



NETFORMERS

Cisco Intersight

Praktyczne zarządzanie
i automatyzacja infrastruktury

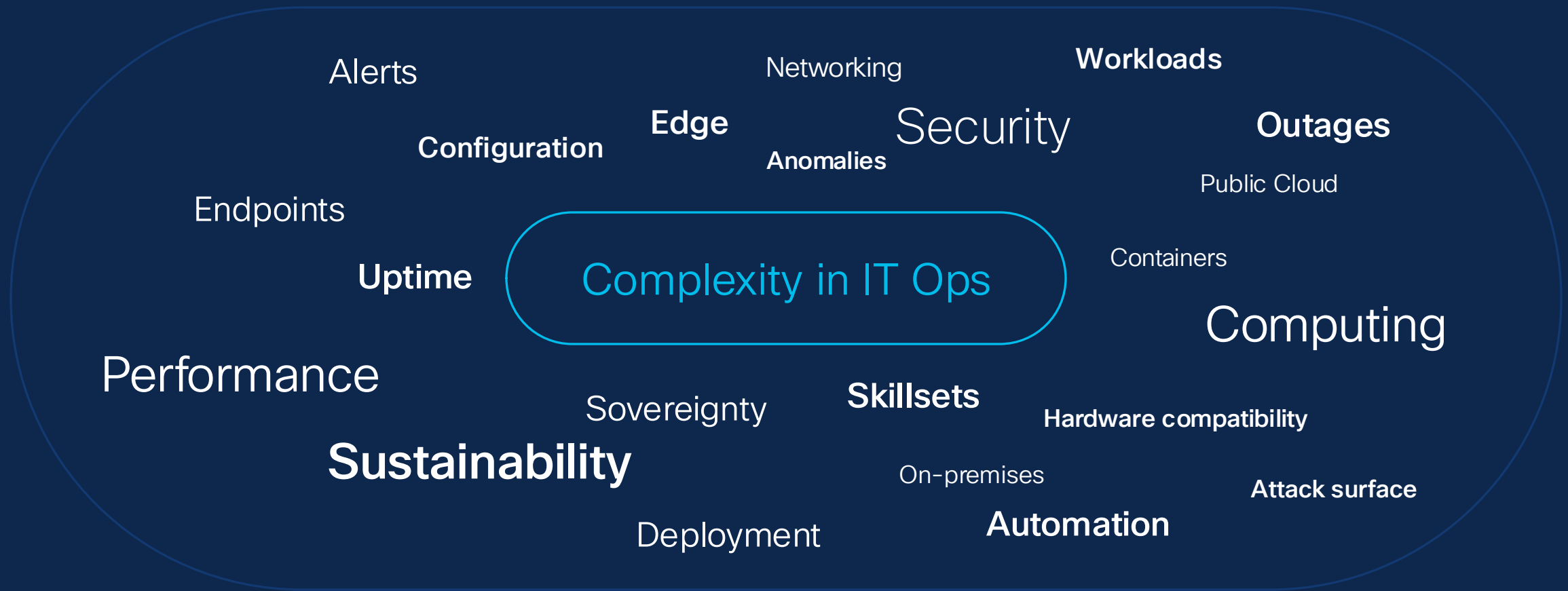
Krzysztof Banel

Inżynier rozwiązań Data Center

Cisco Systems Polska



Environments are driving complexity in IT operations



What if you could:



Deploy and configure infrastructure for any type of workload (traditional or AI) in minutes, anywhere?



Monitor and track energy consumption while controlling power management across your server fleet?



Operate and monitor your on-premises and edge environments from one dashboard?



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



Continuously identify and close security gaps?



Give your staff the ability to accomplish more without creating additional burdens?

You can do all of this with...



Cisco Intersight®

See, control, and automate your Cisco UCS®, converged, and hyperconverged infrastructure throughout its lifecycle—wherever it is—from one place

AI-driven capabilities in Intersight

Deliver predictive insights

HCL alerts, contract status

Predict potential failures

Enriched topology view with network bandwidth/utilization

Give contextual alerts, enhance security

Custom field notices, security advisories

Self-heal

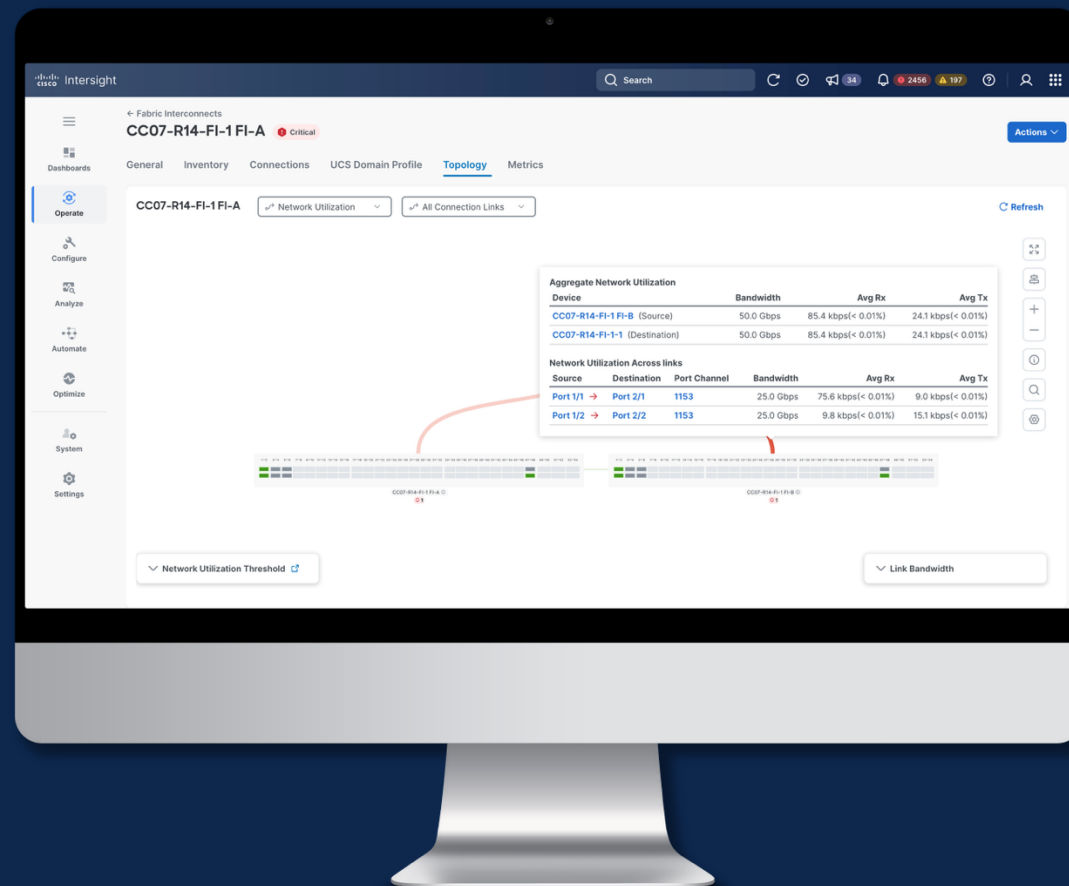
Proactive RMAs

Automate routine tasks

Automatic log collection, Connected TAC

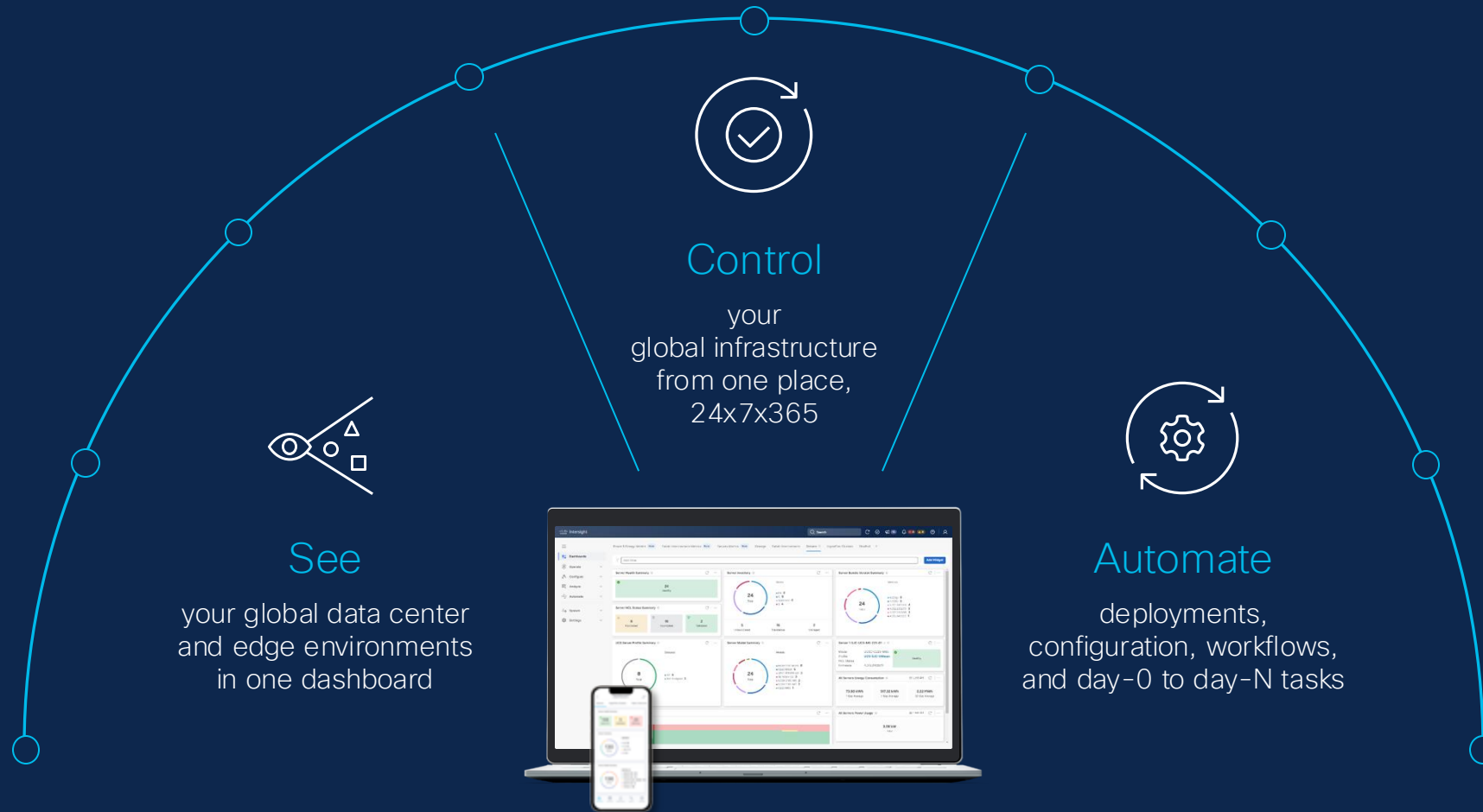
Deliver real-time and historical metrics

Analyze performance, troubleshoot, forecast and budget



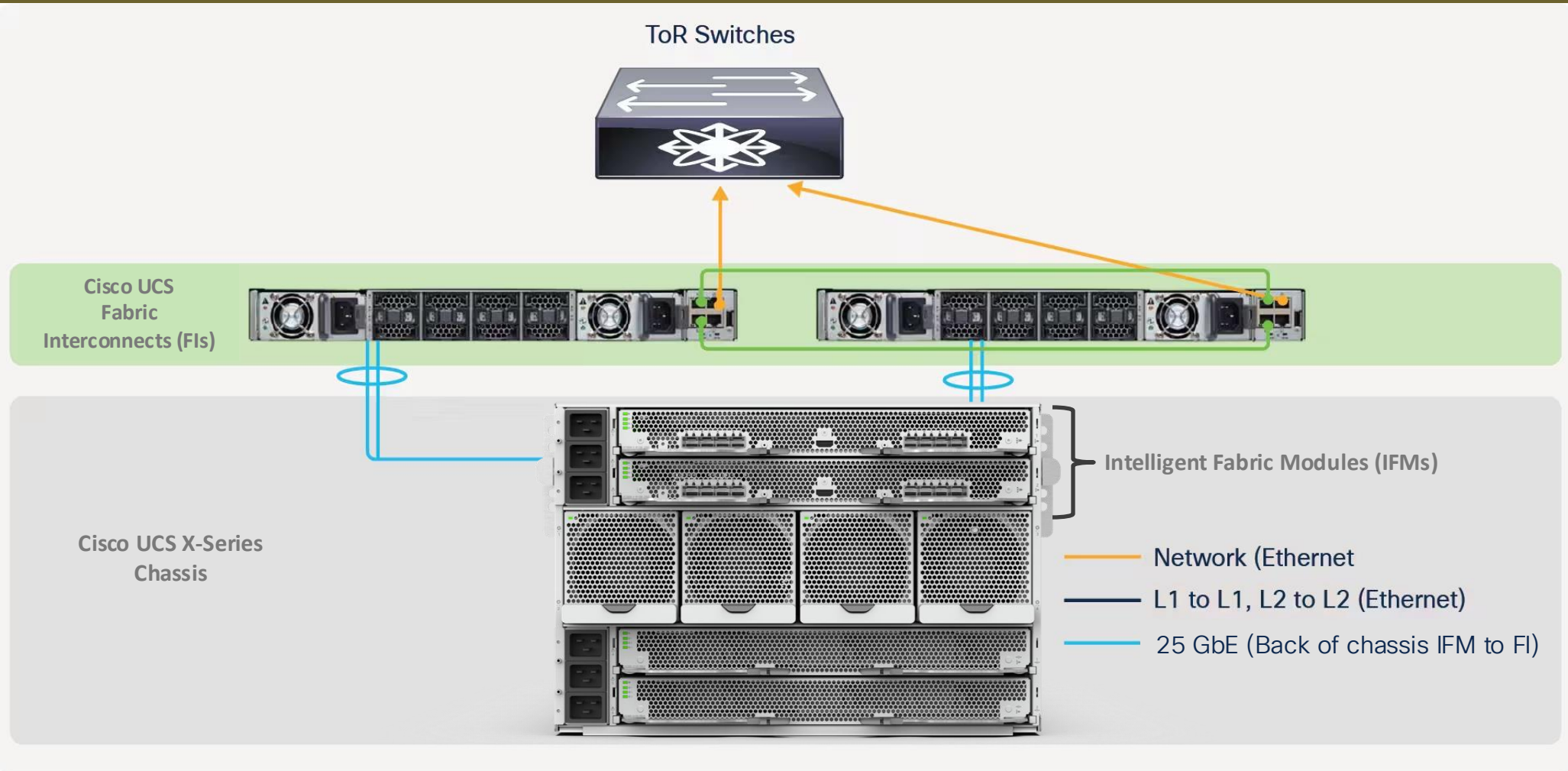
IT operations. Simplified.

Cisco Intersight®



Serwery Cisco UCS

High Level Cisco UCS Topology



Stateless Computing

SIM Card
Identity for a phone



Profiles
Identity for a server

Intersight Server Profiles

Network Policy

Storage Policy

Server Policy



Profiles

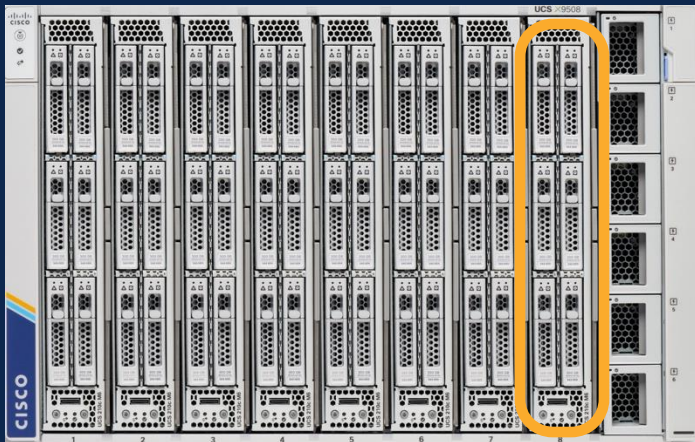
Fabric Interconnect



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)

Rack Server



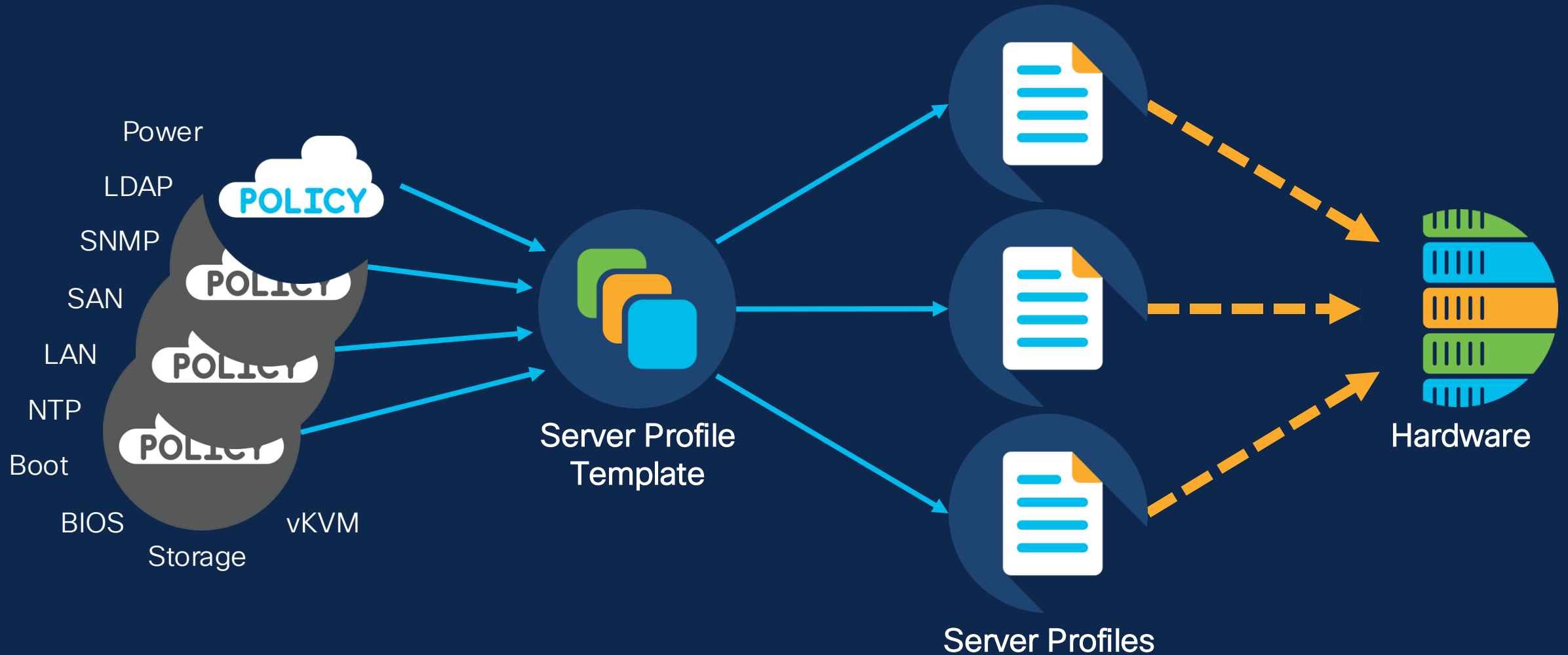
Server Node

Server Profiles

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

Server Profile Templates

Policy-based configuration of UCS servers



UCS Management with Intersight



Configuration



Operations



Configuration



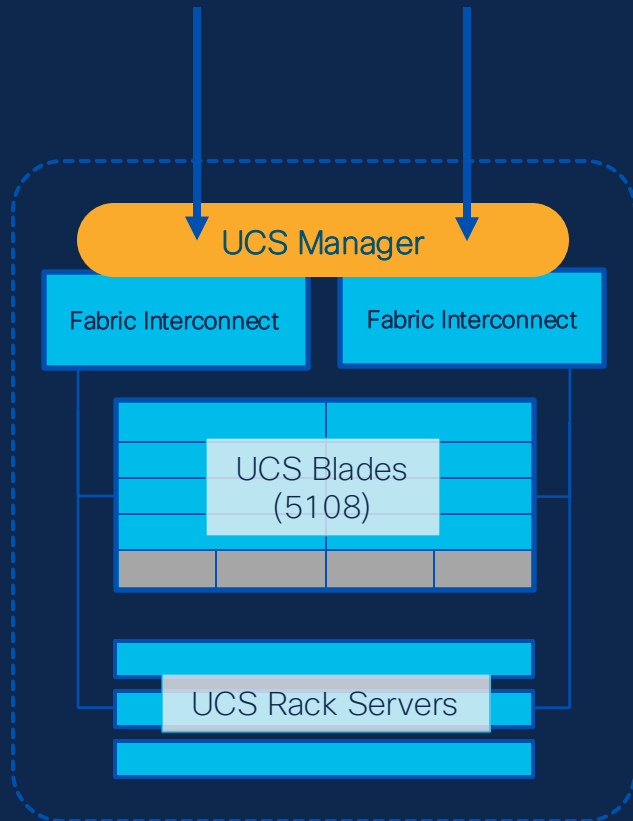
Operations



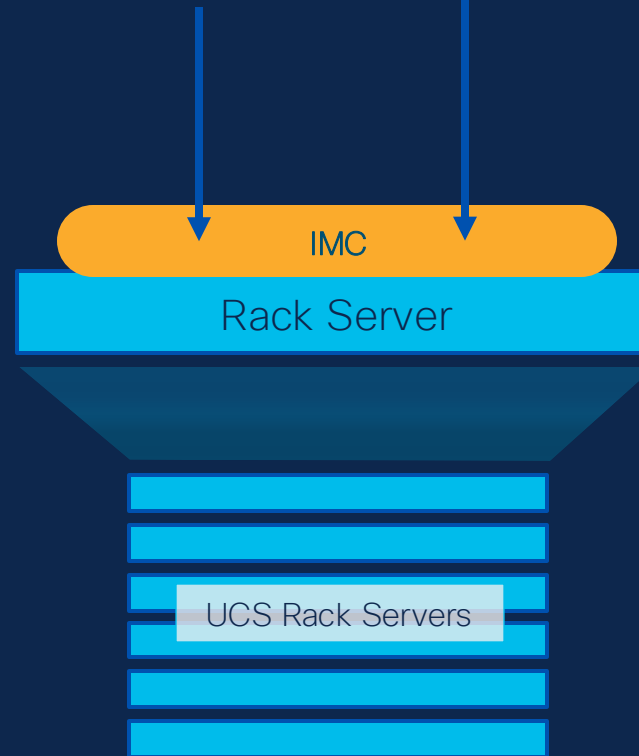
Configuration



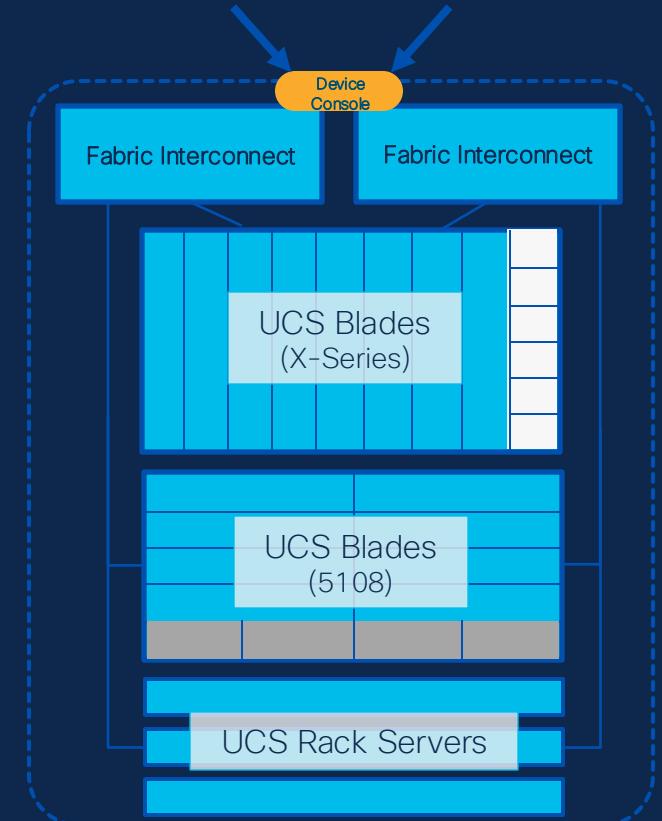
Operations



UCSM Managed Mode (UMM)



C-Series Standalone Mode



Intersight Managed Mode (IMM)

Targets

Any endpoint that is connected to Intersight



Storage



Database



Ansible



PowerShell



Network

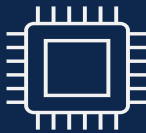


HashiCorp

Terraform



API



Compute



python

servicenow

Operacje na serwerach

Aplikacja mobilna

Intersight Mobile App



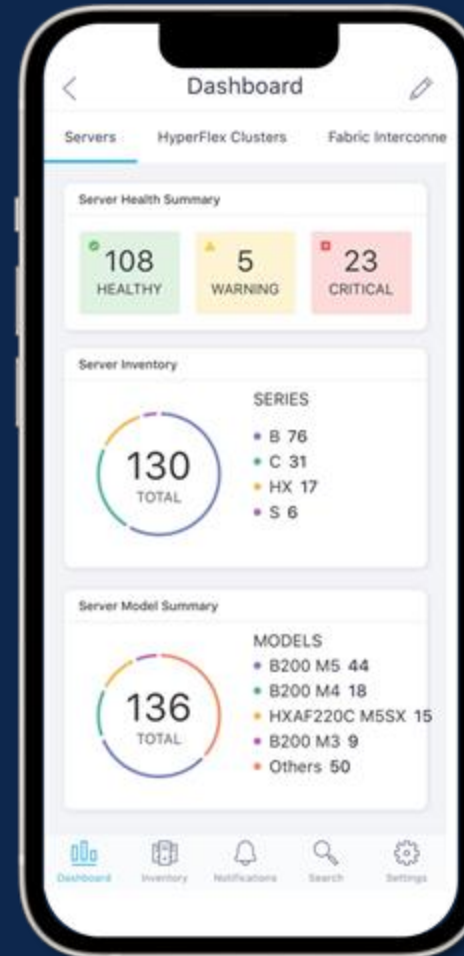
Visibility on the go

Monitor and view resources managed by Intersight, anytime and anywhere



Faster time to resolution

View centralized alarms
Open support case from anywhere



Monitorowanie

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



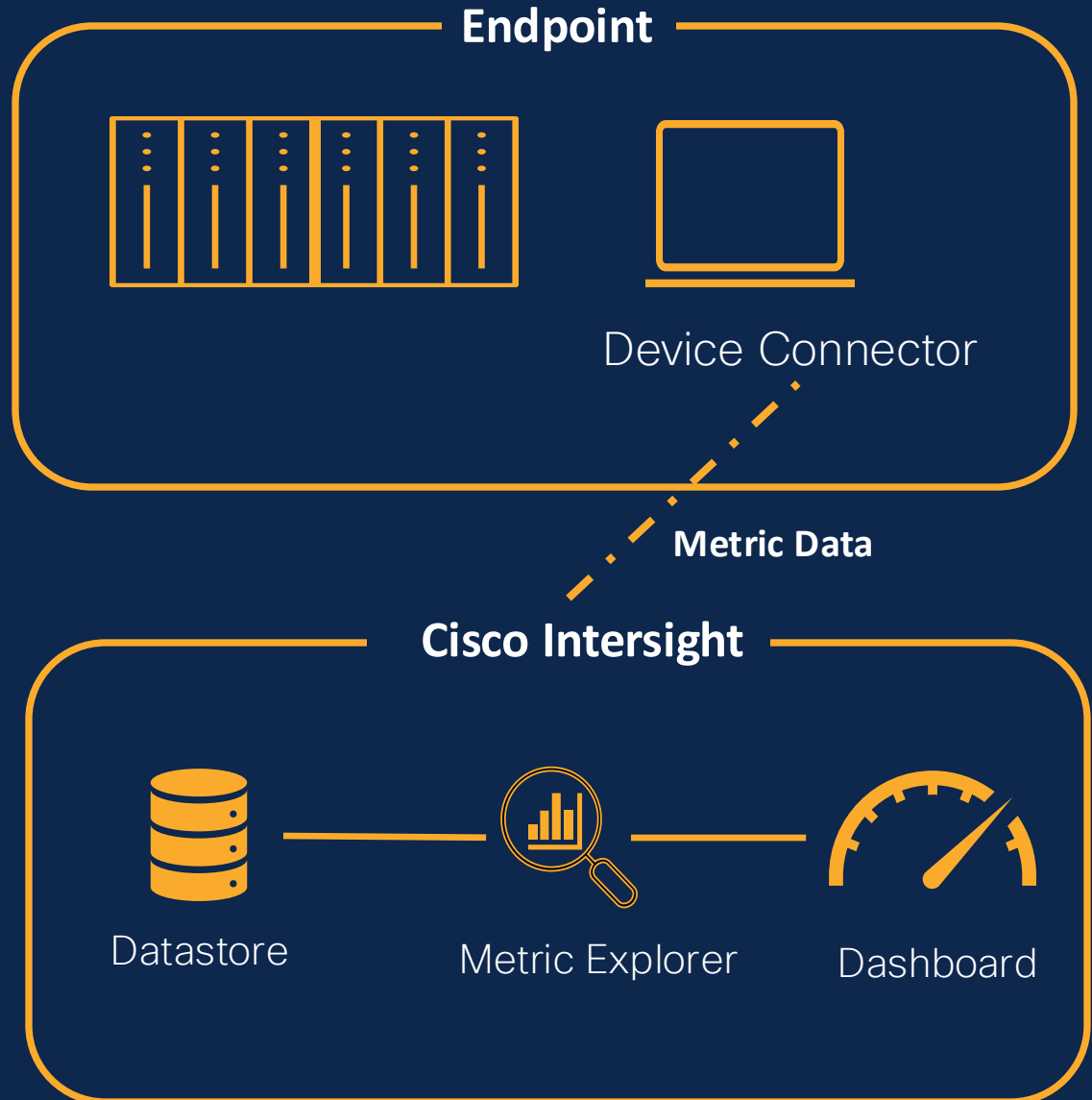
“Energy-efficiency focus is going to expand to include the IT equipment itself.”*

*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

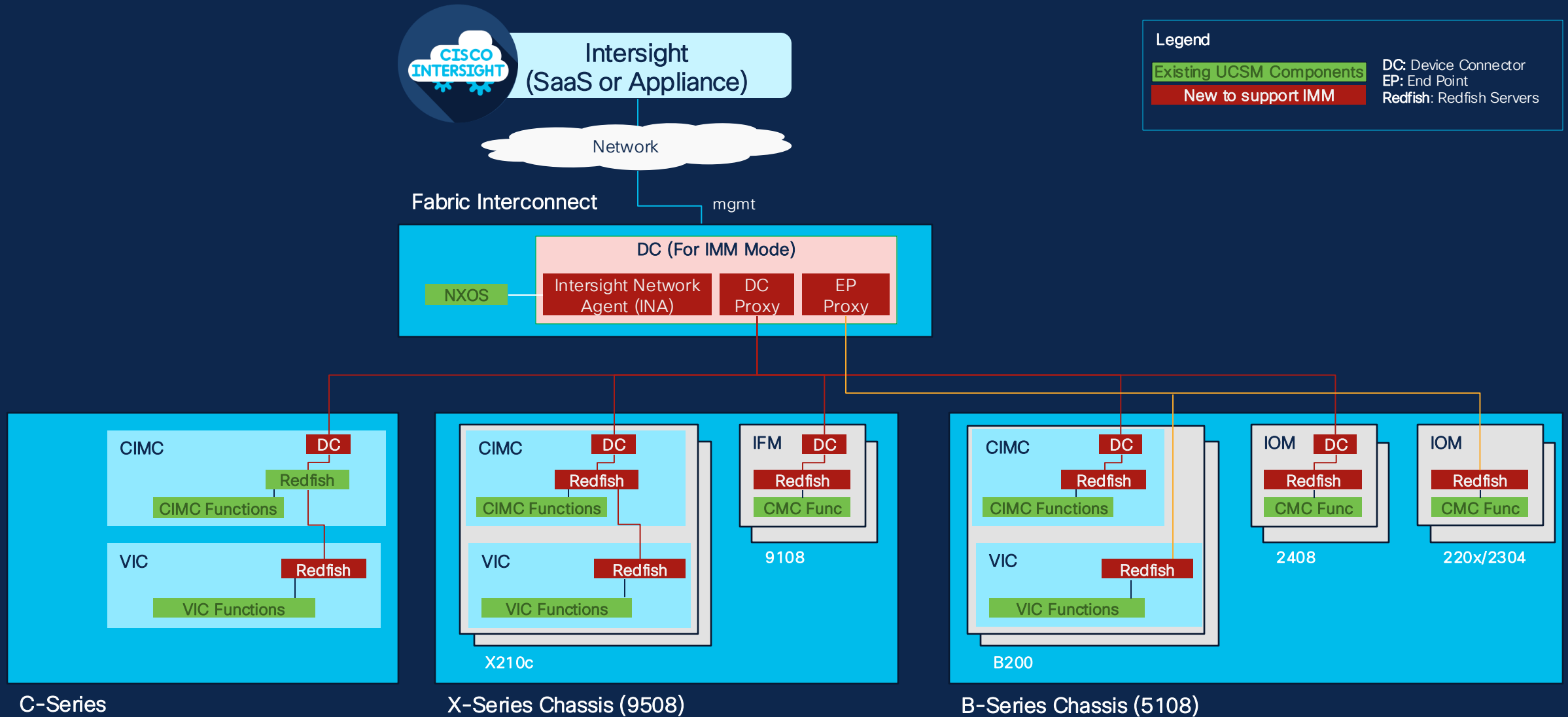
Supported Metrics



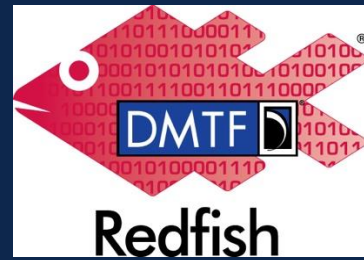
Wizualizacje (dashboard)

Architektura

Intersight Managed Mode Architecture



Why Redfish?

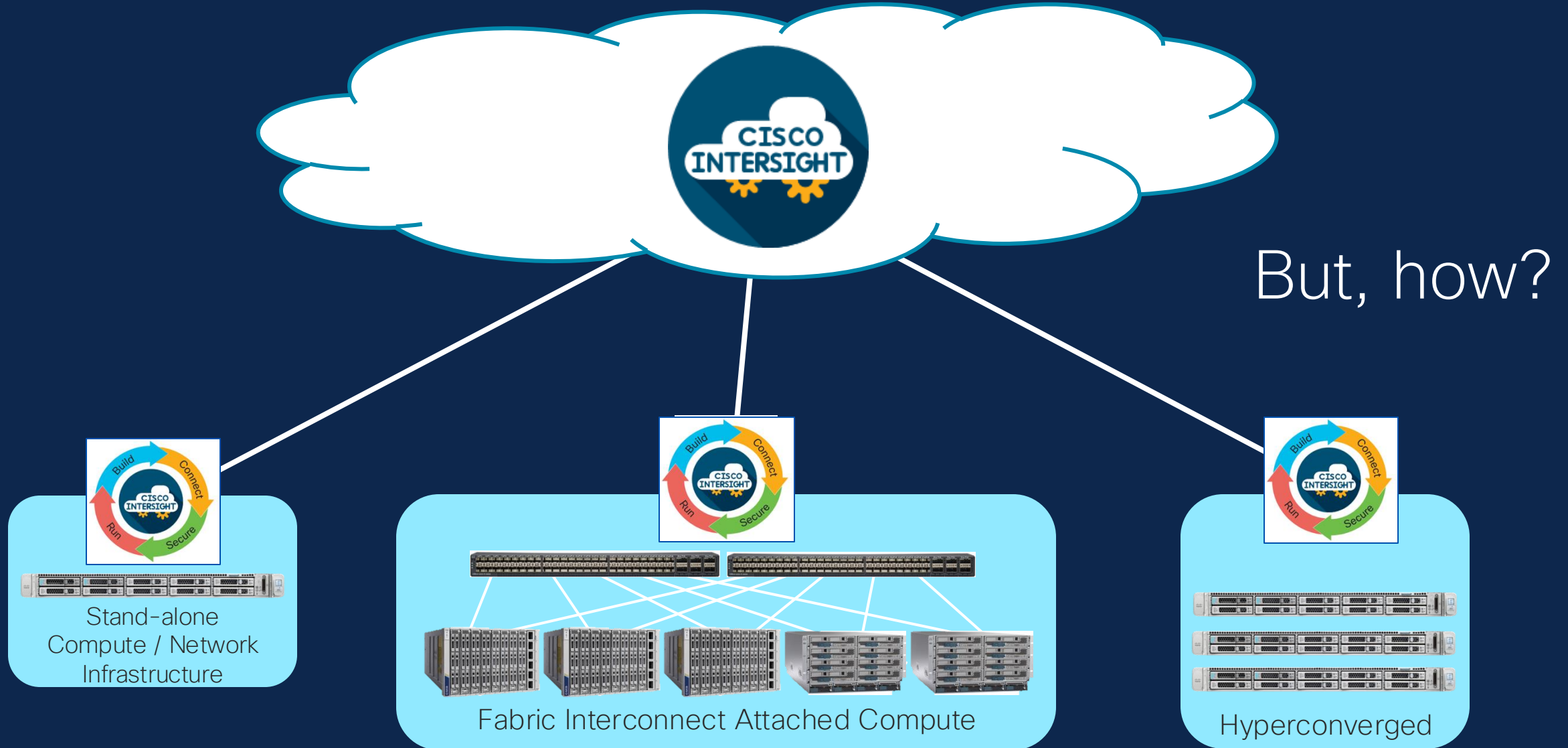


- **Standard, Scalable, Secure** replacement for IPMI
- **RESTful API** with JSON-formatted data
 - Modern replacement for the UCS XML API
- Supports **OEM/vendor extensions**
 - VIC management
 - Firmware management
 - Custom actions (Reset CMOS, Clear TPM, ...)
- Available on many server platforms
 - **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  ]
40 }
```

SaaS-driven configuration and operations



Fundamental Intersight concept

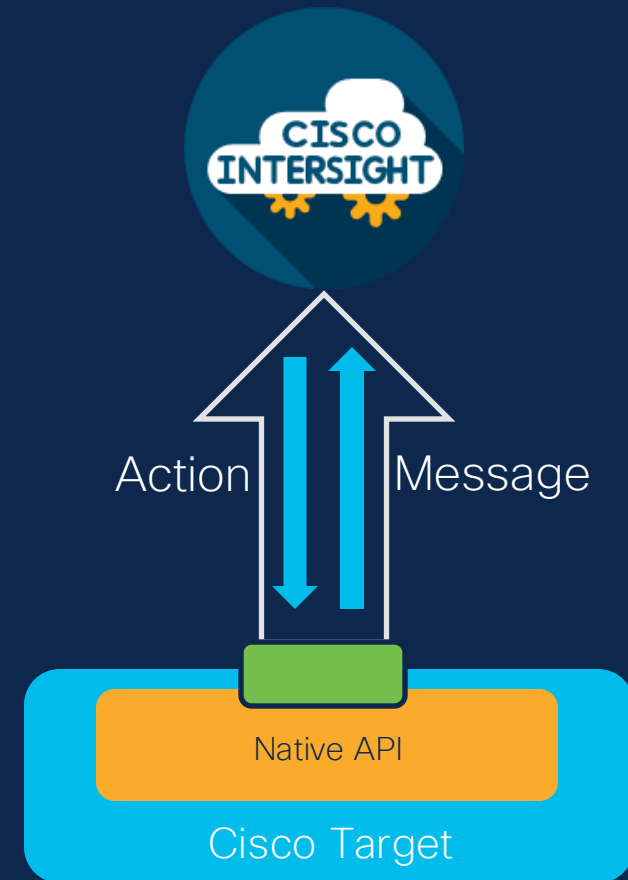
Intersight must be able to:

- Perform actions against targets
- Listen for messages from Targets

What makes this possible?

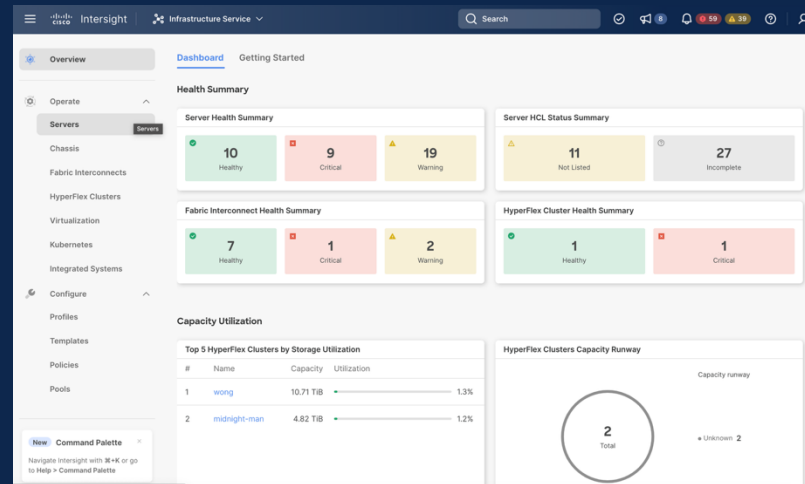
Two components are required:

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) 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?

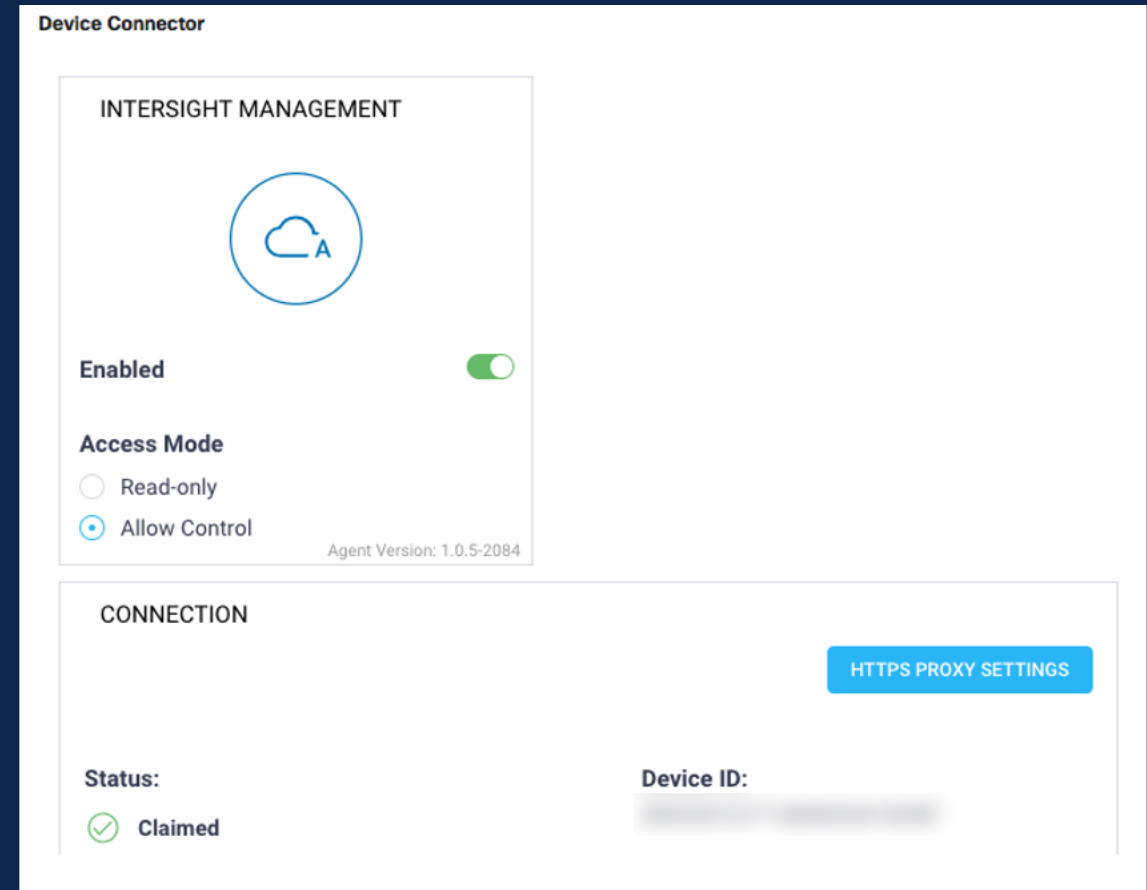
Part of Firmware/Management SW

- UCS Manager
- Standalone IMC

Connects to a known cloud management location (specific URL)

Device control of connectivity

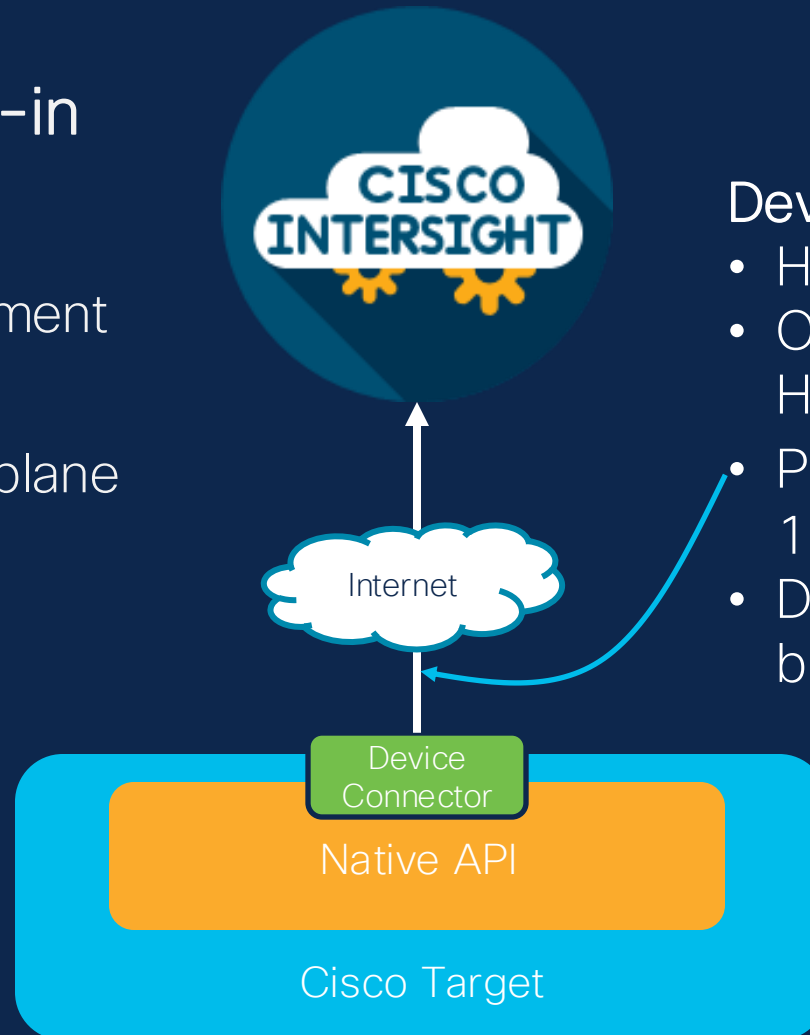
- Device outbound initiated connections
- HTTPS on port 443 or through proxy



Device Connector Connectivity (Intersight.com)

Device Connector is built-in

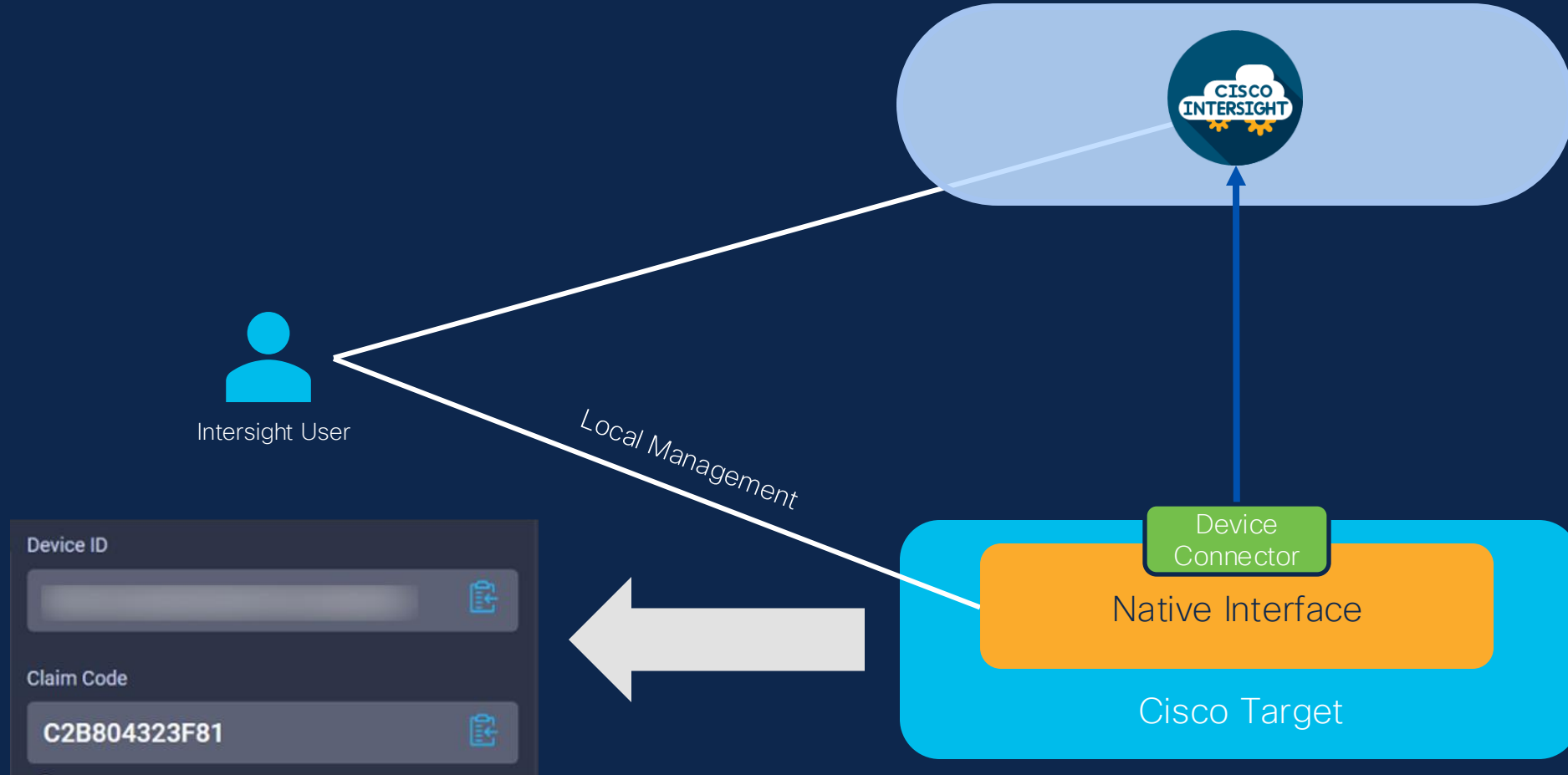
- Lightweight software
- Embedded in target management plane
- Delivered with management plane firmware



Device Connector connection:

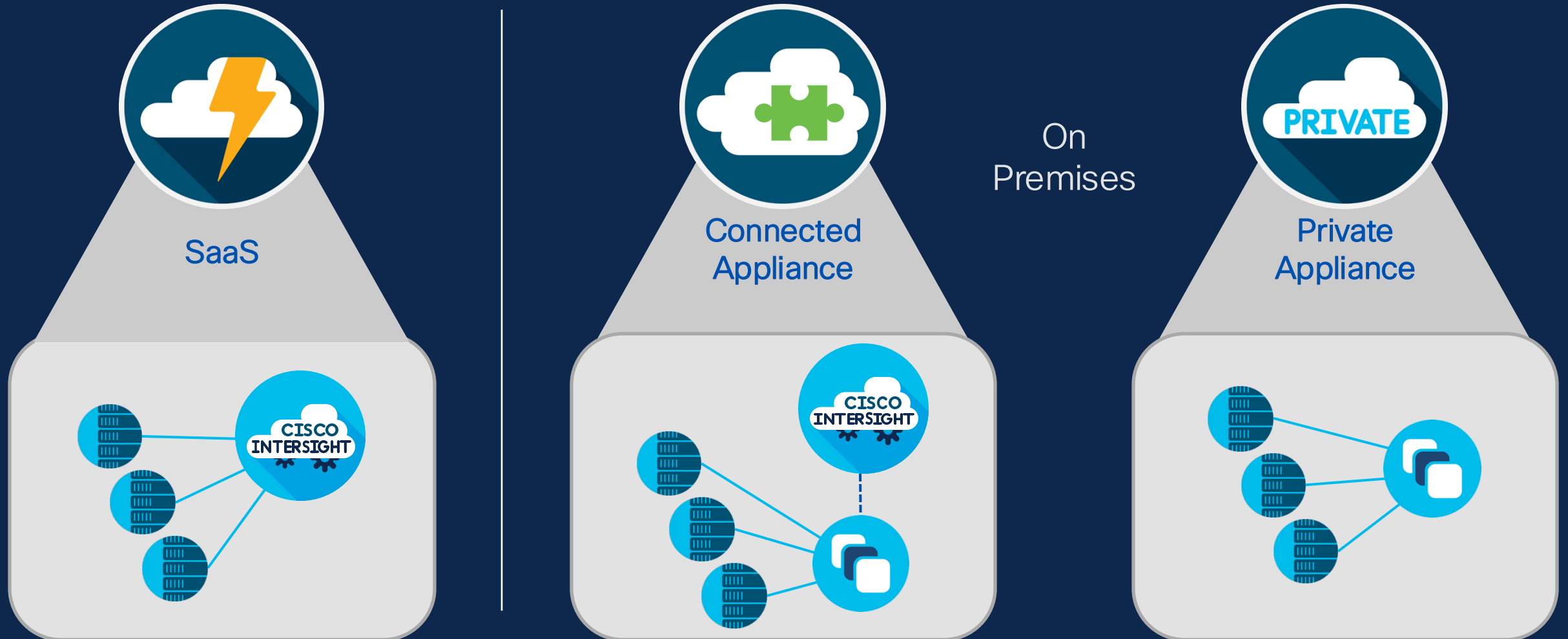
- Highly secure
- Outbound single-destination HTTPS URL
- Port 443 tunneled with TLS 1.2
- Durable websocket enabling bi-directional communication

Target claim process

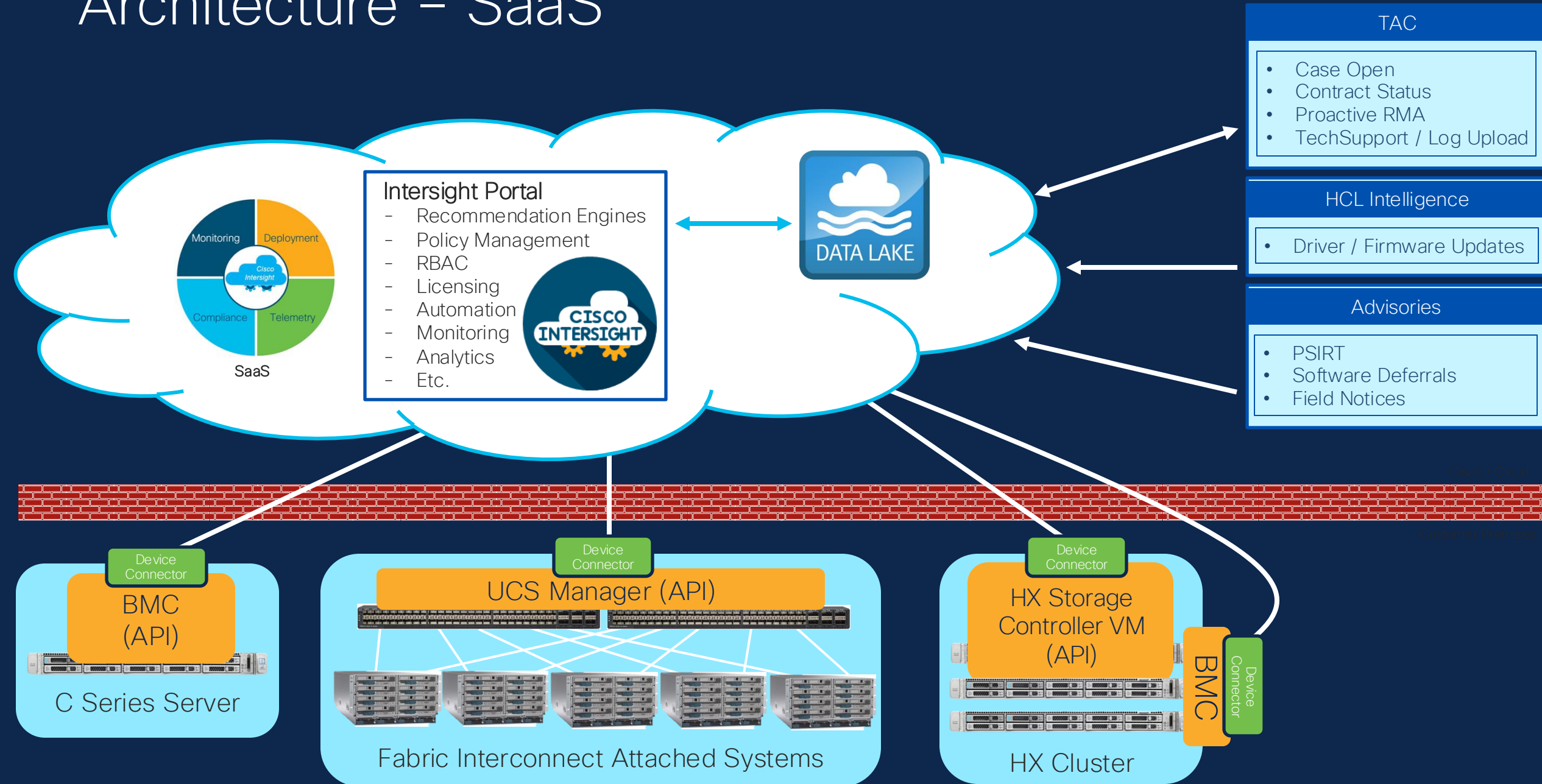


Modele wdrożenia

Intersight Consumption Models



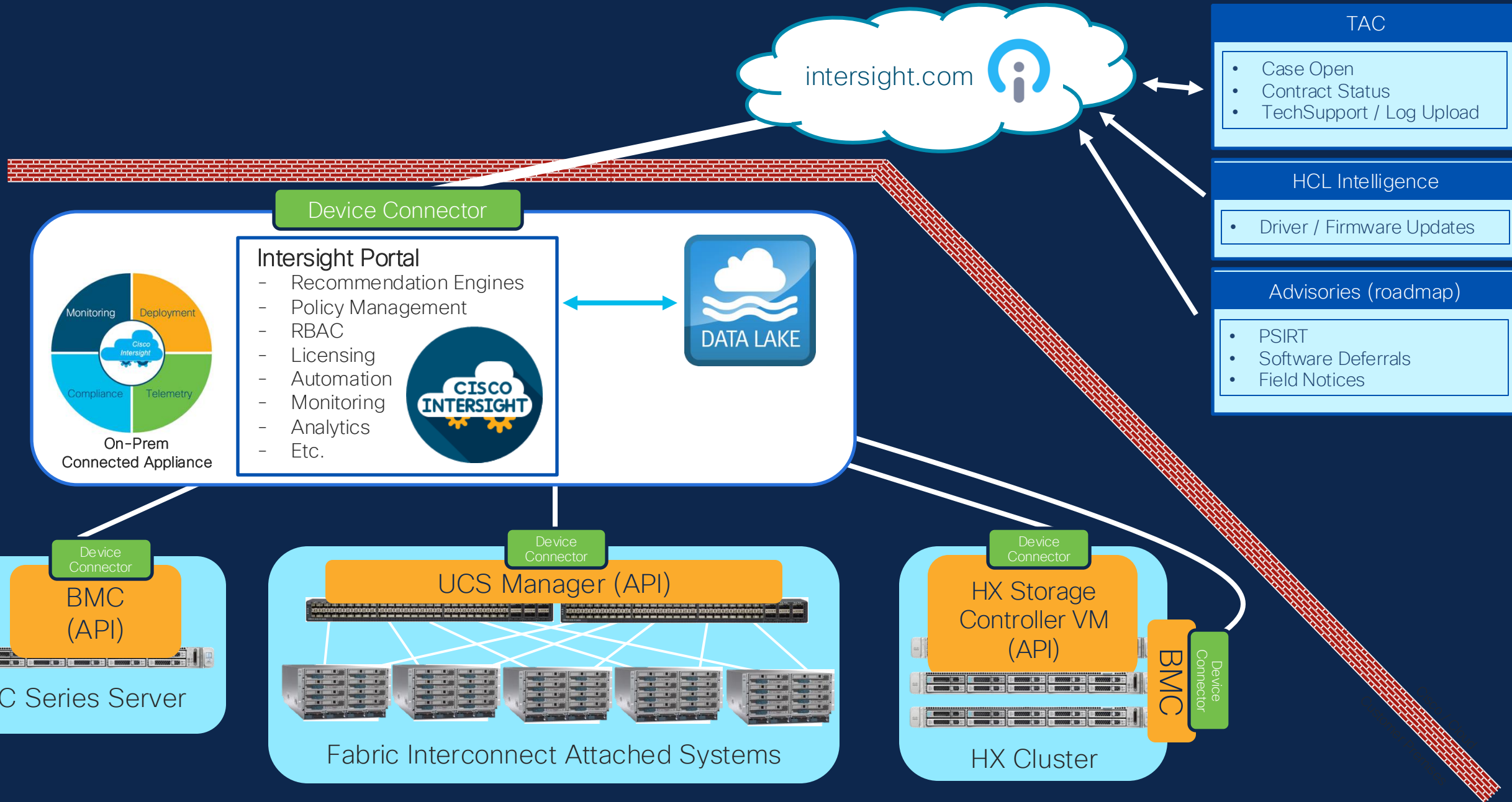
Architecture – SaaS



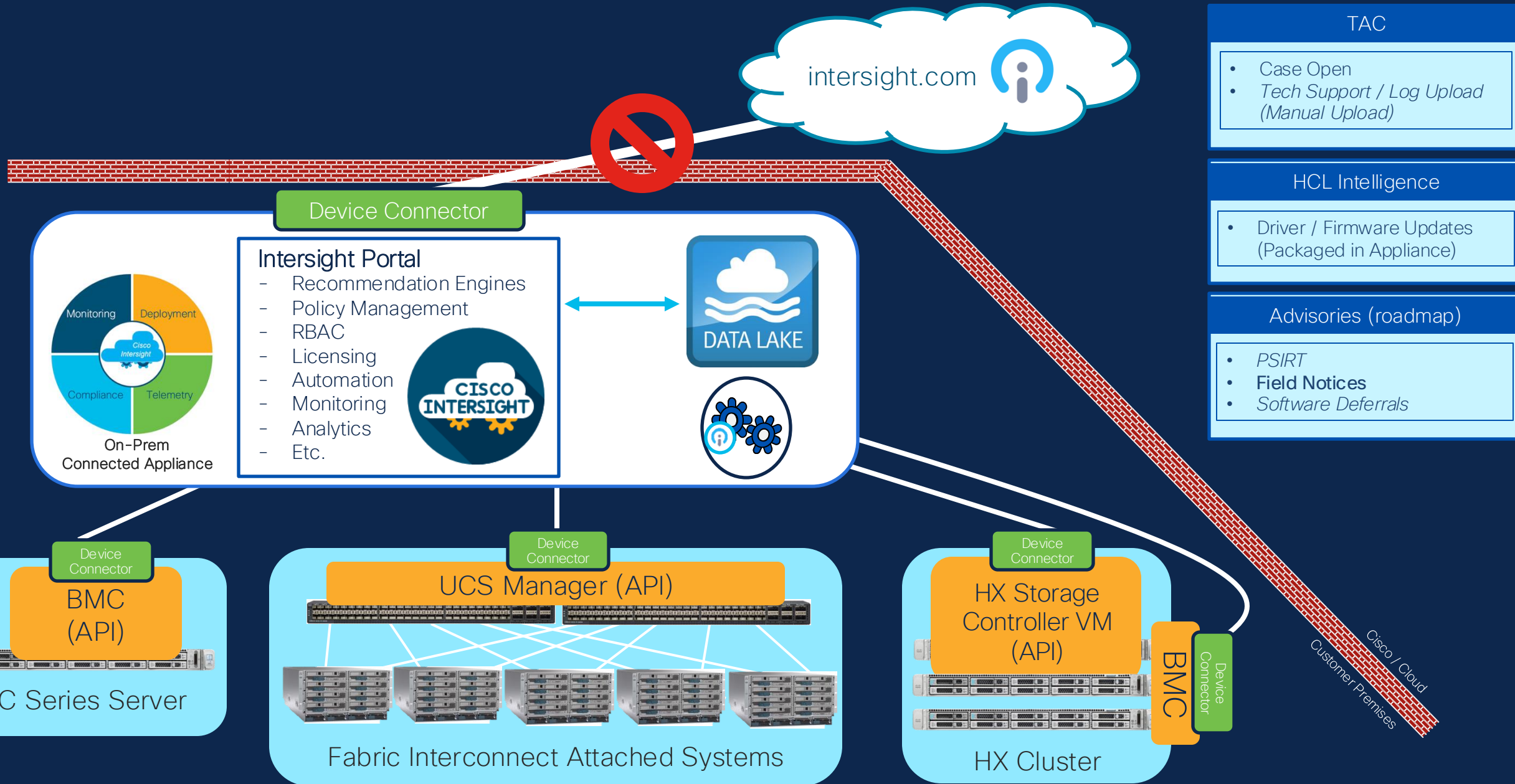
Intersight EMEA region



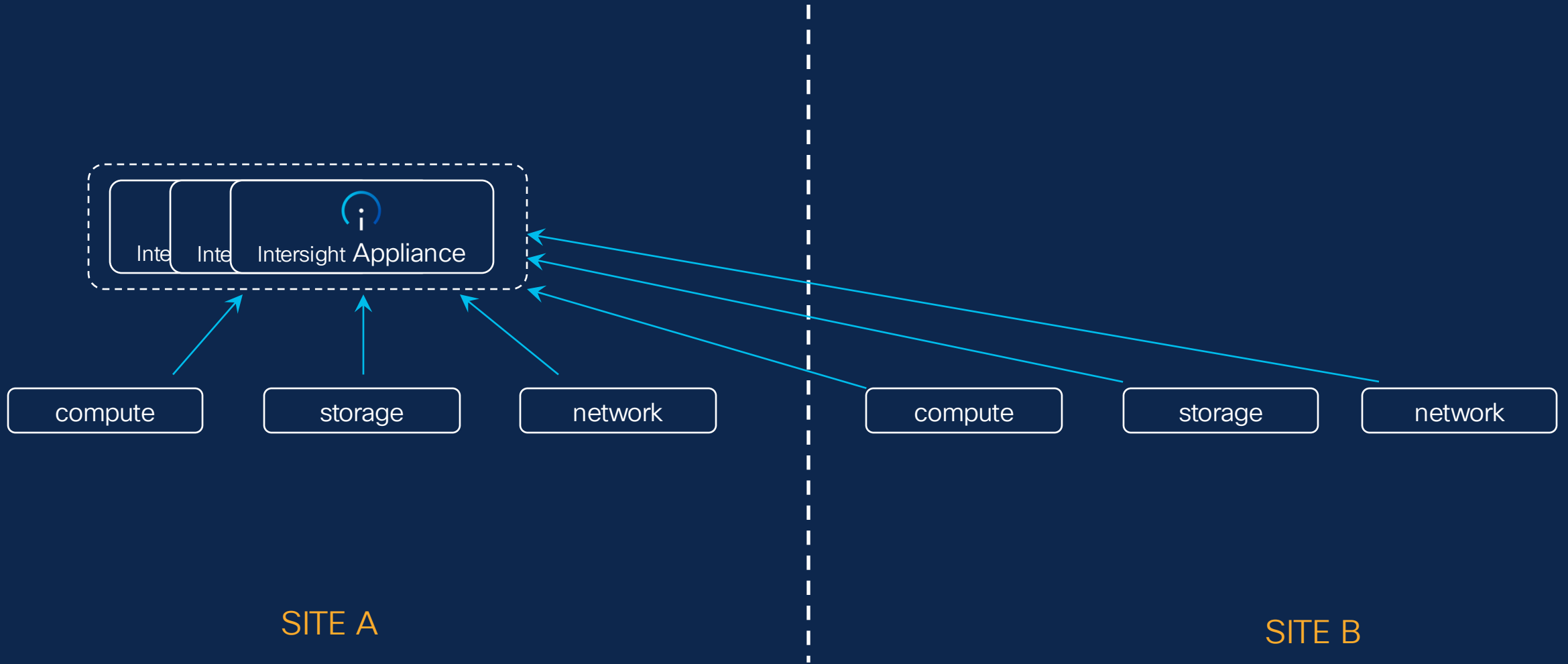
Architecture – Connected Virtual Appliance (CVA)



Architecture – Private Virtual Appliance (PVA)



Multi-Node – Single Site / Multi Site



Bezpieczeństwo

Key features in Cisco Intersight security architecture



Use of industry-standard security protocols



Encryption of all data



Compliance with stringent Cisco® InfoSec security and data handling standards

Intersight Certifications



Cisco Trust Portal

Intersight Security Compliance

TRUST PACKAGE - Use this content to address security and privacy compliance questions regarding Intersight

Home Download Share Add to My Collection View My Collection

Search
intersight

Filters Clear filter

☒ Trust Packages

Document Type
Search by document type
e.g. data brief, white paper

☒ Privacy Data Sheet
☒ Privacy Data Map
☐ SOC
☐ ISO
Show 27 more

Solution Category
Select

Product & Services

1-1 of 1 result

Document	Document type
<input type="checkbox"/> Intersight Security Compliance (9) TRUST PACKAGE - Use this content to address security and privacy compliance questions regarding Intersight.	-
<input type="checkbox"/> Cisco Cloud Services delivered by the Intersight Platform, including Nexus Cloud Privacy Data Sheet	Privacy Data Sheet
<input type="checkbox"/> Cisco Cloud Services delivered by the Intersight Platform, including Nexus Cloud Transfer Impact Assessment Resources	Transfer Impact Assessment
<input type="checkbox"/> Cisco Global Business Resiliency (GBR) Overview BCP/DR	BCP/DR
<input type="checkbox"/> Cisco Intersight CAIQ	CAIQ
<input type="checkbox"/> Cisco Intersight CSA STAR Level 1 Certification New	CSA STAR
<input type="checkbox"/> Cisco Intersight FIPS 140-2 Compliance	FIPS 140-2
<input type="checkbox"/> Cisco Intersight ISO 27001:2013	ISO
<input type="checkbox"/> Cisco Intersight Platform Security Brief	Security Brief
<input type="checkbox"/> Cisco Intersight SOC 2	SOC

Virtual Appliance: Minimum Data Collected by Intersight

From Intersight Virtual Appliance	<ul style="list-style-type: none">•The appliance ID (Serial Number)•The IP address of the appliance•The hostname of the appliance•The device connector version and public key on the appliance
Appliance Software Auto-Upgrade	Version of software components or the services running on the appliance
Appliance Health	<ul style="list-style-type: none">•CPU usage•Memory usage•Disk usage•Service statistics
Licensing	Server count
Information about the endpoint device	<ul style="list-style-type: none">•Serial number and PID (to support Connected TAC)•UCS Domain ID•Platform Type•TAC Tech Support Logs (when support cases are opened)

Note: Refer to Addendum 1 of the [privacy data sheet](#)

Additional Endpoint Data Collected by Intersight

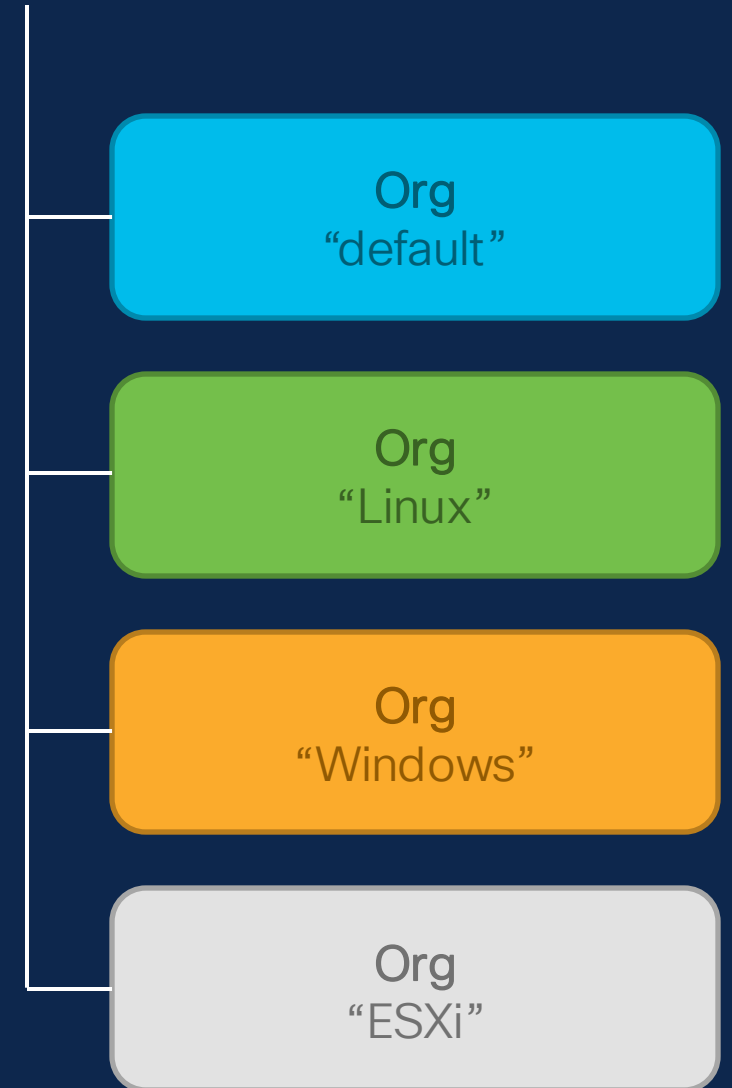
(SaaS and Appliance if enabled)

System Inventory	<ul style="list-style-type: none">• Part number• Serial Number• Description• Physical location (within enclosure) for interconnects, chassis, and all server components
System Configuration (how the user has setup the system)	<ul style="list-style-type: none">• Operational state for all system components (present, not present, power state)• MAC, WWN, and IP addresses for any network interfaces• Resource pool, policy, and logical configuration of the interconnect/chassis/servers• Service Profile states and assignments• Virtual Machine states and assignments• Firmware and driver versions<ul style="list-style-type: none">• Driver version information is limited to Cisco owned or maintained components• Management Network service configuration and status
System Statistics (how the system is currently being used)	<ul style="list-style-type: none">• Interconnect/chassis/server/VM utilization
System Events (notifications generated by the system including faults)	<ul style="list-style-type: none">• Hardware, Firmware, and Software faults• System Event Logs

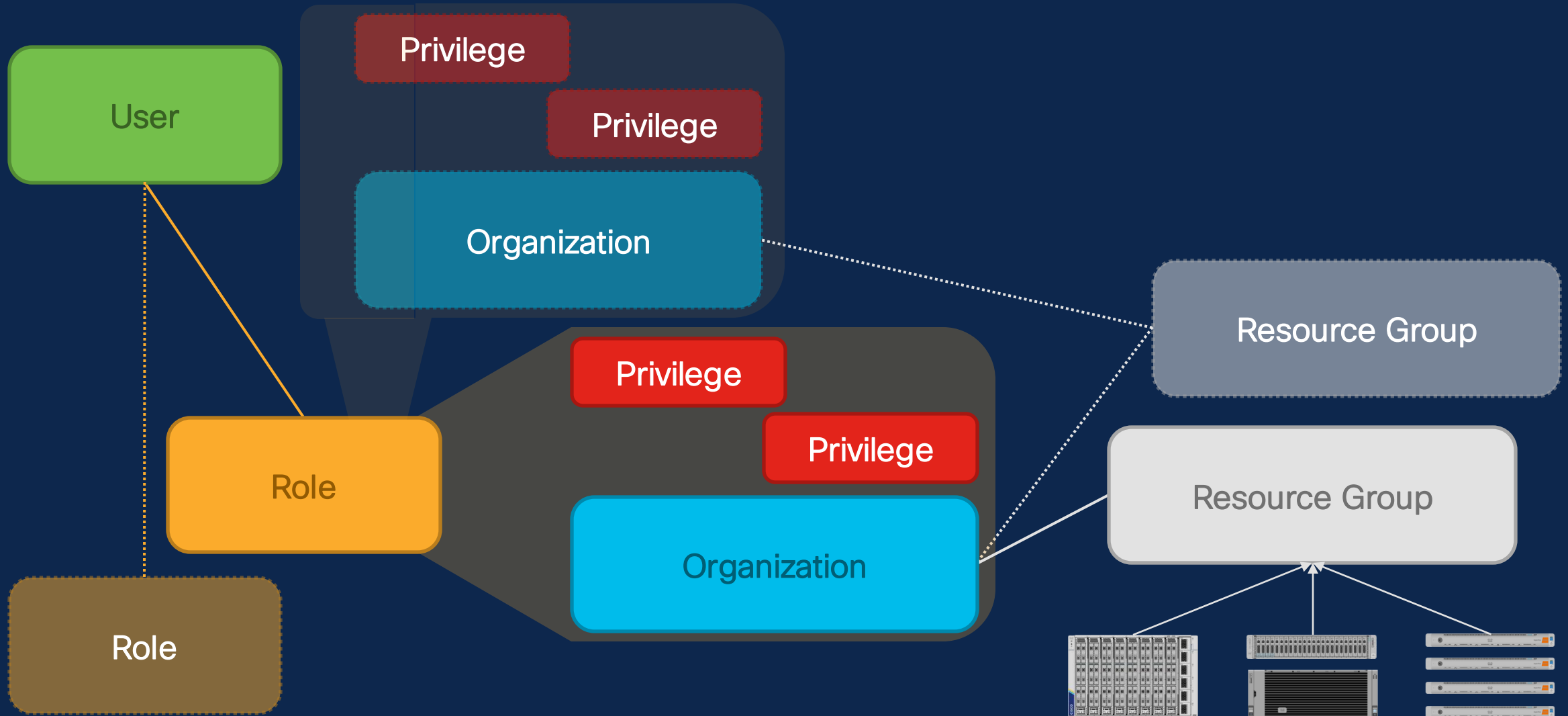
Kontrola zasobów

Organizations in Intersight

- **Flat structure** (no hierarchy like in UCSM/Central)
- **Logical container** to hold:
 - Logical resources (policies / pools / profiles / ...)
 - **Physical** resources (servers, storage, ...)
 - Grouped into Resource Groups
 - A physical resource can belong to multiple organizations
- Used to perform **Role-Based Access Control**
 - Users are assigned Roles (set of Privileges)
 - Roles are assigned a Scope ("all" or a list of organizations)



Role-Based Access Control with Intersight



Powiadomienia (advisories)

Cisco PSIRT: Product Security Incident Response Team

Protection. Security. Transparency.

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

Compliance

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

End of Life Advisories

- Alerts users about EOL and EOS support dates for Cisco Hyperflex Data Platform software releases
- Display only the EOL advisories in the current organization for the logged-in user
- Advisories for affected devices in Intersight are created/deleted every 6 hours
- Advisories for CVA are updated during regularly scheduled appliance upgrade
- Advisories for PVA are updated only when the version of the appliance is upgraded

[End of Life Advisories List](#)

Field Notices

- Alerts users about endpoint devices that are impacted by supported filed notices
- Allows datacenter administrators to stay ahead of potential hardware issues

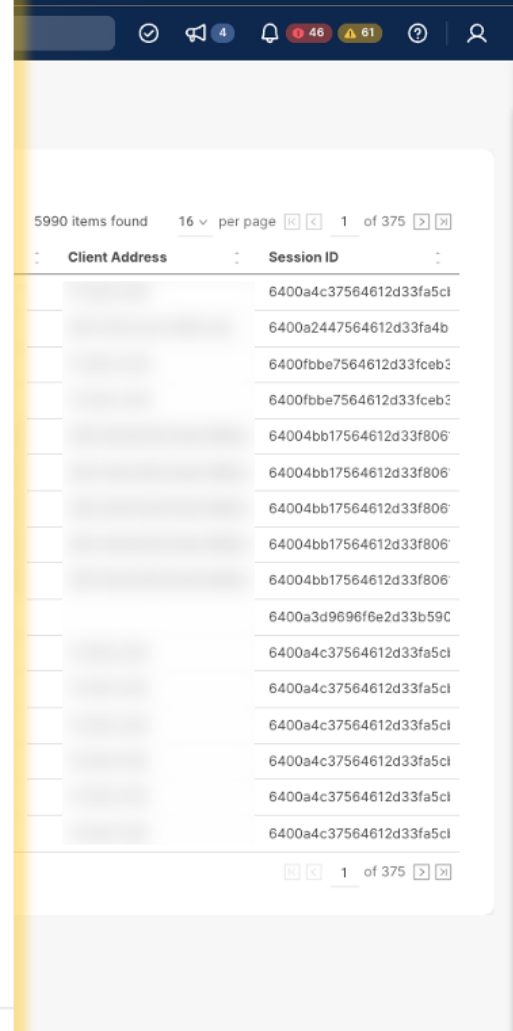
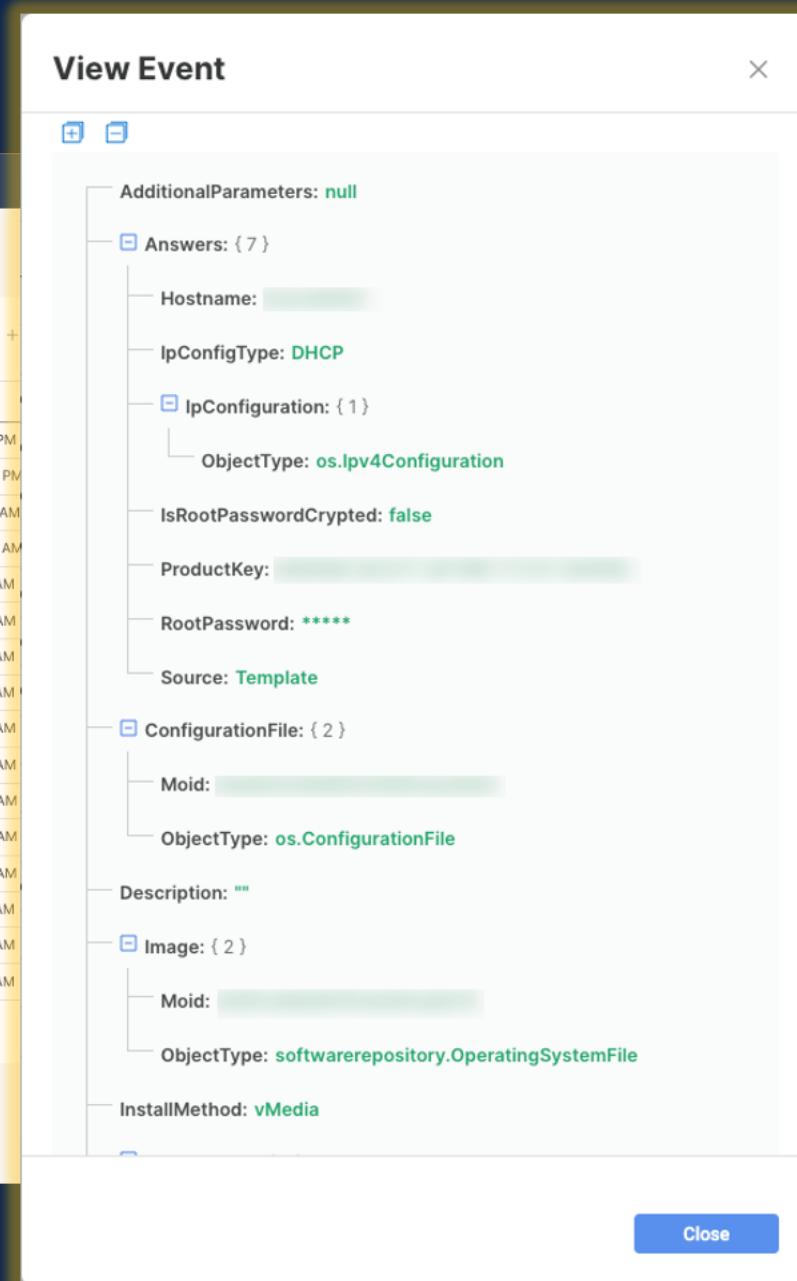
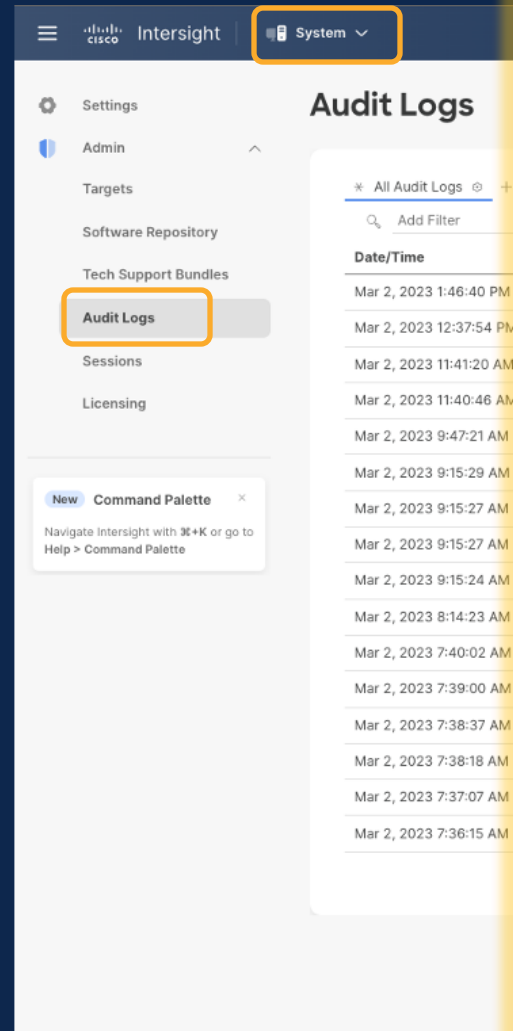
Supported Cisco Field notices

Cisco Field Notices	Field Notice IDs
SSD Timeouts Might Cause IO Operations to Halt and Lead to Premature Failure of the Drive - BIOS/Firmware Upgrade Recommended	FN72225
Some DIMMS may fail prematurely due to wear - Hardware Upgrade Available	FN72368
64GB 2666MHz RDIMM Wear Out Failures - Hardware Upgrade Available	FN72074
UCS Mini Fabric Interconnect (UCS-FI-M-6324) Might Stop Working After 3.2 Years of Operation - BIOS/Firmware Upgrade Recommended	FN72028
UCS S3260 M5 Server Power-On Failure - Hardware Upgrade Available	FN72072
SSD Will Fail at 40,000 Power-On Hours	FN70545
UCS Servers Might Fail to Boot if Memory Errors Occur During Boot - Software Upgrade Recommended	FN70595
Upgrade to 4.2(2a) will fail for B-Series M5 Servers and makes the servers unrecoverable.	FN72479
ADDDC VLS Does Not Trigger When Expected - BIOS/Firmware Upgrade Recommended	FN72272
Improved Memory RAS Features for UCS M5 Platforms - Software Upgrade Recommended	FN70432
M5 Server BIOS POST Hang With 2x Memory Refresh Rate - BIOS/Firmware Upgrade Recommended	FN72301

Audytowanie i powiadamianie

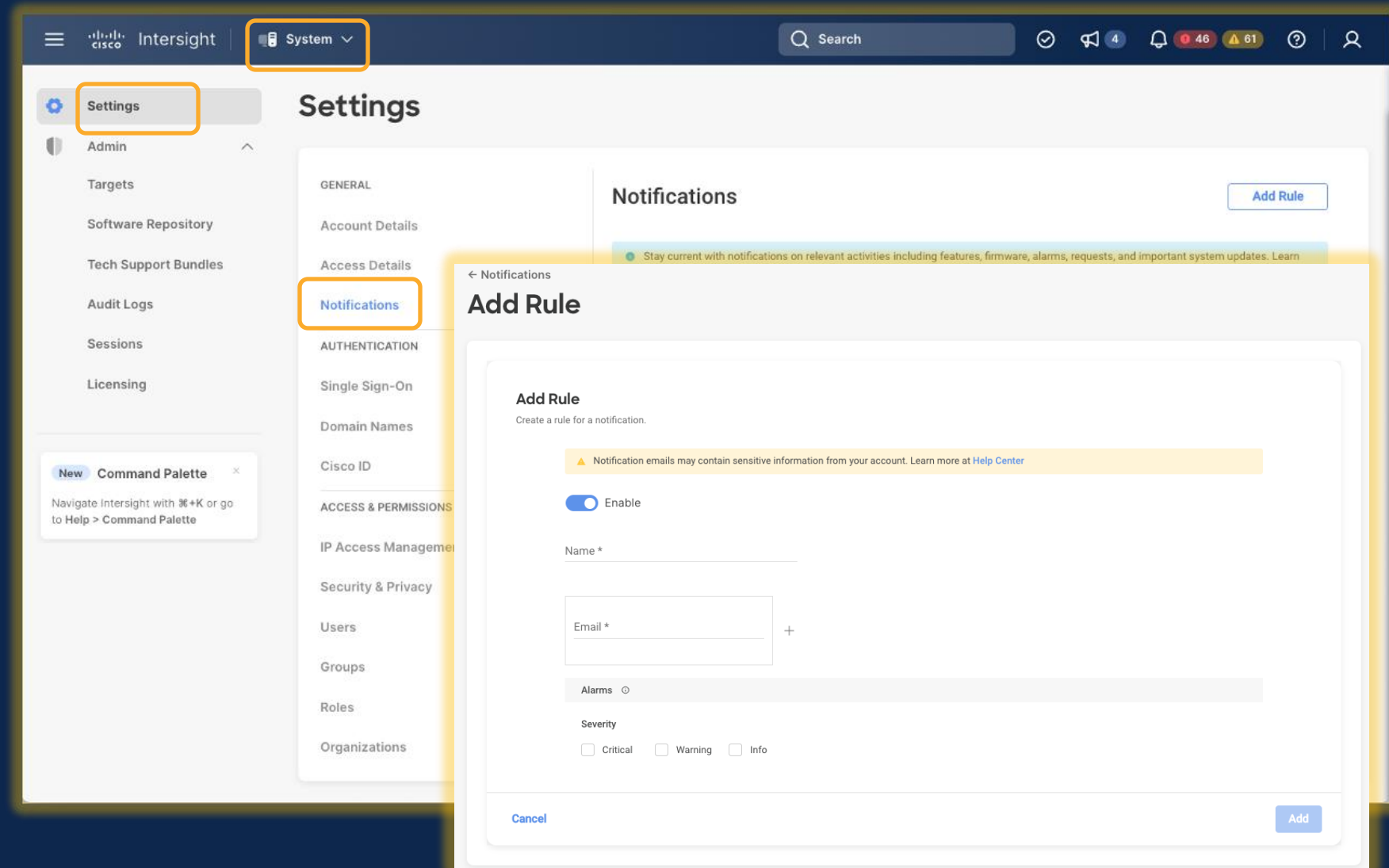
Audit Logs

- Single source of truth for what has been created, updated or deleted
- Good data source for compliance and audit requirements
- Available only to account admins



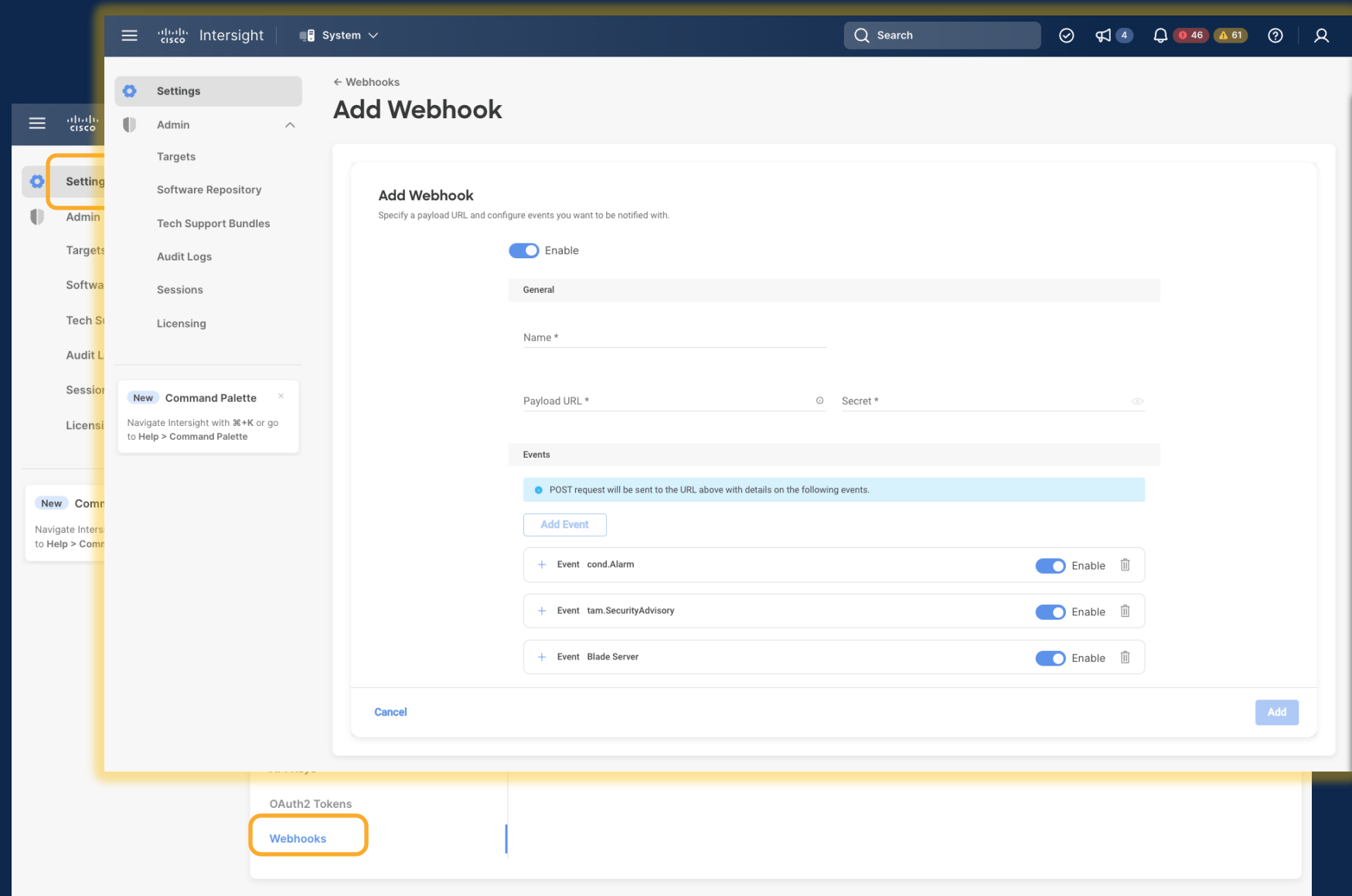
Email Notifications

- Configuring email notifications to generate alarms when system events occur
- Events are collected in a sliding time window of 10 seconds
- An email address can be associated up to 100 alarms
- Limitations
 - Three emails per rule
 - Five rules per account



Webhooks

- Webhooks are notifications that set up integration between software in your local environment and Intersight
- When an event is triggered, Intersight sends an HTTP post request with a payload containing event content to the webhook destination
- For restrictive firewall or proxy server settings, add IP address 34.198.174.38 or domain name `outbound.intersight.com`



Optymalizacja wsparcia

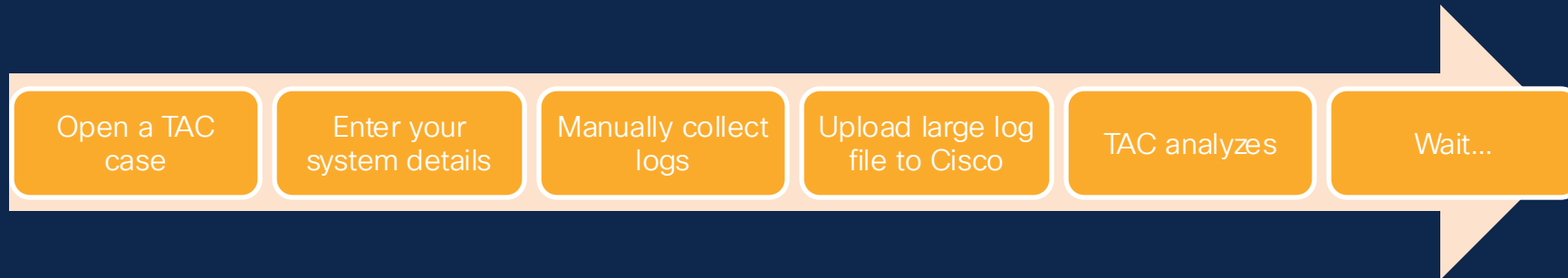
Cisco Intersight: enhanced support

Connected TAC

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

Cisco Intersight + TAC real-world example



Case opened:
XXXXXX244



Diagnostic data
automatically collected



Diagnostic results
automatically gathered



Firmware upgrade
identified to resolve known
issue

2018-12-DD 01:25



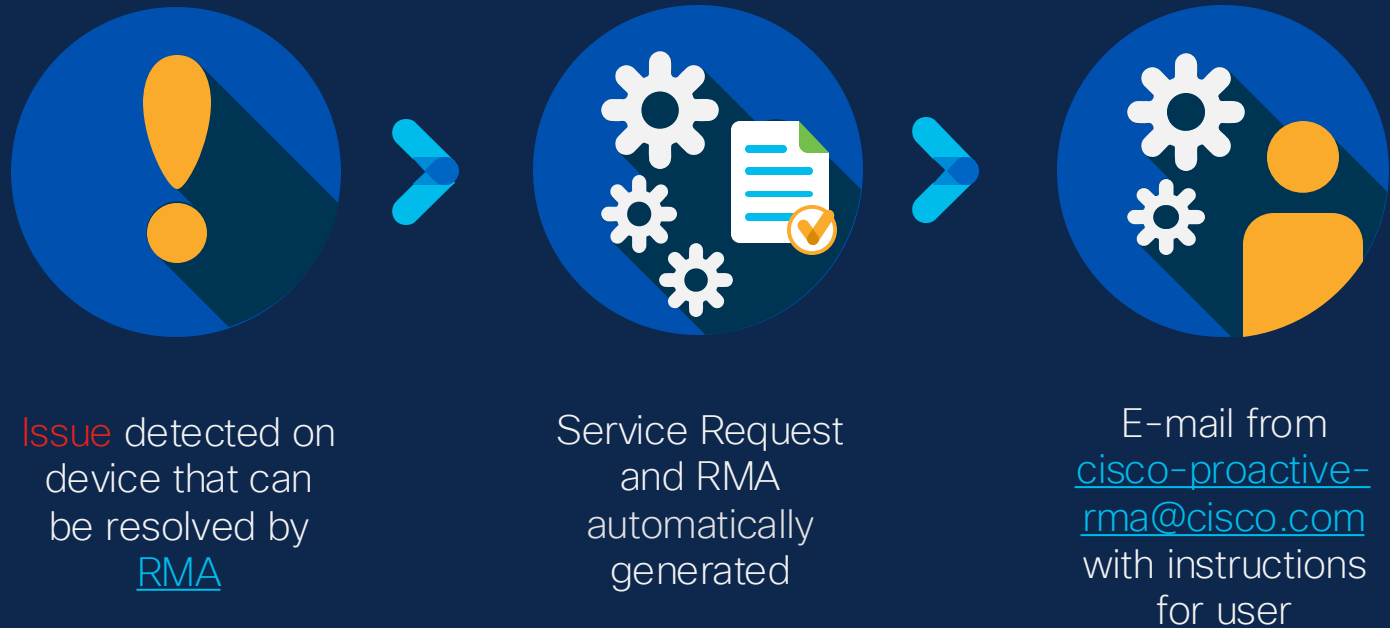
+12 Minutes



+16 Minutes

Total: 28 minutes
to diagnose issue

Cisco Intersight: Proactive RMA



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

Intersight Portal Status

<https://status.intersight.com>

Overall status of portal services,
e.g.

- Intersight Cloud Orchestrator
- Intersight Infrastructure Services
- Intersight Workload Optimizer



Automatyzacja

API/SDKs

Cisco Intersight API



Easily integrate existing tools into Intersight

Get the best of Intersight and your current tools

Maximize your investments

SDKs



Pre-packaged API clients

Easy way to start programming against Intersight

Full access to the API

Current SDKs



Ansible



PowerShell



python



HashiCorp

Terraform

Cisco Intersight Model Browser & Swagger Spec

Version

Search

Description
and Detail

Download SDKs/Open API Spec

Run queries
and in
browser

The screenshot displays the Cisco Intersight Developer Center interface. The top navigation bar includes links for Guides, API Reference, Downloads, Code Repo, and Support. The user profile 'Mohit Vaswani' is visible in the top right. The left sidebar shows a 'Service' dropdown set to 'Intersight' and an 'API Reference v1.0.11-11049' section with a search bar. Below this, a list of API endpoints is shown, including 'aaa/AuditRecords'. The main content area is titled 'GET /api/v1/aaa/AuditRecords' and features a 'REST Client' toggle. It contains a 'Parameters' tab with query options: '\$filter { string }', '\$orderby { string }', '\$top { integer }', '\$skip { integer }', and '\$select { string }'. The '\$filter' parameter has a detailed description. On the right, a 'REST Client' panel is open, showing a 'Send' button and a 'Response Text' tab displaying a JSON response. A blue arrow points from the 'Run queries and in browser' callout to the 'Send' button. Another blue arrow points from the 'Description and Detail' callout to the '\$filter' parameter description.

Service: Intersight

API Reference v1.0.11-11049

Search...

aaa/AuditRecords

GET Read a 'aaa.AuditRecord' resource.

GET Read a 'aaa.AuditRecord' resource.

aaa/RetentionConfigs

aaa/RetentionPolicies

access/Policies

access/PolicyInventories

adapter/ConfigPolicies

adapter/ExtEthInterfaces

GET /api/v1/aaa/AuditRecords

Parameters Response Model

\$filter { string } query

Filter criteria for the resources to return. A URI with a \$filter query option identifies a subset of the entries from the Collection of Entries. The subset is determined by selecting only the Entries that satisfy the predicate expression specified by the \$filter option. The expression language that is used in \$filter queries supports references to properties and literals. The literal values can be strings enclosed in single quotes, numbers and boolean values (true or false).

\$orderby { string } query

Determines what properties are used to sort the collection of resources.

\$top { integer } query

Specifies the maximum number of resources to return in the response.

\$skip { integer } query

Specifies the number of resources to skip in the response.

\$select { string } query

REST Client

GET /api/v1/aaa/AuditRecords


+ Query Parameter

Send

Response Text Response Info

```
1
2 "ObjectType": "aaa.AuditRecord.List",
3 "Results": [
4   {
5     "Account": {
6       "ClassId": "mo.MoRef",
7       "Moid": "625043ab7564612d331f467",
8       "ObjectType": "iam.Account",
9       "link": "https://www.intersight.
10    },
11    "AccountMoid": "625043ab7564612d33",
12    "AffectedObjectTypeLabel": "",
13    "Ancestors": [],
14    "ClassId": "aaa.AuditRecord",
15    "CreateTime": "2022-04-08T14:16:35",
16    "DomainGroupMoid": "625043ab756461",
17    "Email": "dchosnek@cisco.com",
18    "Event": "Modified",
19    "InstId": "625043b17564612d331f46d",
20    "MoDisplayNames": null,
21    "MoType": "iam.UserPreference",
22    "ModTime": "2022-04-08T17:05:27.33",
23    "Moid": "625043ab7564612d331f46b"
```

Download SDKs and Open API Specification

 **Intersight**

Developer Center


Guides

API Reference

Downloads

Code Repo

Support

 Mohit Vaswani

Downloads

Intersight provides a downloadable Software Development Kit (SDK) for the Python programming language. You can generate SDKs for other programming languages using the open-source OpenAPI tools. The tables below provide you the links to download the SDKs and other Resources.

SDKs/Plugins

Name	Description	Source	Examples
Intersight Python SDK	Python Software Development Kit based on OpenAPI schema version 3	Pypi	DevNet Python on GitHub
Intersight Ansible Modules (Python)	Ansible Modules for configuration management of Cisco Intersight	Galaxy	DevNet Playbooks on GitHub
Terraform Provider for Intersight	This provider facilitates the use of Terraform for managing infrastructure as code in Intersight	Terraform	Terraform Registry Modules
Intersight Powershell Module	Intersight Powershell Cmdlets based on OpenAPI schema version 3	PSGallery	DevNet PowerShell on GitHub
Intersight ITSM plugin for ServiceNow	This plugin facilitates the use of ServiceNow for all its ITSM requirements for Intersight	ServiceNow	—

Intersight OpenAPI Documents

Resources	OpenAPI Schema Version	Download
Intersight OpenAPI Schema	Intersight OpenAPI document in JSON format	Download

API Query Language

- Powerful Query Language
 - Filter, select, and many other operations to avoid post processing data

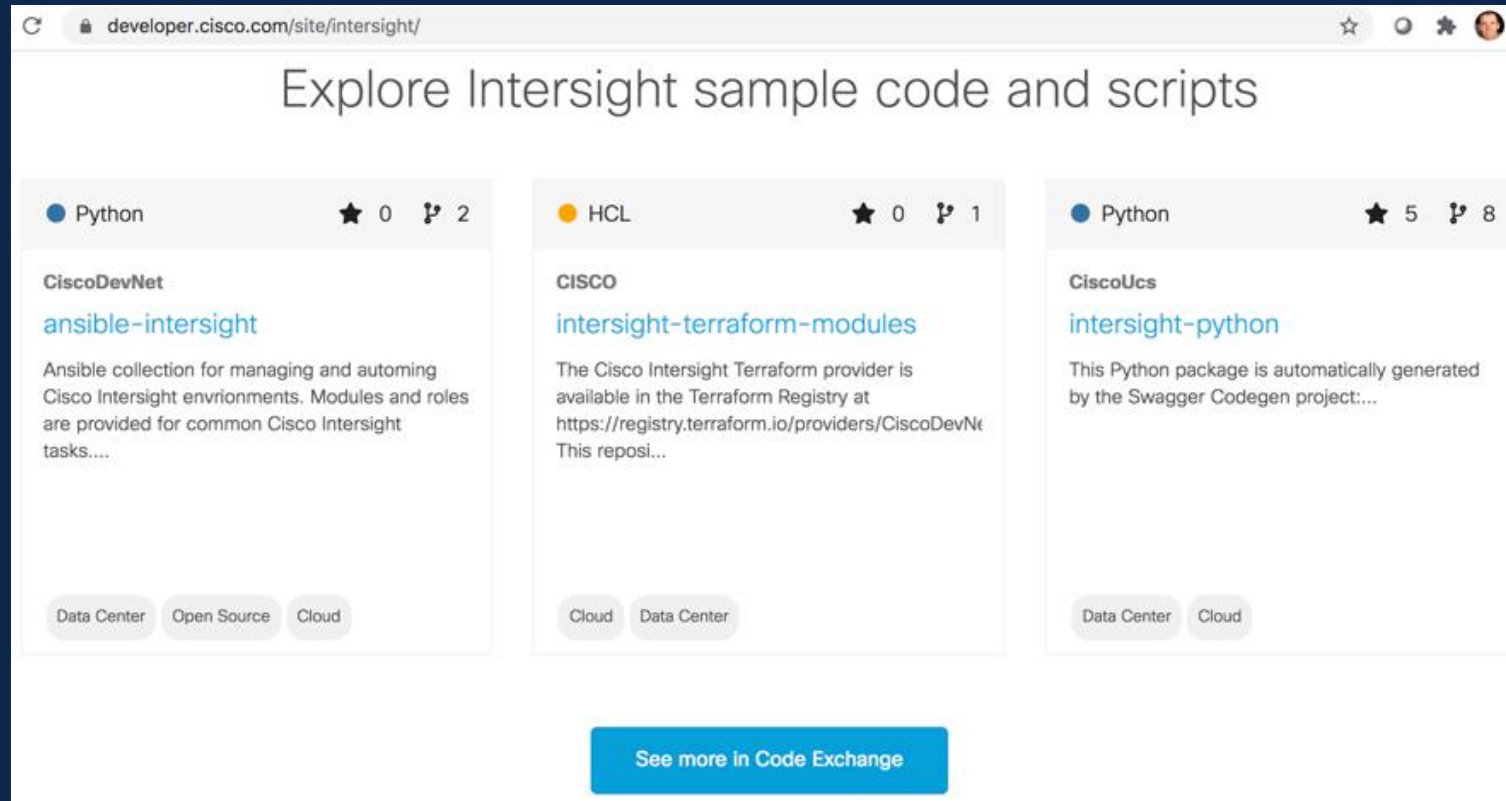
The screenshot displays the REST Client interface. The top navigation bar includes links for Guides, API Reference, Downloads, and Support, along with a user profile for David Soper. The main panel is titled 'GET Read a 'compute.PhysicalSummary' resource.' and features a 'REST Client' toggle switch. Below this, there are tabs for 'Parameters' and 'Response Model'. The 'Parameters' tab is active, showing three query parameters: '\$filter { string }', '\$select { string }', and '\$orderby { string }'. Each parameter has a description: '\$filter' is for filtering documents based on a predicate expression; '\$select' is for specifying a subset of properties to return; and '\$orderby' is for determining the order of documents. To the right, a 'REST Client' panel shows the endpoint '/api/v1/compute/PhysicalSummaries' and a table of query parameters with keys '\$filter' and '\$select', and values 'PlatformType eq 'IMC'' and 'Model' respectively. A 'Send' button is present, and the status '200 Success' is displayed. The bottom panel shows the 'Response Text' tab with a JSON response snippet.

```
1 {
2   "Results": [
3     {
4       "Model": "HXAF220C-M5SX",
5       "Moid": "5ad4b2ec393130316d129e4",
6       "ObjectType": "compute.PhysicalS
7     },
8   ]
9 }
```

Intersight Programmability and SDKs

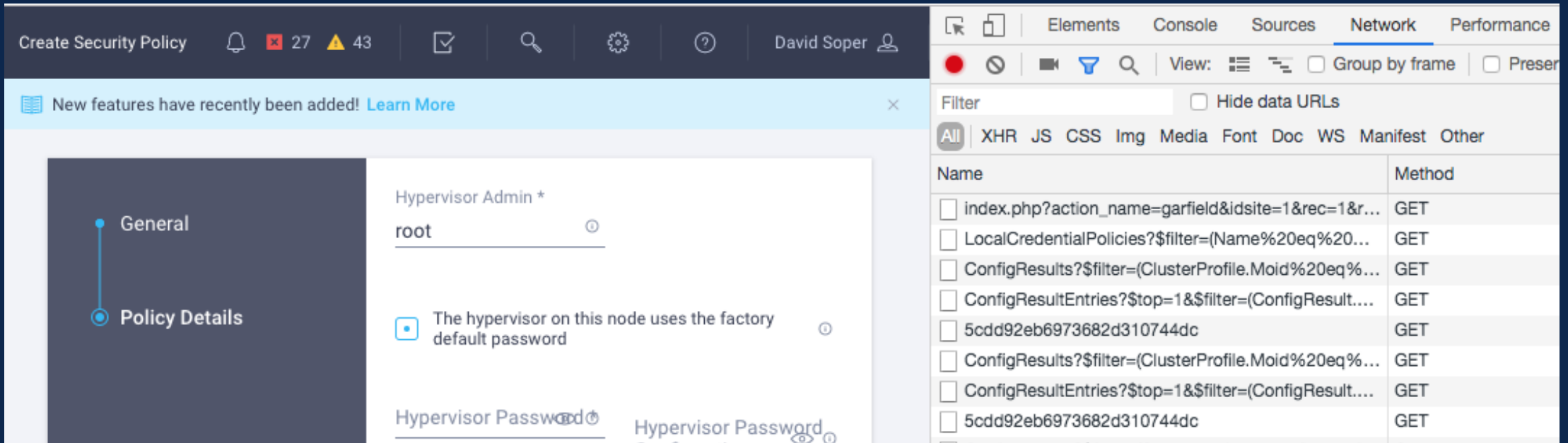
<https://developer.cisco.com/site/intersight/>

- Learning Labs
- Sandbox (DevNet provided development environment)
- Links to SDKs on GitHub
 - Install instructions
 - Example Usage
 - (query, claim devices, etc.)



API Browser and Documentation

- Your browser developer console shows how the UI uses the API



- View current configuration at <https://intersight.com/mobrowser/>
- Built in REST client: <https://intersight.com/apidocs/>

Monitoring API

- Intersight Monitoring leverages Open Telemetry (OLTP) best practices to structure the stored information
- Metrics are a measurement for a specific entry. Intersight endpoints capture metric events by collecting datapoints locally
- The endpoint will aggregate this data in regular intervals
- Instruments are groupings of related metrics e.g. Fan Speed is a metric of a Fan instrument
- Endpoint - </api/vi/telemetry/TimeSeries>

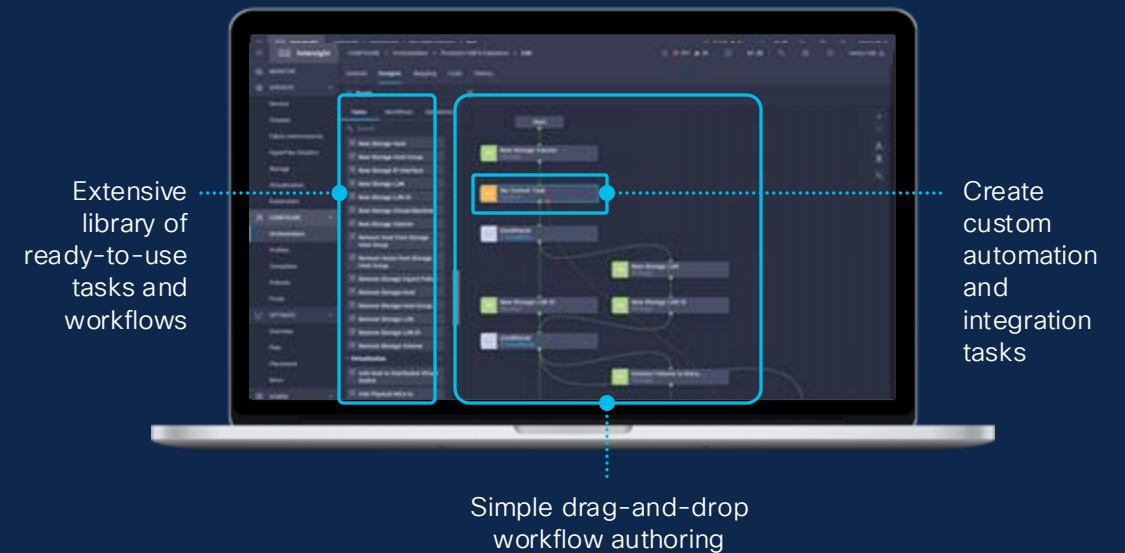
Automate

Create automated workflows to...

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

Two options

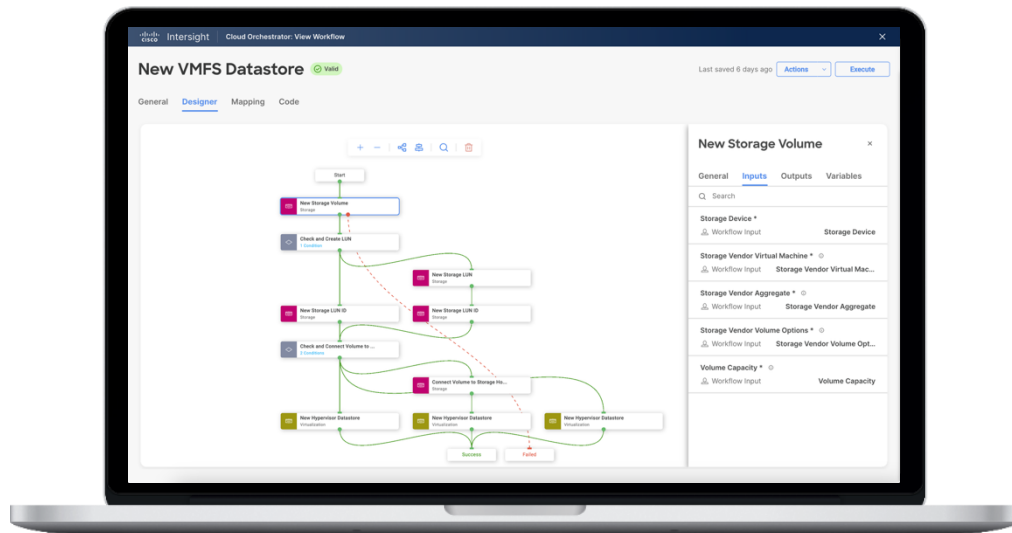
- Workflow designer
 - Drag-and-drop workflow authoring
- APIs/SDKs
 - For using your existing automation tools (Ansible, Terraform, etc)



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

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

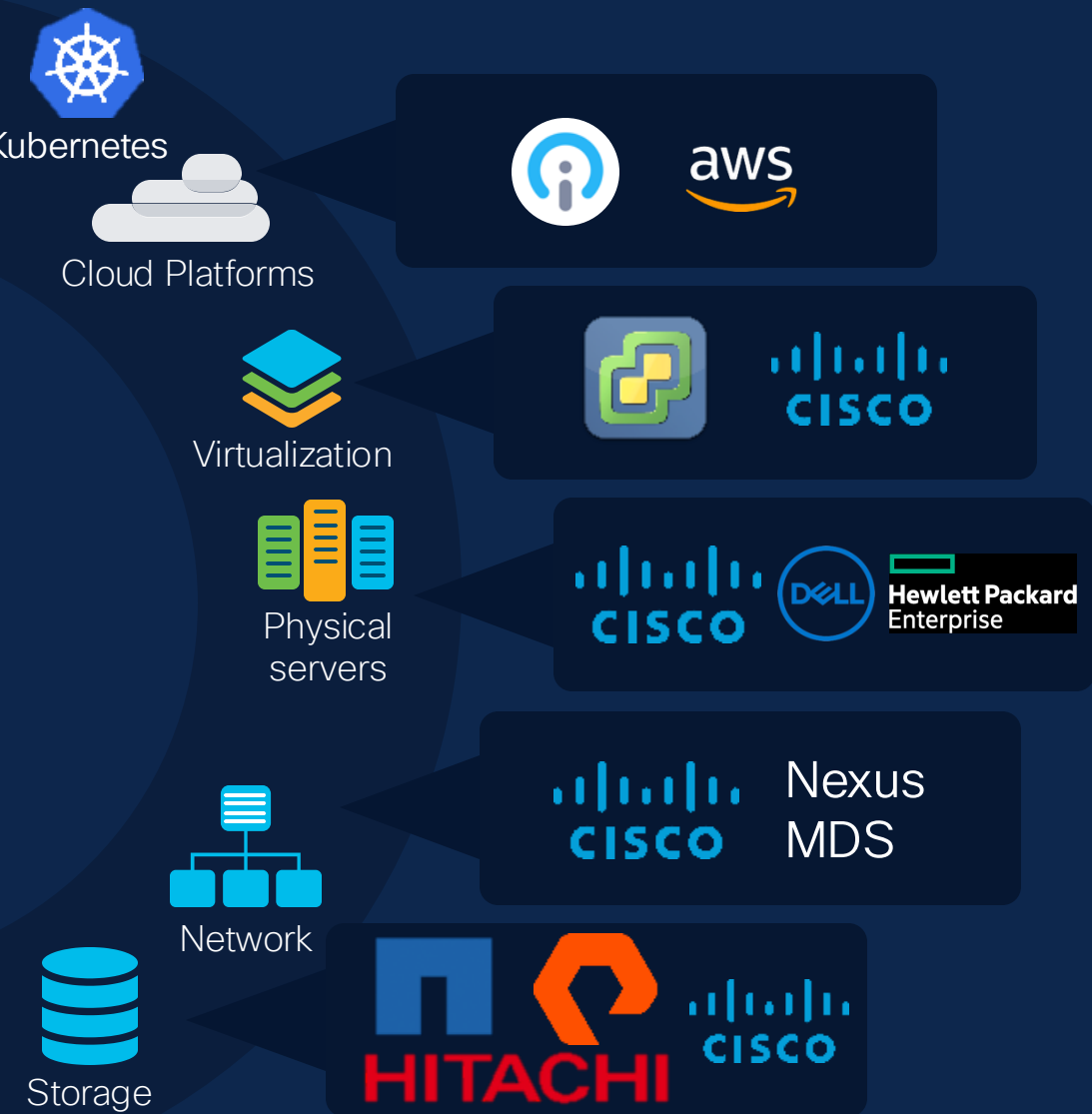
Benefit from a library of curated tasks and workflows

Accelerate delivery of apps and infrastructure

Reduce risk with standardization

Simplify cross-domain orchestration

Compose your automation

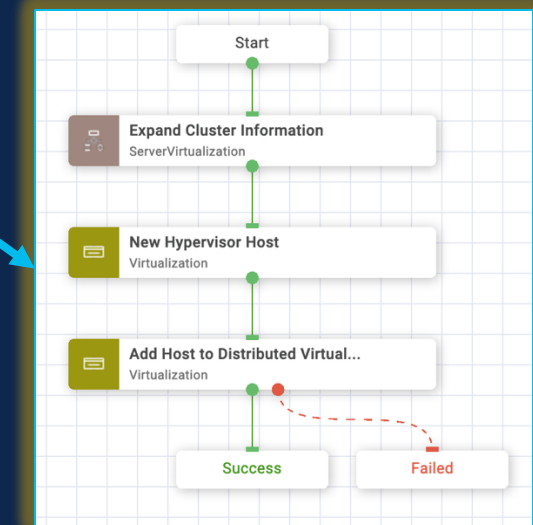
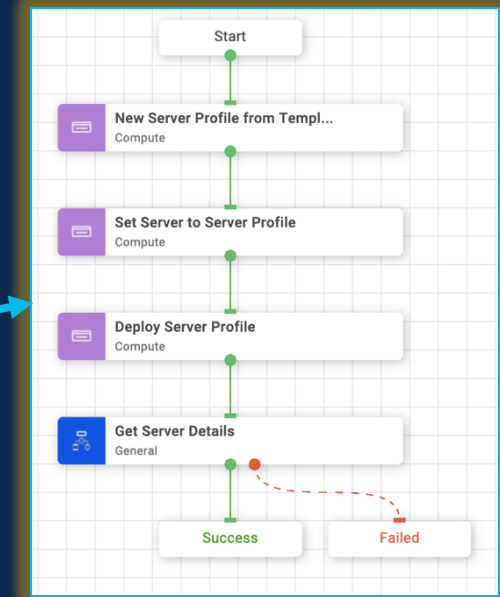
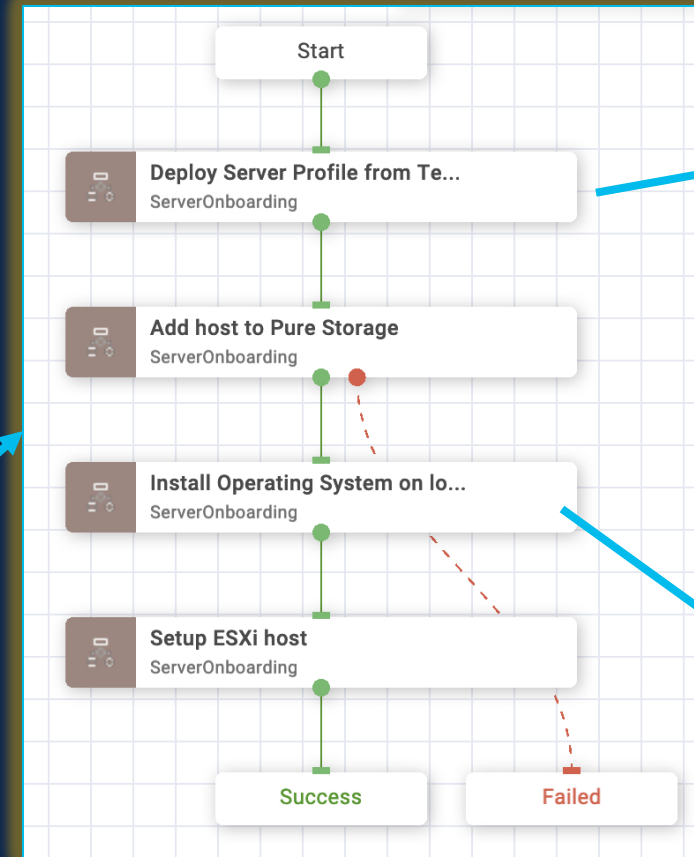
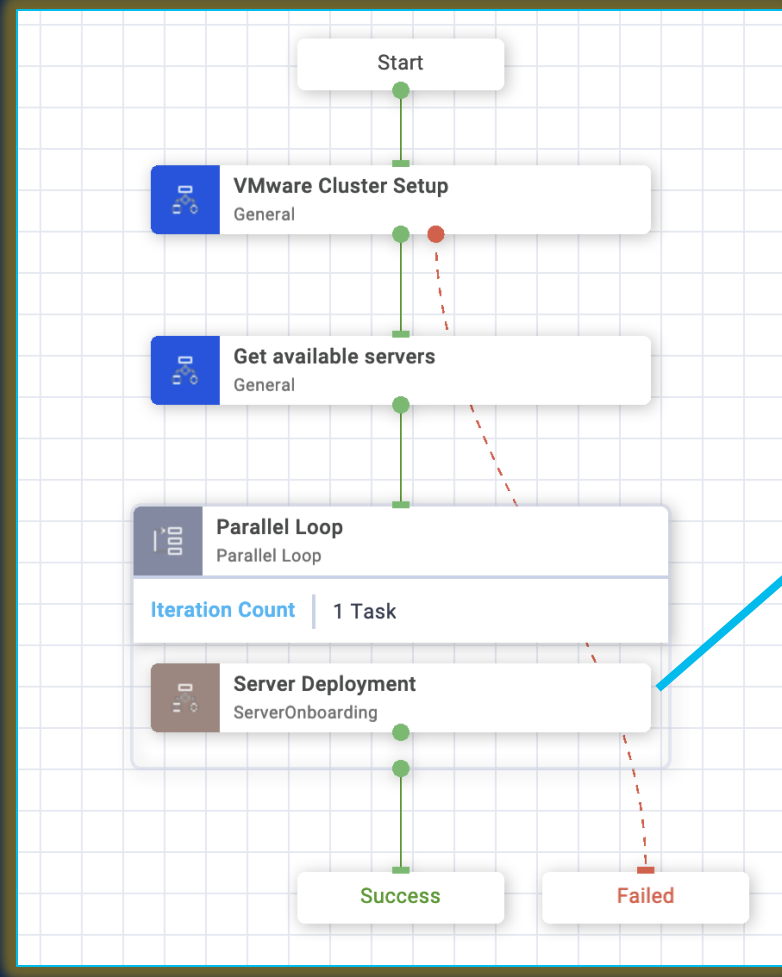


Song: Cross-Domain Orchestration
Artist: UI-driven Designer

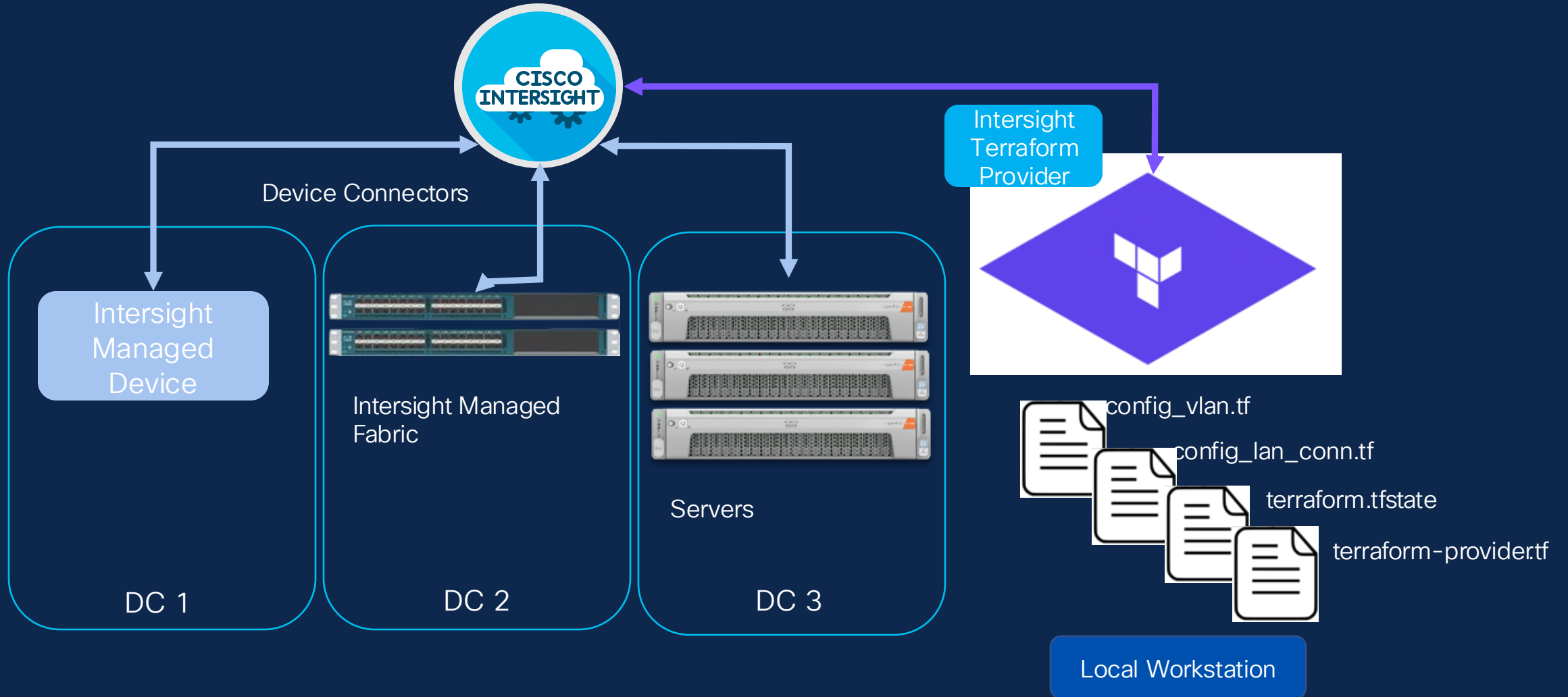


Intersight Orchestration

Advanced Server Onboarding



Intersight Terraform Provider

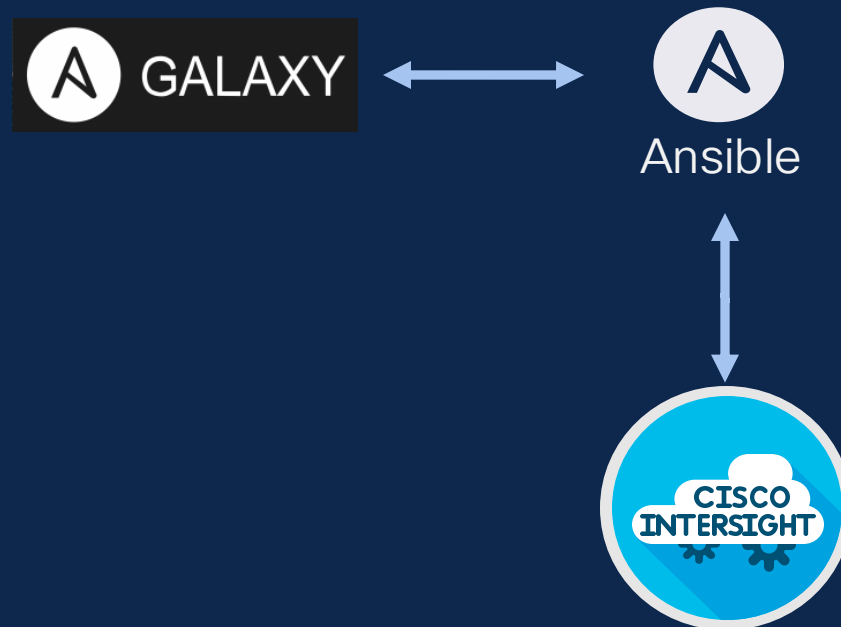


Intersight Ansible Modules

- Cisco Intersight Collection - Modules in Ansible Galaxy

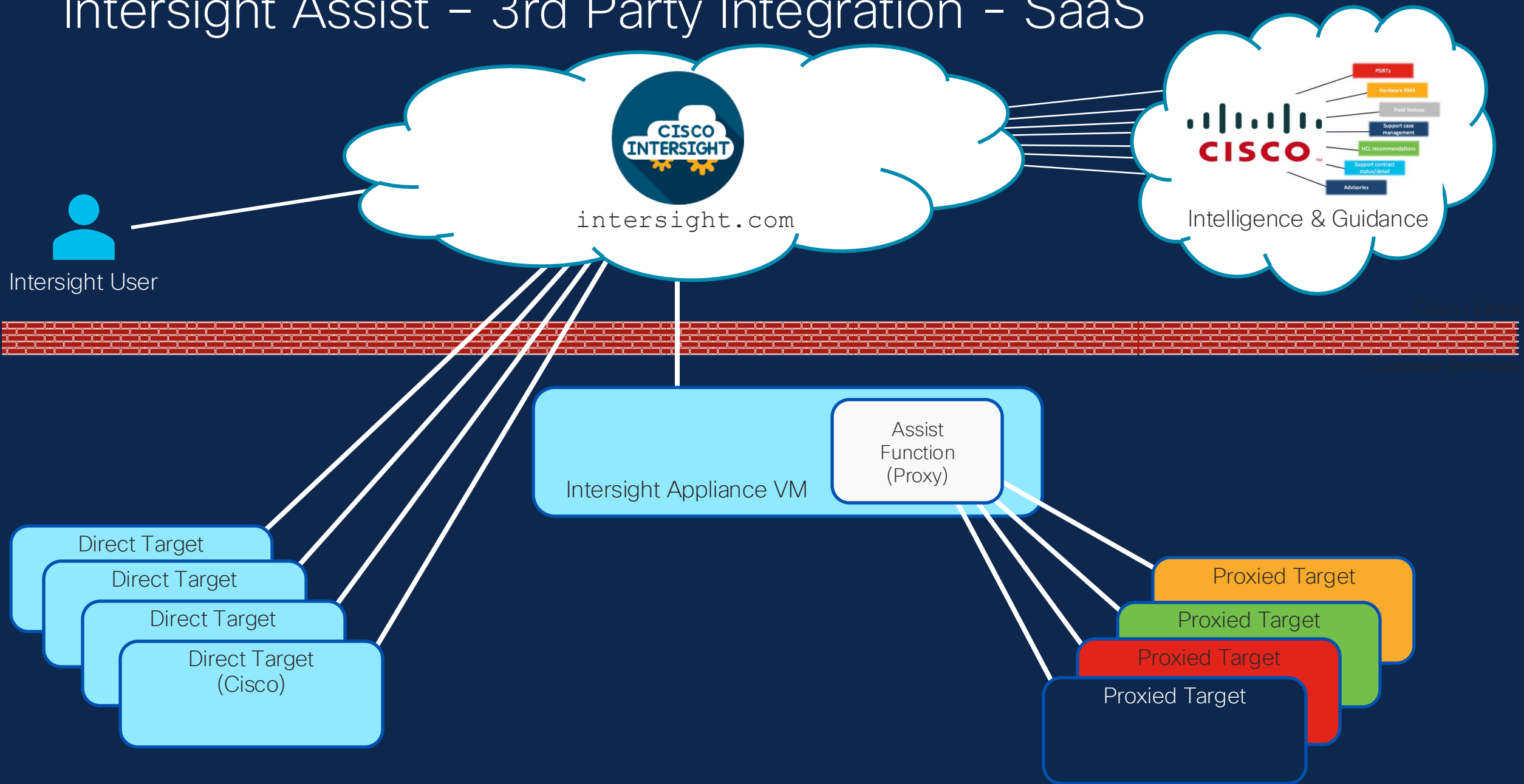
- Details at <https://galaxy.ansible.com/cisco/intersight>
- install/update without requiring updates in Ansible core

`ansible-galaxy collection install cisco.intersight`

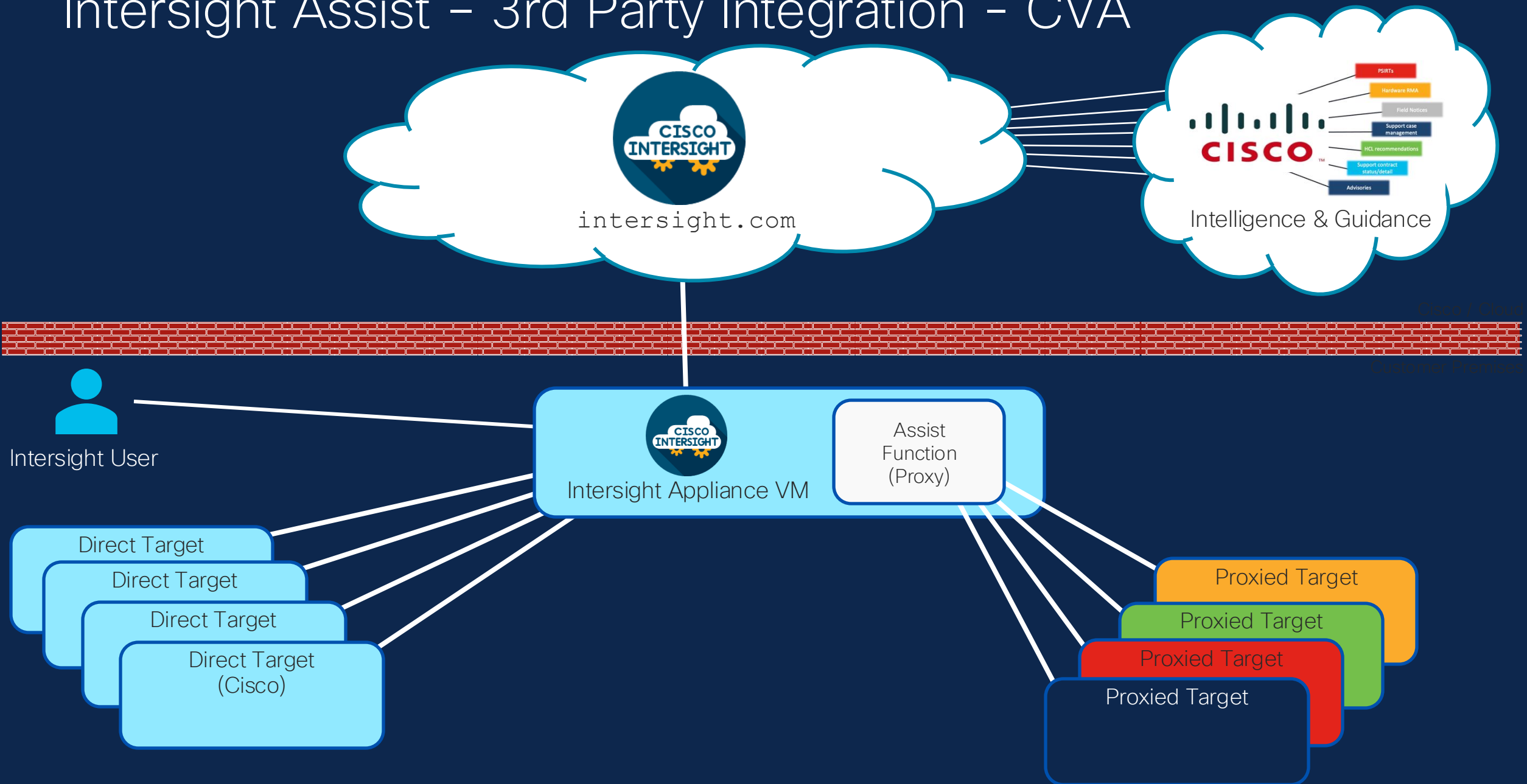


Integracja Third-Party

Intersight Assist – 3rd Party Integration – SaaS



Intersight Assist – 3rd Party Integration – CVA



Intersight Assist – 3rd Party Integration – PVA

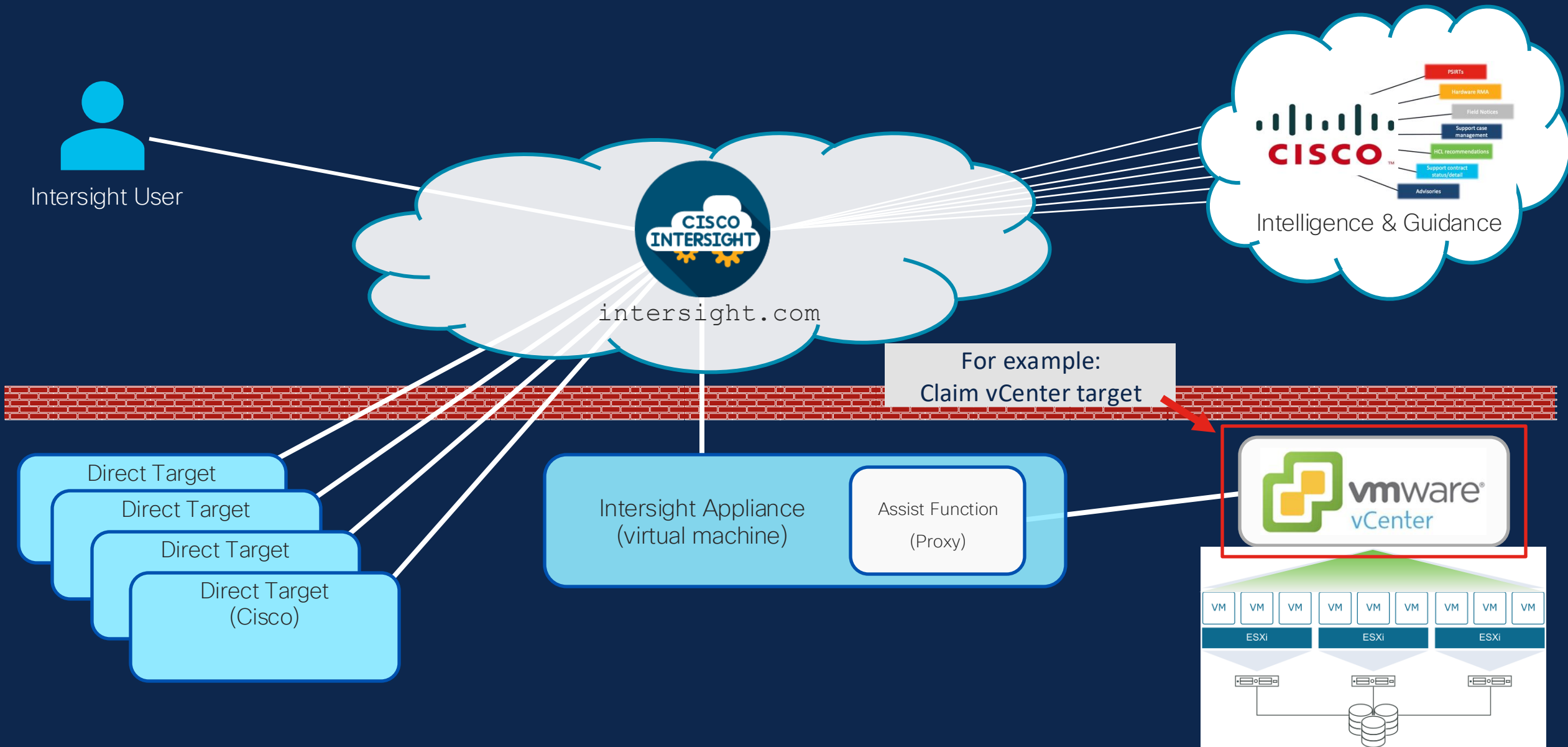


Cloud / Cloud

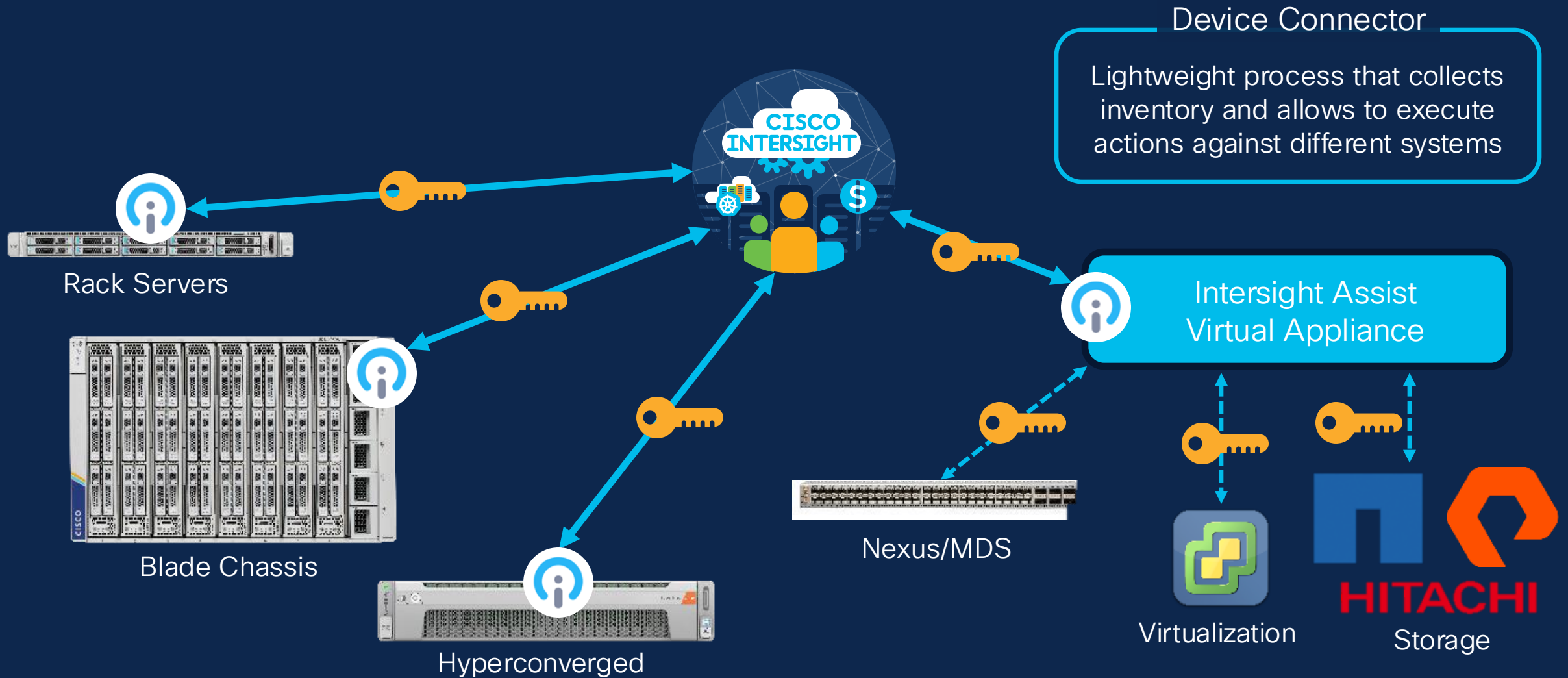
Customer Premises



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



Intersight Device Connector



 = Device Connector

Wsparcie dla innych serwerów

Non-Cisco Server Platforms Support

Redfish server target



HPE ProLiant

Rack only

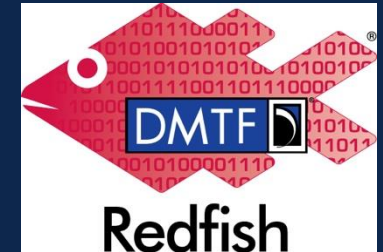
Inventory / Power /
Reboot



Dell PowerEdge

Rack only

Inventory / Power /
Reboot



TECH PREVIEW

[Dell PowerEdge and HPE ProLiant Servers \(Feature Preview\)](#)

Third-party server inventory

Intersight

Infrastructure Service

Search

3

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7

Overview

Operate

Servers

Chassis

Fabric Interconnects

Networking

HyperFlex Clusters

Storage

Virtualization

Kubernetes

Integrated Systems

Configure

Servers

All Servers

Search 3rd party

Add Filter

Model 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	
<input type="checkbox"/>	Dell-PowerEdge R650-	Healthy	-	PowerEdge R650	5.10.00.00		testdell	...
<input type="checkbox"/>	Dell-PowerEdge R650-	Healthy	-	PowerEdge R650	5.10.00.00		testdell	...
<input type="checkbox"/>	HPE-ProLiant DL360 Gen10 Plus-	Healthy	-	ProLiant DL360 Gen10 Plus	2.55		hp-new	...

1 of 1

Third-party server operations – Power

Intersight

Infrastructure Service

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Servers

All Servers

Search 3rd party

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	Firmv	Asset Tag	
<input type="checkbox"/>	Dell-PowerEdge R650-...	Healthy	-	PowerEdge R650	5.10.0	testdell	...
<input type="checkbox"/>	Dell-PowerEdge R650-...	Healthy	-	PowerEdge R650	5.10.00.00	testdell	...
<input type="checkbox"/>	HPE-ProLiant DL360 Gen10 Plus-	Healthy	-	ProLiant DL360 Gen10 Plus	2.55	hp-new	...

Available Operations

Power Off

Power Cycle

Hard Reset

Shut Down Operating System

Power

System

Launch vKVM

Set License Tier

Collect Tech Support Bundle

Third party server operations – System

Intersight

Infrastructure Service

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Servers

All Servers

Search 3rd party

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	Firmw	Asset Tag
<input type="checkbox"/> Dell-PowerEdge R650	<input checked="" type="checkbox"/> Healthy	-	PowerEdge R650	5.10.0	testdell
<input type="checkbox"/> Dell-PowerEdge R650	<input checked="" type="checkbox"/> Healthy	-	PowerEdge R650	5.10.00.00	testdell
<input type="checkbox"/> HPE-ProLiant DL360 Gen10 Plus	<input checked="" type="checkbox"/> Healthy	-	ProLiant DL360 Gen10 Plus	2.55	hp-new

Available Operations

Turn On Locator

Reboot Management Controller

Power

System

Launch vKVM

Set License Tier

Collect Tech Support Bundle

Third party server operations – Inventory – Dell

Intersight

Infrastructure Service

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Templates

Policies

Pools

← Servers

Dell-PowerEdge R650-

Healthy

Actions

This is a Tech Preview feature for feedback purposes only and should not be used with production systems. Learn more at the [Help Center](#).

General

Inventory

Expand All

Motherboard

Boot

Management Controller

CPUs

Processor 1

Processor 2

Memory

Network Adapters

PCIe Devices

Storage Controllers

Controller AHCI.Embedded.2-1-0

Controller AHCI.Embedded.1-1-0

Motherboard

Configuration

BIOS Firmware Version
1.2.4

Hardware

Board ID
1

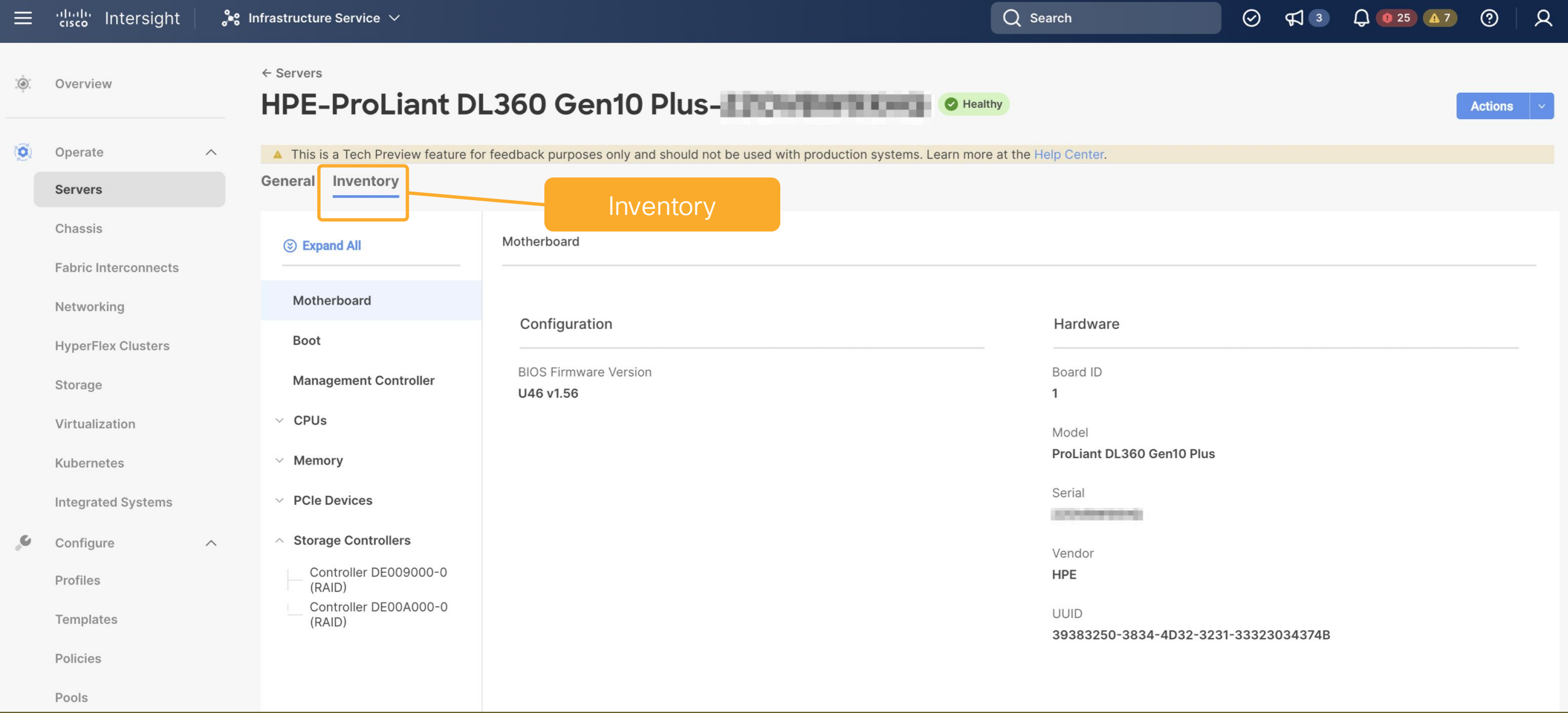
Model
PowerEdge R650

Serial

Vendor
Dell Inc.

UUID
4c4c4544-0034-4410-8038-b1c04f464633

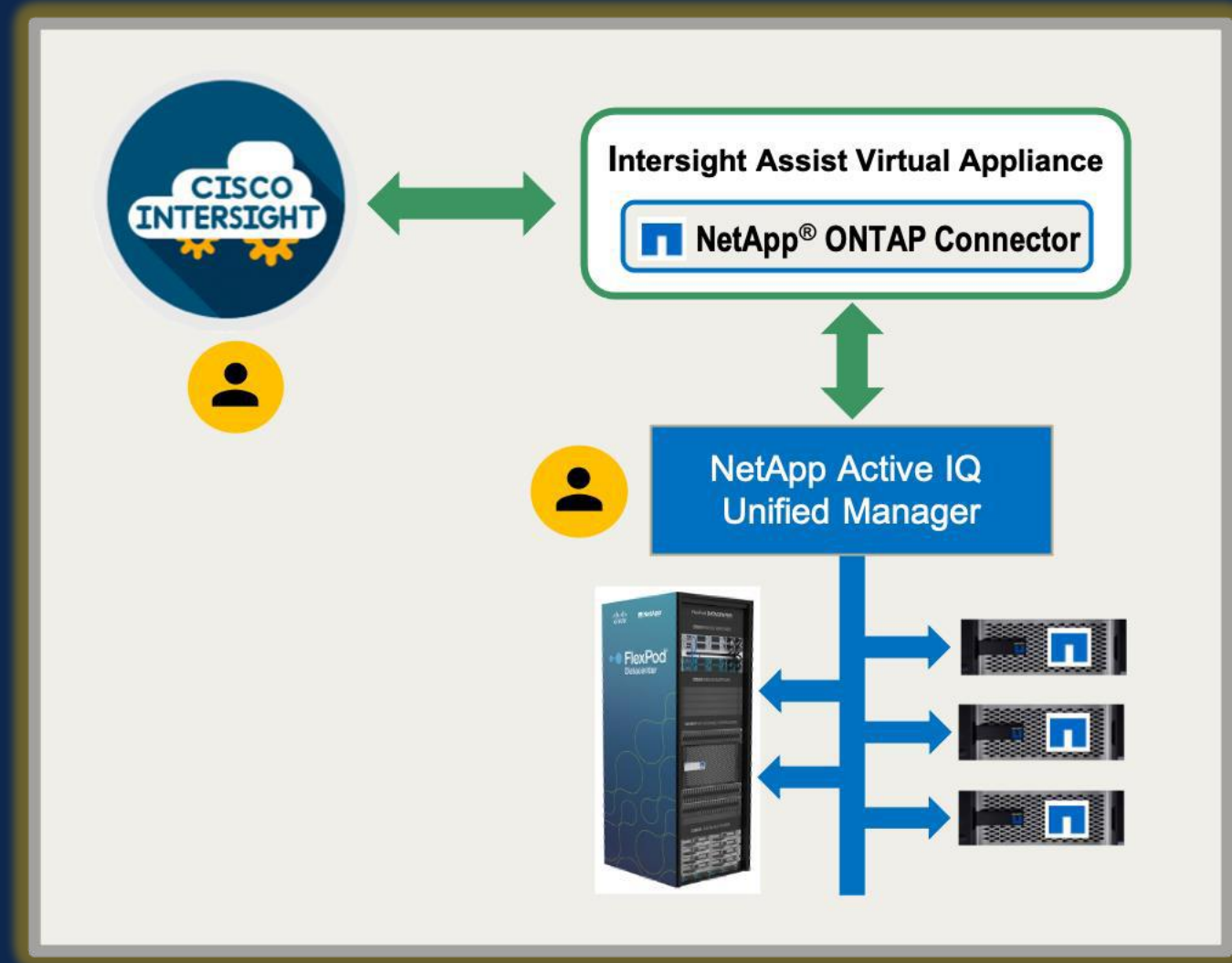
Third party server operations – Inventory – HPE



3rd Party Storage

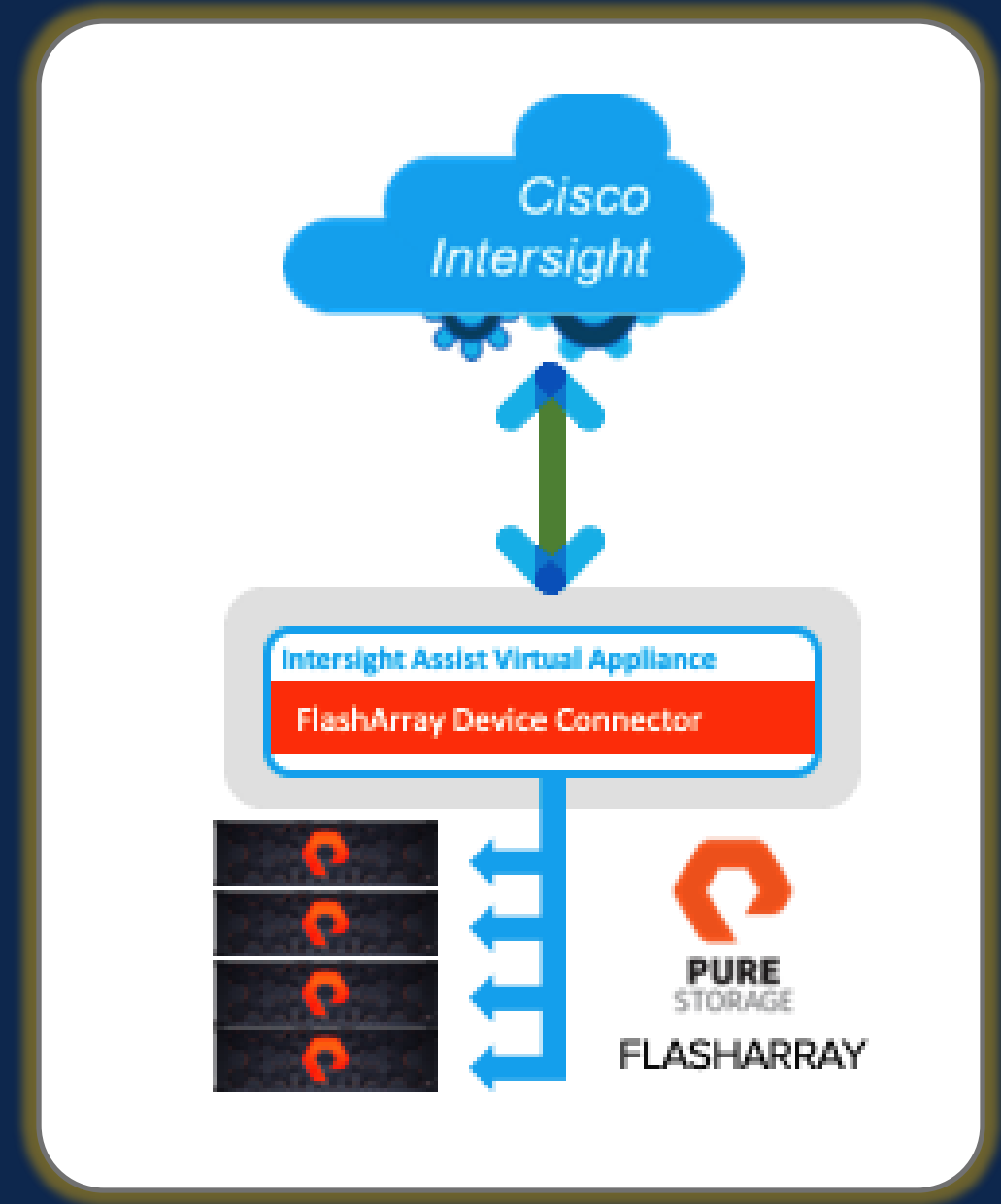
Intersight with NetApp

- The integration requires NetApp Active IQ Unified Manager instance deployed in your data center to manage one or more ONTAP clusters
- The Intersight Assist virtual appliance (deployed on-prem) includes the NetApp ONTAP Connector which maps the Intersight APIs to that of Active IQ Unified Manager and your ONTAP storage
- The UI-SDK (built for NetApp storage Inventory) enables full access to the key attributes of the NetApp storage from Intersight Inventory view
- The workflow engine in Intersight will enable the orchestration of the ONTAP storage tasks and workflows

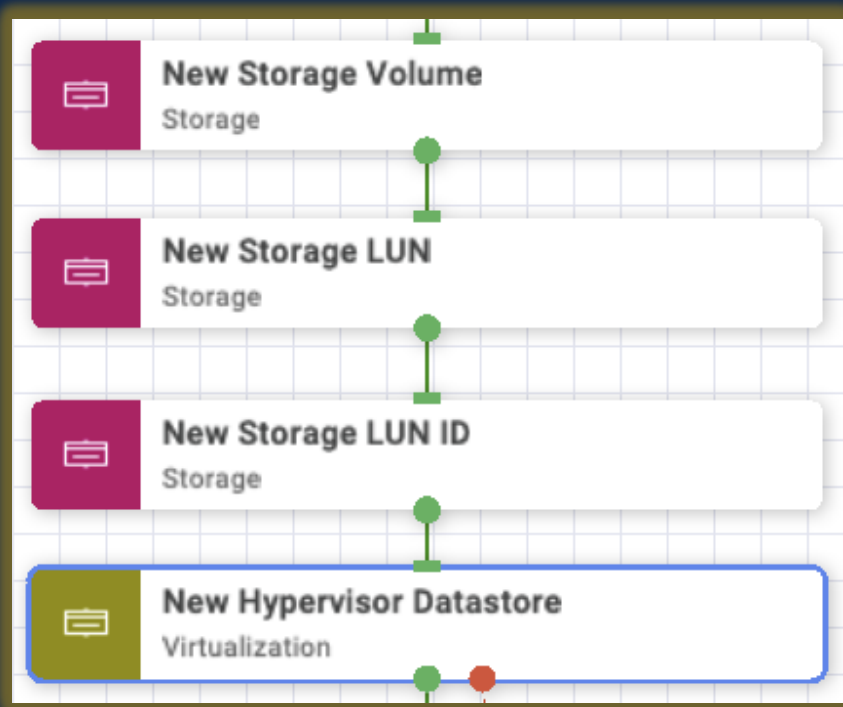


Intersight with Pure Storage

- Inventory and Automation with Pure Storage All Flash Array
- Inventory widget displays Pure Storage array version, capacity and utilization information
- Cross domain orchestration
 - Ex. Create LUN and present to VMware vCenter for datastore use



Storage automation



Create Storage Volume



Create LUN from Volume



Connect LUN to
initiator group



Create VMware datastore
from LUN

Supported Platforms



NetApp AIQUM \geq 9.8p1



Pure FlashArray \geq 4.8

HITACHI

Hitachi VSP*

*Hitachi VSP version requirements depend on VSP type

Integrated Systems

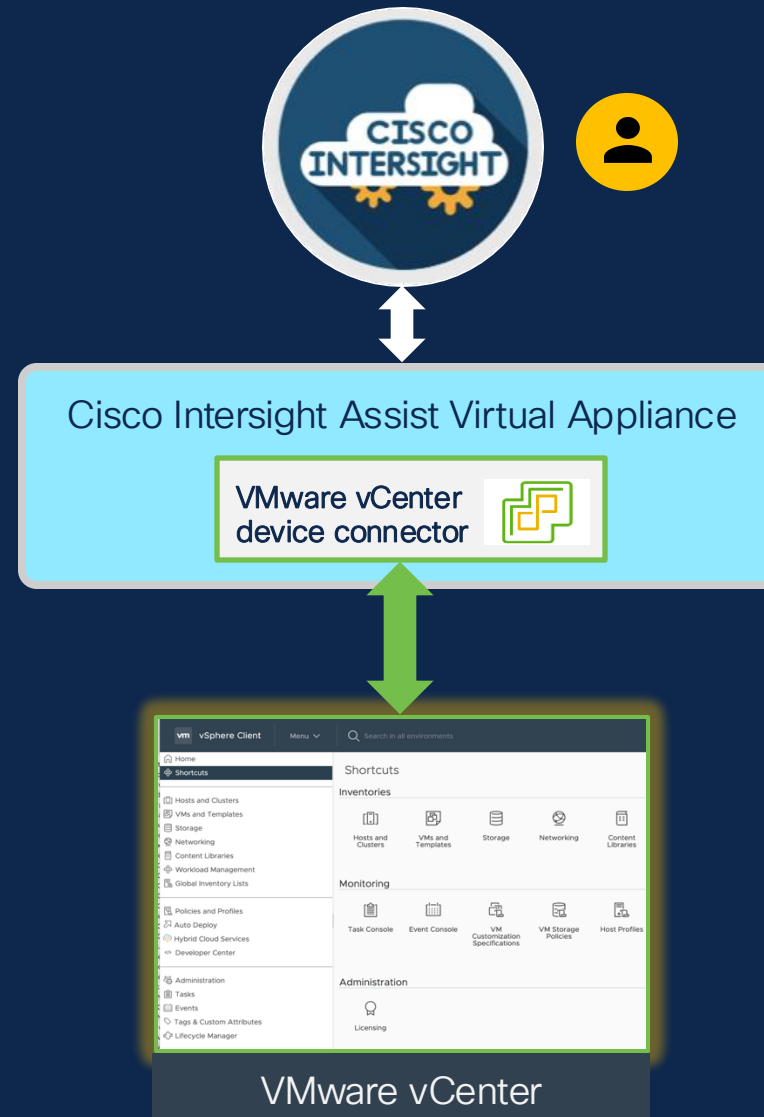
- Intersight currently supports FlexPod systems
- FlexPod is a **Converged Infrastructure (CI)** that combines a defined set of hardware and software from Cisco and NetApp that forms an integrated system foundation for both virtualized and nonvirtualized solutions:
 - NetApp AFF storage
 - Cisco Nexus networking
 - Cisco Unified Computing System (Cisco UCS)
- The design is flexible enough that the networking, computing, and storage components can fit into one data center rack, or it can be deployed according to customer's data center design



Integracja z VMware

VMware Integration with Intersight

Cisco Intersight provides unified infrastructure management across heterogeneous compute, storage, and virtualization environments



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

The screenshot shows the 'Intersight Assist' configuration interface. It includes fields for 'Hostname/IP Address' (vc-prod.parlab.ciscolabs.com), 'Port' (443), 'Username' (administrator@vc-prod.local), and 'Password'. Below these are several toggle switches: 'Secure' (checked), 'Enable Datastore Browsing' (unchecked), 'Enable Guest Metrics' (unchecked), and 'Enable HSM' (checked and highlighted with a red box). A warning message at the bottom states: 'Enabling HSM will give escalated privileges to the vCenter target to perform firmware operations on UCS servers claimed in Cisco Intersight.'

The screenshot shows the 'Select Firmware and Drivers Addon' page. It includes a dropdown for 'Select the hardware support manager' (Intersight HSM via intersight-cva.complab.lab) and a section for 'Select a firmware and driver addon'. This section contains a table with columns for 'Addon name', 'Addon version', and 'Supported ESXi versions'.

	Addon name	Addon version	Supported ESXi versions
<input type="radio"/>	CR-4.2(1f)	4.2(1f)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(3f)	4.1(3f)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(3d)	4.1(3d)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(3c)	4.1(3c)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(3b)	4.1(3b)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(2h)	4.1(2h)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(2g)	4.1(2g)	7.0.0, 7.0.1, 7.0.2, 7.0.3
<input type="radio"/>	CR-4.1(2f)	4.1(2f)	7.0.0, 7.0.1, 7.0.2, 7.0.3

Integracja z ServiceNow

IT Service Management (ITSM)

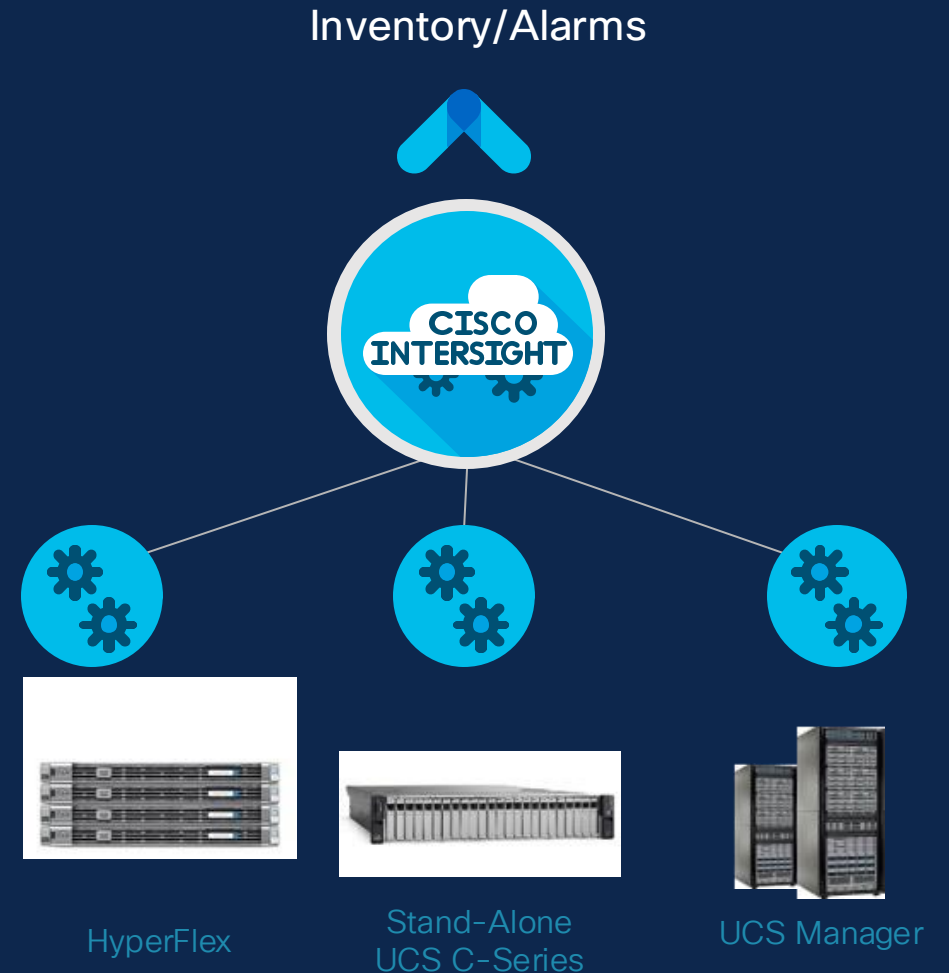


- Challenges:
 - Numerous tools to manage
 - Difficult problem resolution and mapping of infrastructure to business services
- Solution: ServiceNow ITSM Application for Cisco Intersight
 - No on premises tools to manage – delivered as SaaS
 - Faster incident management and service delivery
 - Visibility and automation from the business service to the physical infrastructure

Intersight ServiceNow Application



- Uses the Intersight API
 - API access can be Read-Only
 - Additional RBAC within ServiceNow
- App Features
 - Device Inventory and Sync
 - Incident Management
 - Using alarms retrieved from Intersight
 - Analysis reports and dashboards powered by ServiceNow



ServiceNow Service Management

The screenshot displays the ServiceNow Service Management interface. On the left is a dark sidebar with navigation options: **ServiceNow Service Management**, **intersight** (with a close icon), **Cisco Intersight**, **Cisco Intersight Portal**, **Configuration** (with a dropdown arrow), **Inventory Sync** (with a dropdown arrow), **Support** (with a dropdown arrow), and **Contact Support**. The main content area shows the **Cisco Servers** configuration for **C220-WZP21421OKT**. It includes a **Related Items** section with links to **C220-WZP21421OKT** and **C220-WZP21421OPA**, and a **Related Links** section with a **Subscribe** button. At the bottom, there are tabs for **HyperFlex Cluster (1)**, **Fabric Interconnects**, **Faults**, and **Incidents**. The **Incidents** tab is active, showing a **New** button and a search bar.

The screenshot displays the ServiceNow Incident Management interface. It shows the **Incident** **New record** form. The form includes fields for **Number** (INC0010004), **Caller** (David Soper), **Category** (Hardware), **Subcategory** (Memory), **Business service**, and **Configuration item**. There is a **Short description** field and a **Description** field. A **Related Search** section is visible at the bottom. A modal window titled **Business Services** is open, showing a search bar and a table with columns **Name**, **Manufacturer**, and **Class**. The table contains two rows: **All** (Manufacturer: (empty), Class: Business Service Group) and **Blackberry** (Manufacturer: (empty), Class: Business Service).

Server Details and
Incident Management



Looking Forward: AI assisted Operations

Less firefighting, more strategic work!

Unlock smarter, faster operations with AI-powered insights



Smart Suppression

Automatically detect actions and suggests suppressing alarms, streamlining workflows.



Intersight Assisted Operations

Enables faster, data-driven decisions by filtering noise and spotlighting critical issues. It speeds up root cause analysis, predicts outages, and reduces manual effort through automation.



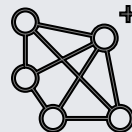
Sustainability Insights

Correlate server workload utilization with power consumption to provide actionable power saving insights.



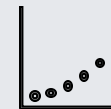
Correlation and Clustering of Alarms

Reduce alarm noise and accelerate troubleshooting by intelligently clustering correlated alarms.



Enriched Topology with Timeline of Events and Anomaly Detection

Enable customers to view (and replay) the historical topology view, overlaying major events that affect the physical devices.



Predictive Forecasting

Proactively prevent issues with forecast-based alarms.



Looking Forward: Intersight AI Assistant

Use Cases of Intersight's GenAI-powered AI Assistant

Unlock smarter, faster operations with AI-powered insights

Security insights & recommendations

Monitor contract status
and renew contract

Guided configuration based on customer
infrastructure

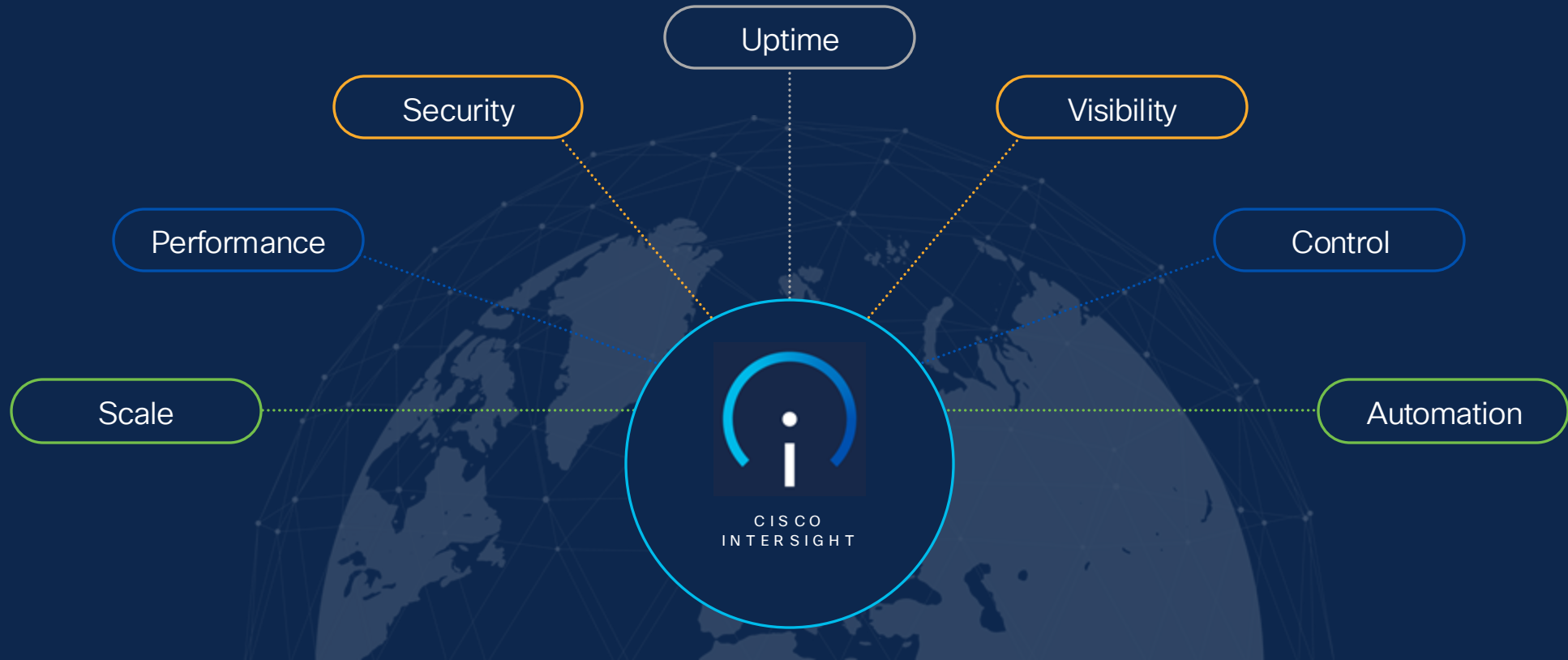
Ingest documentation and community
knowledge on Cisco websites

Health check summary and subsequent
remediation

Track lifecycle of TAC cases

Contextual assistance tailored to user's
environment

Intersight – IT operations simplified.





Pytania



The bridge to possible