

Modernizing and Securing Industrial Networks

With Cisco Industrial Internet of Things



Industrial IoT Product Management

Extending IT to Industrial Environments



Campus & Branch

Warehouses

Distribution Center

Parking Lots

Airport

Port

Factories

Utility Substations

Roadways

Defense

Oil & Gas Refinery

Mines

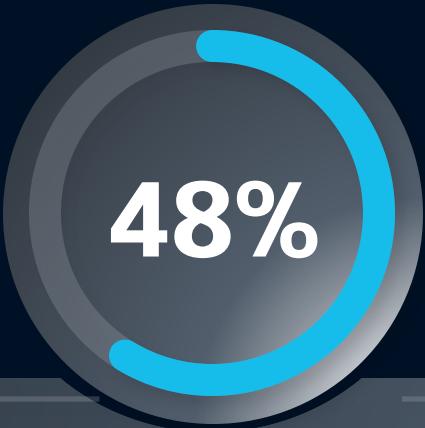
Consistent Network and Security Architecture
IOS-XE, Catalyst Center, SD-WAN Manager

What Manufacturers are telling us

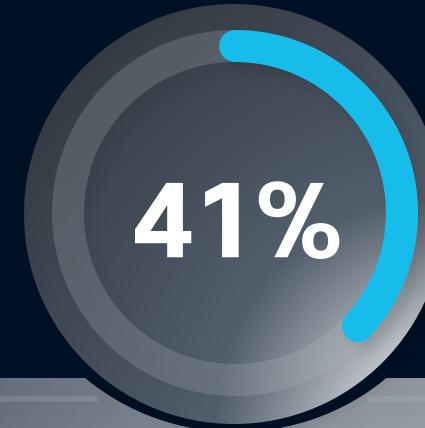
Results from our Voice of the Customer Survey with 1000+ participants



Describe **cybersecurity compliance** as critical for their operational network¹



Say AI will have the greatest impact on industrial networking over the next 5 years¹



of IT and OT teams are working independently¹

1. Cisco, Cisco 2024 State of Industrial Networking Report, 2024

AI Use Cases in Industrial



Machine vision

Making machines smarter
Improving production quality & safety
AI models to see beyond visible



Industrial control virtualization

PLCs and RTUs in virtual machines
Decoupling machine software and hardware to save opex and capex



Industrial data collection

Digital twins & Predictive models
Preventative maintenance
Quality & Sustainability goals



Tele-remote operations

Operating remote machines in harsh environments (mines, ports, oil & gas)
Increasing safety & productivity



AI robotics and cobots

Using AI to control robots
Moving CPU/GPU workload to datacenter for elasticity and scale

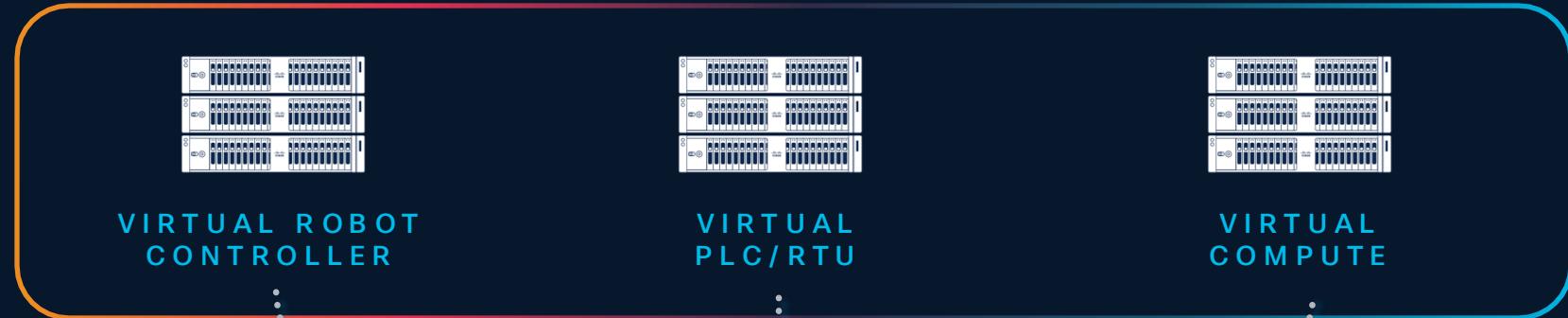


Autonomous vehicles

Enhancing productivity in mines, warehouses, manufacturing, etc.
Operations scalability & agility

The Infrastructure is Key to Unlocking AI Potential

Brains
in the data center



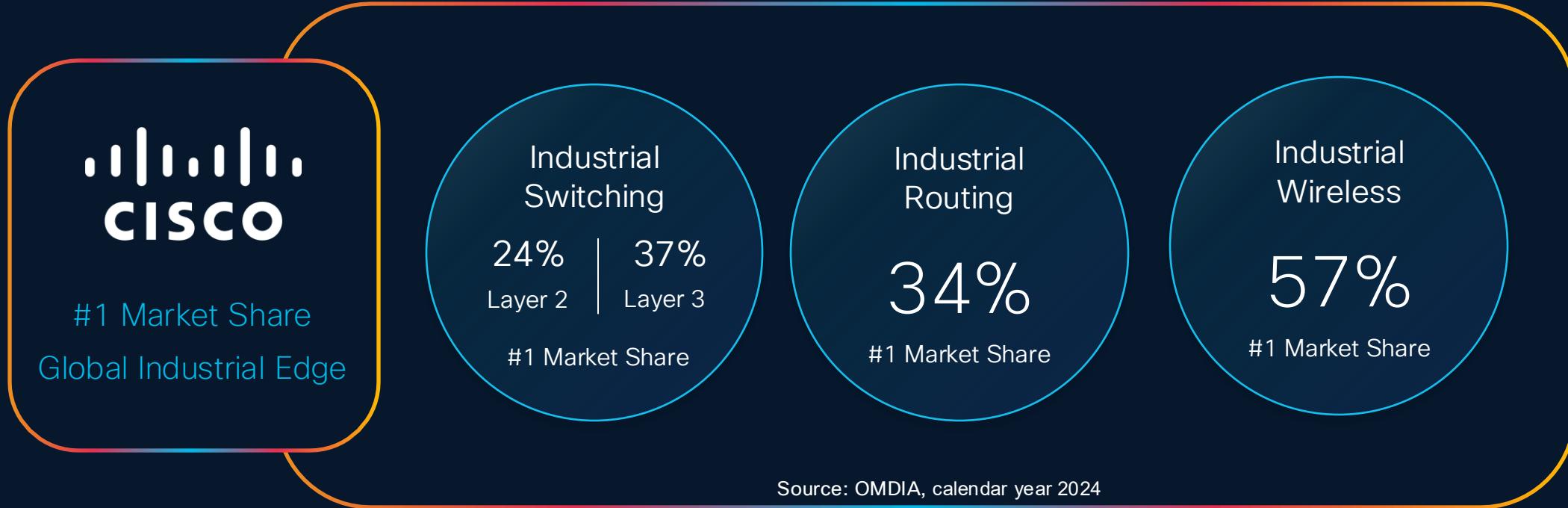
Nervous system
is the network



Physical components
in the field



Cisco is the Industrial Networking Market Leader



Industrial IoT
Company of the Year 2025

Bringing the best of IT and OT together

Industrial Grade

Purpose built for operations

+

Enterprise IT Grade

Best of IT innovations



Catalyst Center



Cisco IOS® XE

Enabling OT modernization has become an IT priority

Announcing 19 new switches joining Cisco's leading portfolio

DIN-rail Portfolio



IP67 Portfolio



Rackmount Portfolio



IE3500 Series Switches

Base



IE-3500-8T3S

8x 1GE ports
3x 1GE SFP ports



IE-3500-8P3S

8x PoE/PoE+
3x 1GE SFP ports
360W PoE Budget

Advance



IE-3505-8T3S

8x 1GE ports & 3x 1GE SFP ports
HSR/PRP/DLR



IE-3505-8P3S

8x PoE/PoE+ 3x 1GE SFP ports
HSR/PRP/DLR
480W PoE budget

10G/4PPoE



IE-3500-8T3X

8x 1GE ports
3x 10G SFP ports



IE-3500-8U3X

8x PoE/PoE+/4PPoE (90W)
3x 10G SFP ports
480W PoE budget

Expansion Modules



IEM-3500-6T2S

6x 1GE ports
2x 1GE SFP ports



IEM-3500-8T

8x 1GE ports



IEM-3500-8P

8x PoE/PoE+



IEM-3500-8S

8x 1GE SFP



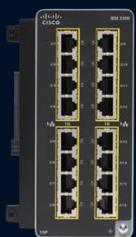
IEM-3500-14T2S

14x 1GE ports
2x 1GE SFP ports



IEM-3500-16T

16x 1GE ports



IEM-3500-16P

16x PoE/PoE+



IEM-3500-4MU

4x 2.5G
PoE/PoE+/
4PPoE (90W)

IE3500H Heavy Duty Series Switches

PoE



IE-3500H-14P2T

2x 1GE ports
14x 1GE PoE ports
240W PoE Budget



IE-3500H-12P2MU2X

2x 10G SFP
2x 2.5G PoE+/PoE+/
4PPoE (60W)
12x GE PoE/PoE+
240W PoE Budget

FE w/ GE Uplinks



IE-3500H-12FT4T

12x FE D Code ports
4x 1GE X Code ports



IE-3500H-20FT4T

20x FE D Code ports
4x 1GE X Code ports

Full GE



IE-3500H-8T

8x 1GE port
M12 X-Code



IE-3500H-16T

16x 1GE ports
M12 X-Code

Adv.



IE-3500H-24T

24x 1GE ports
M12 X-Code



IE-3505H-16T

16x 1GE X-Code ports
HSR/PRP/DLR

IE3100 Series Switches

IE3100 Base



IE-3100-4T2S

4x 1GE ports
2x 1GE SFP ports



IE-3100-8T2C

8x 1GE ports
2x 1GE Combo ports



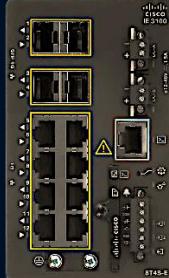
IE-3105-8T2C

8x 1GE ports
2x 1GE Combo ports



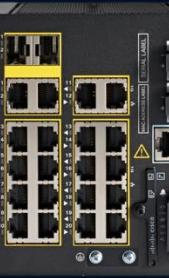
IE-3100-18T2S

18x 1GE ports
2x 1GE Combo ports



IE-3100-8T4S

8x 1GE ports
4x 1GE SFP ports



IE-3105-18T2C

18x 1GE ports
2x 1GE Combo ports

IE3100 PoE



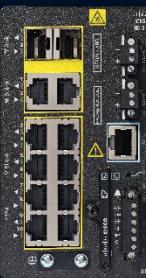
IE-3100-4P2S

4x PoE/PoE+
2x 1GE SFP ports
120W PoE Budget



IE-3100-3P1U2S

3x PoE/PoE+, 1x 4PPoE (90W)
2x 1GE SFP ports
120W PoE Budget



IE-3100-8P2C

8x PoE/PoE+
2x 1GE Combo ports
240W PoE Budget



IE-3100-6P2U2C

6x PoE/PoE+, 2x 4PPoE (90W)
2x 1GE Combo ports
240W PoE Budget

IP67



IE-3100H-6FT2T

6x FE ports (M12 D-Code)
2x 1GE ports (M12 X-Code)



IE-3100H-8T

8x 1GE ports (M12 X-Code)

New IE9300 Series with Mixed Ports



Comprehensive connectivity
8x 1GE SFP plus 4x 10G SFP uplinks
16x 1GE with PoE/PoE+



High performance networking
Enterprise-grade Cisco silicon for fiber
ring aggregation and high throughput



Cyber resilient
Cyber visibility, zero-trust enforcement,
and observability built-in

The most versatile rugged rackmount switch for industrial settings where copper and fiber are needed

Catalyst Center

Leverage your IT investments to gain efficiencies in OT



Catalyst Center

Network Snapshot

Sites As of Jun 1, 2025 12:56 AM 51 Add Sites

Network Devices As of Jun 1, 2025 12:56 AM 61 Find New Devices

Application QoS Policies As of Jun 1, 2025 1:00 AM 0 Add New Policy

Successful Deployments: 0
Errored Deployments: 0
Stale Policies: 0

Network Profiles As of Jun 1, 2025 12:56 AM 7 Manage Profiles

AI Endpoint Analytics As of Jun 1, 2025 1:00 AM 48 Total Endpoints

Fully Profiled Endpoints: 15%
Partially Profiled Endpoints: 83%
Unprofiled Endpoints: 2%
Trust Score Alerts: 0
AI Proposed Rules: 0

View Details

Images As of Jun 1, 2025 12:56 AM 18 Import Images/SMUs

Untagged Images: 9
Unverified Images: 1

EoX Status Last Scan: May 27, 2025 6:40 PM | Next Scan: Jun 3, 2025 6:39 PM 70 Alerts

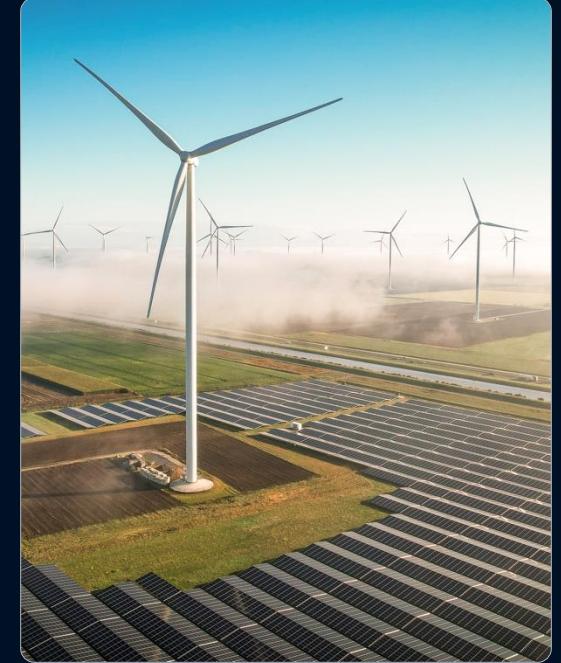
Hardware: 19
Software: 31
Module: 20

Cisco Licensed Devices As of Jun 1, 2025 12:56 AM 12 Manage Licenses

Success: 14
In Progress: 0
Failure: 17

Switches: 10
Routers: 0
Wireless: 2

Industries need ultra reliable, low latency wireless



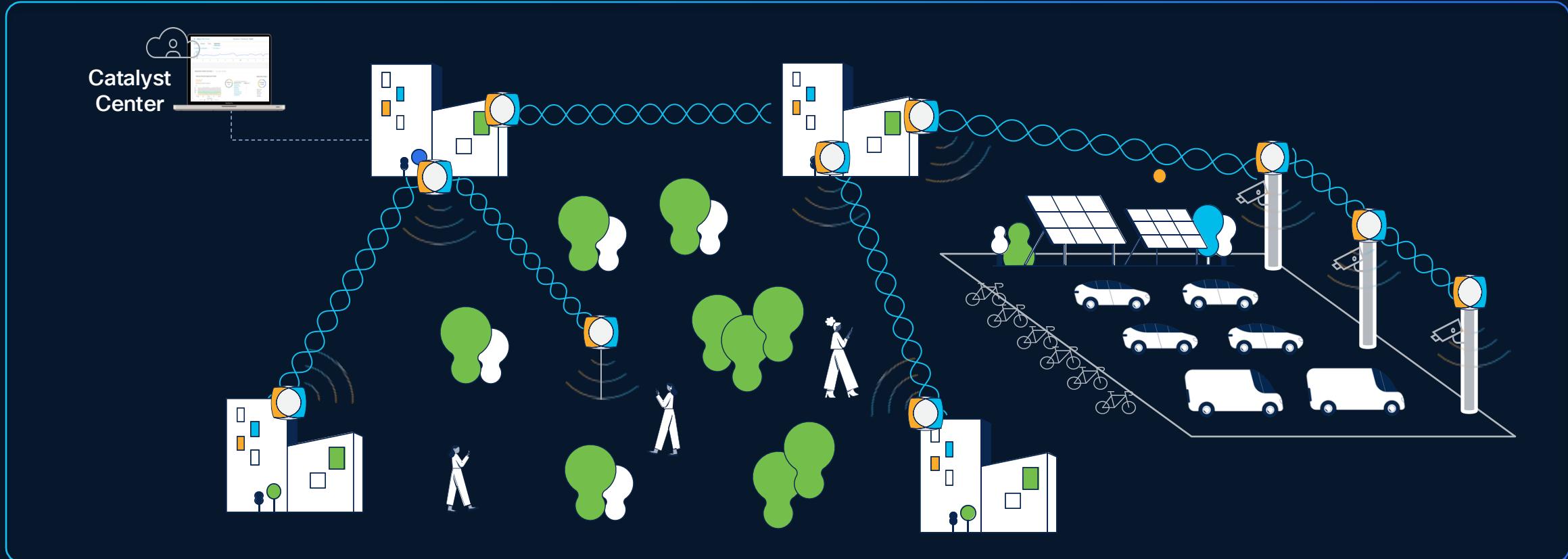
Automated Guided Vehicles (AGVs) and cobots

Tele-remote operations in mines and ports

Communications-based train control (CBTC) in rail

Connectivity where wired options unavailable or prohibitively expensive

Industrial Wireless in Extended Enterprise



✓ Outdoor Wi-Fi connectivity

✓ Building-to-building connectivity

✓ Video surveillance for public safety

✓ Connected parking lots

Indoor, Outdoor and Industrial Wireless

Wi-Fi 7



CW9176I,
CW9176D1



CW9178I

Wi-Fi 6E



CW9136I



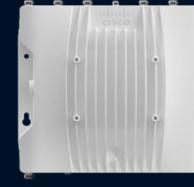
CW9166I,
CW9166D1



IW9165E



IW9165D



IW9167E
IW9167E-HZ



IW9167I

Wi-Fi 6



C9130
(AXE, AXI)



C9124
(AXE, AXI, AXD)

Complete Industrial Routing Portfolio

Optimized for securing remote critical networks

Utilities: Distribution
Automation, Roadways,
Oil & Gas



Catalyst
IR1800

Utilities: Substation,
Track/Railside



Catalyst
IR8300

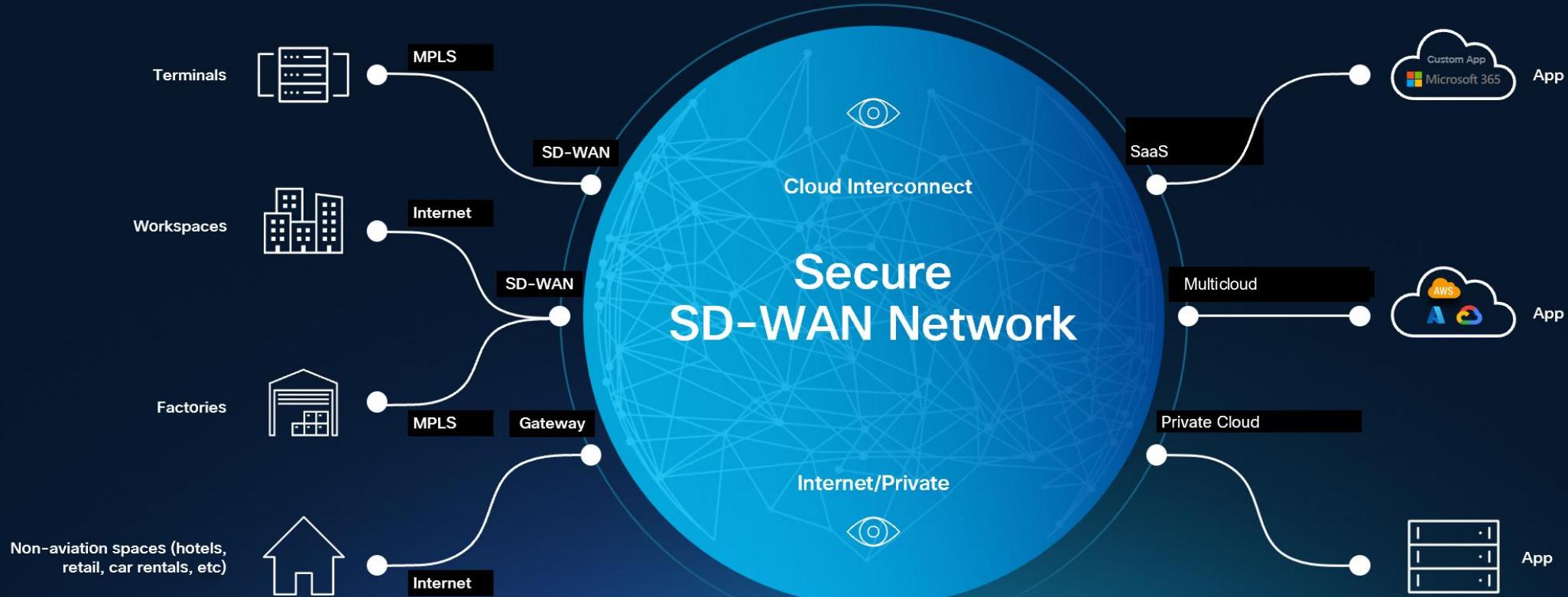
Utilities: Advanced
Metering Infrastructure



Catalyst
IR8100H

Extending Cisco beyond the campus and branch office with rugged, 5G, LTE, fiber powered secure routers

Leverage the best of network efficiency with Catalyst SD-WAN



✓ AI-powered path optimizations

✓ Multi-Vendor, Multi-Cloud, Multi-Region

✓ Data Sovereignty

Leverage the best of network efficiency with Catalyst SD-WAN

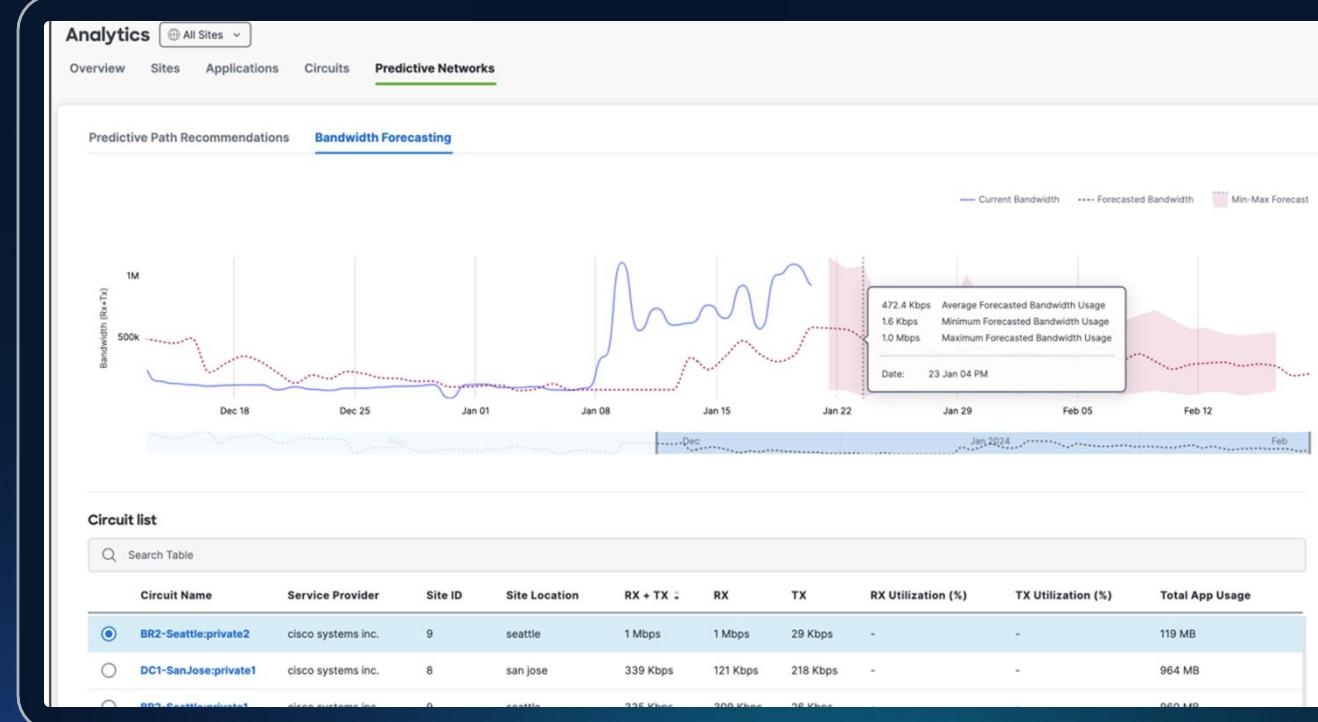


Bridge IT/OT with SD-WAN, and keep the network running

AI-powered Bandwidth Forecasting

Monitor usage
trends for
capacity planning

Get a better
understanding of
growth trends,
seasonality, surge,
min/max band, and
performance

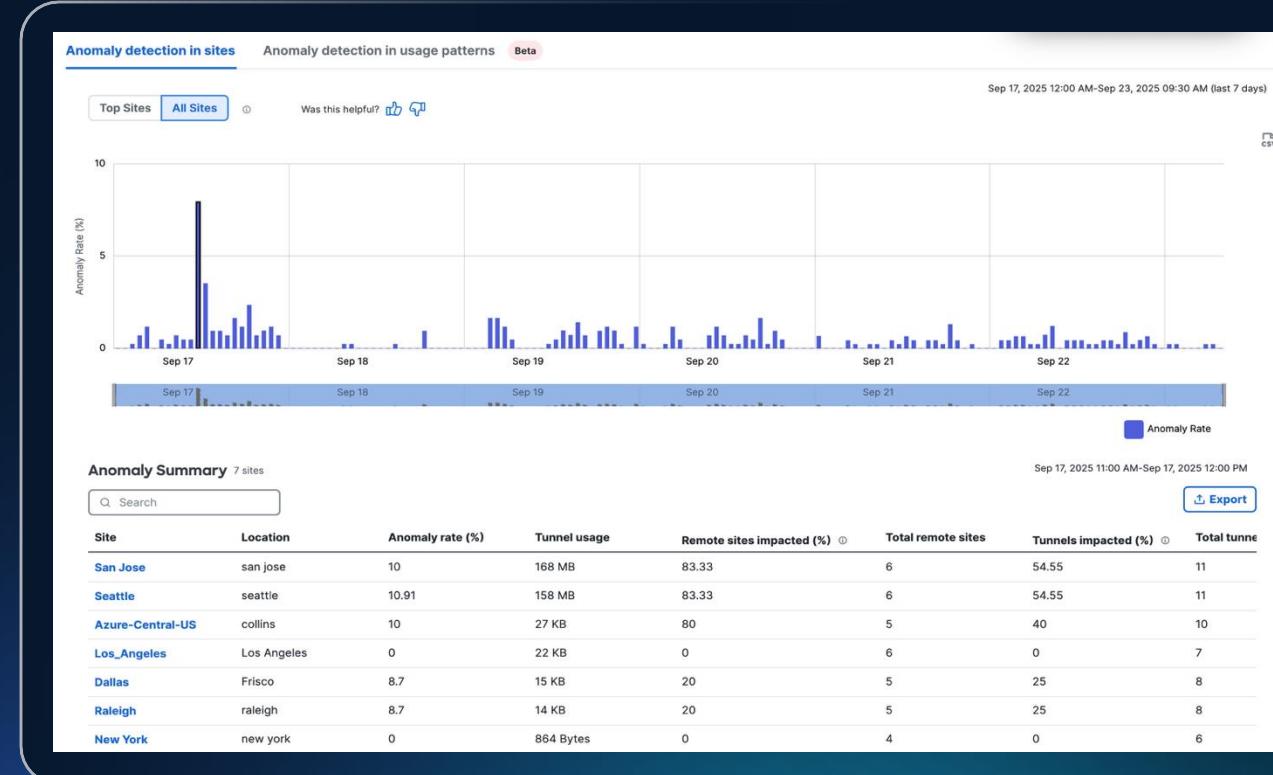


AI-powered Anomaly Detection

Identify unusual patterns in network metrics* & cellular usage** before they manifest into larger issues

Fine-tune your network to improve end-user experience

Streamline operations & reduce downtime



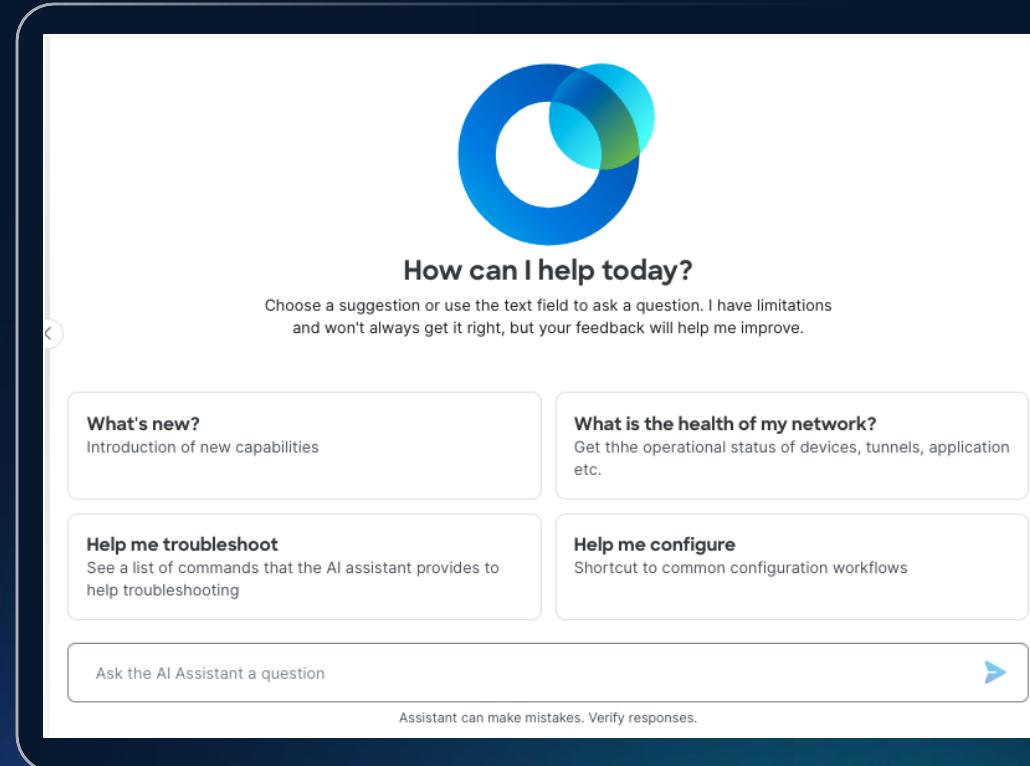
AI Assistant

Conversational,
intuitive interface to
help with operations

Contextual
documentation help

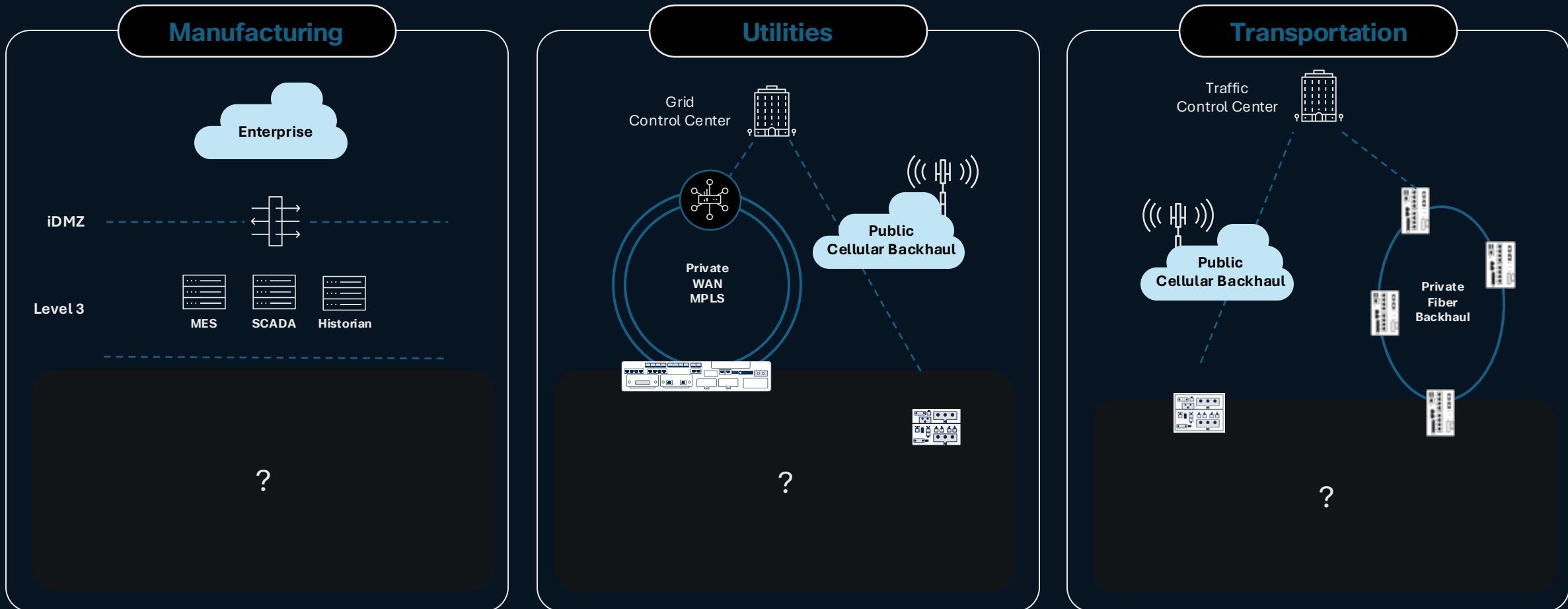
Troubleshooting
assistance

TAC case
management



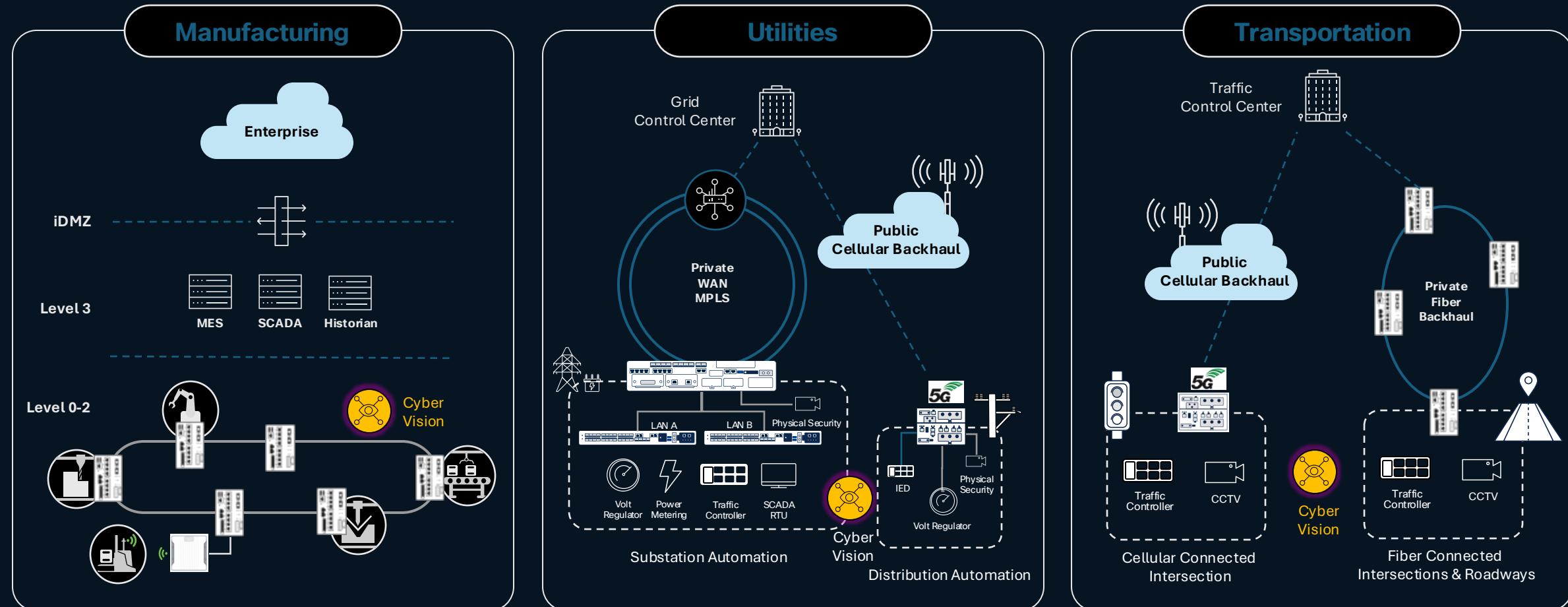
Catalyst WAN Manager: Private Beta

Security starts with visibility but where you look matters



Security starts with visibility

Cyber Vision extends OT asset visibility and threat detection



Leave no asset behind

OT security posture Asset Visibility

Cisco Cyber Vision

Vulnerability Detection

Identify known asset vulnerabilities so you can patch or protect them before they are exploited

Risk Scoring

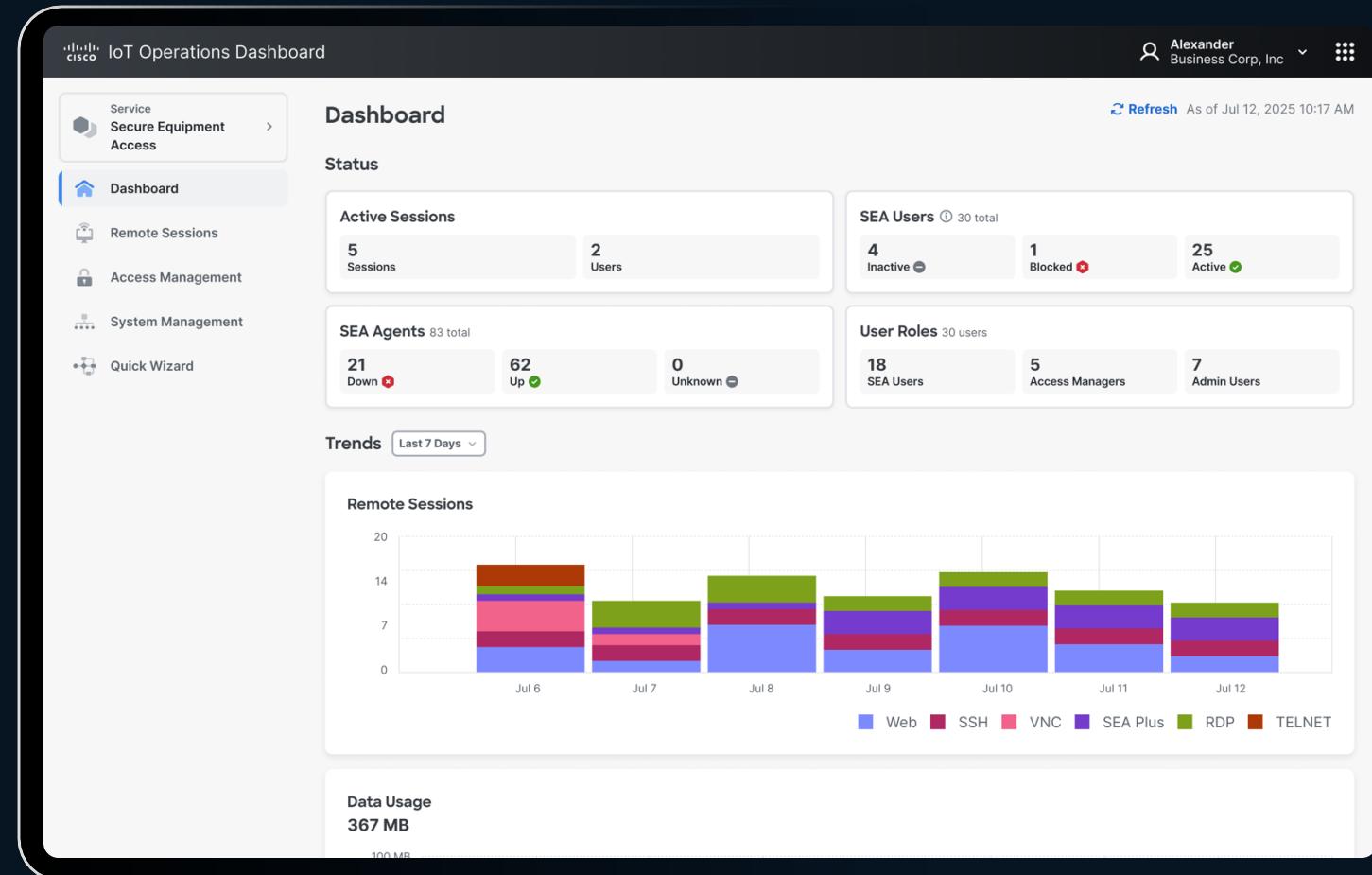
Risk scoring for assets, production cells and sites, to help prioritize action and improve governance



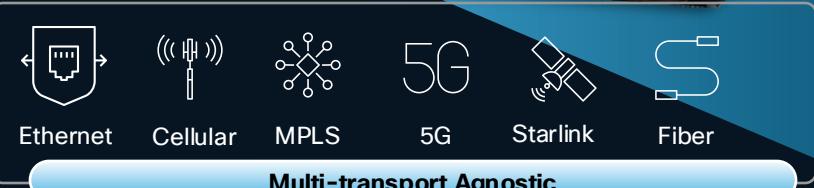
Secure remote login to assets

Secure Equipment Access

- ✓ Secure login with MFA, SSO, and remote user identity threat detection
- ✓ Role based access control - Remote users only see assets you expose to them
- ✓ Grant access on-demand or within a scheduled window
- ✓ Session recording, monitoring, and kill
- ✓ Send files remotely and securely to the remote asset



Secure the edge, Manage at Scale with Cisco SD-WAN



+

Cisco Security built-in



Application Firewall

>5000 layer 7 apps classified (1500 on box)



Cyber Vision

OT asset visibility and vulnerability detection



DoS Protection

Protection against denial-of-service attacks



TrustSec

End-to-end micro-segmentation



URL Filtering

Custom Domains & Web Reputation Score



Advanced Malware Protection

File Reputation & Sandboxing



Snort IDS/IPS

Most widely deployed IPS engine in the world



SSL Decryption

Detect Threats in Encrypted Traffic

IR8340 Only



Secure Access Service Edge

SASE with Cisco Secure Access

Proactively stay ahead of alerts

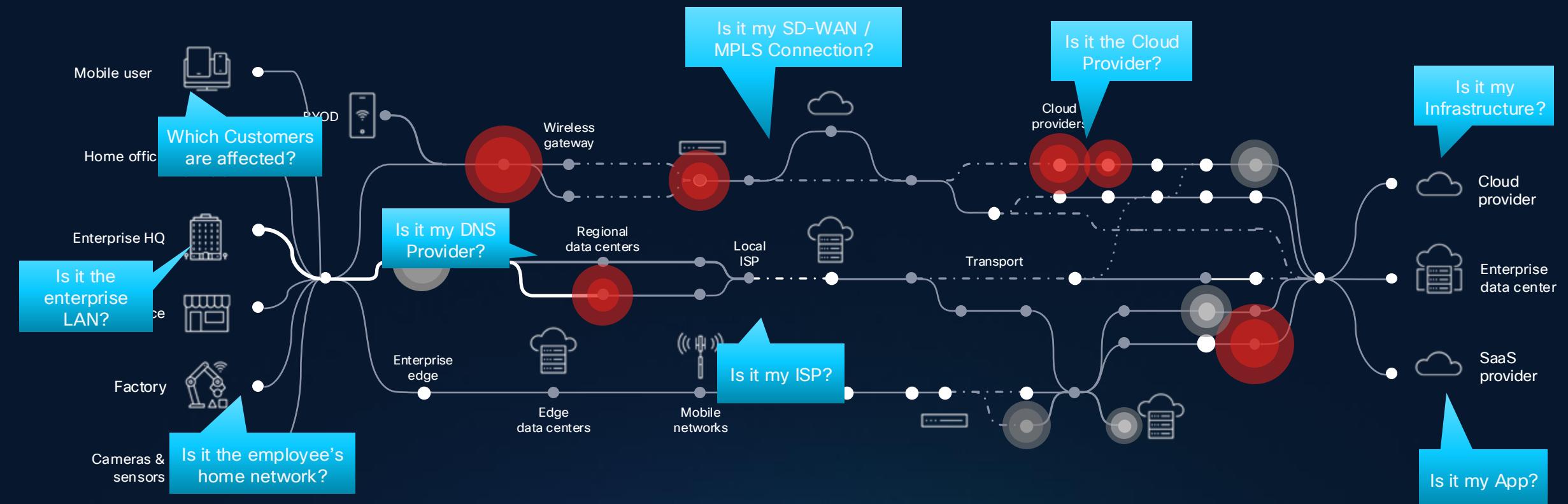
Actionable insights on
Security Advisories and **Field
Notices** applicable to your
SD-WAN fabric

The screenshot shows a web-based interface for managing a SD-WAN fabric. The main page displays a list of advisories and field notices. A modal window is open, providing detailed information about a specific advisory. The modal includes fields for Site (8), Reachability (Reachable), and tabs for Affected advisories (0) and Potentially affected advisories (9). The list of advisories in the modal includes:

Advisory ID	Advisory title	CVSS score	Severity
cisco-sa-caf-3dXM8exv	Cisco IOx Application Framework Arbitrary File Creation Vulnerability	8.1	High
cisco-sa-c9300-spi-ace-yejYgnNQ	Cisco IOS XE Software for Cisco Catalyst 9300 Series Switches Secure Boot Bypass Vulnerability	6.1	High
cisco-sa-ratenat-pYLA7wM	Cisco IOS XE Software Rate Limiting Network Address Translation Denial of Service Vulnerability	8.6	High

Troubleshooting through Fragmented networks

Clarity into exact area of outage



Deploy Thousand Eyes from SD-WAN manager for assurance and visibility from edge to cloud applications

Digitize your industrial network leveraging the best of SD-WAN

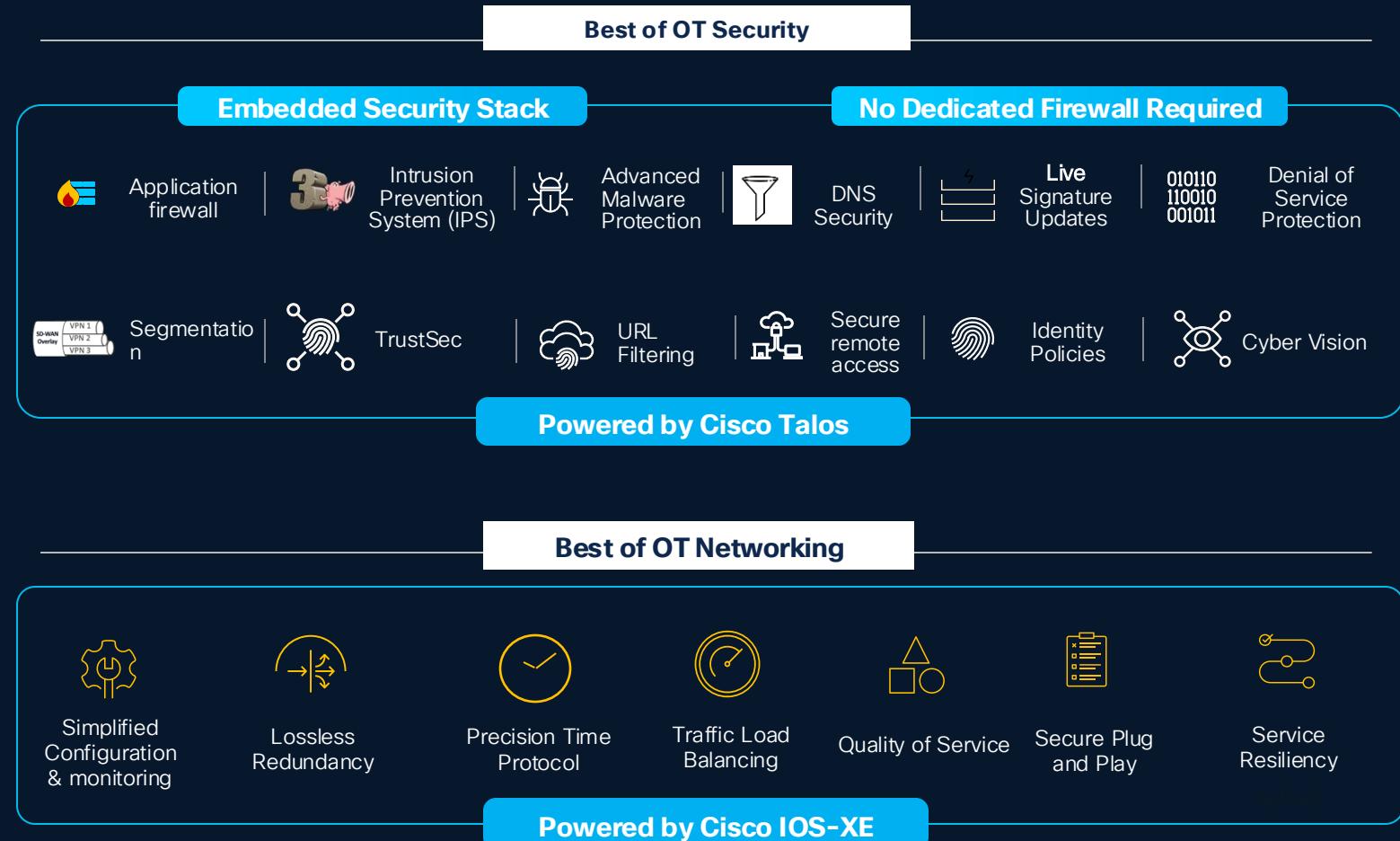


AIOPS With Secure SD-WAN

Best of OT Insights



Trust Anchor Module | Secure Boot



Takeaways

20+ years in Industrial
Networking

Extend Enterprise IT to
Industrial Networks

End-to-end
Network Visibility

Modernize and Secure with Cisco Industrial Networks