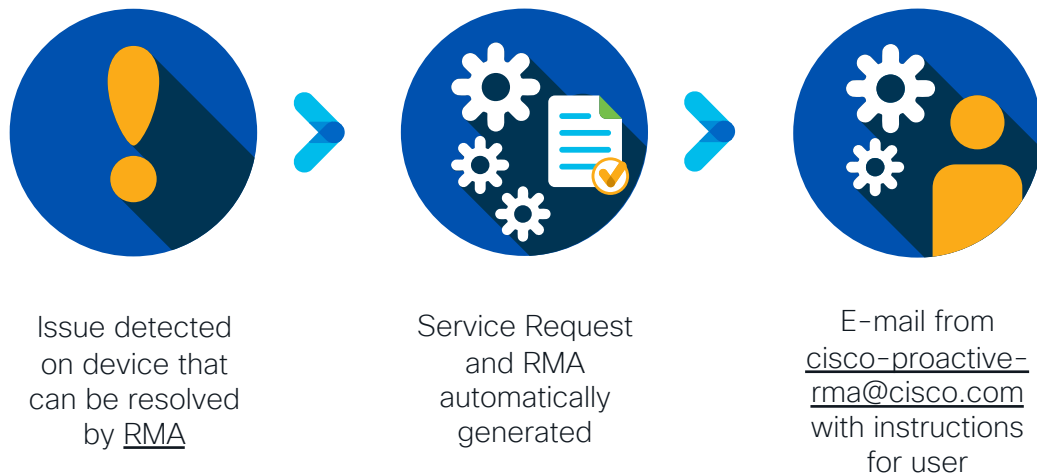
Collecting a Tech Support Bundle

The screenshot shows the 'Servers' page in the Cisco Infrastructure Service console. At the top, there's a search bar and navigation icons. Below the header, there are several summary cards: Health (22 items, 2 Critical, 1 Warning, 19 Healthy), Power (On 22), HCL Status (7 Incomplete, 3 Not Listed, 12 Validated), Models (5 HXAF220C-M5SN, 4 HX240C-M4SX, 4 HXAF220C-M5SX, 9 Other), Contract Status (19 Not Covered), and Profile Status (4 items, Not Assigned). Below these cards is a table of servers with columns: Name, Health, Contract Status, Model, Firmware Vers..., Serial, Asset Tag, CPU, and Actions. A red arrow points to the Actions column for the first server, which has opened a dropdown menu. The menu options are: Launch vKVM, Launch UCS Manager, Open TAC Case, Set License Tier, and Collect Tech Support Bundle. The 'Collect Tech Support Bundle' option is highlighted with a red box. A callout box on the left lists these same options, with 'Collect Tech Support Bundle' also highlighted with a red box.

Name	Health	Contract Status	Model	Firmware Vers...	Serial	Asset Tag	CPU	Actions
BXB-UCS-FI-6332-16UP-1	Healthy	Not Covered	HXAF220C-M5SX	4.1(3f)	WZP220315NP			...
BXB-UCS-FI-6332-16UP-10	Healthy	Not Covered	HX240C-M4SX	4.1(2f)	FCH1944V0N2			...
BXB-UCS-FI-6332-16UP-11	Healthy	Not Covered	HXAF220C-M5SN	4.1(3d)	WZP25031G90			...

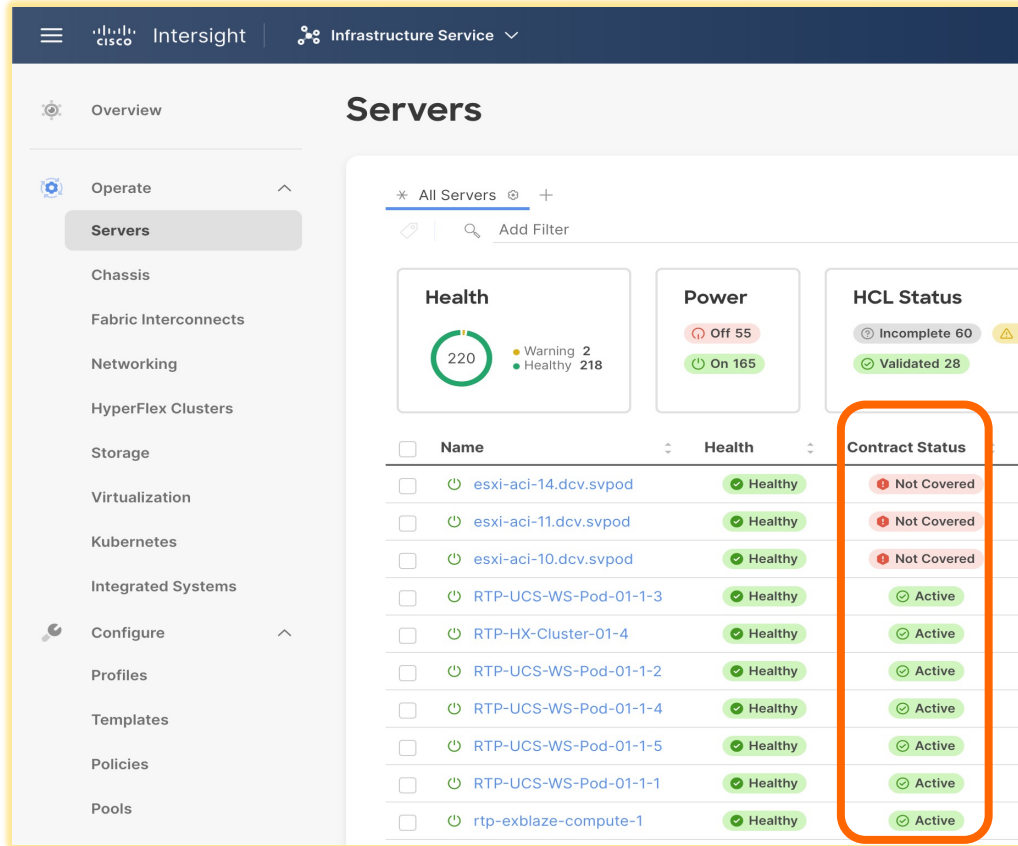
- Launch vKVM
- Launch UCS Manager
- Open TAC Case
- Set License Tier
- Collect Tech Support Bundle

Cisco Intersight: Proactive RMA



< 1-hr to receive an email, resolving RMAs 2 days faster

Support Contract Status

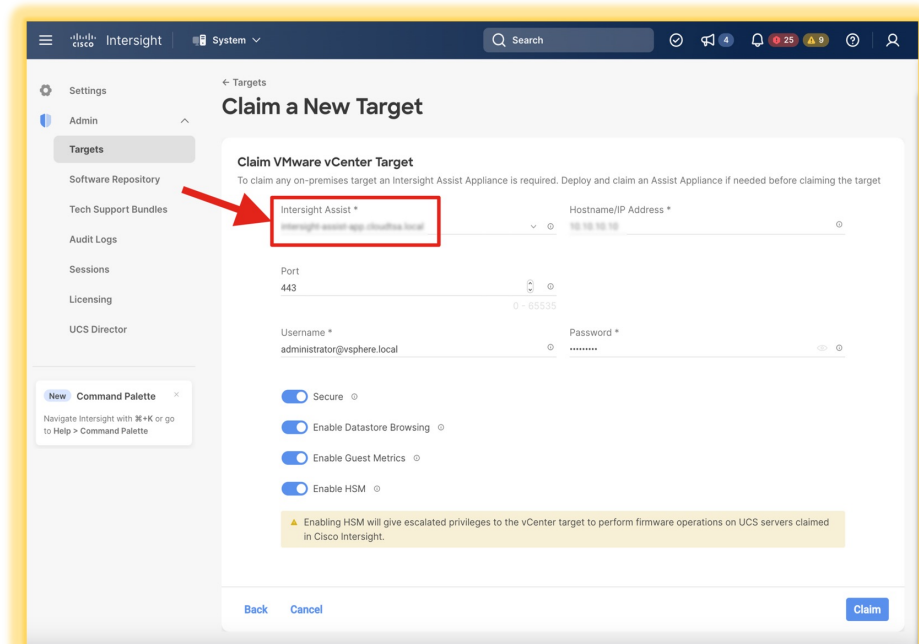


- Speeds up support calls knowing that the hardware is covered under a valid support contract
- Customers have the option to launch CCW-R right from Intersight interface and extend valid support subscriptions or renew expired ones
- Allow organizations to verify their upcoming budget cycle

3rd Party Ecosystem

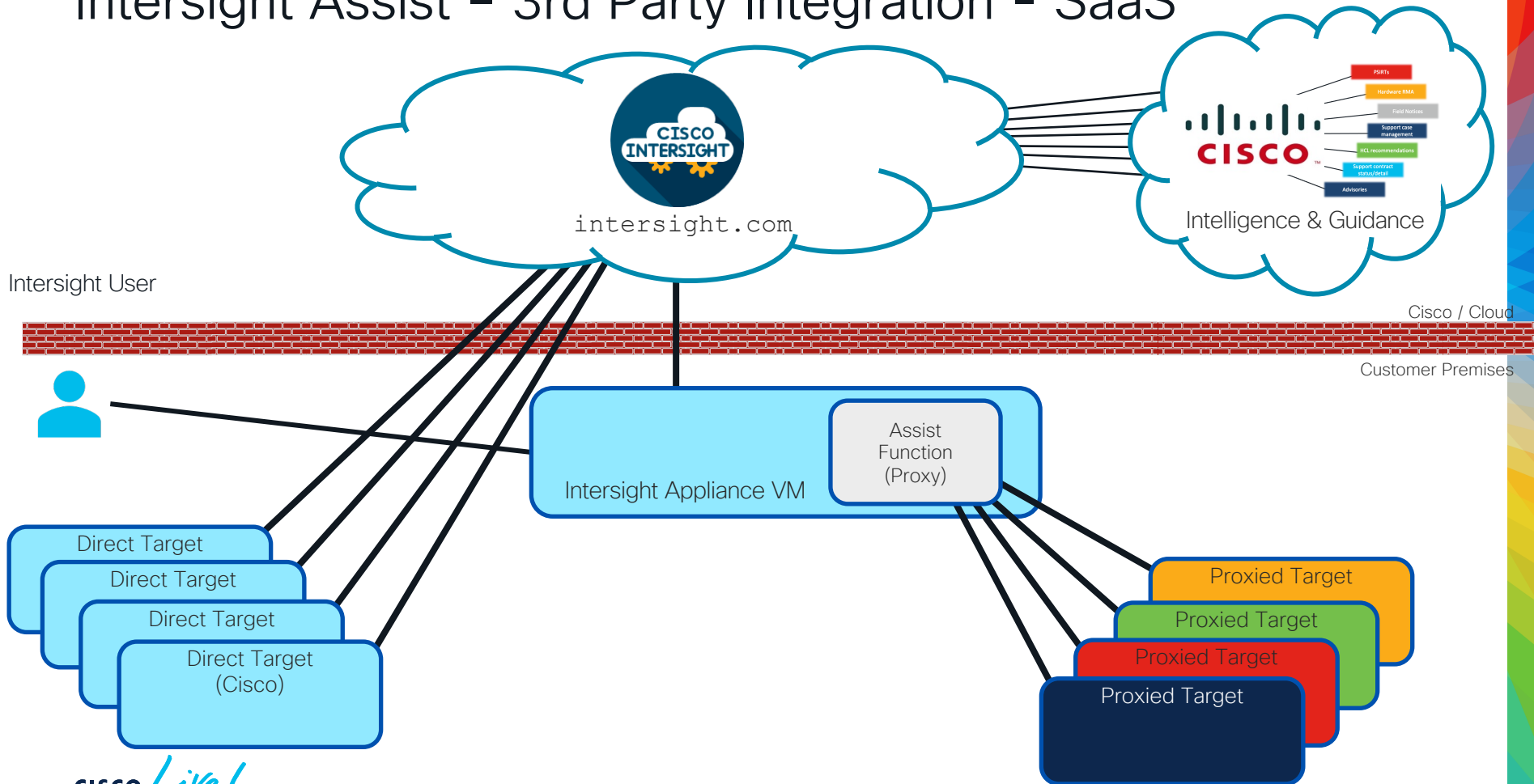
Intersight Assist

- Manages connections to 3rd party devices
- Installed via Intersight Appliance OVA
- **Note:** Setting up Intersight Appliance requires an IP address and 2 hostnames for that IP address. The hostnames must be in specific formats – *myhost.mydomain.com* and *dc-myhost.mydomain.com*.
- Device Connector running inside Assist facilitates the secure channel to Intersight
- Intersight communicates to the 3rd party APIs through this device.
- Claim process
 - Intersight Assist is first claimed in Intersight
 - 3rd party devices are then claimed on Intersight.com through Assist

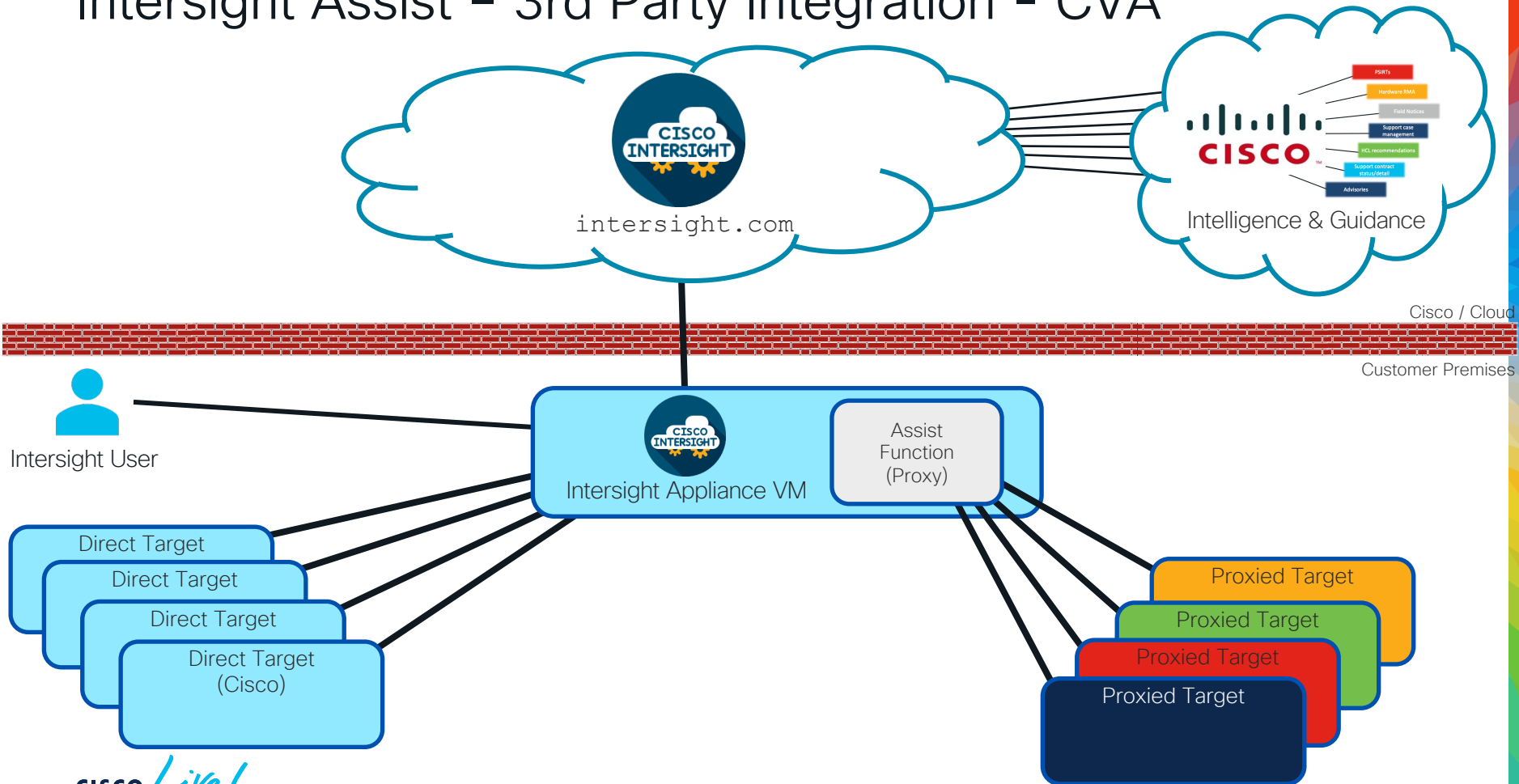


Recommended deployment footprint:
16 vCPU, 32GB RAM, 500GB Disk Space

Intersight Assist - 3rd Party Integration - SaaS



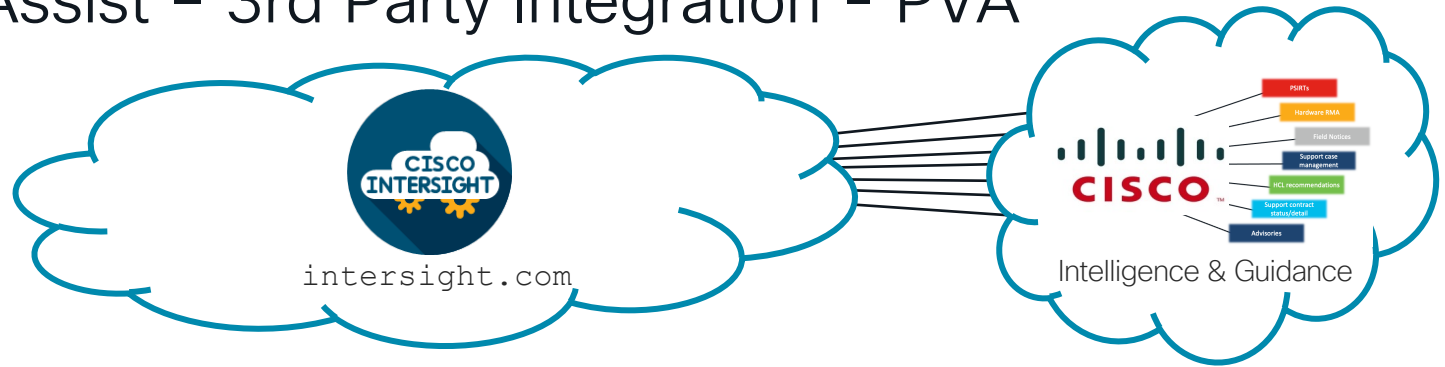
Intersight Assist - 3rd Party Integration - CVA



Cisco / Cloud

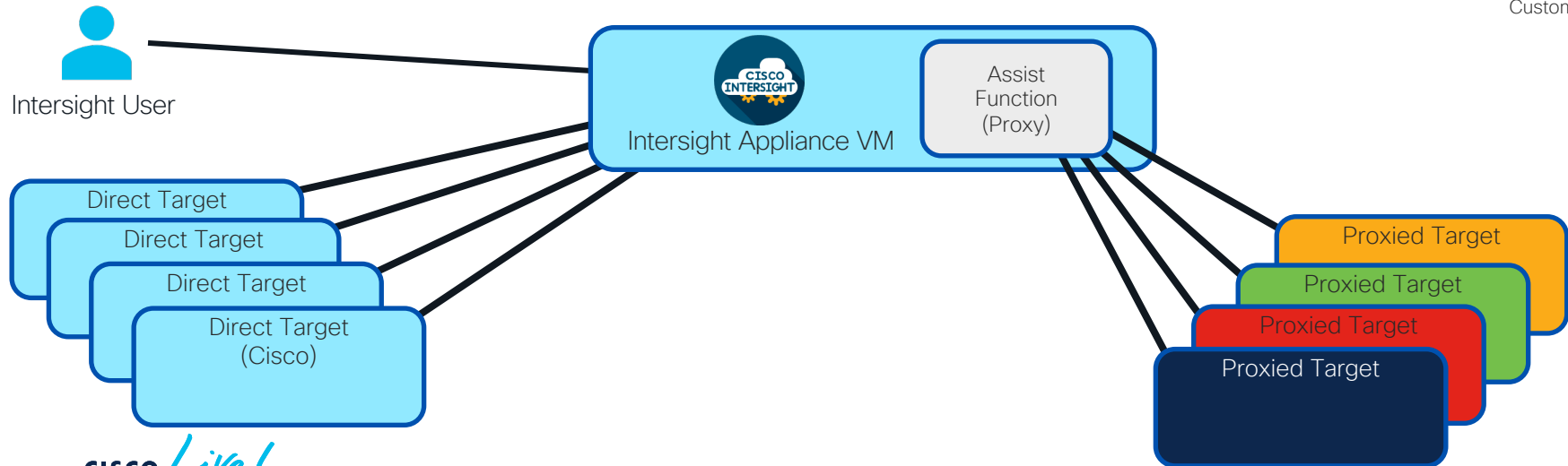
Customer Premises

Intersight Assist – 3rd Party Integration – PVA

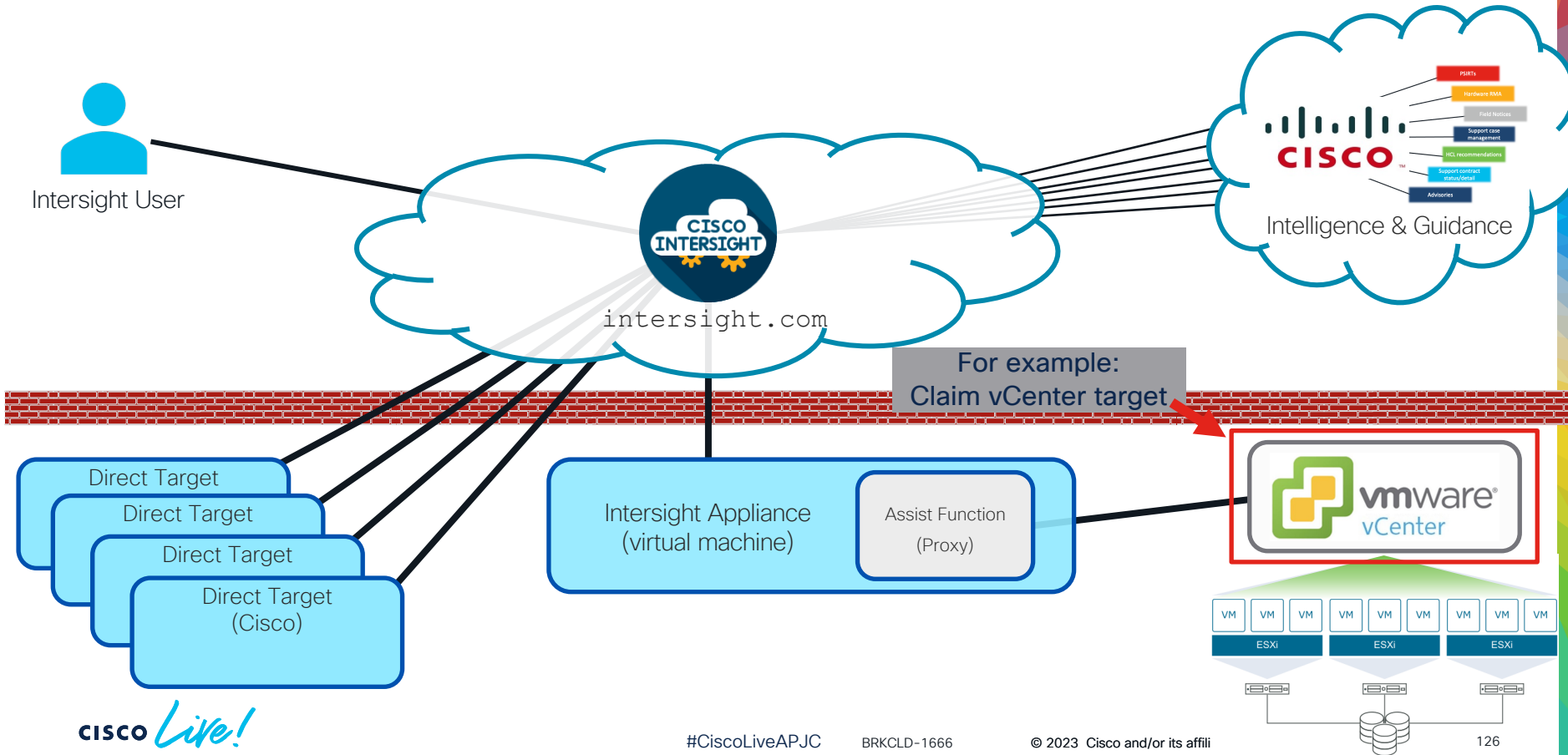


Cisco / Cloud

Customer Premises



3rd Party Integration – vCenter, NetApp, Pure, Hitachi



Third Party Integration



VMware vCenter Integration

Go to the **Virtualization** option under **Infrastructure Service**

The screenshot shows the Cisco Intersight web interface. At the top, the 'Infrastructure Service' dropdown menu is highlighted with an orange box. Below it, the 'Virtualization' section is active, and the 'Virtual Machines' tab is highlighted with an orange box. The left sidebar shows the 'Virtualization' option highlighted with an orange box. The main content area displays a summary of virtual machines, including a table of running VMs.

Virtualization

Virtual Machines

Virtual Machines | Datacenters | Clusters | Hosts | Virtual Machine Templates | Datastores | Datastore Clusters

* All Virtual Machines +

Export 76 items found 10 per page 1 of 8

Provider/Platform

- VMware vSphere 75
- Amazon Web Servi... 1

Status

- Running 62
- Stopped 12
- Pending 2

Top 5 Used Instance Types

- t2.micro 1

OS

- Ubuntu Linux (64-bit) 32
- Other 3.x or later Linux 18
- Microsoft Windows... 10
- Other (32-bit) 7
- Other 9

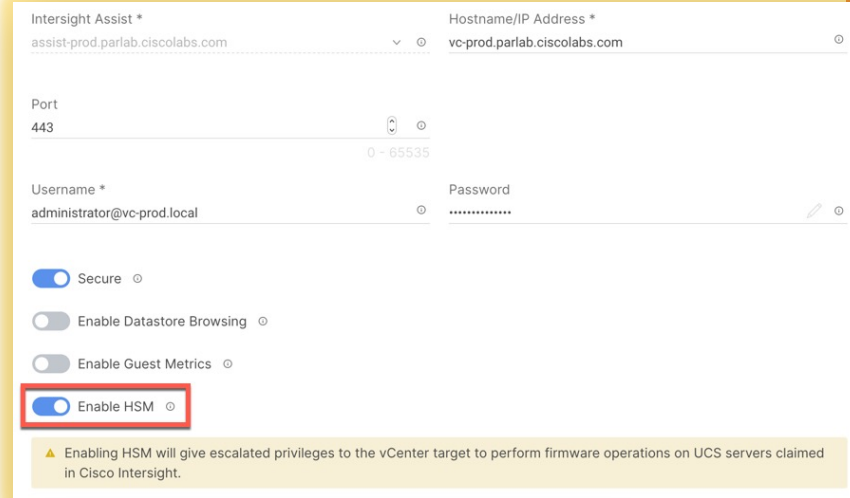
CPU Utilization

75 OK

Name	Provider/...	Status	CPUs	CPU Cap...	CPU Utilization	Memory ...	IP Address	Placement
☐ vRealize-Operations-Ma...	VMware vSph...	Running	4	9.97 GHz	4.2%	16.00 GiB		GDE-SJC
☐ vCLS (9)	VMware vSph...	Running	1	2.70 GHz	0.0%	128.00 MiB	-	GDE-SJC2

VMware vSphere Life Cycle Management (vLCM) Integration

- Cisco provides a vCenter plug-in called Hardware Support Manager (HSM)
- Automate UCS server firmware updates via vLCM
- Claim vCenter in Intersight
 - Enable HSM when claiming or edit vCenter target
- No additional setup/plugin required
- Select “Firmware and Driver Addon” bundle directly from vLCM (auto-populated)
- Run Pre-Check & Remediate Hosts
- Supported on SaaS & Appliance
- Supported with Standalone & IMM servers



Intersight Assist *
assist-prod.parlab.ciscolabs.com

Hostname/IP Address *
vc-prod.parlab.ciscolabs.com

Port
443

Username *
administrator@vc-prod.local

Password

☒ Secure

☐ Enable Datastore Browsing

☐ Enable Guest Metrics

☒ Enable HSM

▲ Enabling HSM will give escalated privileges to the vCenter target to perform firmware operations on UCS servers claimed in Cisco Intersight.

Select Firmware and Drivers Addon

Select the hardware support manager
Intersight HSM via intersight-cva.complab.lab ⓘ

Hardware Support Manager

Select a firmware and driver addon

	Addon name	Addon version	Supported ESXi versions
☐	CR-4.2(1f)	4.2(1f)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(3f)	4.1(3f)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(3d)	4.1(3d)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(3c)	4.1(3c)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(3b)	4.1(3b)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(2h)	4.1(2h)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(2g)	4.1(2g)	7.0.0, 7.0.1, 7.0.2, 7.0.3
☐	CR-4.1(2f)	4.1(2f)	7.0.0, 7.0.1, 7.0.2, 7.0.3

Intersight with NetApp

The image displays three overlapping screenshots of the Cisco Intersight NetApp interface, illustrating the navigation and data presented for NetApp storage systems.

Top Screenshot (Overview): Shows the main navigation menu on the left with categories like Overview, Operate, Servers, Chassis, Fabric Interconnects, Networking, HyperFlex Clusters, Storage (highlighted), Virtualization, Kubernetes, and Integrated Systems. The main content area shows the 'Storage' overview for a specific NetApp system.

Middle Screenshot (Inventory): Shows the 'Inventory' tab selected. It displays a table of storage volumes with columns for Name, State, Type, and Storage. The table lists several volumes, including 'svm0_root', 'NetAppNFSDS', 'ISOs', and 'svm1_root', all in an 'Online' state.

Bottom Screenshot (Checks): Shows the 'Checks' tab selected. It displays a checklist of system health and configuration items, each with a status indicator (Yes/No) and a refresh icon.

Name	State	Type	Storage
svm0_root	Online	Read-write	svm0
NetAppNFSDS	Online	Read-write	svm0
ISOs	Online	Read-write	svm1
svm1_root	Online	Read-write	svm1

Check Item	Status
ASUP Enabled	Yes
CDP Enabled	No
HTTP Disabled	No
Redundant Controllers	Yes
RSH Disabled	Yes
SSH Enabled	Yes
Telnet Disabled	Yes

Intersight with Pure Storage

The image displays three overlapping screenshots of the Cisco Intersight web interface, illustrating the configuration and monitoring of Pure Storage hardware.

Top Screenshot (Overview): Shows the main Intersight dashboard with the 'Storage' section highlighted in the left-hand navigation menu.

Middle Screenshot (Pure-M10R2-01 Details): Displays the configuration page for a specific storage unit, 'Pure-M10R2-01'. The 'General' tab is active, showing details such as Name, Vendor (Pure Storage), Model (FA-m10r2), Version (6.1.10), Serial, Total Reduction (49.9), Organizations (default), and Tags.

Bottom Screenshot (Pure-M10R2-01 Inventory): Displays the 'Inventory' tab for the same storage unit, showing a table of volumes and their properties.

Name	Total Cap...	Used Cap...	Capacity ...	Snapshots	Data Red...	Sc	Created	Serial
HX-UCS-Pure...	6.00 TiB	4.53 GiB	0.1%	0 bytes	5.5		Nov 17, 2021 9:5i	72388421B5B14I
ESXI-UCS-SVR...	32.00 GiB	78.92 MiB	0.2%	0 bytes	7.5		Feb 1, 2023 2:38	72388421B5B14I
HX-UCS-Pure...	6.00 TiB	22.57 GiB	0.4%	0 bytes	4.7		Oct 27, 2021 8:5i	72388421B5B14I
HX-UCS-Pure...	12.00 TiB	538.24 GiB	4.4%	0 bytes	2.9		Nov 10, 2021 12:	72388421B5B14I
BXB-UCS-ESXI...	32.00 GiB	0 bytes	0.0%	0 bytes	1.0		34 minutes ago	72388421B5B14I
ESXI-Server-1...	4.00 GiB	0 bytes	0.0%	0 bytes	1.0		Nov 18, 2022 2:1	72388421B5B14I
ico-vm-datast...	6.00 TiB	0 bytes	0.0%	0 bytes	1.0		Oct 12, 2022 8:2	72388421B5B14I

Integrated Systems

General

FlexPod

✱ All FlexPods ⚙ +

Export 1 items found 10 per page 1 of 1

Interoperability Status

⚠ Not Approved 1

Storage Utilization

1

Q

Name	Interoperability Status	Storage Capacity	Storage Utilization	
FlexPod	Not Approved	0 bytes	0.0%	...

Third-party server inventory

Intersight Infrastructure Service

Search

Overview

Servers

Model filter

* All Servers +

Search 3rd party x Add Filter

Export 3 items found 10 per page 1 of 1

Health

3 Healthy 3

Power

On 3

HCL Status

Incomplete 3

Models

3
PowerEdge R650 2
ProLiant DL360 Ge... 1

Contract Status

No data available

Profile Status

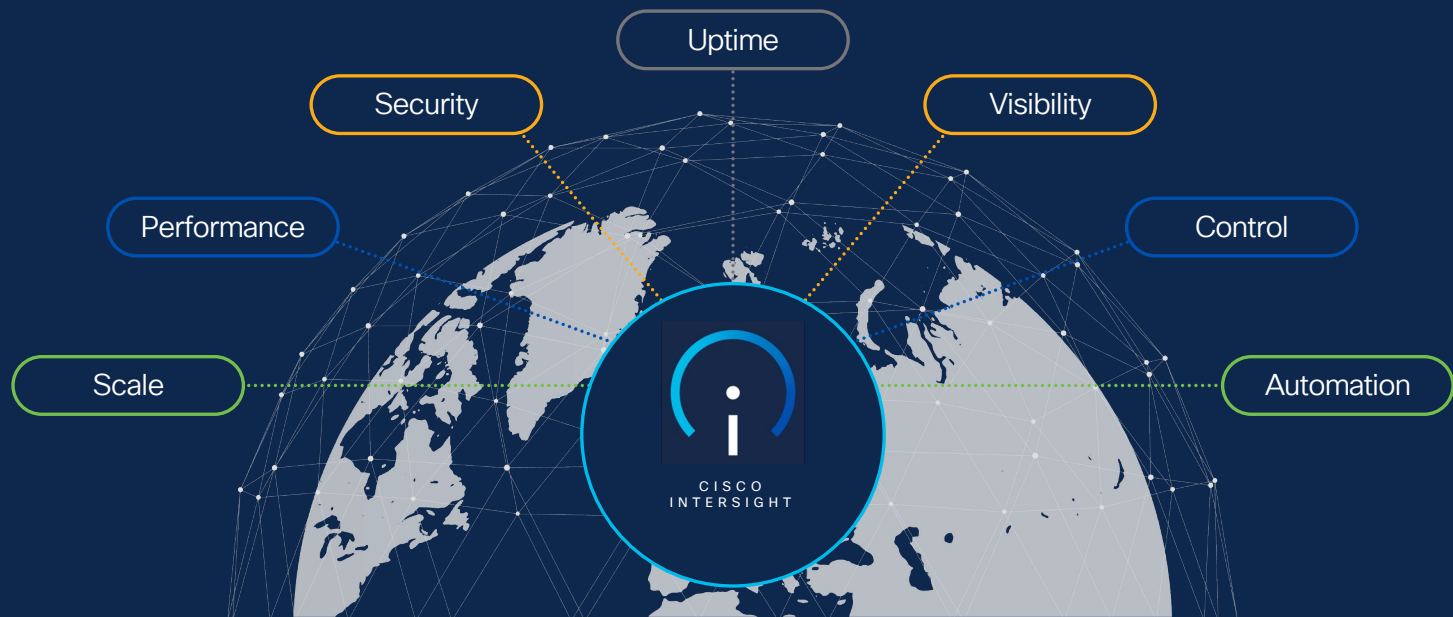
1 Not Assigned 1

Name	Health	Contract Status	Model	Firmware Vers...	Serial	Asset Tag
Dell-PowerEdge R650	Healthy	-	PowerEdge R650	5.10.00.00		testdell
Dell-PowerEdge R650	Healthy	-	PowerEdge R650	5.10.00.00		testdell
HPE-ProLiant DL360 Gen10 Plus	Healthy	-	ProLiant DL360 Gen10 Plus	2.55		hp-new

1 of 1

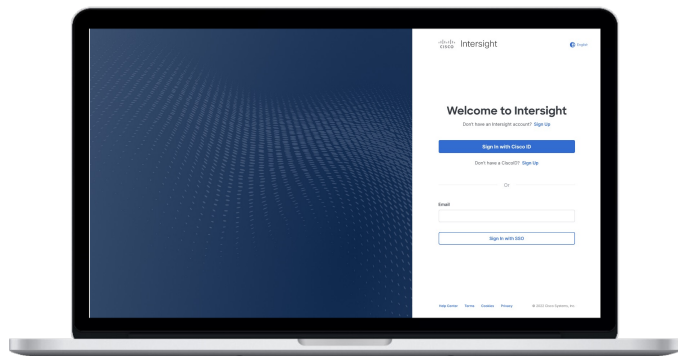
Wrap-up

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- More **efficient** performance for sustainable impact
- Build, reply and operate to achieve **operation** mandates



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1

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2

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3

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Friday	10:30am – 1:30pm

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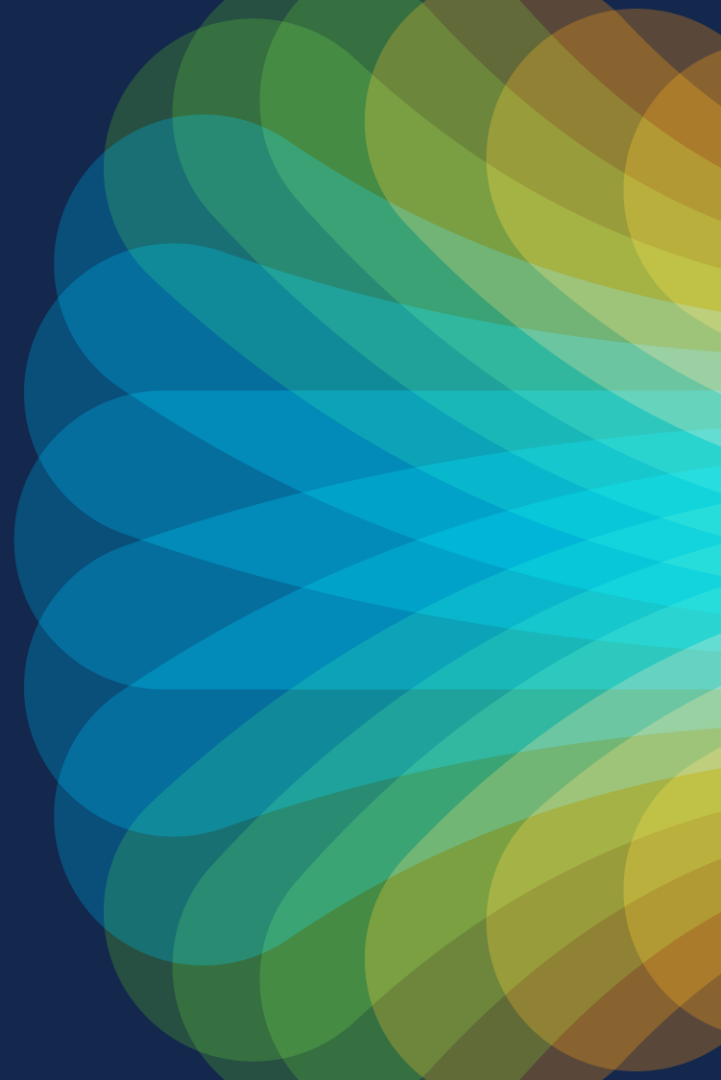


The bridge to possible

Thank you



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The background features a vibrant, multi-colored abstract design. On the left, there are horizontal, wavy bands of color in shades of red, orange, yellow, and green. On the right, a bright white light source emits a series of colorful rays in shades of blue, green, and yellow, creating a sunburst effect.

cisco *Live!*

Let's go

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