Future Proofing Workplaces: Cisco IT leaping into the AI era

ITLGEN-2007

cisco Live !

IT Leadership Program

Jackie Li
Leader, Technical Systems Engineering, Cisco

Recap2025

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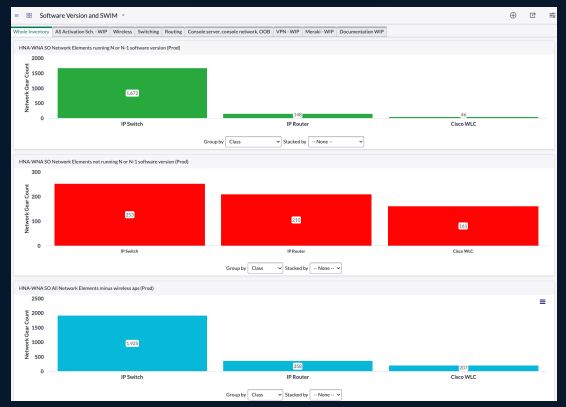
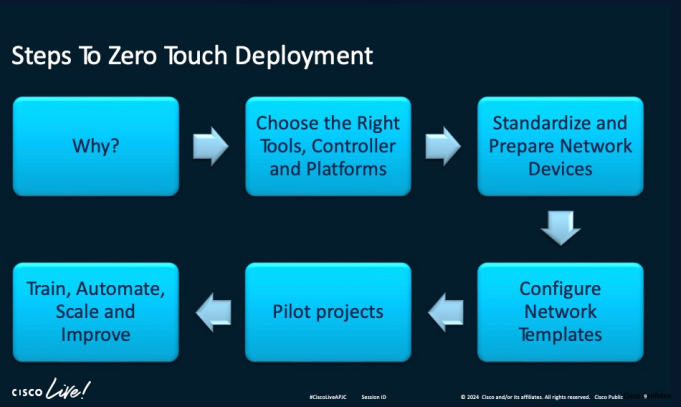
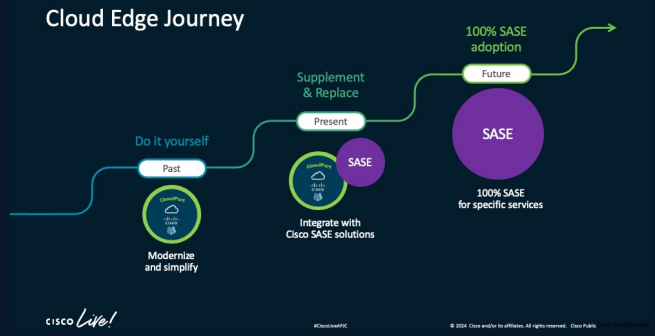
SWIM

CYCLE

RUN







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Agenda

01 Recap

02 What are we future proofing?

03 AI in networking

04 AI Assistants

05 AI Around Us

06 Mindset – Make it Habit

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How far have we come?

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Workplace

1970 -1980s

1990s - 2000

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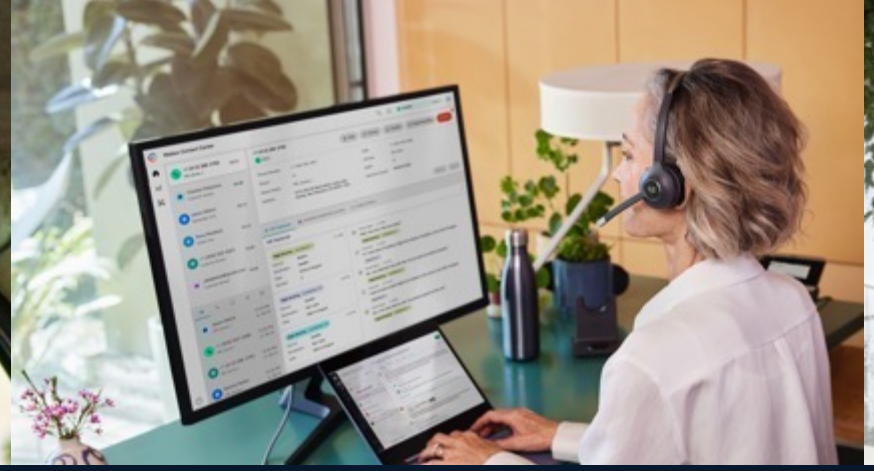

Workplaces

Anywhere people and technology work and serve customers

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What will it look like in 2050?

Main Themes

- Advanced Visualisation, collaborative work
- Work pods
- Holographic Meetings and Telepresence
- Human Centric and Wellness focused environments
- Robotics and AI Assistants

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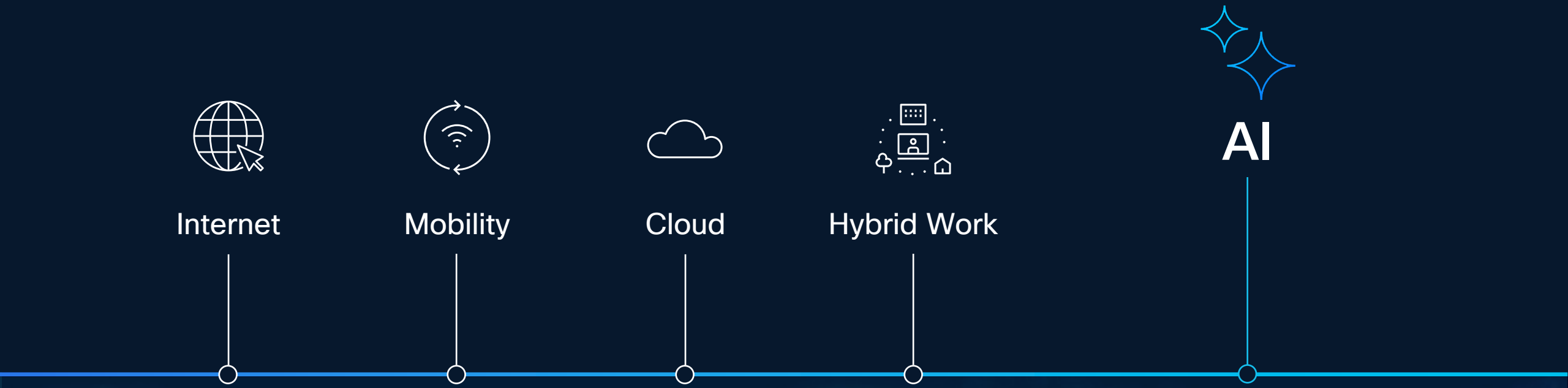
Every major technology disruption changes the workplace



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AI Constraints

INFRASTRUCTURE CONSTRAINT

DATA GAP

TRUST DEFICIT

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DATA GAP

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Degrees of Autonomy

High — **Human intervention** — None

AI that does not make decisions

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AI that does makes some decision with predefined scope

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Degrees of Autonomy

High — **Human intervention** — None

AI that does not make decisions

AI that does makes some decision with predefined scope

AI that does makes decision autonomously

Low — **Trust** — High

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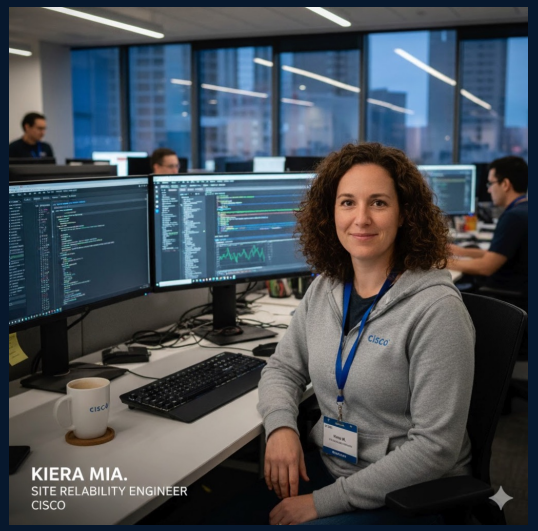
Meet



Kiera M

A Site Reliability Engineer at Cisco with a strong background in network infrastructure and cloud platforms. She is known for her calm demeanour, exceptional problem-solving skills, and her passion for automation. She loved hiking.

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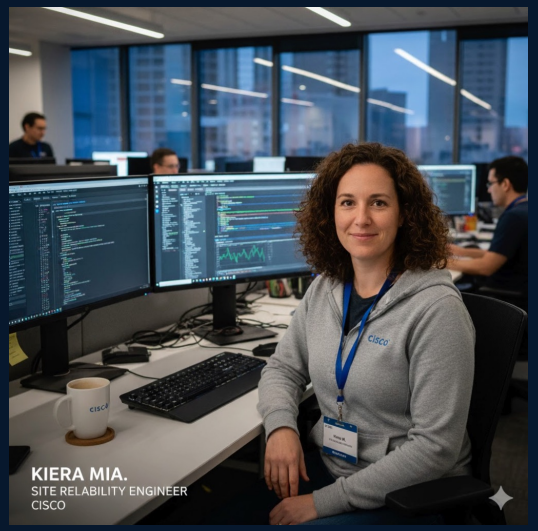
Meet



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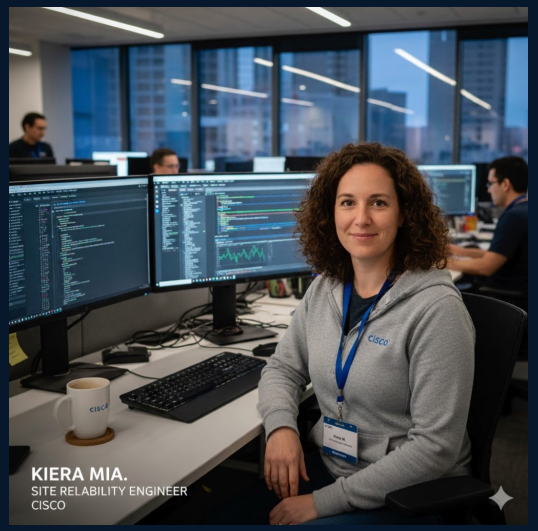

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Artie Lucas

A Sales Account Manager at Cisco, known for his exceptional ability to build and maintain strong client relationships. With a deep understanding of Cisco's product portfolio and the needs of his customers, Artie consistently delivers tailored solutions that drive business growth and customer satisfaction.

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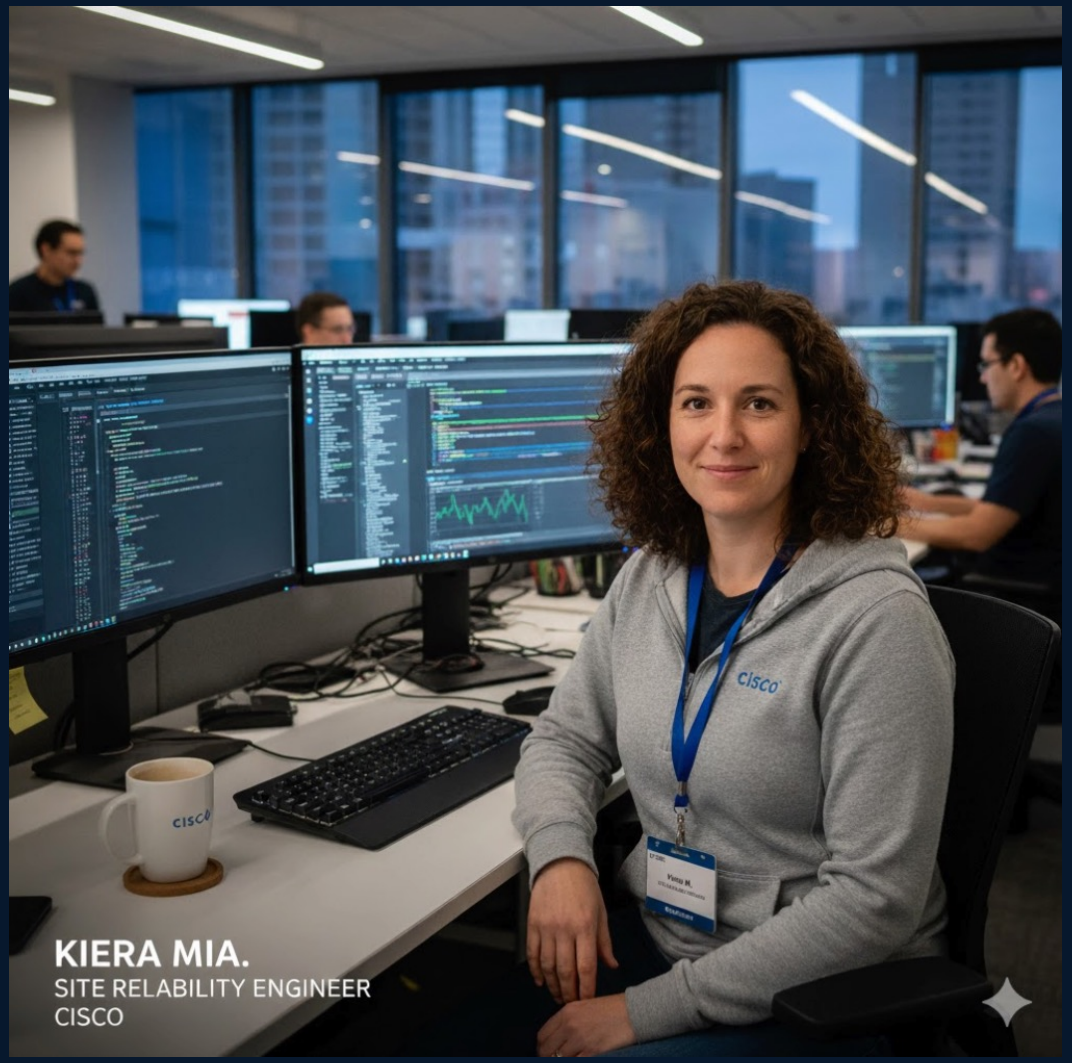
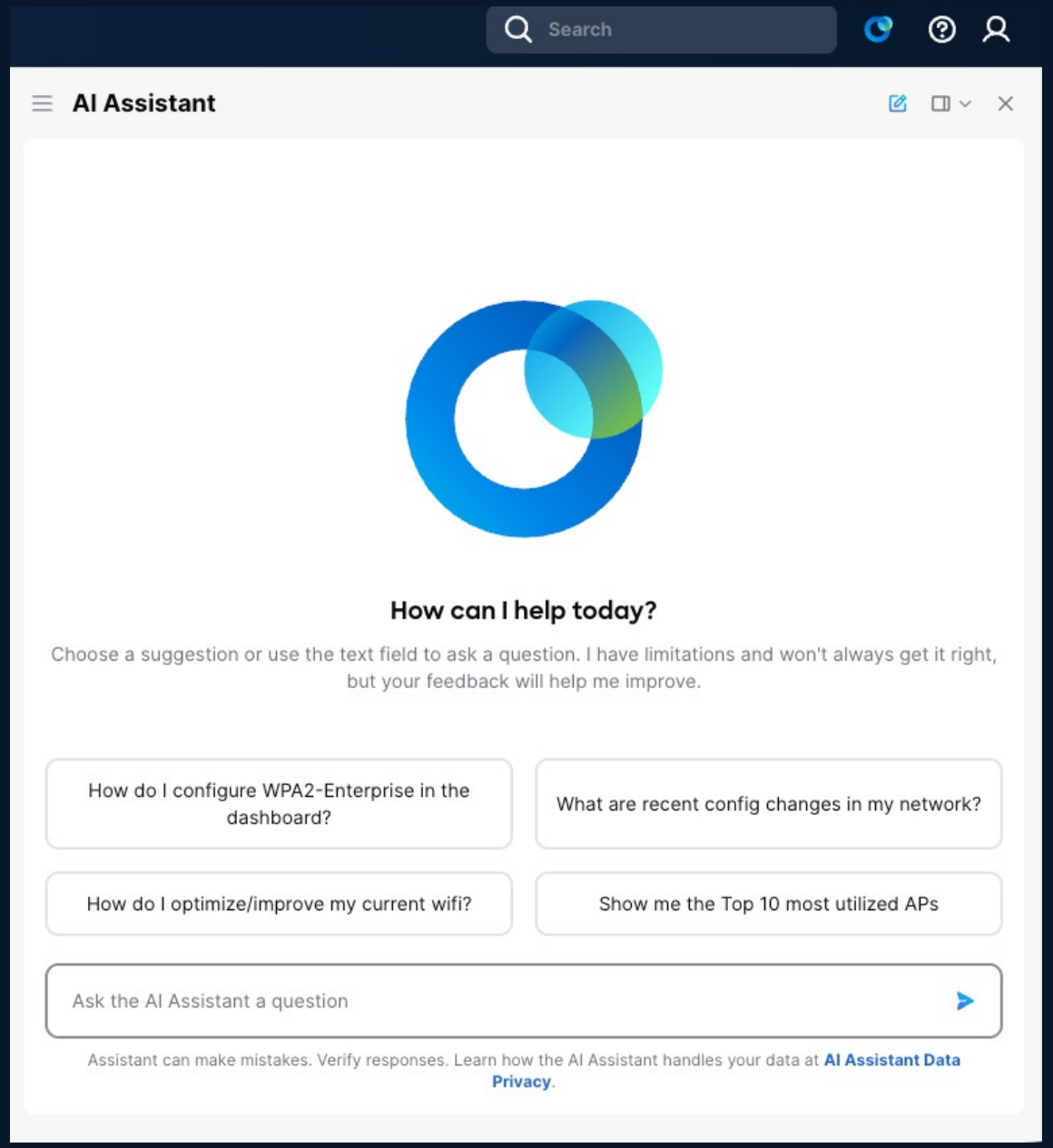
Meraki AI





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What did I miss?

AI Assistant 16:31

Here's a summary of what you missed across all your sites (Cisco Systems NEO HNA) in the last 2 hours:

Organization Health Overview

- Total networks: 82
- Networks in good health: 69
- Networks with issues: 13
  - Poor health: 4 networks
  - Fair health: 9 networks

Networks with Poor Health (Most Impacted)

Network Name	Health Score	Health Label
shn24_wireless	52	Poor
Site1	78	Poor
Site2	83	Poor
Site 3	84	Poor

Networks with Fair Health

Network Name	Health Score	Health Label
Site names	-Profit	90	Fair
	-MERAKI-HUB	90	Fair
	ireless	91	Fair
	eless	91	Fair
	reless	91	Fair
	reless	92	Fair
	reless	93	Fair
	us_wireless	94	Fair
	ERAKI-HUB	94	Fair

Active Alerts

- No active critical alerts
- No active warning alerts

Next Steps

The most urgent issues are in the 4 networks with "Poor" health. I will immediately investigate the most impacted network (shn24_wireless) to identify root causes and provide actionable recommendations.

You can also review all organization-wide alerts and health summaries directly:

- Organization Summary: View Dashboard
- Critical Alerts: View Critical Alerts

PROCEEDING TO DETAILED INVESTIGATION OF SHN24_WIRELESS NETWORK HEALTH... (NEXT RESPONSE WILL PROVIDE ROOT CAUSE ANALYSIS AND TROUBLESHOOTING STEPS FOR THIS SITE)

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Give me more analysis on this network

give me a detailed analysis of shn24_wireless

AI Assistant 16:59

Here is a detailed analysis of the shn24_wireless network for the last 2 hours:

1. Network Health Summary

- Health Score: 58 (Poor)
- Recent Trend: +41 (score improved, but still below healthy threshold)
- No category breakdowns available in summary (client, device, infrastructure, application)

2. Device Health & Events

ACCESS POINT REBOOTS

- All APs in shn24_wireless show only routine boots (standard reboots), except one device (Access point) which had an "unusual" boot event (power event or other).
- No evidence of widespread AP instability.

LOW POWER ALERTS

- No low power alerts detected for APs in this network.

SWITCH & POE/MEMORY/PORT ISSUES

- No switch devices detected in this network. so no PoE, memory, STP, VRRP, storm control, or link error data available.

3. RF Health (Wireless)

- 5 GHz band: 40 impacted radios (CW9166I model APs)
- 2.4 GHz band: 23 impacted radios (CW9166I model APs)
- 6 GHz band: No impacted radios
- Impacted radios are distributed across many APs, suggesting possible RF interference or coverage issues.

4. Client Connectivity

ASSOCIATION OUTCOMES

- All tested clients show successful associations; no association failures detected.

AUTHENTICATION OUTCOMES

- One client (Mac address) had 29 authentication failures on SSID "blizzard" (5 GHz band, AP: Access point).
- Other clients show successful authentications.

DHCP OUTCOMES

- All tested clients show successful DHCP assignments; no failures or warnings.

ROAMING

- No roaming issues detected.

5. Infrastructure Connectivity

- No WAN loss/latency issues detected.
- No VPN tunnel issues detected.
- No switch infrastructure data available (no switches in this network).

6. Application Health

- No ThousandEyes application monitoring data available for this network.

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What are the recommendations?

7. Root Cause Analysis & Recommendations

KEY ISSUE DETECTED

- The main issue is authentication failures for a specific client (MAC: MAC address) on SSID "blizzard" (5 GHz, AP: Access point).
- RF health shows a high number of impacted radios, which may contribute to wireless performance problems.

RECOMMENDATIONS

1. Investigate the authentication failures for client MAC address
   - Check if the client is using correct credentials and security settings.
   - Review AP (Access point) logs for authentication errors.
   - Ensure RADIUS/PSK/802.1X server is reachable and healthy.
2. Address RF health issues:
   - Review channel planning and power settings for CW9166I APs.
   - Check for sources of interference (neighboring WiFi, physical obstructions).
   - Consider a site survey to optimize AP placement and coverage.
3. Monitor AP Access point for further unusual boot events.
4. No action needed for switches, WAN, or DHCP at this time.

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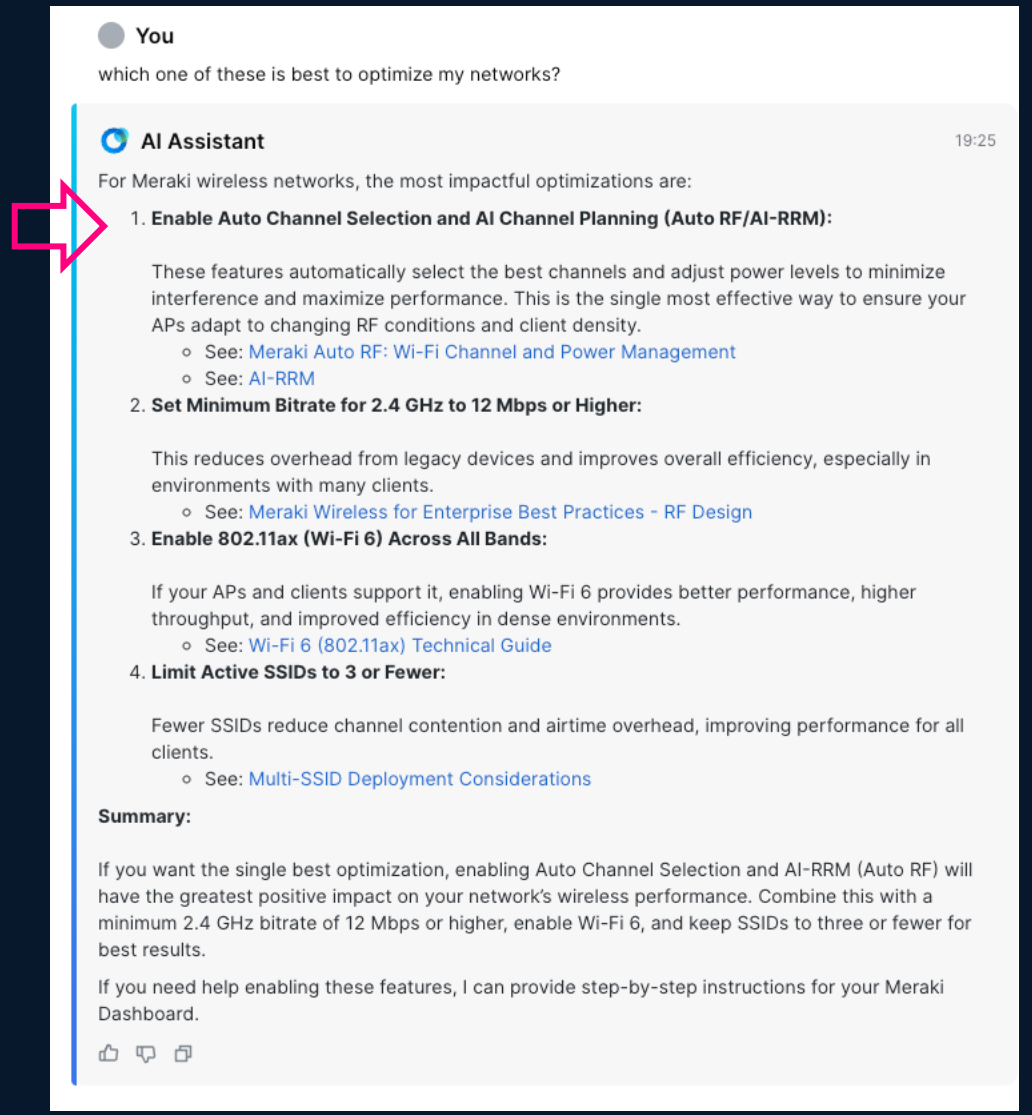
How do I optimise my network?

Turn on AI assistance and AI-RRM



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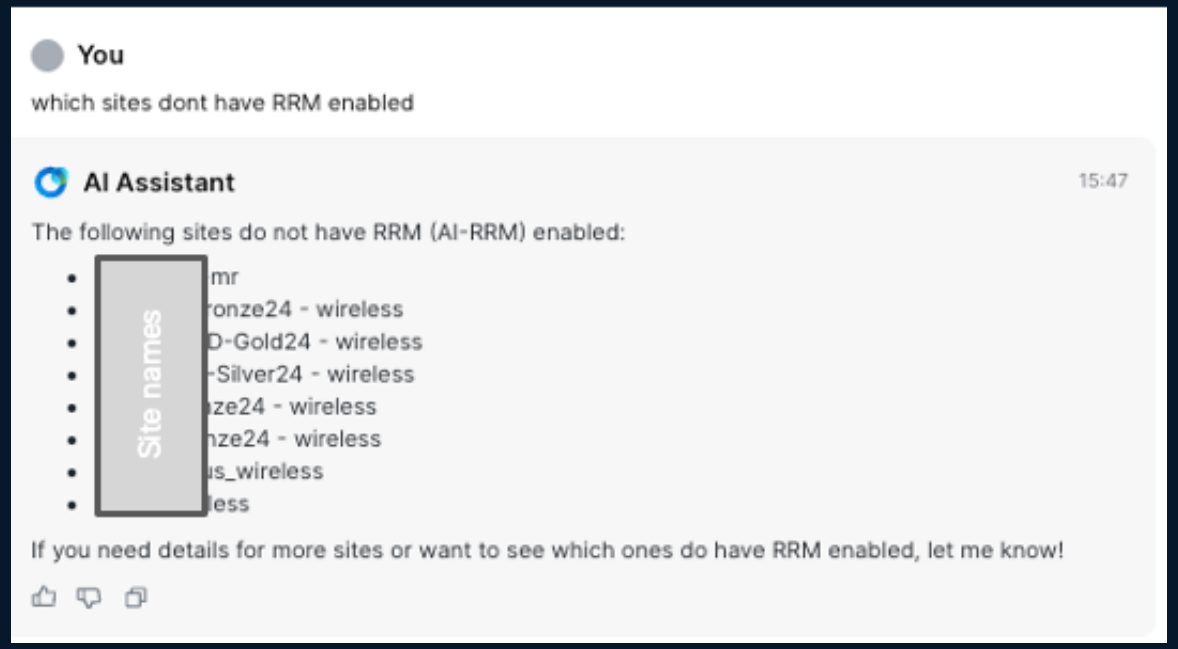
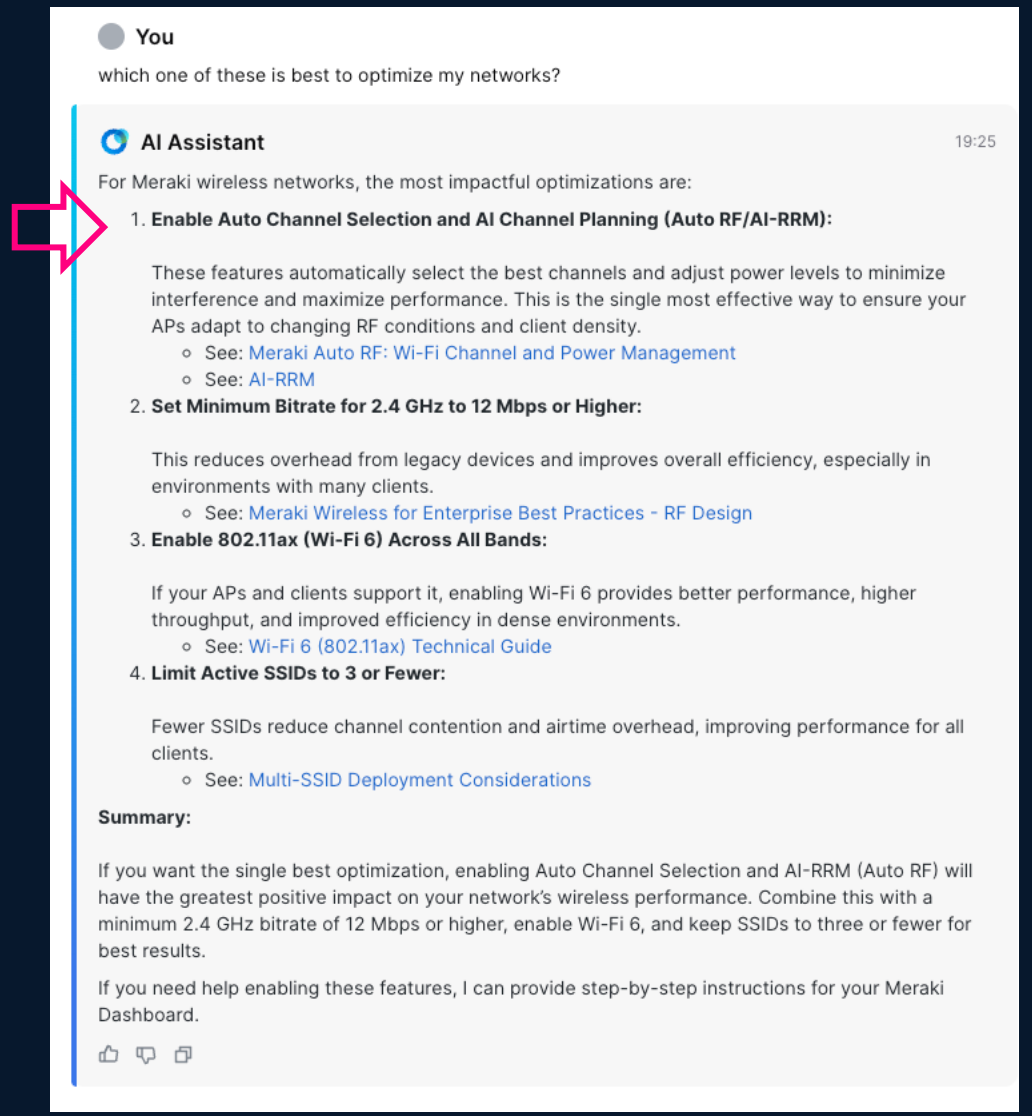
How do I optimise my network?

Turn on AI assistance and AI-RRM

Which sites don't have RRM turned on?





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Neo Assistant

Give me a summary of the Incidents, Stories and approvals that I need to follow up with the teams

NEO Assistant 9:00 am

Good Morning! 🌞

Here's your concise team summary to give you an overview of progress, priorities, and areas needing attention:

👥 Team Overview

- Majority of team members are progressing on active tickets and projects.
- Several high-priority tasks are pending follow-ups, and there are a few stale incidents needing updates.
- No major cross-team dependencies reported today.

🚨 Identified Blockers

1. [redacted] (Jacob): User unable to connect to "Blizzard @ Home" - unresolved after 5 days. Needs urgent action.
2. [redacted] (Martin): AP down and unreachable issue - pending update for 4 days, potential operations escalation.
3. [redacted] (Vi): Troubleshooting partial collection failure - awaiting a follow-up after temporary CLI template implementation (5 days stale).
4. [redacted](Jacob): SNMP Traps documentation remains overdue (3 days since last update).

🎯 Key Tasks by Priority/Project

High Priority

- [redacted]Jacob): Schedule a session for Service owners on templates/standards. No recorded updates.
- [redacted] (Vi): Discovery and standardization of Non-Compliant Trunk Ports (EMEA). Actively in progress.

Medium Priority

- [redacted] & [redacted] (Kelvin): Issues with WLCs/netconf; implementation of [redacted] required.
- [redacted] (William): Non-Compliant Trunk Ports standardization. Ready to start with APJC team.

Low Priority

- [redacted] (Vi): Setting up a generic account for ESP - progressing with setup tasks in prod/dev.

💡 Actionable Insights

1. **Stale Tasks:** Encourage team members to update tickets older than 5 days, especially high-priority incidents.
2. **Cross-team Visibility:** Regularly sync on recurring dependencies (e.g., [redacted] affecting multiple tickets).
3. **Task Distribution:** Jacob and Martin might need additional support to unblock critical customer-facing issues.
4. **Productivity Tip:** Leverage CIRCUIT for automated incident handling to reduce turnaround times.

Let me know if there's anything else you'd like me to focus on. Have a fantastic and productive day! 🚀

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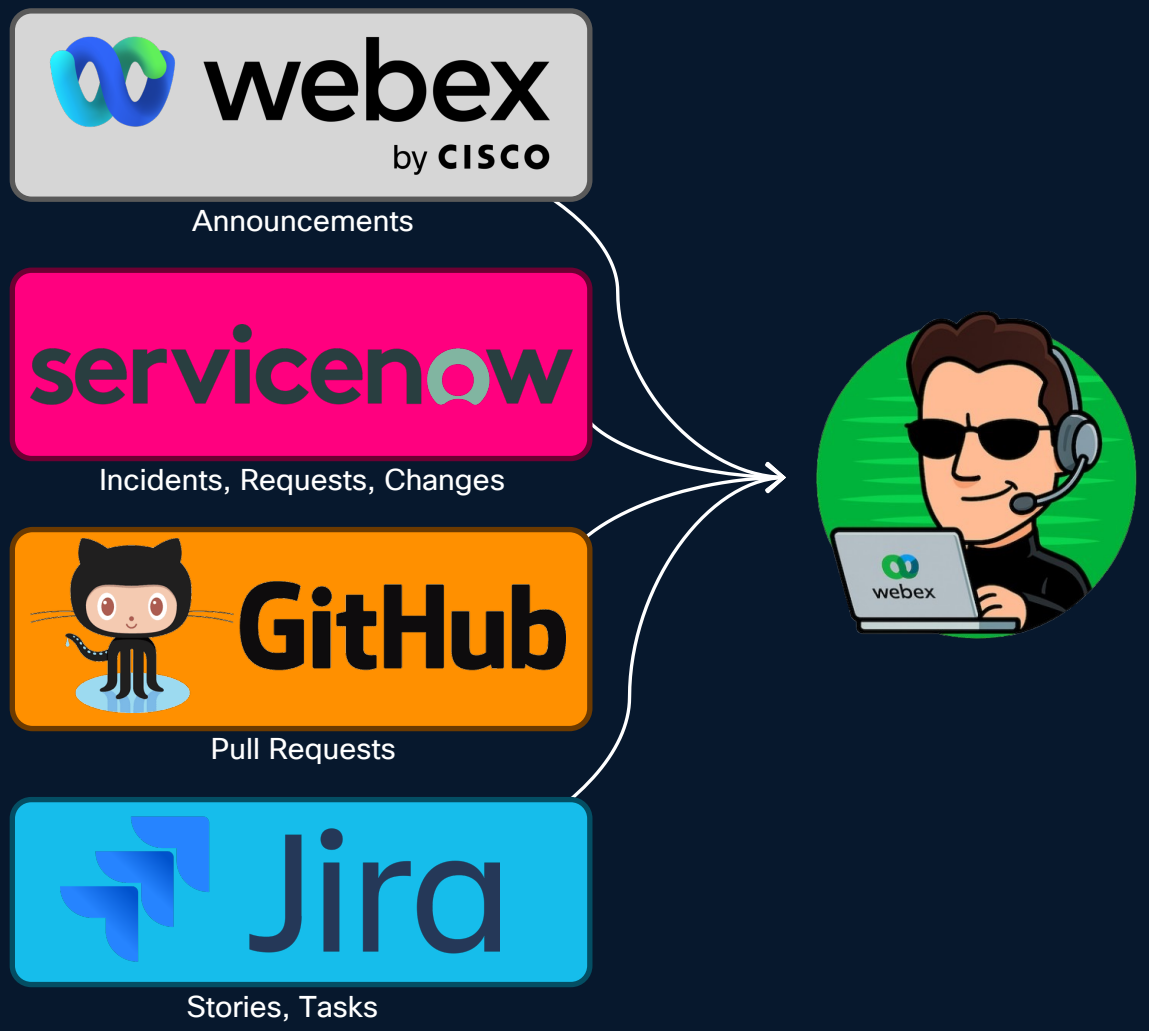
How does it work? Neo Assistant



leader_prompt = {

"base_prompt": "I will provide you with a JSON data dump for a team leader that oversees multiple teams of network engineers and SREs, the data includes metrics from their ServiceNow Service Offerings and reporting groups, as well as JIRA feature and team metrics. Your response should be a daily summary for the leader.",

"system_prompts": [

"Your core task is to analyse the provided JSON data (containing ServiceNow and JIRA metrics) and generate a concise daily summary specifically for the team leader. This summary must help the leader quickly understand the overall performance and health of their teams, identify potential risks or areas needing attention, and offer actionable insights. Provide direct links to tasks where available. Format the output as a Webex message using Markdown. Do NOT wrap the entire output in a code block. Do NOT include AI tips in this summary.",

"The summary must be concise, well-structured with clear headings (e.g., '👥 Team Overview', '🚨 Identified Risks', '🎯 Key Metrics by Service Offering', '📊 JIRA Team Metrics') and begin with a greeting. Maintain a professional yet friendly tone, and incorporate relevant emojis.",

"Ensure to include relevant details of key data points, such as the summary of priority incidents, or upcoming changes - I am not interested in features that are closed and haven't been recently updated.",

"The leader has provided the following specific requests from the message: '{actionable_requests}', ensure these are addressed in your final message and covered under a heading '💡 Custom Actionable Requests'."

],

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How much does this assistance cost?

No. Input tokens Used * Cost per Million tokens +

No. Completion tokens Used * Cost per Million tokens = Cost per user

GPT model	Cost per user per year
GPT-o3	$4.84 USD
GPT-4o	$6.05 USD
GPT-5	$2.56 USD

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What's next?

webex by CISCO

Announcements

servicenow

Incidents, Requests, Changes

GitHub

Pull Requests

Jira

Stories, Tasks

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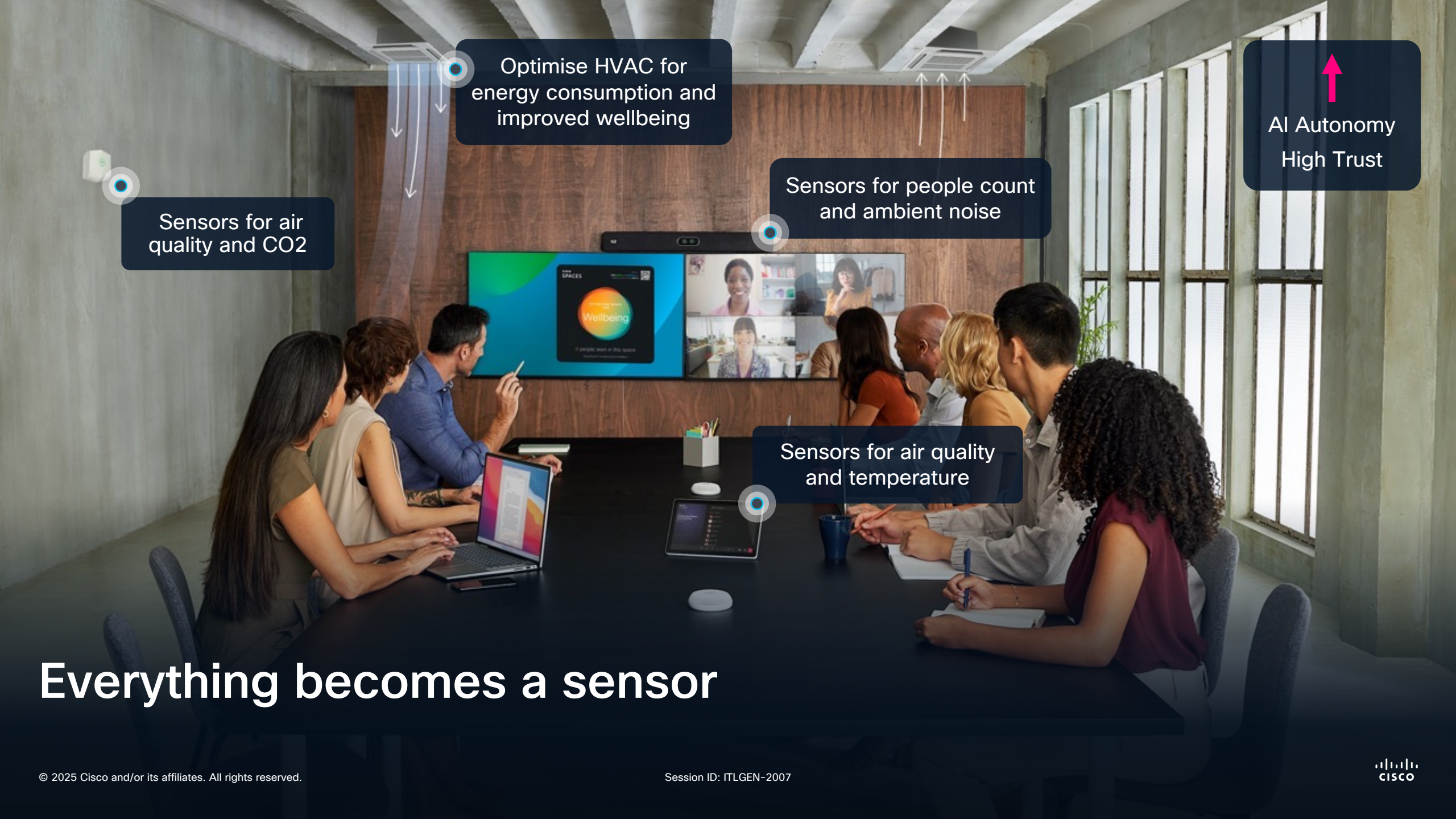

Everything becomes a sensor

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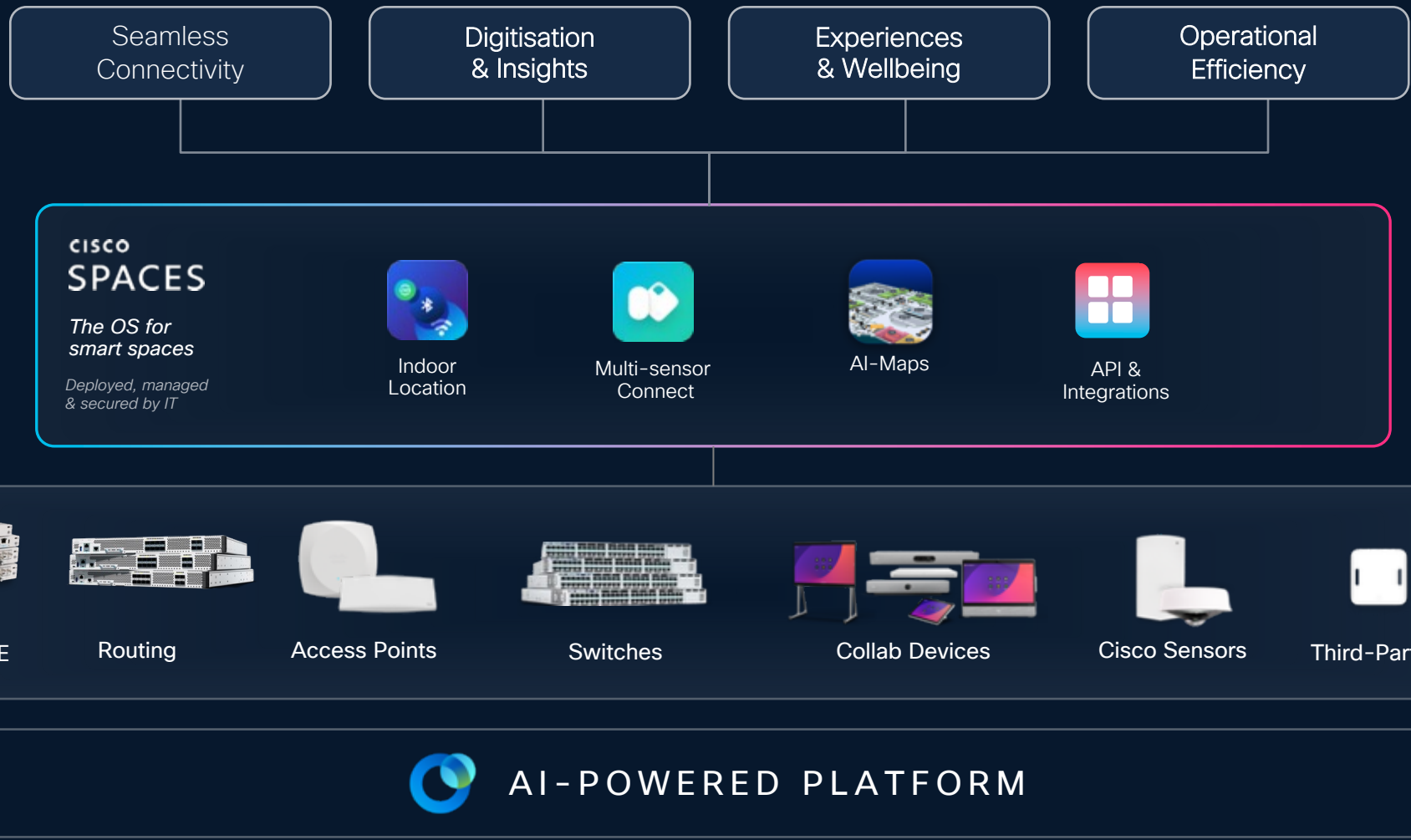
How magic happens?



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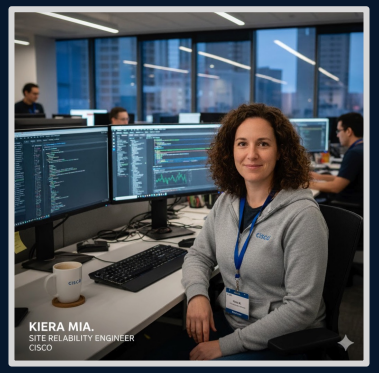
How will you build your trust with AI?

Kiera M – Meraki AI



Xebawie – AI Webex

Artie Lucas – AI Cluster

Low **Trust** High

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Create a new AI Habit

Make AI Visible

Share your positive AI stories

Start by asking

the same questions

Create AI metrics and see the organization progress

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