Leveraging your Cisco Installed Base with Skylight

How You Can Work Better with Skylight and Cisco

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Agenda

1 Automation

2 Cisco Data in Skylight

3 Skylight on Cisco Platforms

1: Automation

Automation with Skylight and Cisco

- If you are using Cisco Crosswork automation products (CNC, NSO) then you can build Skylight into your automation workflows

- Benefits include:
  - Reduced time & cost to deploy assurance in your network
  - Network assurance automatically follows network changes
  - Enable closed loop automation use-cases by feeding Skylight data back to Crosswork to automate remediation actions

Skylight Integration with Cisco CNC

Cisco CNC → (RESTConf/YANG) → **Skylight Analytics**

CDG ← gNMI

Skylight Analytics → **Skylight Sensors**
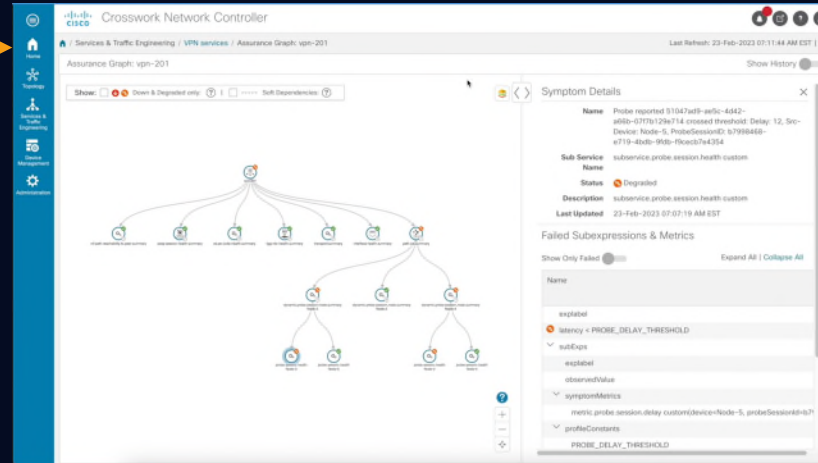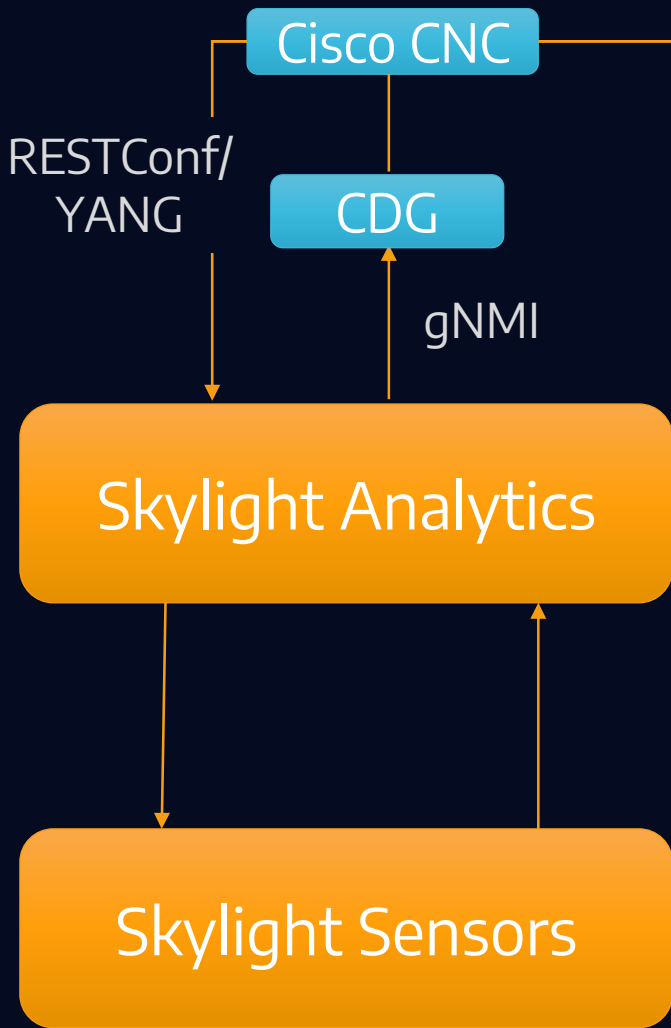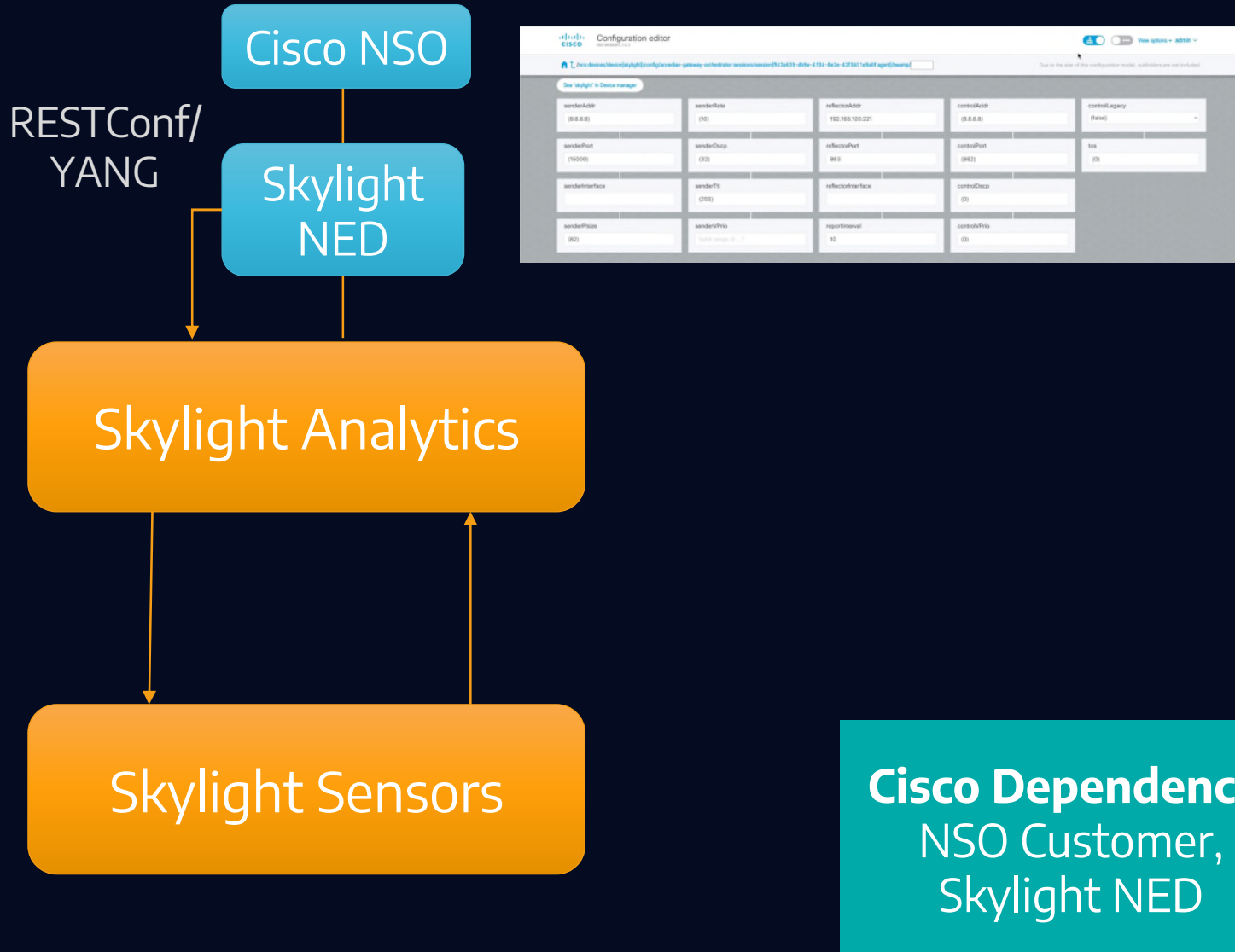
Cisco Dependency: Crosswork Network Controller Customer

- **What**
  - Integration with Crosswork Network Controller (Cisco IP Network Controller) Service Health
- **Why**
  - Automate provisioning of assurance with an L3 VPN
  - Provide Skylight L3 PM data inside of CNC
- **How**
  - RESTConf APIs, gNMI streaming
- **When**
  - POC Now, 23.08 / Q4 2023 with CNC

Skylight Integration with Cisco NSO

RESTConf/YANG

Cisco NSO → **Skylight NED** → **Skylight Analytics** → **Skylight Sensors**

Cisco Dependency:
NSO Customer, Skylight NED

- What
  - Integration with Crosswork Network Services Orchestrator (NSO)
- Why
  - Integrate Skylight assurance provisioning into multi-vendor automated provisioning workflows in NSO
  - Send assurance alerts to NSO for closed loop automation
- How
  - RESTConf APIs
- When
  - POC Now, Planned 23.11

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2: Cisco Data in Skylight

Cisco Data in Skylight

- If you use Cisco routing platforms, they are generating a wealth of performance monitoring data

- You can consolidate this data into one place with Skylight, providing a single pane of glass for assurance

- Benefits include:
  - Single pane of glass for Skylight assurance data plus Cisco assurance data and Cisco device data – allow teams to see performance data in a single place
  - Improve network visibility, reduce time to determine root cause
  - Single source to integrate performance data and alerts into your broader monitoring ecosystem (ITSM, etc.)
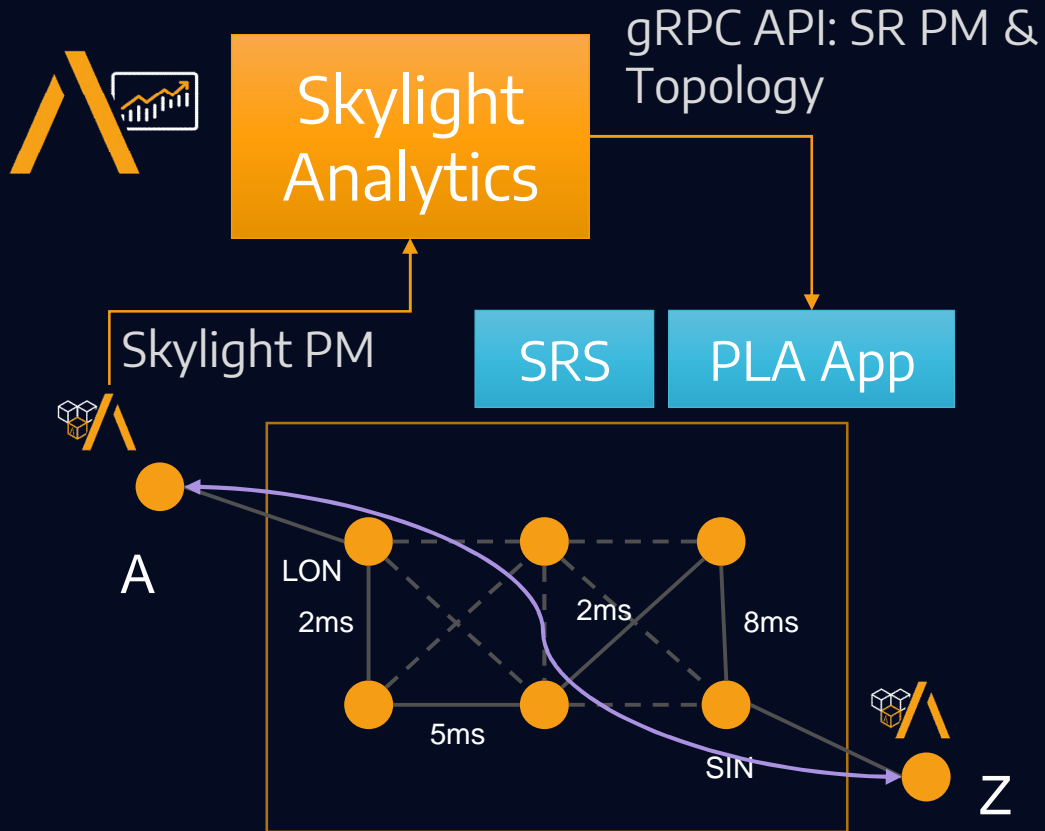
Skylight with Cisco Telemetry

CDG

Skylight Analytics

Skylight Sensors

Cisco MDT

gNMI

OM / Kafka

OM / gNMI
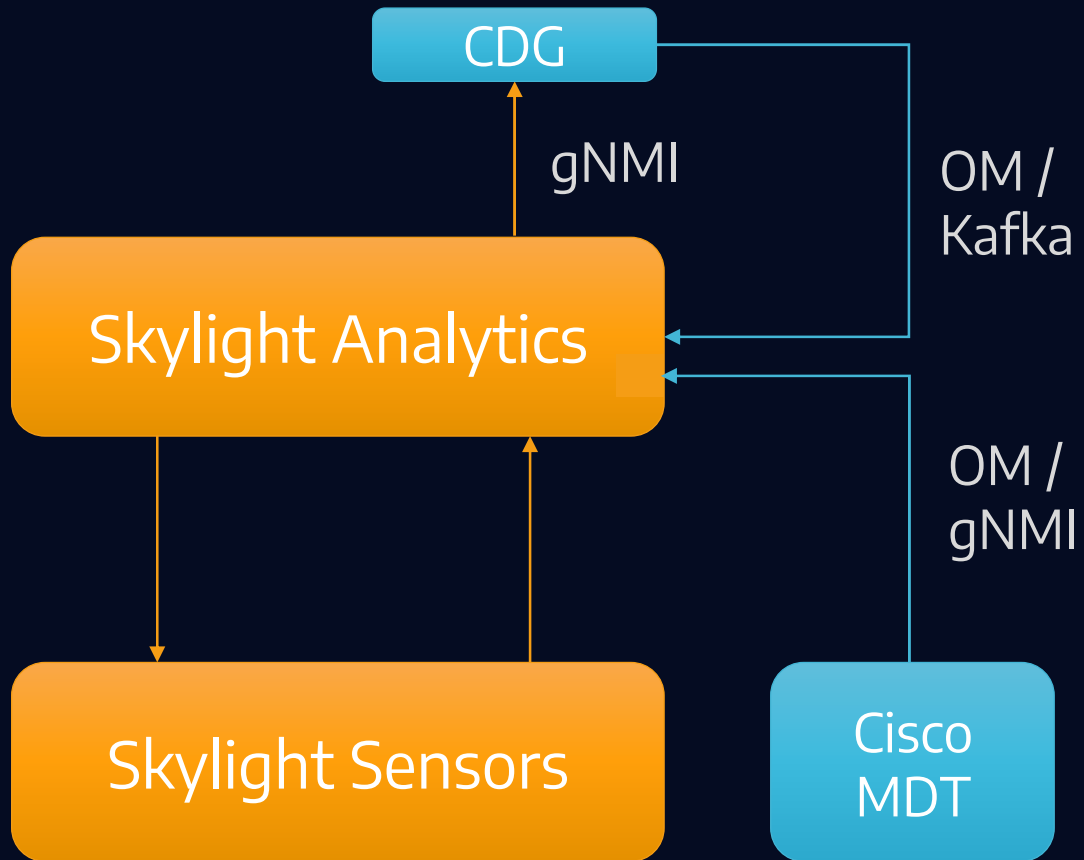
Cisco Dependency: CDG and/or MDT from Cisco IOS Routers

- What
  - Integration with Cisco Model-Driven Telemetry (MDT) and Crosswork Data Gateway (CDG)
- Why
  - Today this requires PS development and using open-source tools; we want to make this simpler and faster to implement to allow Skylight to be easier to deploy when ingesting various Cisco data sources
- How
  - Pre-build mediation into OpenMetrics for common Cisco data sources (MDT, CDG)
- When
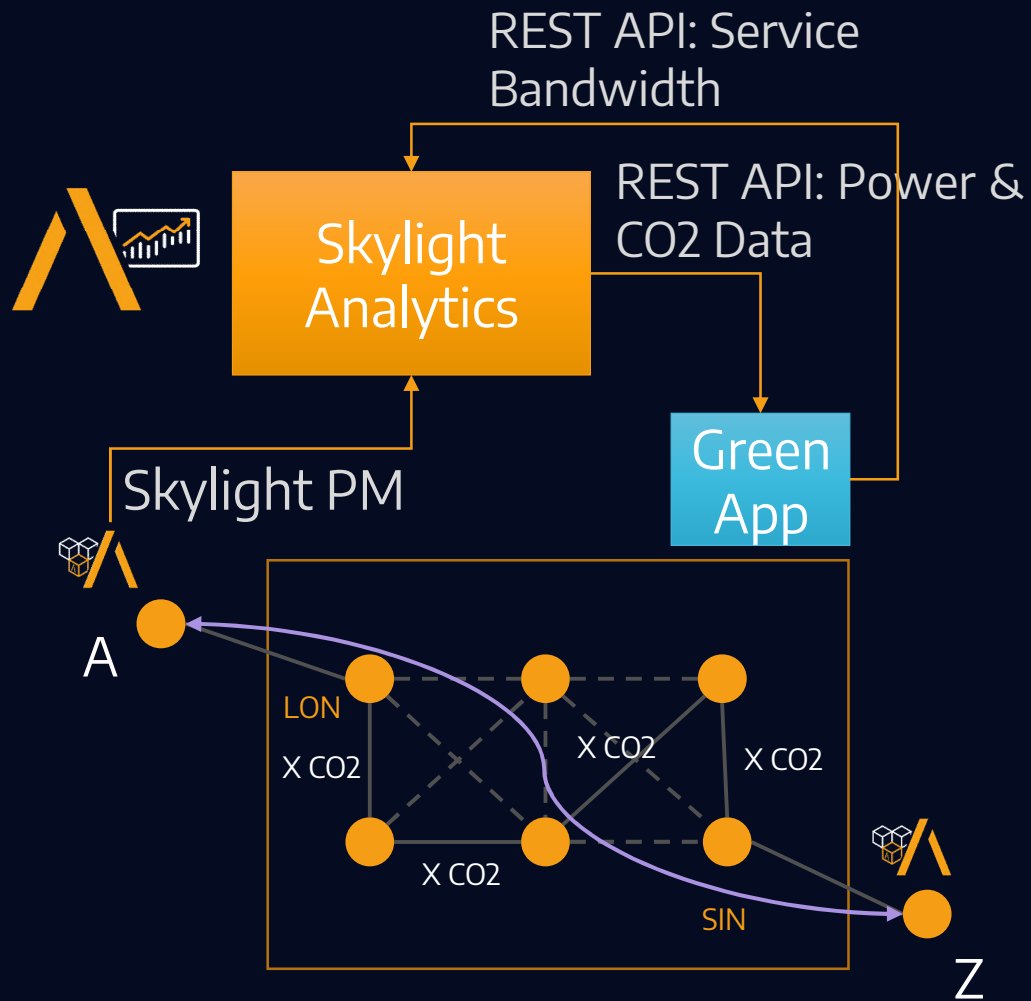 - Available today, improvements planned 23.11

Confidential information of

Skylight SRS Apps/PLA Integration

gRPC API: SR PM & Topology

Skylight Analytics

SRS

PLA App

Skylight PM

A

LON
2ms
2ms
8ms
5ms
SIN

Z

Cisco Dependency: Cisco SR/Routing Customer

- ## What
  - Integration with Cisco Segment Routing Services (SRS) for SR-PM and SR Path Data
- ## Why
  - Provide a single pane of glass with both end-to-end service visibility and hop-by-hop segment routing performance visibility correlated together
- ## How
  - gRPC API to Cisco PLA application for SRv6 PM & topology, integration with other SRS applications
- ## When
  - POC Now, Planned 23.11 for PLA, further enhancements TBD

Skylight with Cisco Green VPN

REST API: Service Bandwidth

REST API: Power & CO2 Data

Skylight Analytics

Green App

Skylight PM

A

LON
X CO2

X CO2

X CO2

X CO2

SIN

Z

- What
  - Integration with Cisco Green App to extract power/ carbon usage on a per-service basis
- Why
  - Provide customers with a power/carbon KPI on a per service basis, correlated with our other performance KPIs
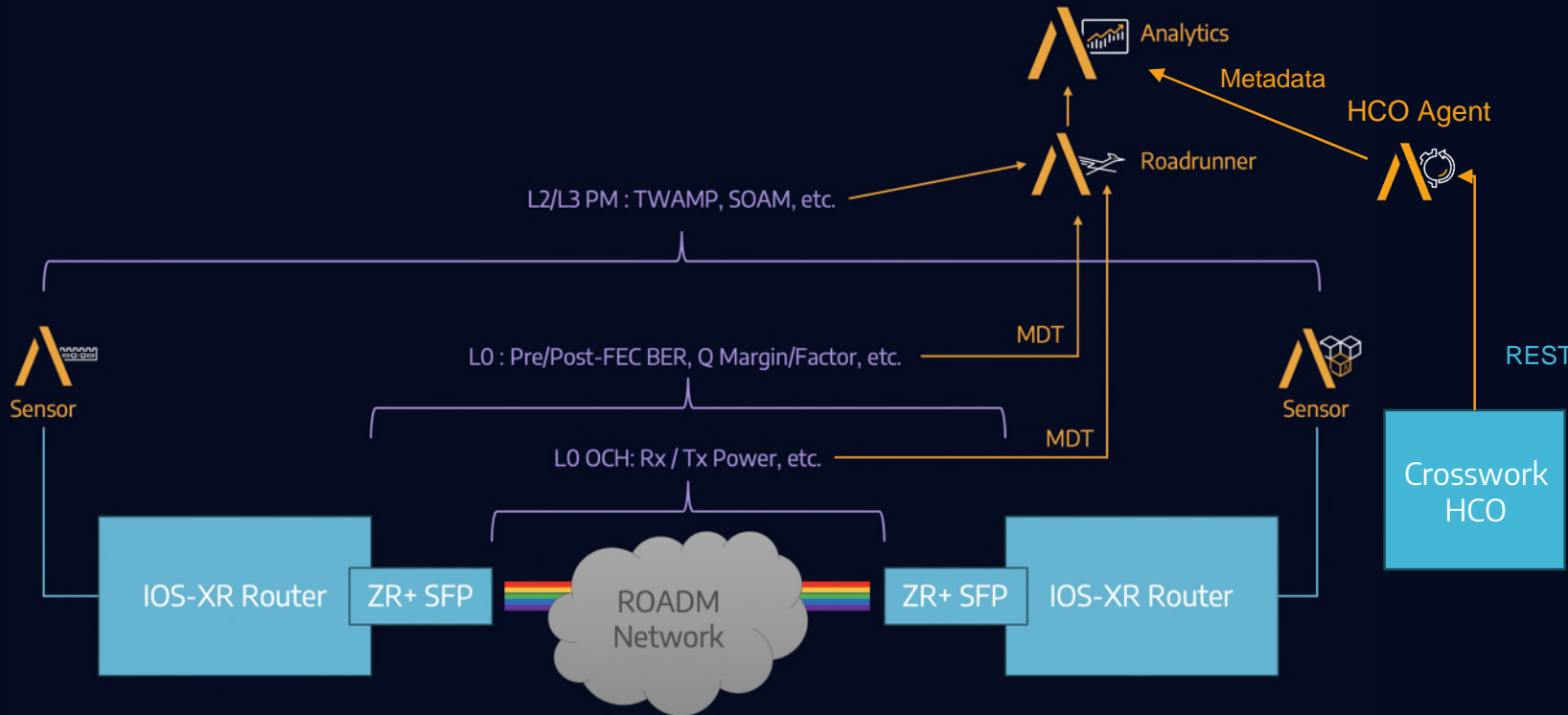- How
  - REST API to Cisco Green App for Power & CO2 data on a per-service basis
- When
  - Prototyping now, TBD for availability

Cisco Dependency:
Cisco Green VPN App

Skylight RON/HCO Integration

Cisco Dependency:
RON, HCO/HCH

Ping me to get this one!

- **What**
  - Integration with Cisco Routed Optical Networking (RON) and Crosswork Hierarchical Controller (HCO/CHC)

- **Why**
  - Single pane of glass for L0-L3 performance assurance, and path diversity assurance

- **How**
  - Integrate RON data via MDT, HCO via APIs

- **When**
  - Prototyping now, TBD
  - Cisco/Vodafone MWC 2024

3: Skylight on Cisco Platforms

Skylight on Cisco Platforms

- If you use Cisco routing platforms, you can deploy Skylight sensors on these platforms directly
  - Sensor agents (software)
  - SFP compute (hardware)

- Benefits include:
  - Leverage your existing Cisco deployed base as a platform to host assurance sensors/probes, reducing cost and simplifying deployment
  - Supported by Cisco

Skylight Agents on IOS

- What
  - Formal support of agents on IOS-XR / IOS-XE in the third-party application (TPA) runtime
  - (Future) Skylight agents as IOS native applications
- Why
  - Allow Skylight sensor agents to be deployed anywhere there is a Cisco router
  - Be able to have our agents deployed on any Cisco router, and have this be formally be supported by Cisco
- How
  - Cisco app manager for TPA
- When
  - Prototype now, Cisco certification TBD

Cisco Dependency:
IOS-XR/XE with TPA

Skylight SFPs on IOS

- What
  - Formal support for our SFP compute in Cisco IOS routers
- Why
  - Insert an SFP anywhere there is a Cisco router, for accurate and granular performance visibility
  - So our SFPs are certified and supported by Cisco
- How
  - Certification testing
- When
  - Works now (over 15k deployed in the field today), Cisco certification TBD

Cisco Dependency:
IOS Devices with SFPs

Summary

Skylight and Cisco are Better Together

Data

Single pane of glass for Cisco telemetry data and Skylight performance data, reducing cost and improving network performance visibility

Sensors

Deploy Skylight sensors on Cisco routing platforms, leveraging your existing investment in Cisco platforms to host performance assurance

Automation

Automate assurance deployment, reducing cost and improving outcomes

LEVEL UP

SKYLIGHT SUMMIT 2023

Thank You!

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