Emerging Tech Trends: Outlook for 2026

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ITLGEN-2004

There are many **Trends** on the Radar...

AI Native Infrastructure	Small Language Models	Agentic AI Operations	Data Fabric Architectures	Edge Compute	Security by Design	Network & Security Convergence	Cross Cloud Orchestration	Smart Programmable Buildings
AI Threat Landscape	Autonomous Operations	Hybrid Mesh Firewalls	Quantum Proof Infrastructure	Hyperscale Data Centers	AI Augmented Defense	Observability	Energy Economics	Data Mesh Architectures
Digital Twins	Spatial Intelligence	Universal Zero Trust	Workplace Reboot	AI Assistants	Quantum Computing	Low Code No Code	Sovereign AI	Industrial Robotics
Quantum Proof Security	Liquid Cooling	Digital Twin & Simulations	Gen-AI Copilots	Infrastructure as Code	Multi-Agent Systems	Deep Fake Defense	Cloud Repatriation	Photonics & Optical Advancements
Silicon	Physical AI	Space Tech	Identity Intelligence	Modular Data Centers	Extended Reality for Workforce	Prompt Engineering	GPUaaS & Neo Clouds	5G Private Networks

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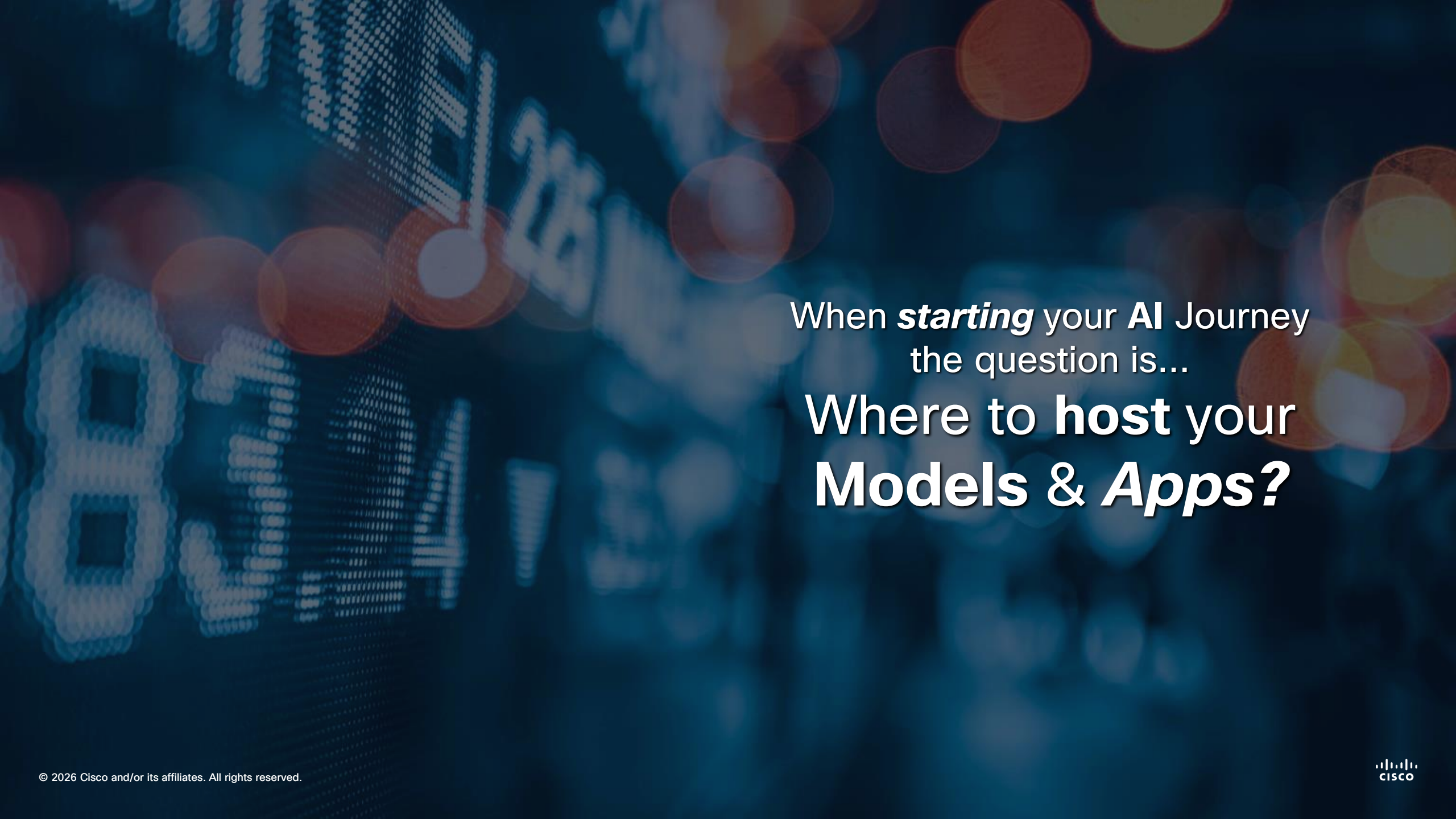
1 Infrastructure inflection point

Edge First AI Native



Edge AI Market

75%

of enterprise data will be created and processed at the edge by 2027.

A Few *Reasons*

Drivers behind this ***Movement***

Data Sovereignty, Privacy and Security

Ethically hosting sensitive data in public clouds

Privacy standards, GPDR, Sector Specific Rules

Controlling proprietary model weights/embeddings

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Performance, Latency and Edge Requirements

Processing data closer to the source

AI apps have deterministic latency requirements

Avoiding network bottlenecks transferring data

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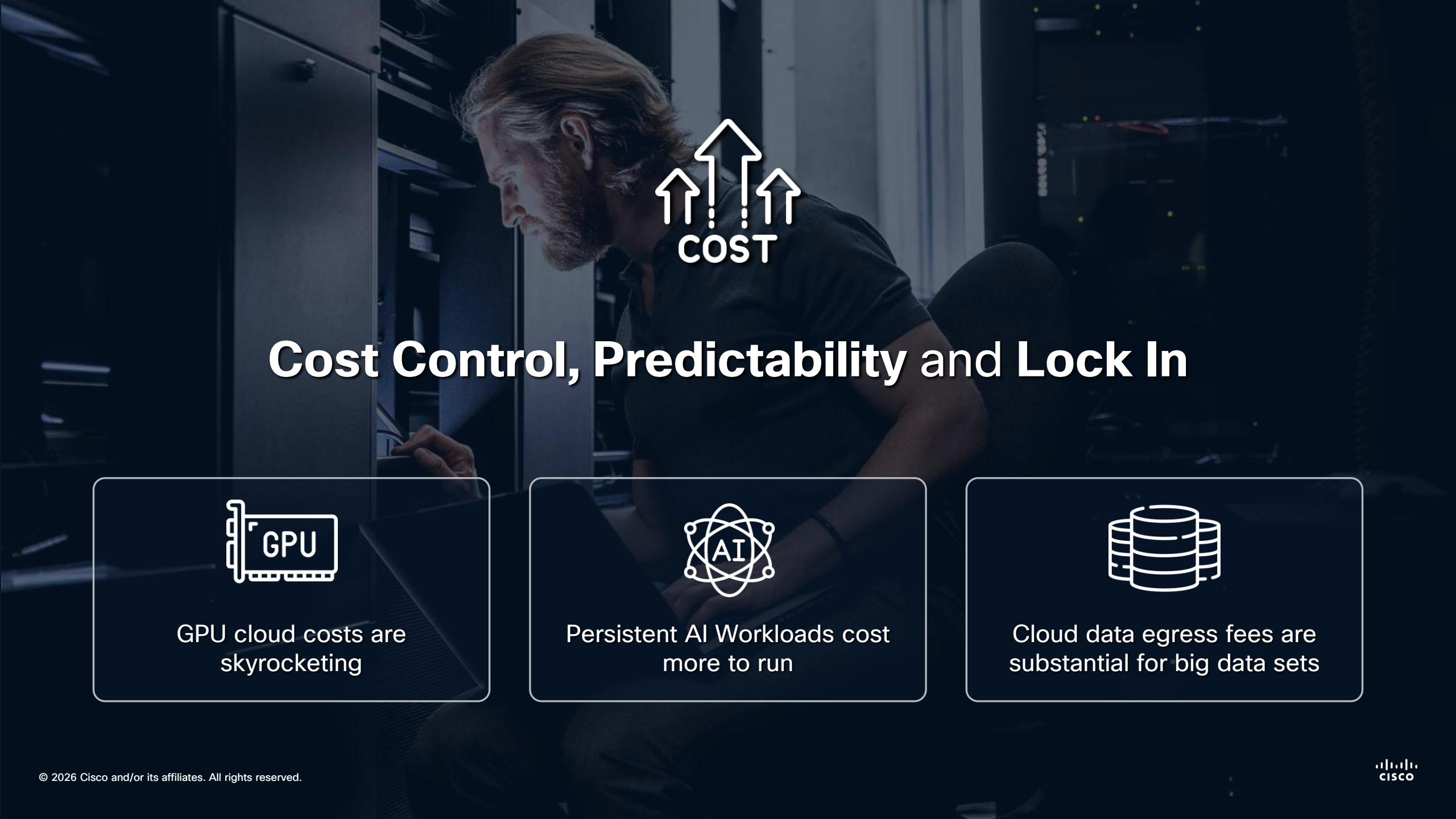

Cost Control, Predictability and Lock In

GPU

GPU cloud costs are skyrocketing

AI

Persistent AI Workloads cost more to run

Cloud data egress fees are substantial for big data sets

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AI Infra Developments

Industry Partnerships

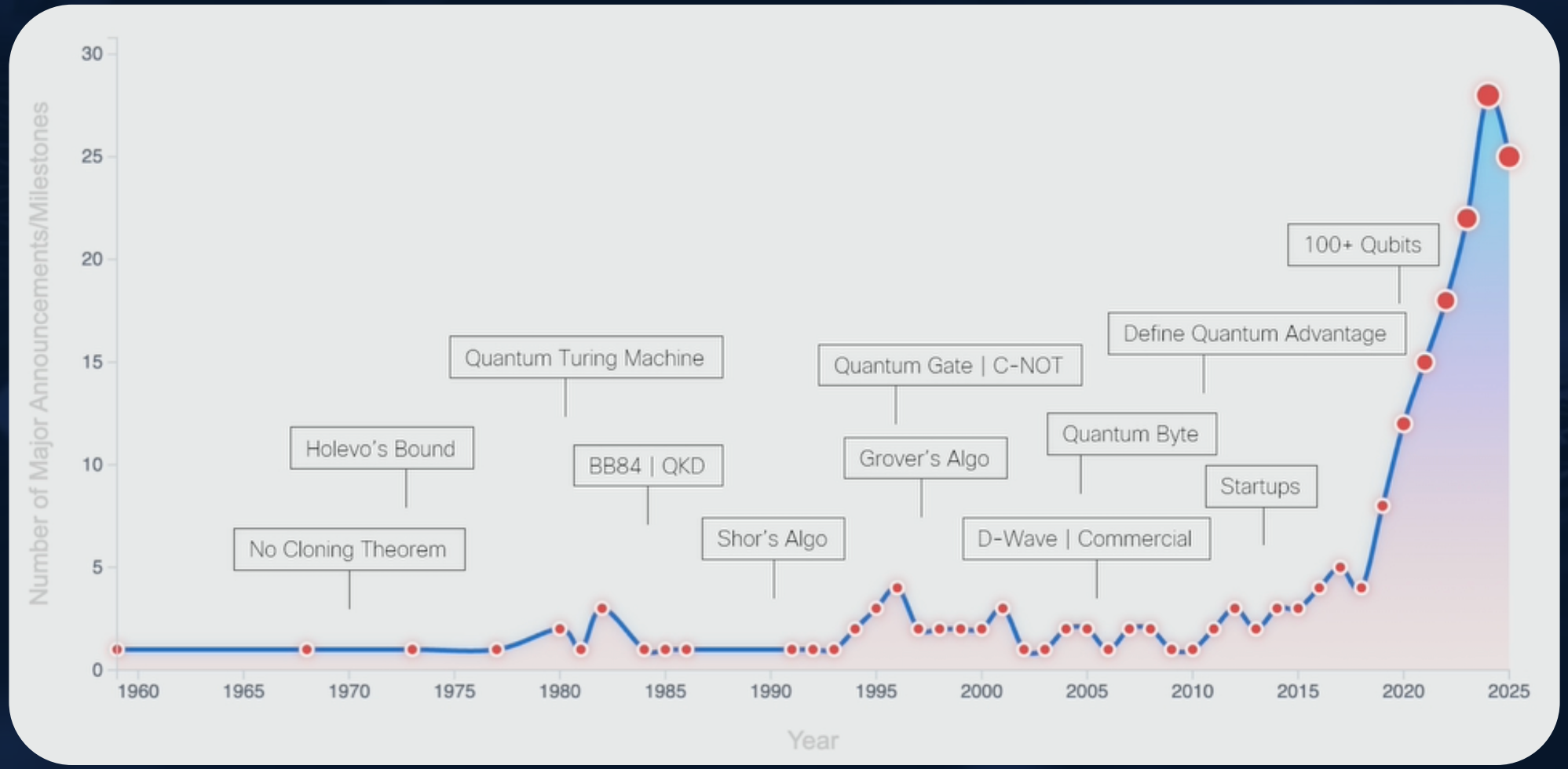
Integrated Tech Stacks

Consumption Models

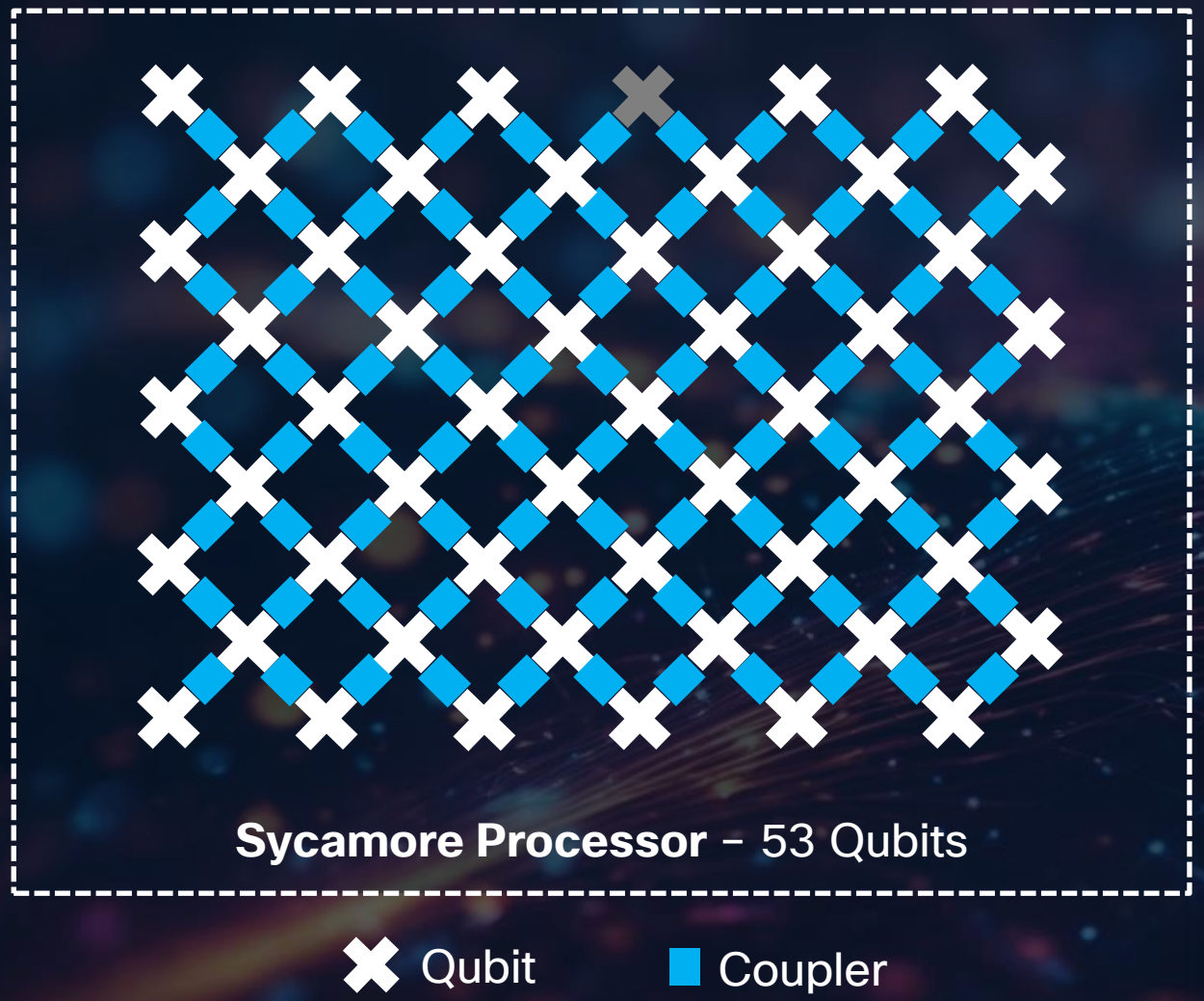
2 Securing today and tomorrow

Quantum Proof Infrastructure

Major Credible Announcements in Quantum Computing

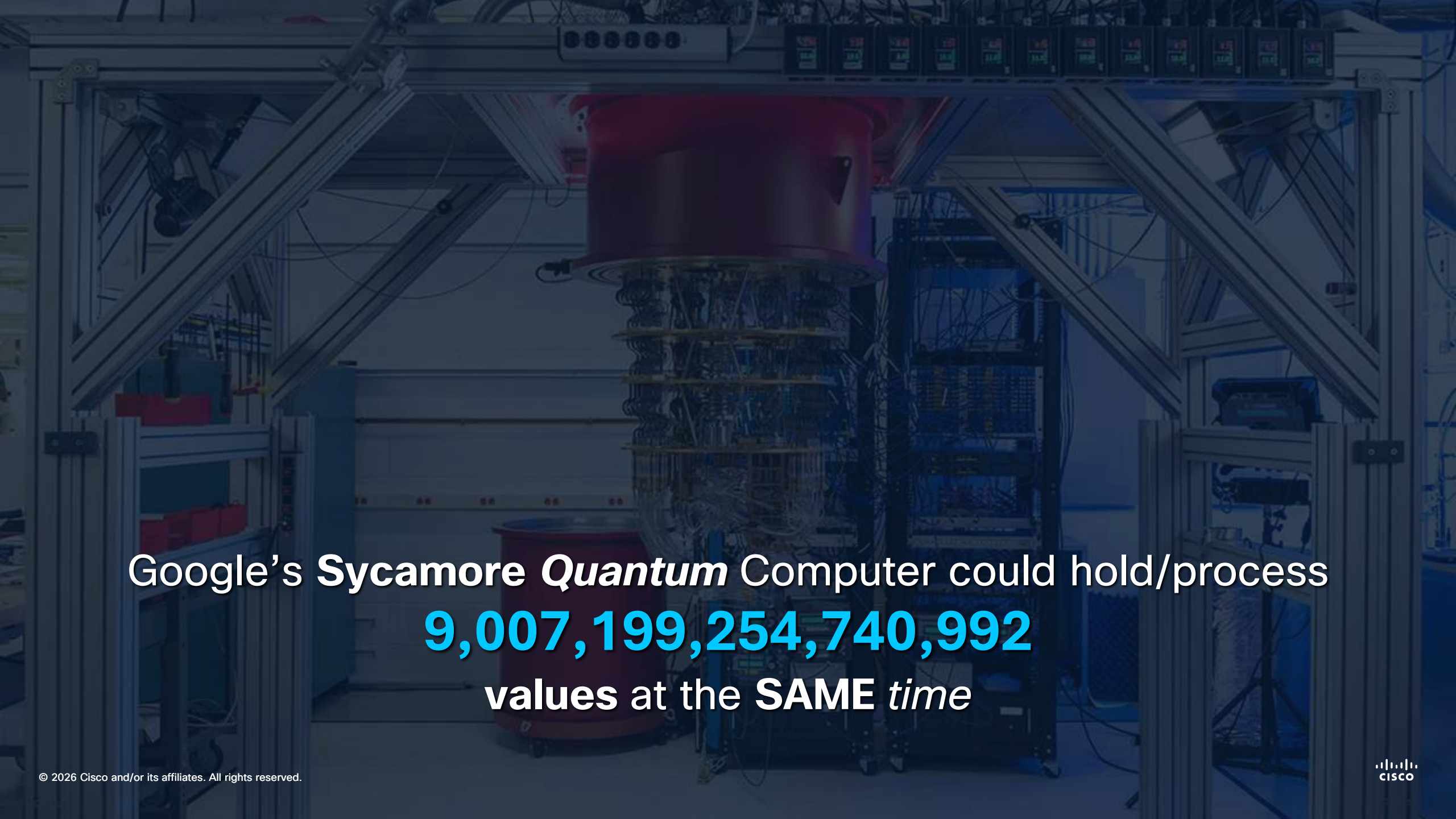


Google's **Quantum Supremacy** *Experiment* - **2019**



Sycamore Processor

Completed a task in ***200 seconds*** *that Google claimed would take* ***10,000 years*** *to complete on a then "current" state-of-the-art supercomputer*



Google’s **Sycamore *Quantum*** Computer could hold/process

9,007,199,254,740,992

values at the **SAME** *time*

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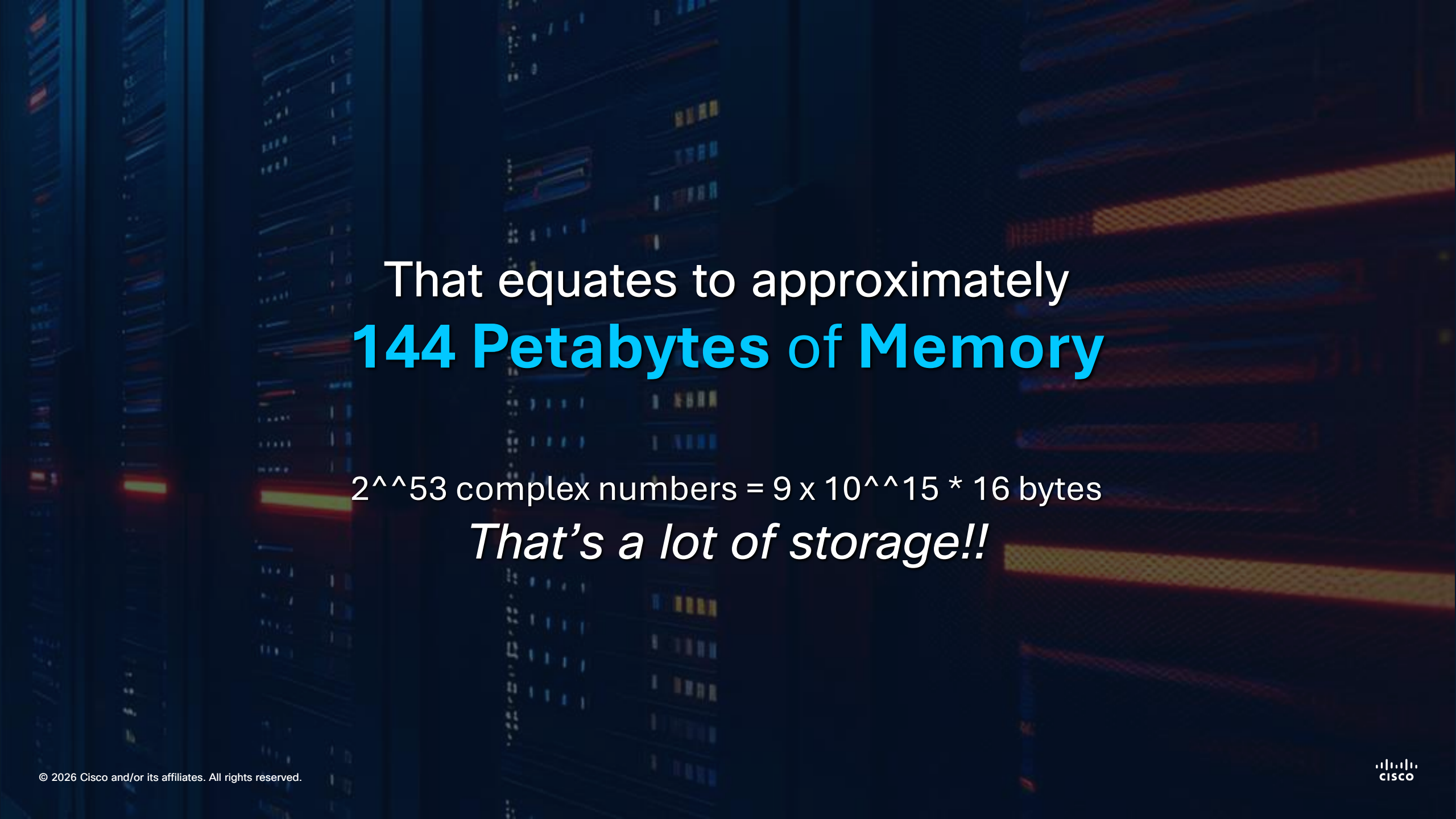
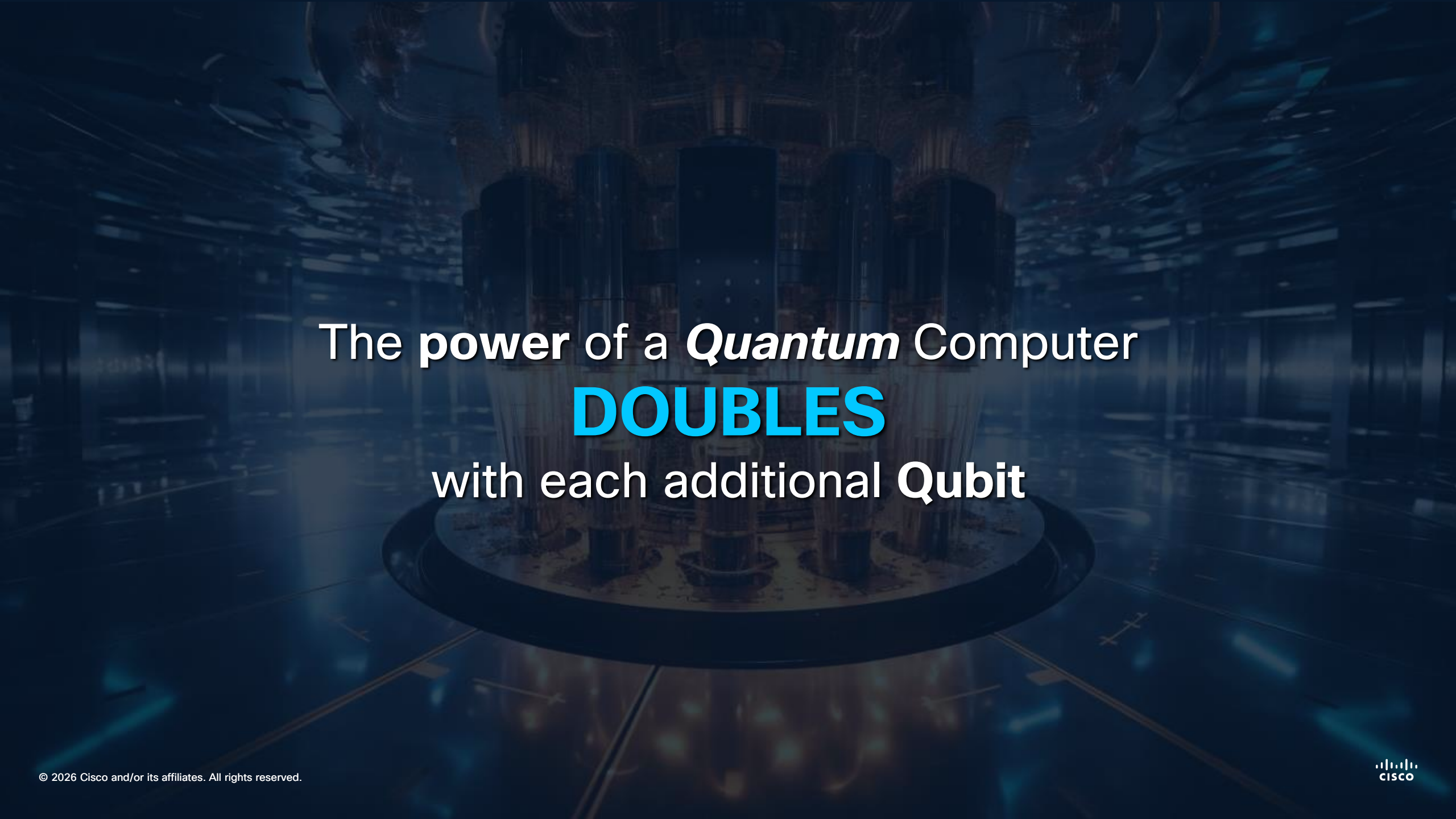
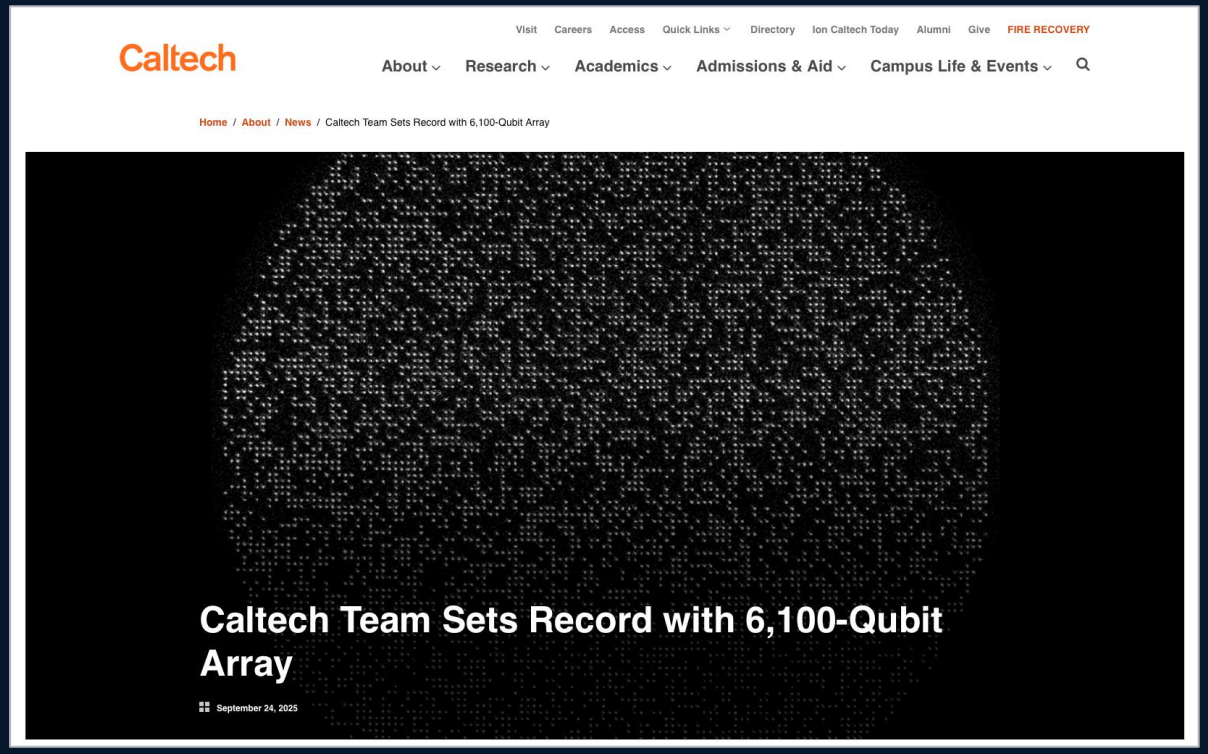
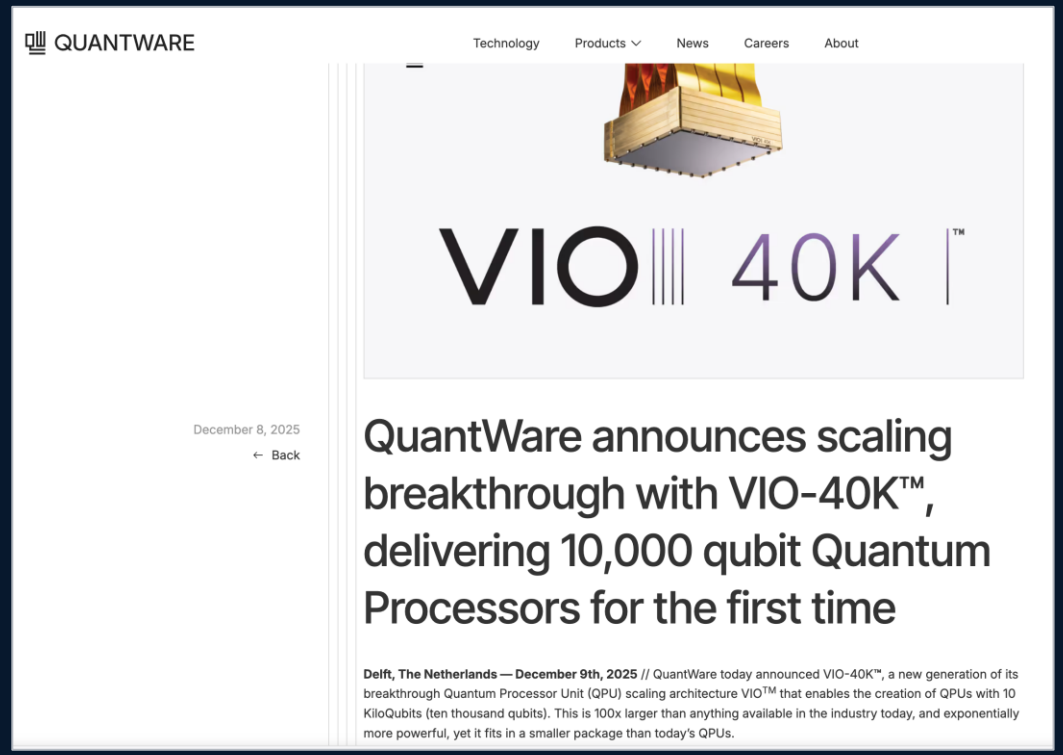


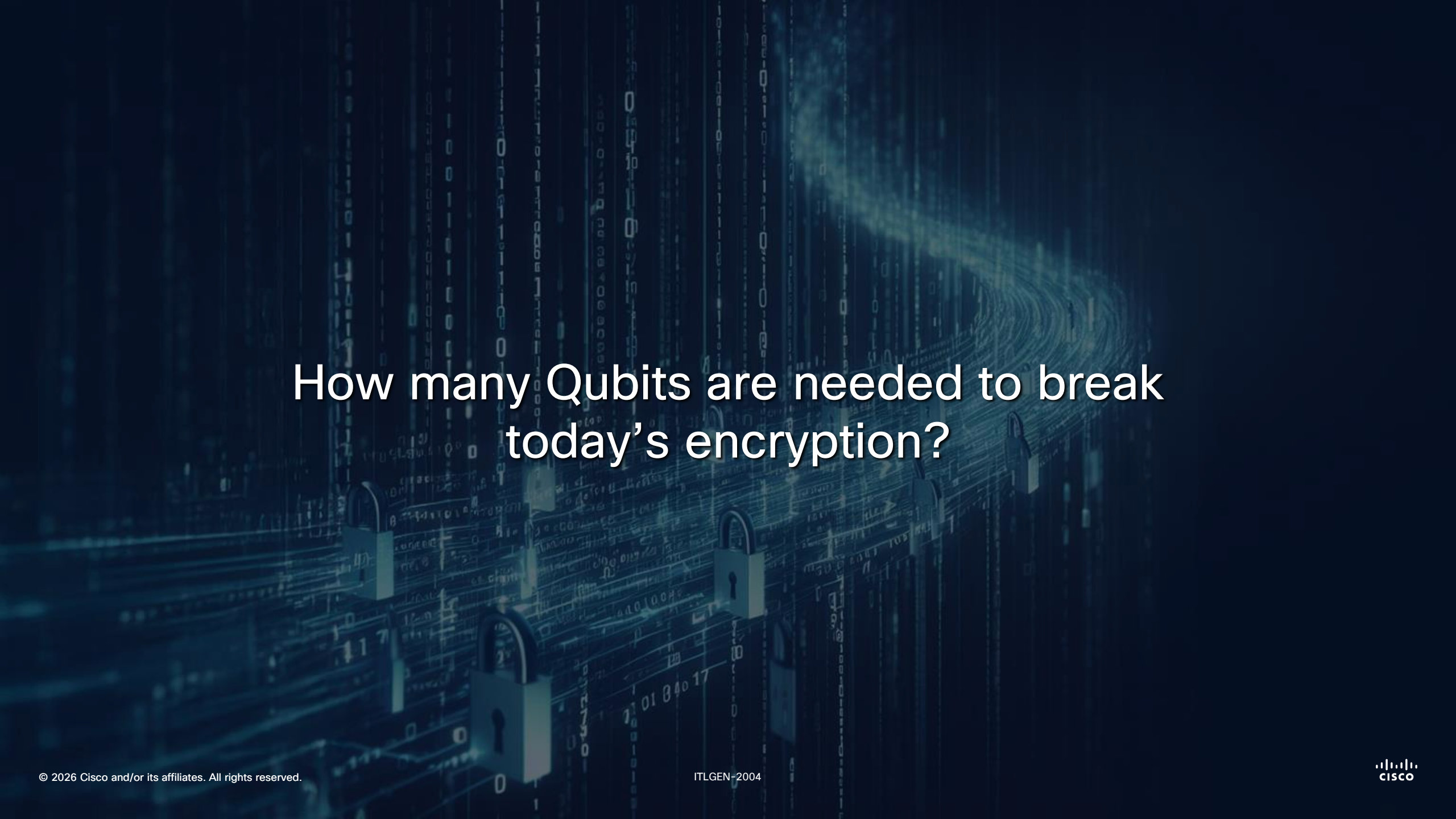


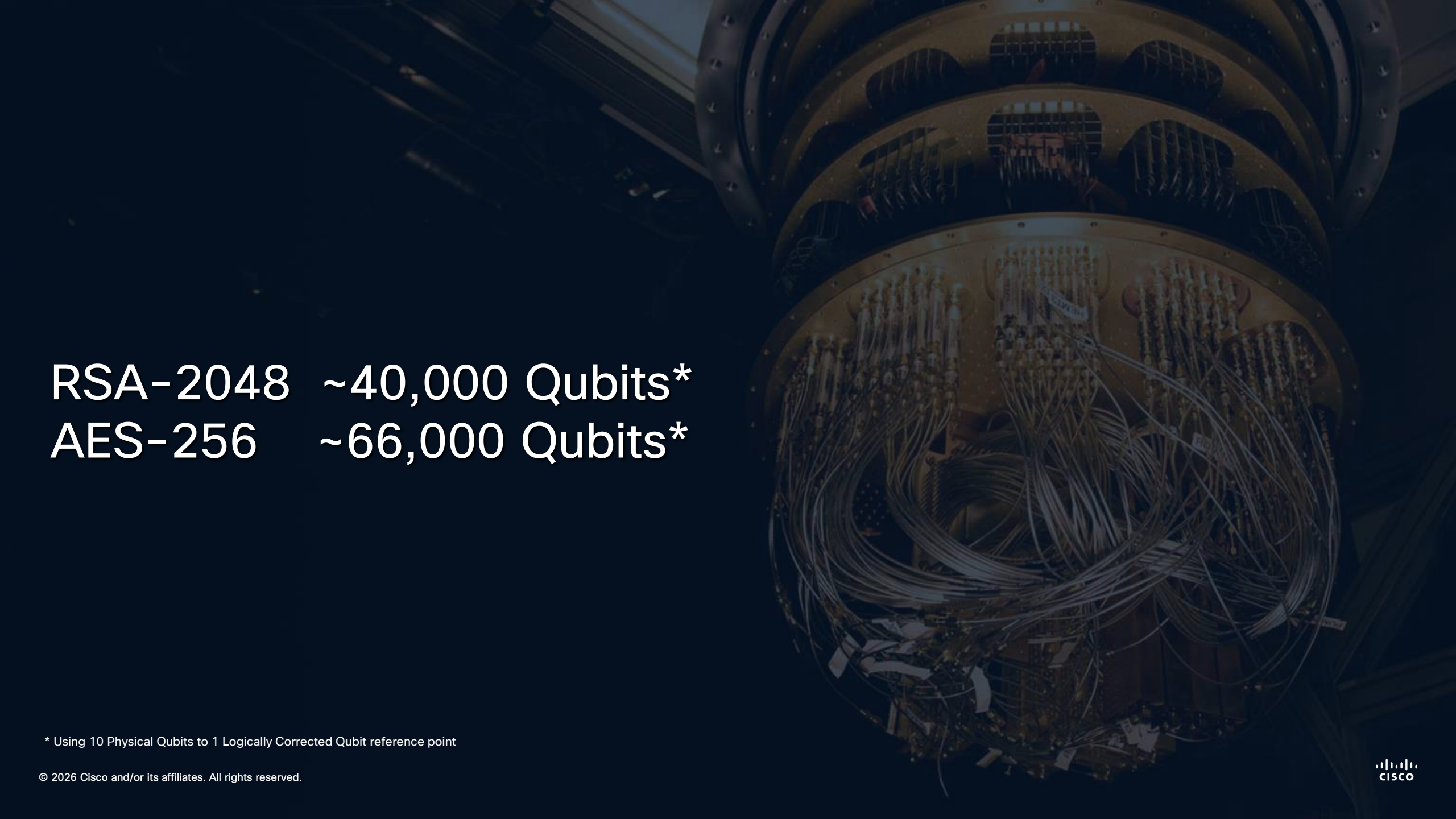




The Quantum Threat

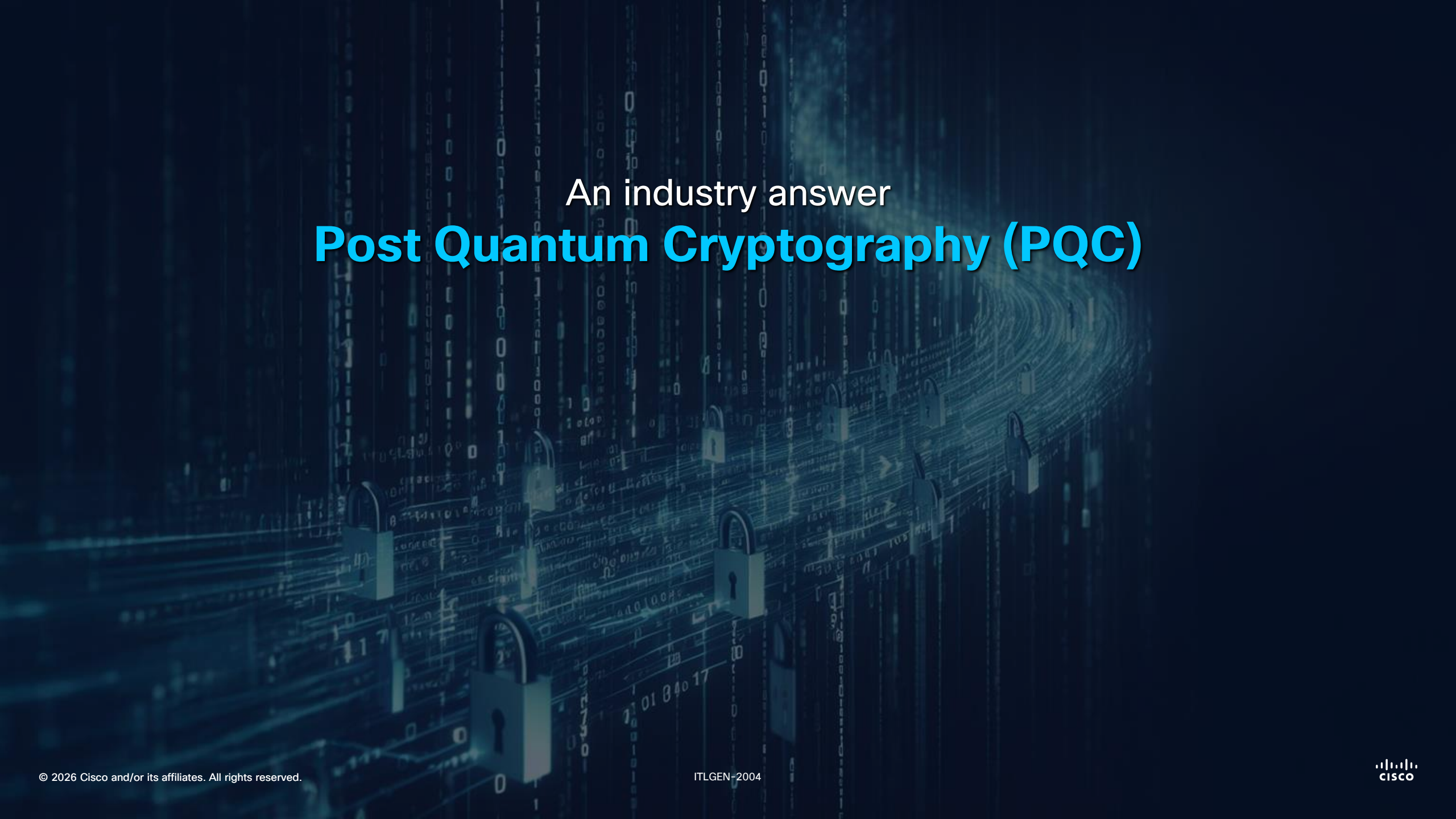
Cracking todays encrypted data in real time





RSA-2048 ~40,000 Qubits*
AES-256 ~66,000 Qubits*

* Using 10 Physical Qubits to 1 Logically Corrected Qubit reference point



An industry answer

Post Quantum Cryptography (PQC)

Protecting infrastructure today

Quantum networks for the future

Partnerships for the long term

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3 Security fused into everything

Emerging AI threat landscape

Cyber Readiness Index

Customer Sentiment and Findings

86%

have experienced an **AI related *Cyber Incident*** in the last **12 months**

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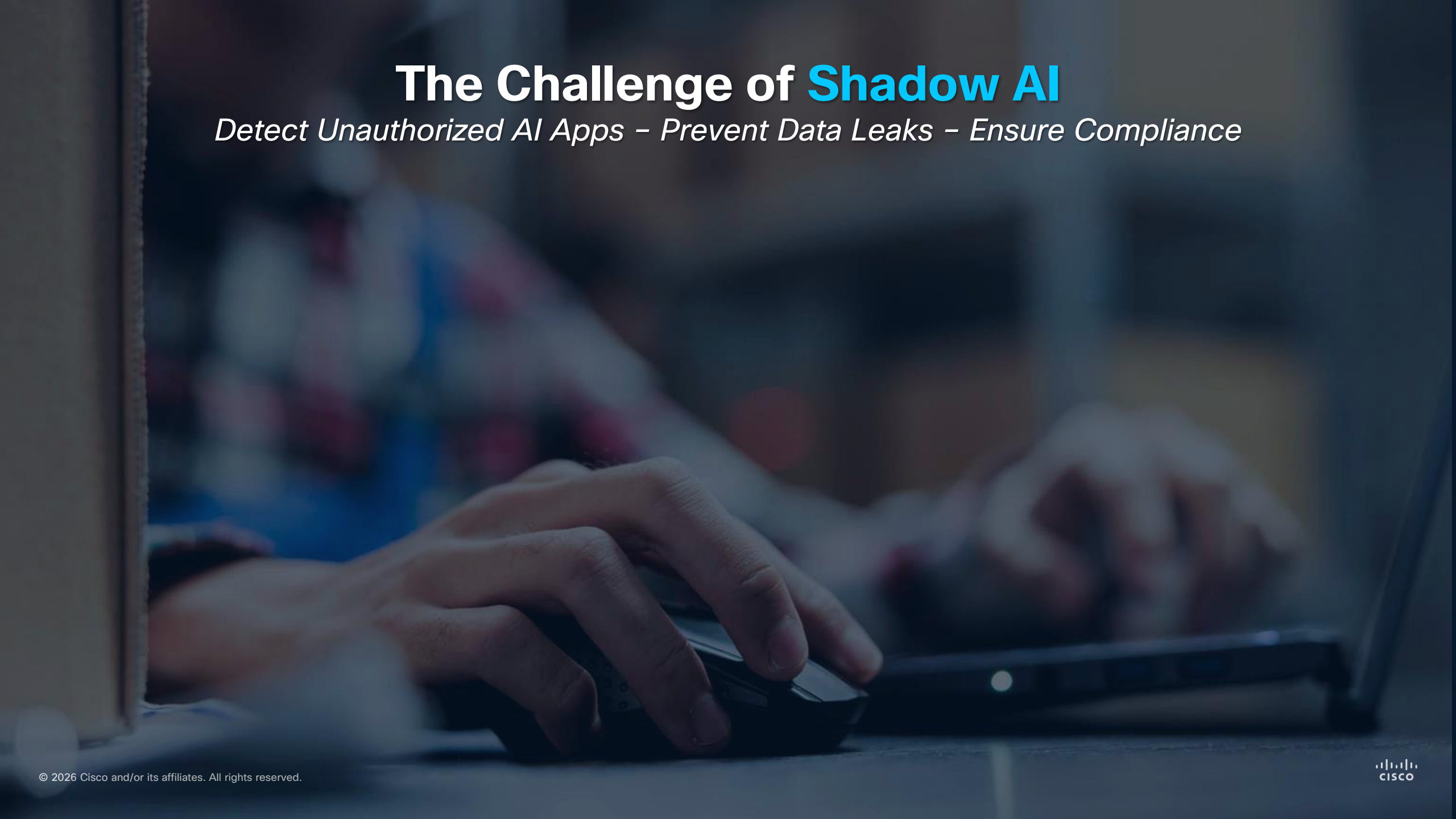
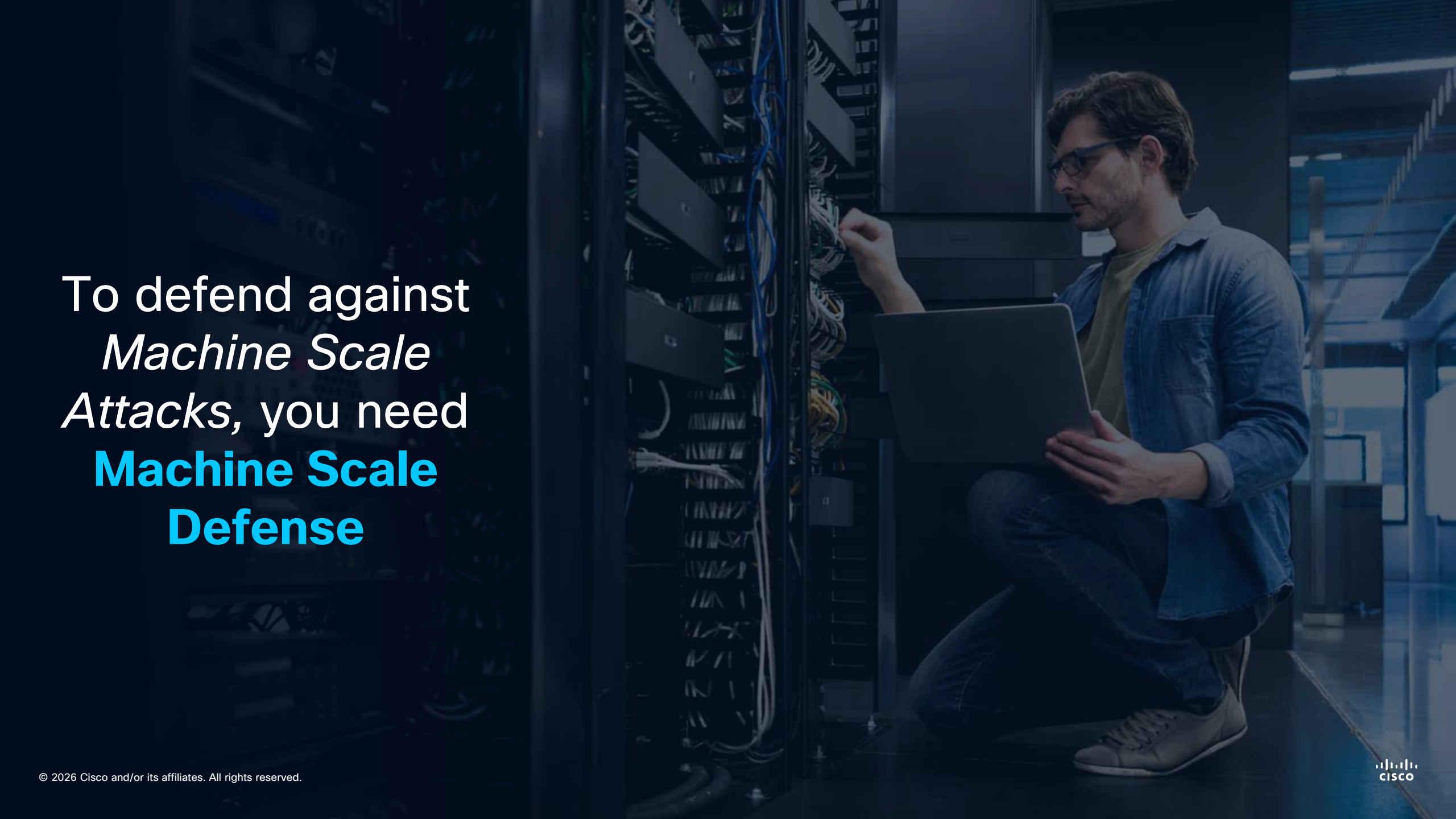
The Challenge of Shadow AI

Detect Unauthorized AI Apps – Prevent Data Leaks – Ensure Compliance





Identity at the core of trust

AI based Identity Intelligence - Unified Policy Framework - MFA - Continued Monitoring

Convergence of Network and Security

Proactive Threat Detection – Anomaly Identification – Automated Remediation

AI as a Defense Tool

AI Baselining - Policy Validation – Security LLMs
AI Security Insights – Policy Adjustment Automation

There is another angle to consider...

Securing AI

AI Prompt *Conundrum*

Securing AI prompts is difficult

What can I help you with?

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Securing *AI*

- AI Asset Visibility
- Model Validation
- AI Model Protection
- Prompt Security
- Ethical Framework

4 Evolution of your workplace
Smart Programmable Buildings

Global Growth

OT Convergence

Power over Ethernet

It Starts With **Power over Ethernet**

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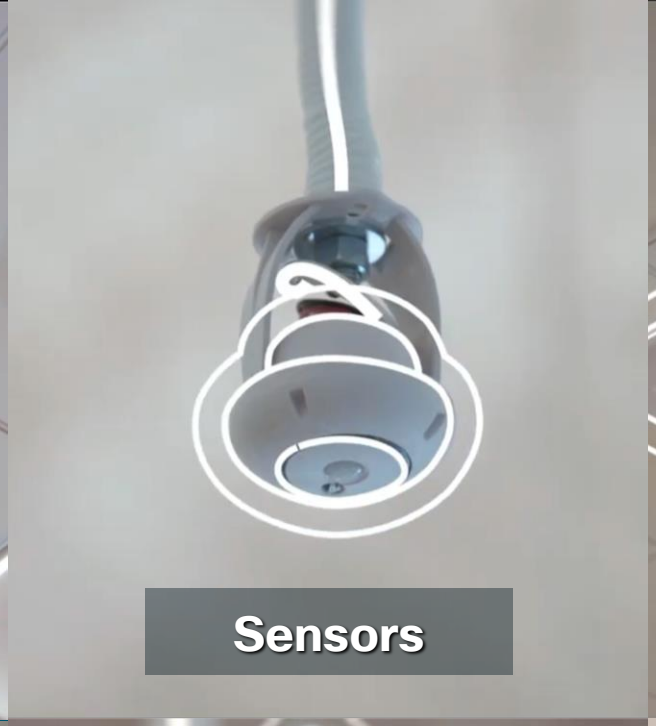
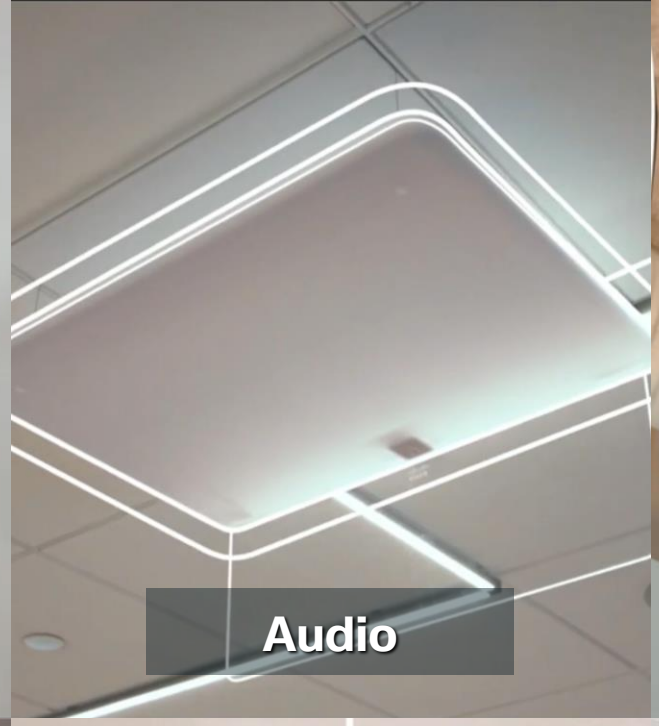
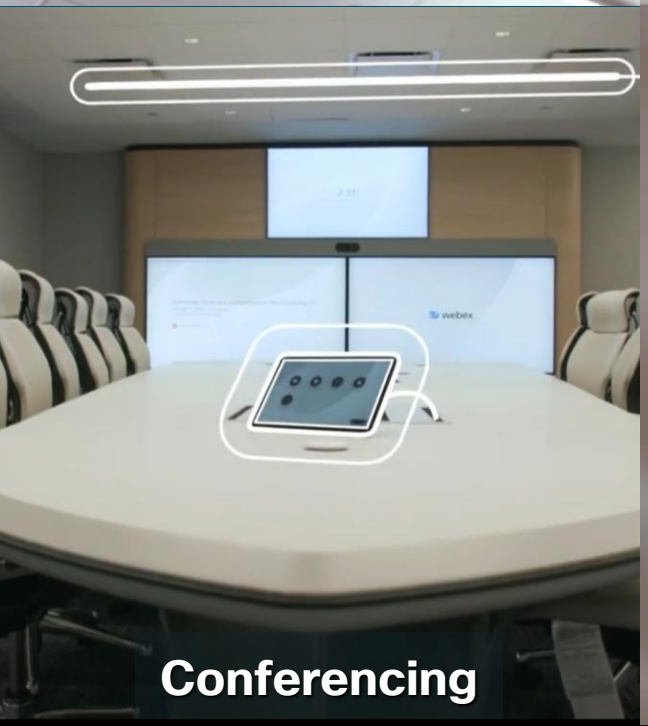
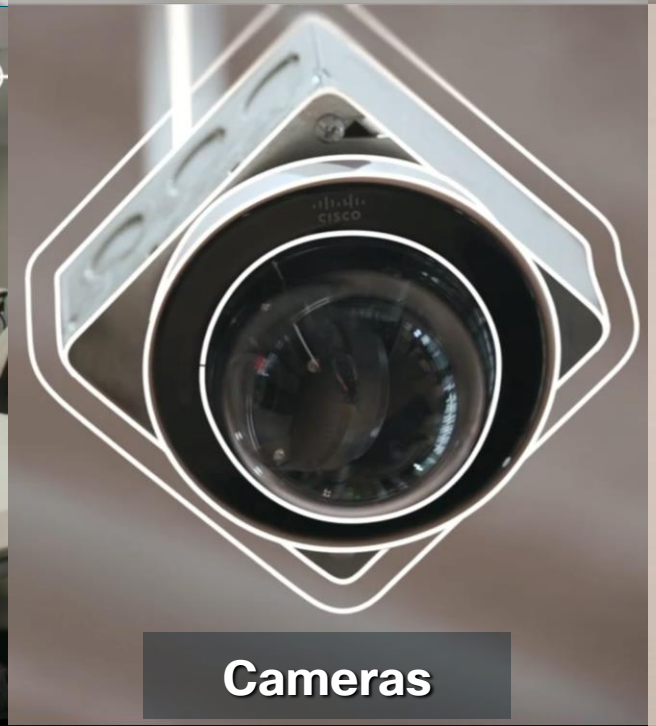
Wi-Fi


Sensors


Audio


Lighting

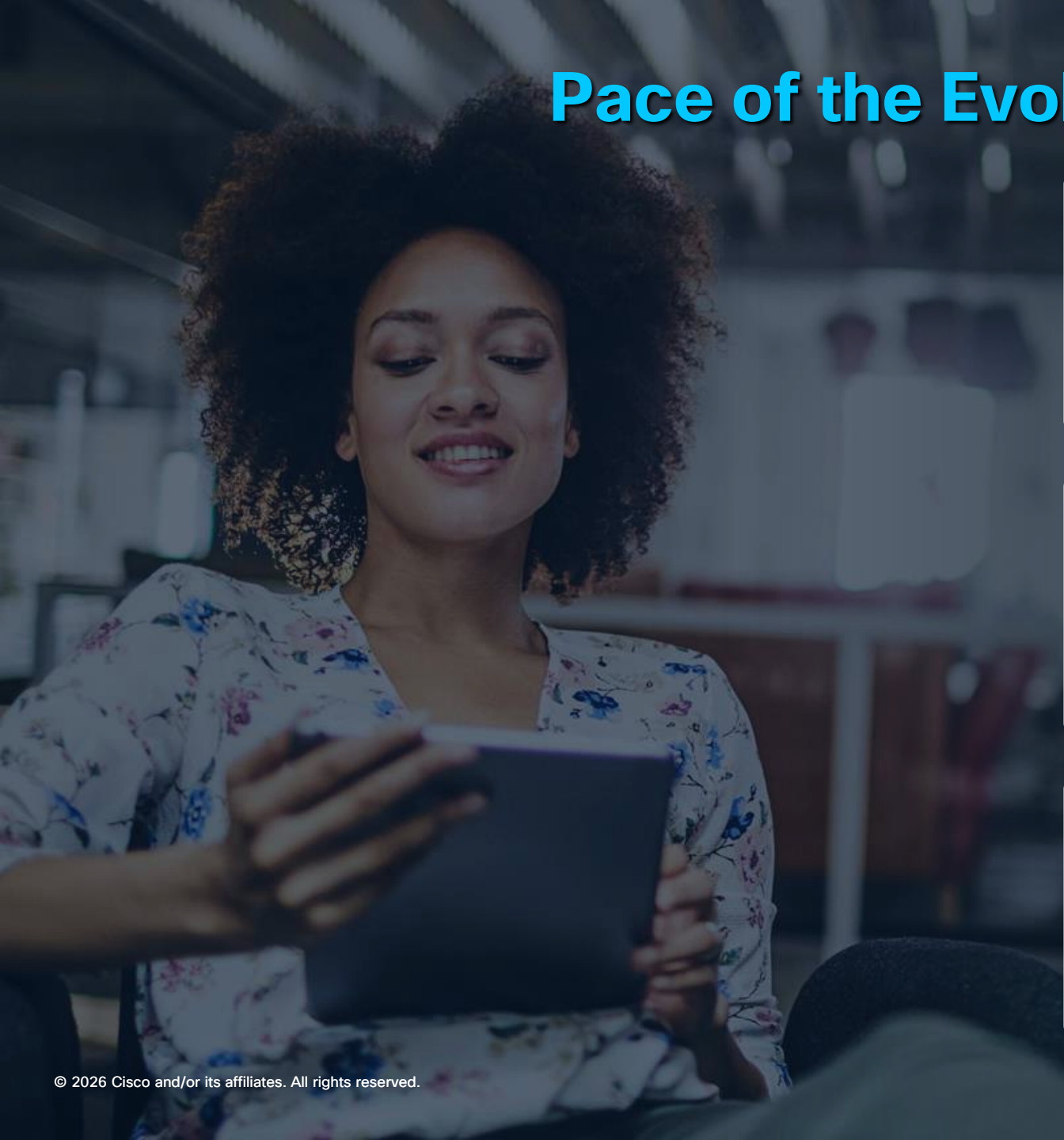

Conferencing


Cameras


100%
75%
50%
25%
Off
Nexos
Thermostat


Window Shades

Pace of the Evolution of WIFI



- Wi-Fi 7
- 4K QAM
- MLO
- Enhanced Security
- 320MHz in 6GHz
- Multi RU

Location *Analytics*

Indoor Navigation

Space Utilization

Behavior Analytics

Asset Tracking

Environmental Monitoring

Asset Location

Location Troubleshooting

Rogue Device Detection

Smart Desking

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The **Workplace** is being *reimagined* to support *new ways* to **collaborate**

Distance Zero

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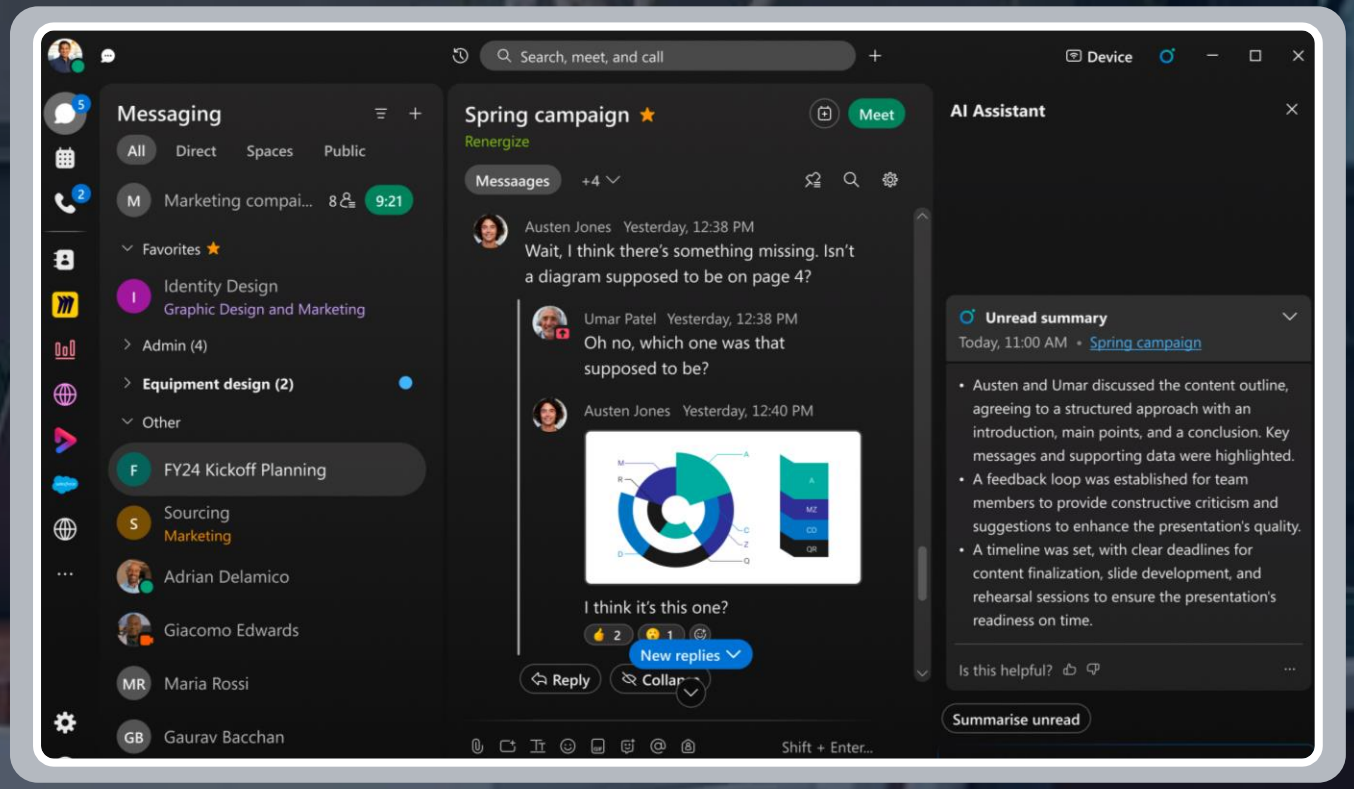
Distance Zero Technology *Innovations*

5 Say hi to your new co-worker

Agentic AI Operations

End User *AI Assistants*



Writes, Summarizes, Translates
Finds Answers

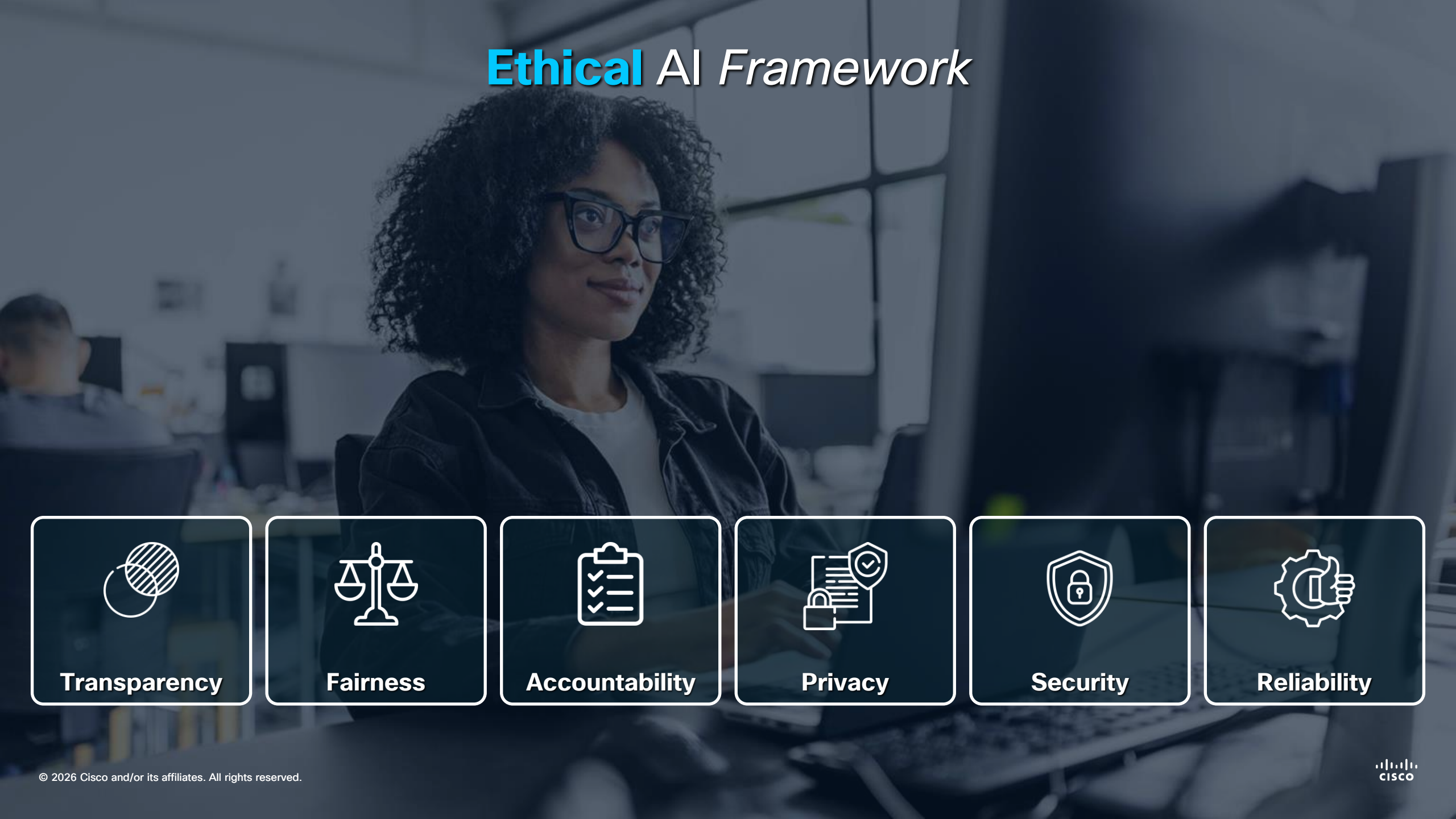
AI Agents for *IT Operators*

Day 0, 1, 2 Functions

Documentation

How Do I?

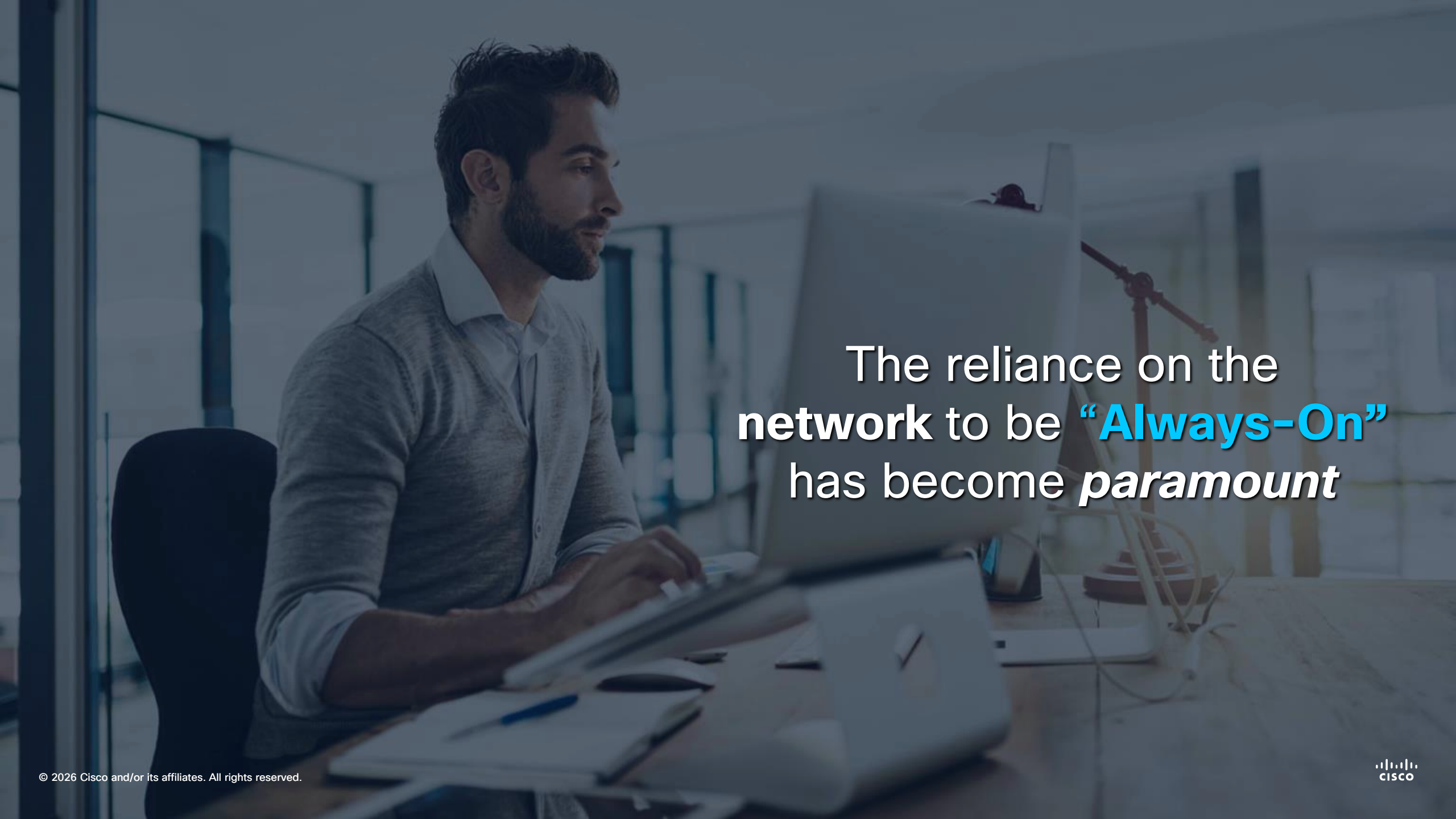
Ethical AI *Framework*

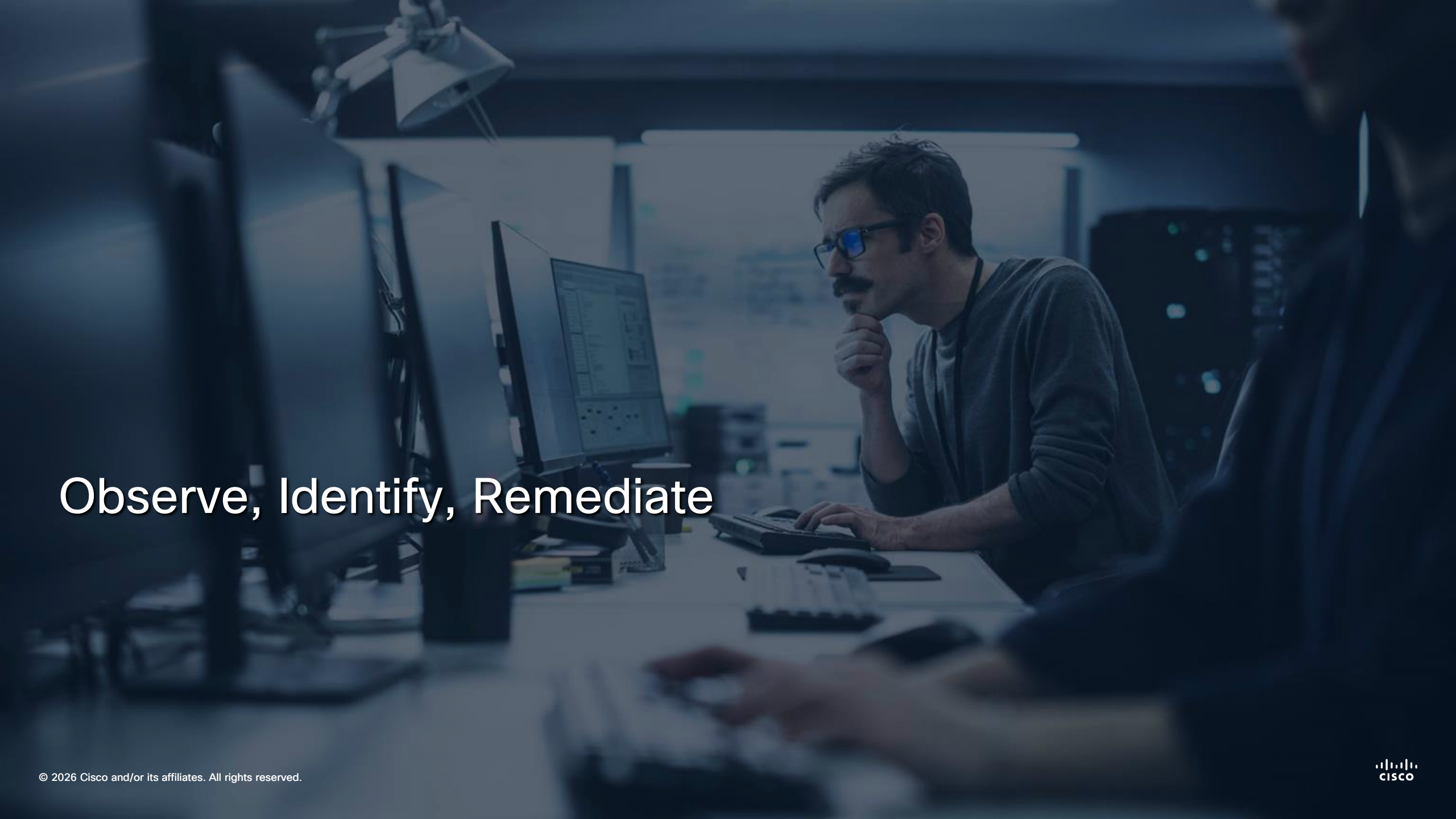


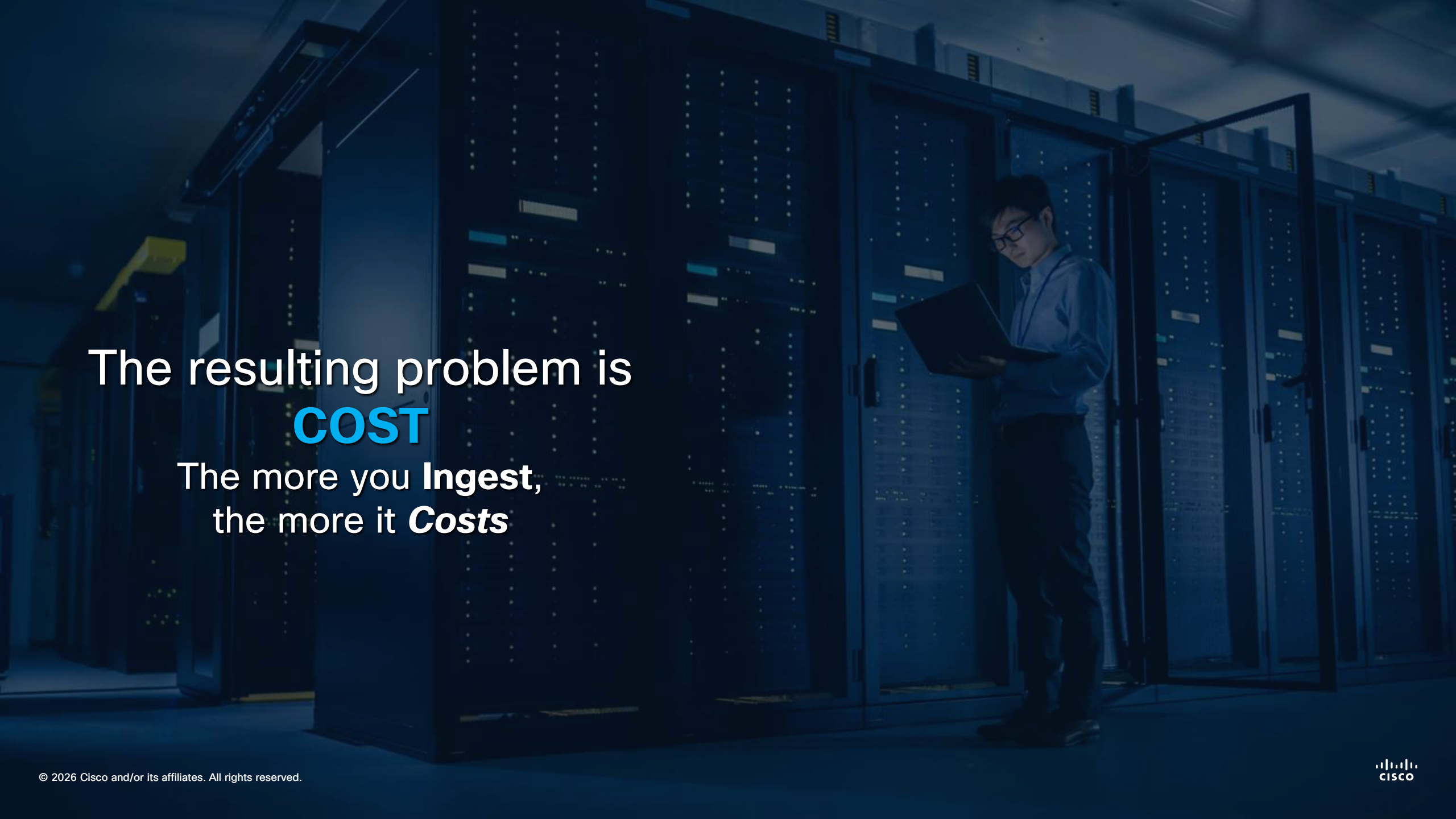
- Transparency
- Fairness
- Accountability
- Privacy
- Security
- Reliability

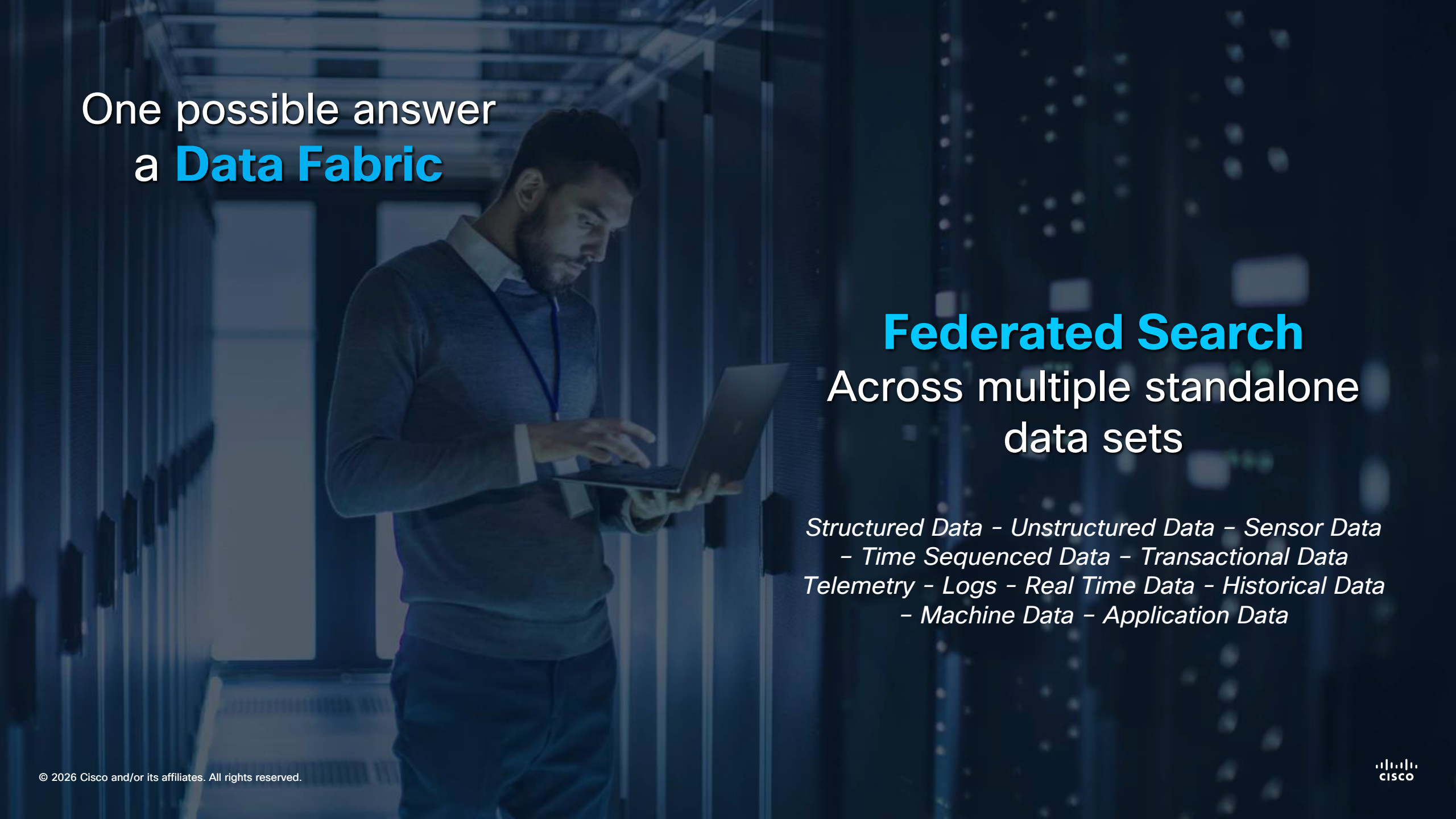
6 Separating the signal from the noise

Data Fabric Architectures









One possible answer
a **Data Fabric**

Federated Search
Across multiple standalone data sets

Structured Data - Unstructured Data – Sensor Data – Time Sequenced Data – Transactional Data Telemetry - Logs - Real Time Data - Historical Data – Machine Data – Application Data

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Your radar to move forward

And Cisco is preparing you for what lies ahead

AI-ready data centers

Future-proofed workplaces

Secure global connectivity

Digital resilience

Together we are creating the platform for what is to come.

Thank you


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