

# Emerging Tech Trends: Outlook for 2026

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The **PACE** of innovation has  
**never been FASTER**

# 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              |

1

Infrastructure inflection point  
*Edge First AI Native*

When *starting* your AI Journey  
the question is...

Where to **host** your  
**Models & Apps?**

A man in a dark suit and glasses is shown in profile, working on a laptop. He is standing in a server room, with rows of server racks visible in the background. The racks are filled with equipment and have green indicator lights. The overall lighting is dim, with a blue tint, emphasizing the technological environment.

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, GDPR,  
Sector Specific Rules



Controlling proprietary model  
weights/embeddings



# Performance, Latency and Edge Requirements



Processing data closer to the source



AI apps have deterministic latency requirements



Avoiding network bottlenecks transferring data



# Cost Control, Predictability and Lock In



GPU cloud costs are skyrocketing



Persistent AI Workloads cost more to run



Cloud data egress fees are substantial for big data sets

# AI Infra Developments



Industry  
Partnerships



Integrated Tech  
Stacks



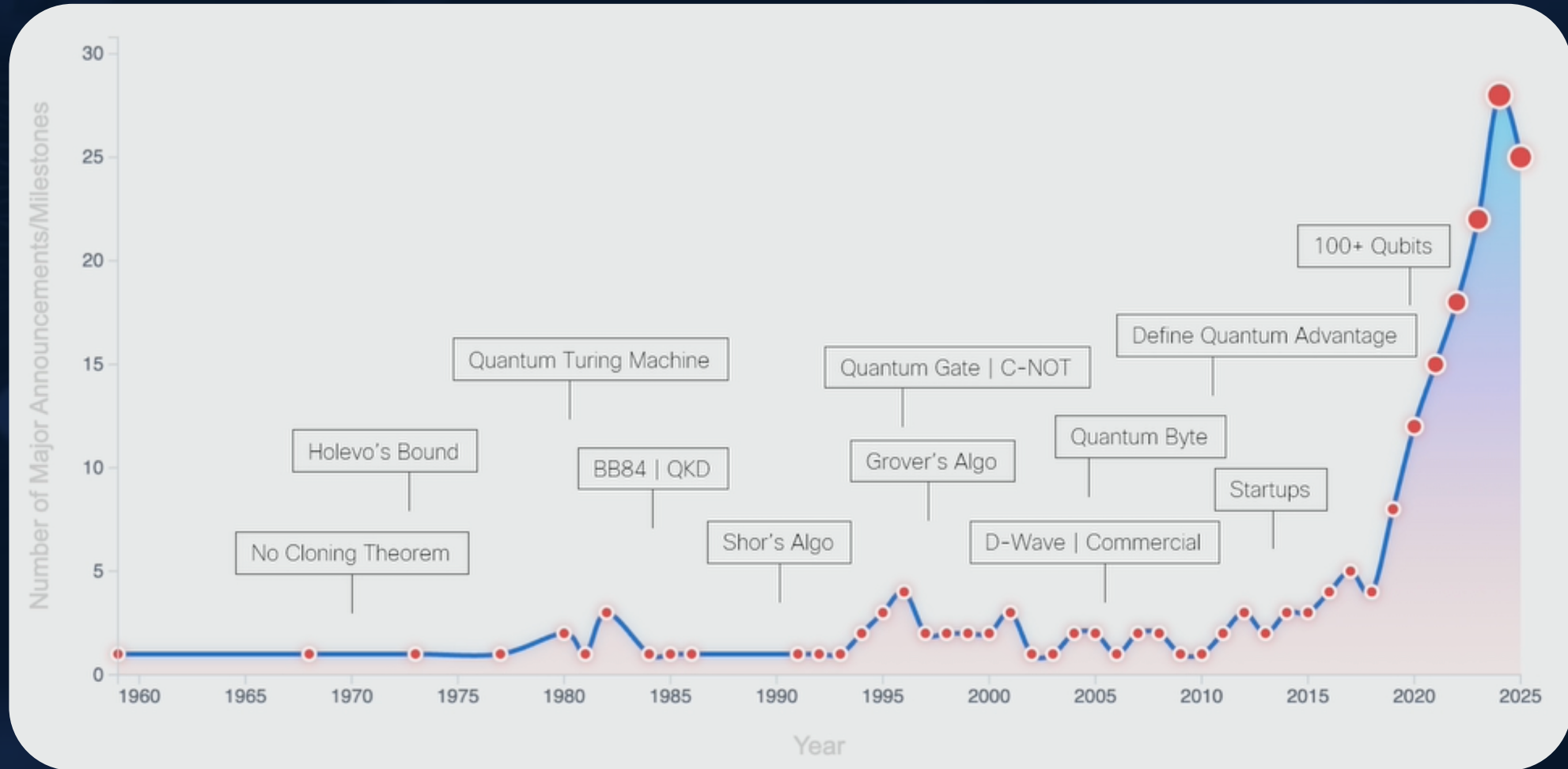
Consumption  
Models

2

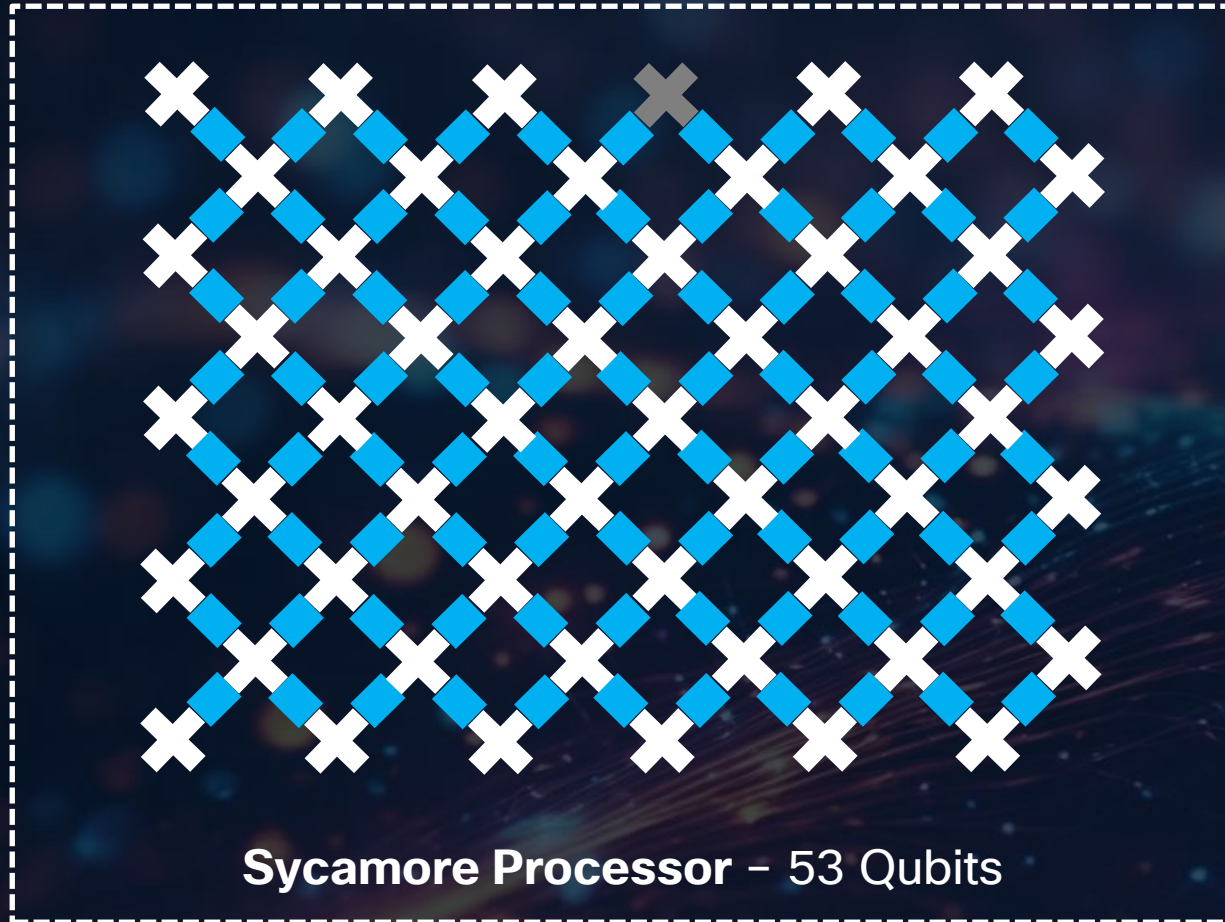
## Securing today and tomorrow

*Quantum Proof Infrastructure*

# Major Credible Announcements in Quantum Computing

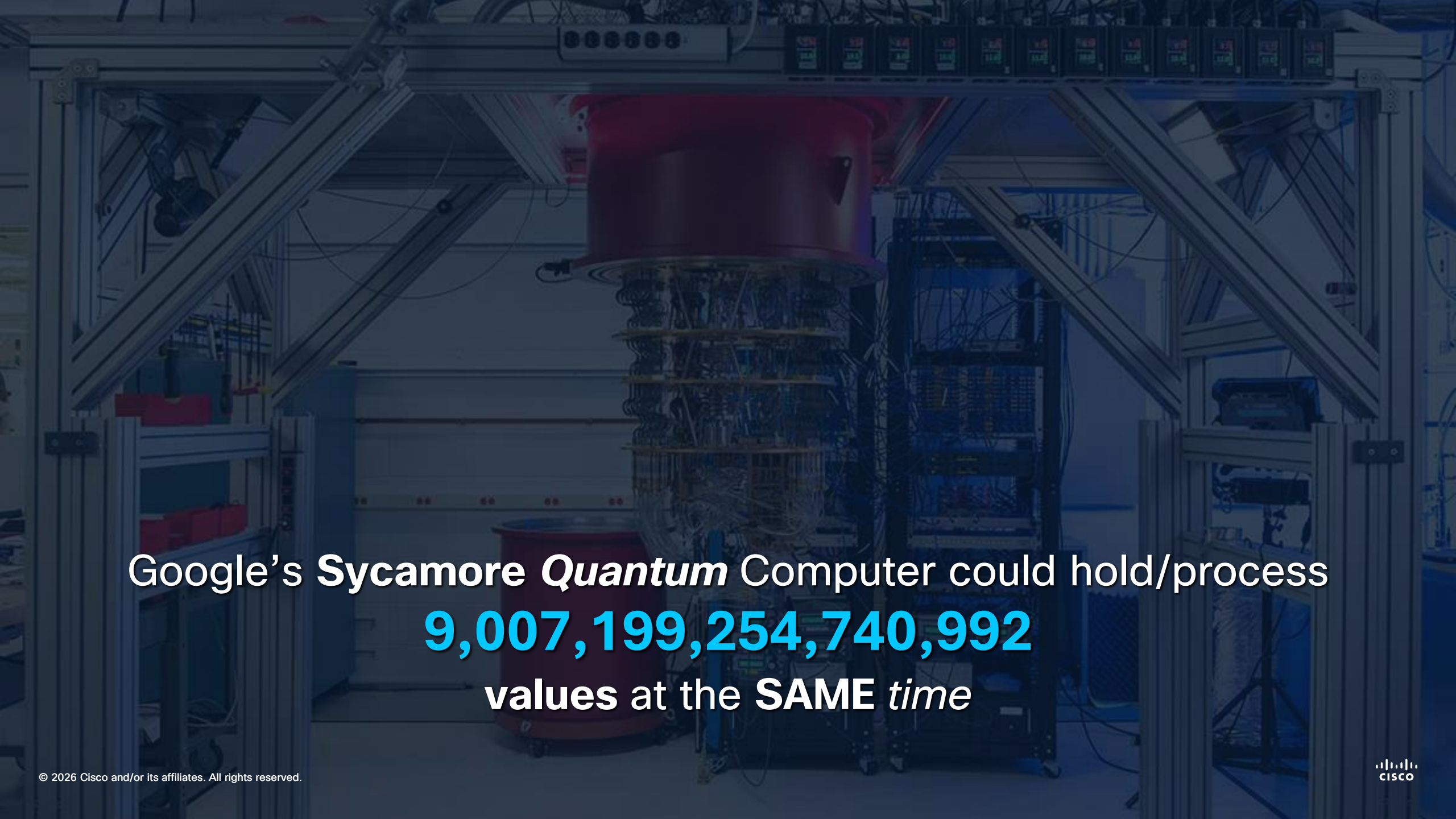


# Google's Quantum Supremacy *Experiment* – 2019

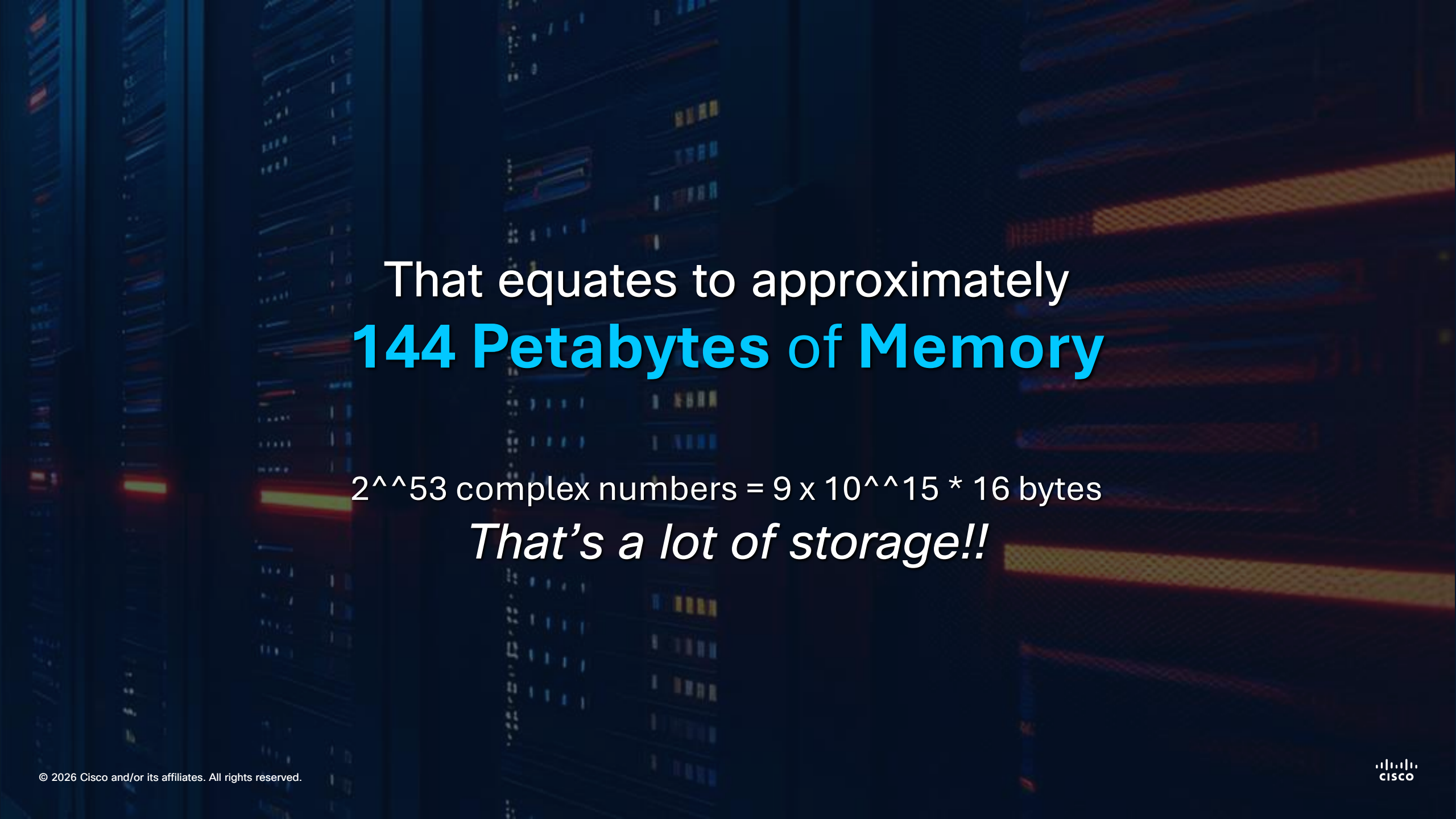


## Sycamore Processor

*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*

The background image shows the Sycamore Quantum Computer, a large, complex piece of scientific equipment. It features a central vertical column of circuitry, surrounded by various support structures, cables, and a large red cylindrical component at the top. The entire setup is housed within a metal frame.

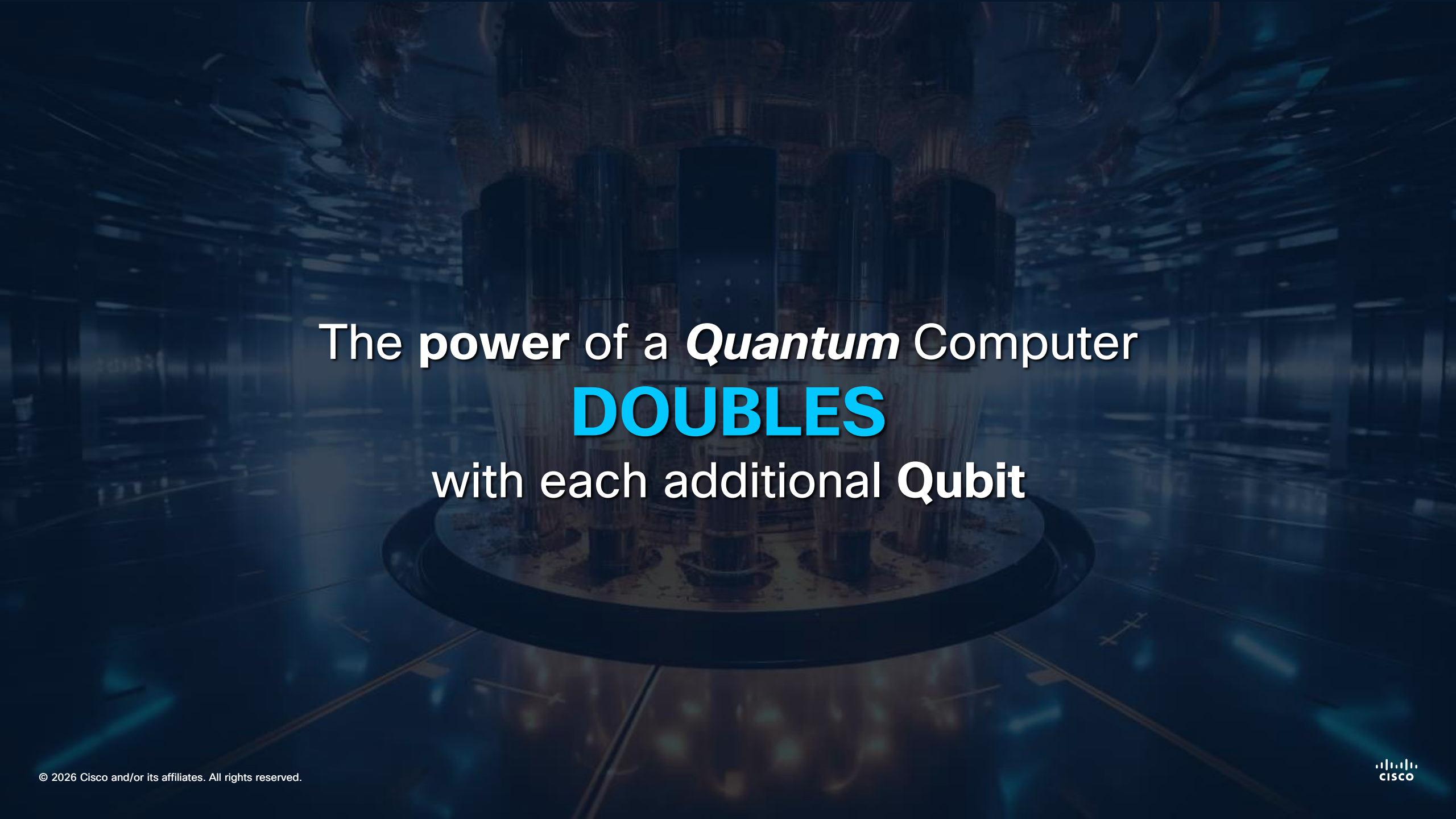
Google's **Sycamore *Quantum*** Computer could hold/process  
**9,007,199,254,740,992**  
values at the **SAME *time***



That equates to approximately  
**144 Petabytes of Memory**

$2^{53}$  complex numbers =  $9 \times 10^{15} \times 16$  bytes

*That's a lot of storage!!*



The power of a *Quantum* Computer  
**DOUBLES**  
with each additional Qubit

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Caltech Team Sets Record with 6,100-Qubit Array



Caltech Team Sets Record with 6,100-Qubit Array

September 24, 2025

QUANTWARE

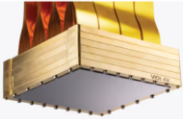
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VIO

40K

™

December 8, 2025

← Back

QuantWare announces scaling breakthrough with VIO-40K™, delivering 10,000 qubit Quantum Processors for the first time

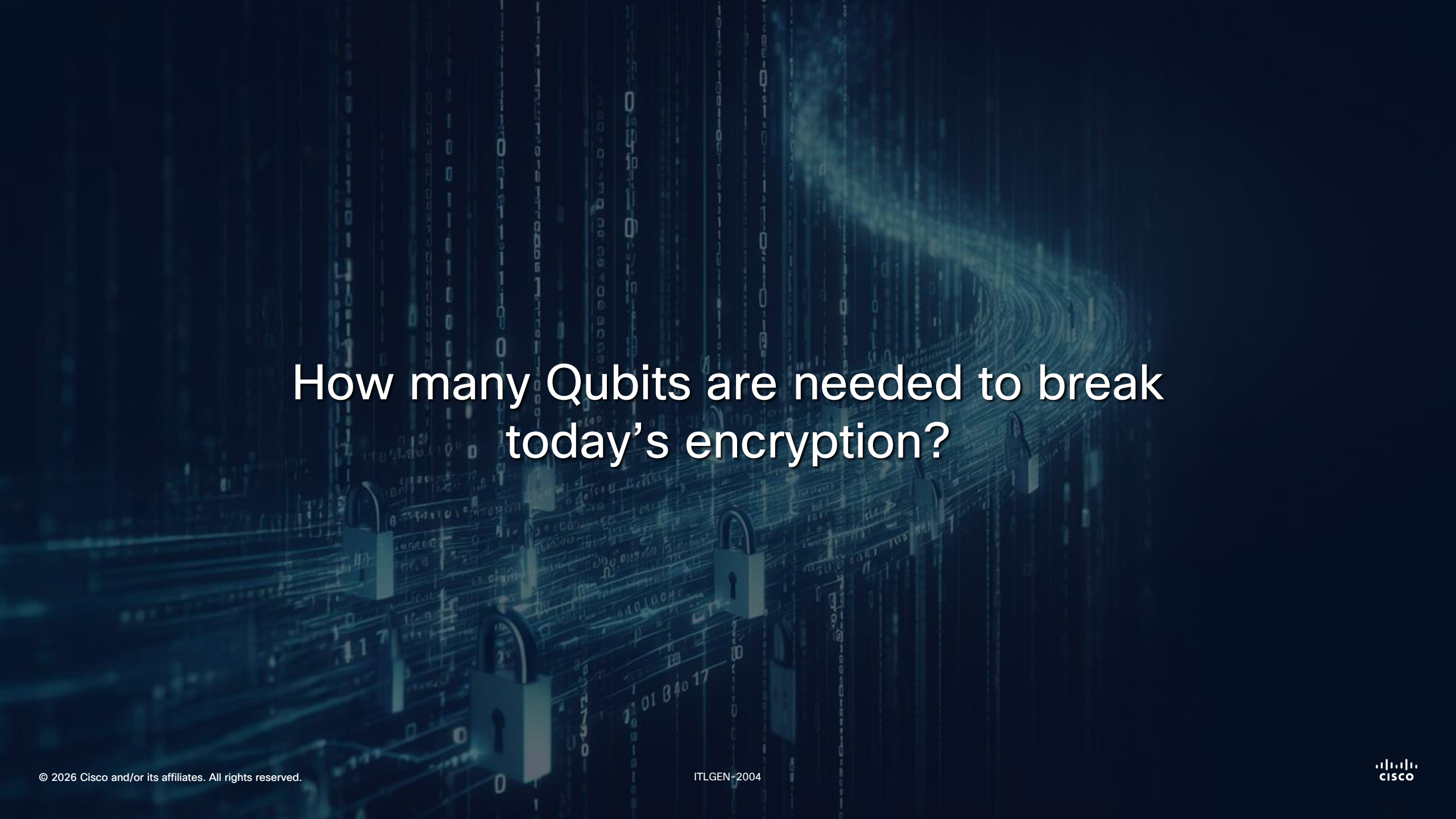
Delft, The Netherlands — December 9th, 2025

QuantWare today announced VIO-40K™, a new generation of its breakthrough Quantum Processor Unit (QPU) scaling architecture VIO™ that enables the creation of QPUs with 10 KiloQubits (ten thousand qubits). This is 100x larger than anything available in the industry today, and exponentially more powerful, yet it fits in a smaller package than today's QPUs.

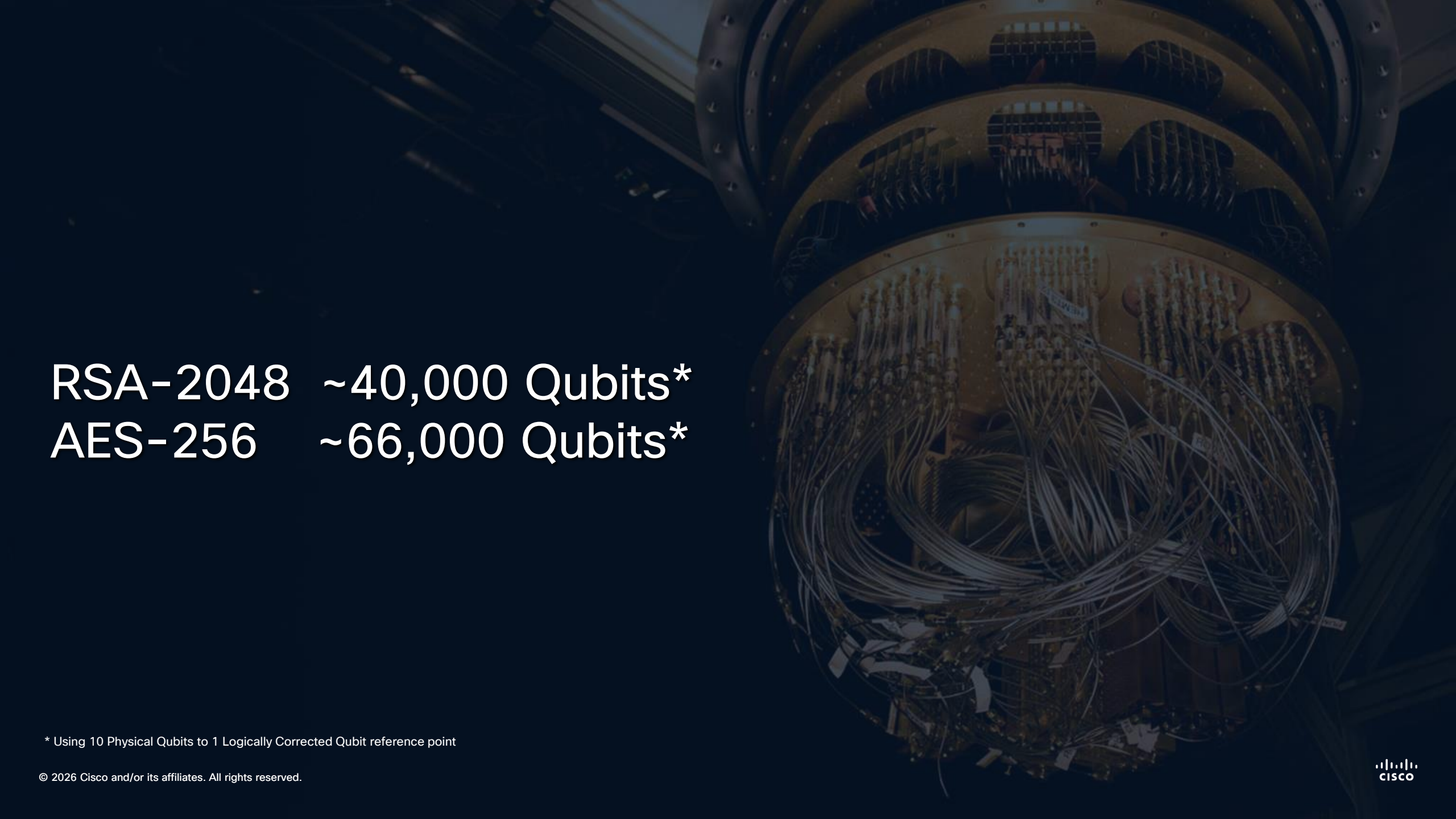


# The Quantum Threat

*Cracking today's encrypted data in real time*

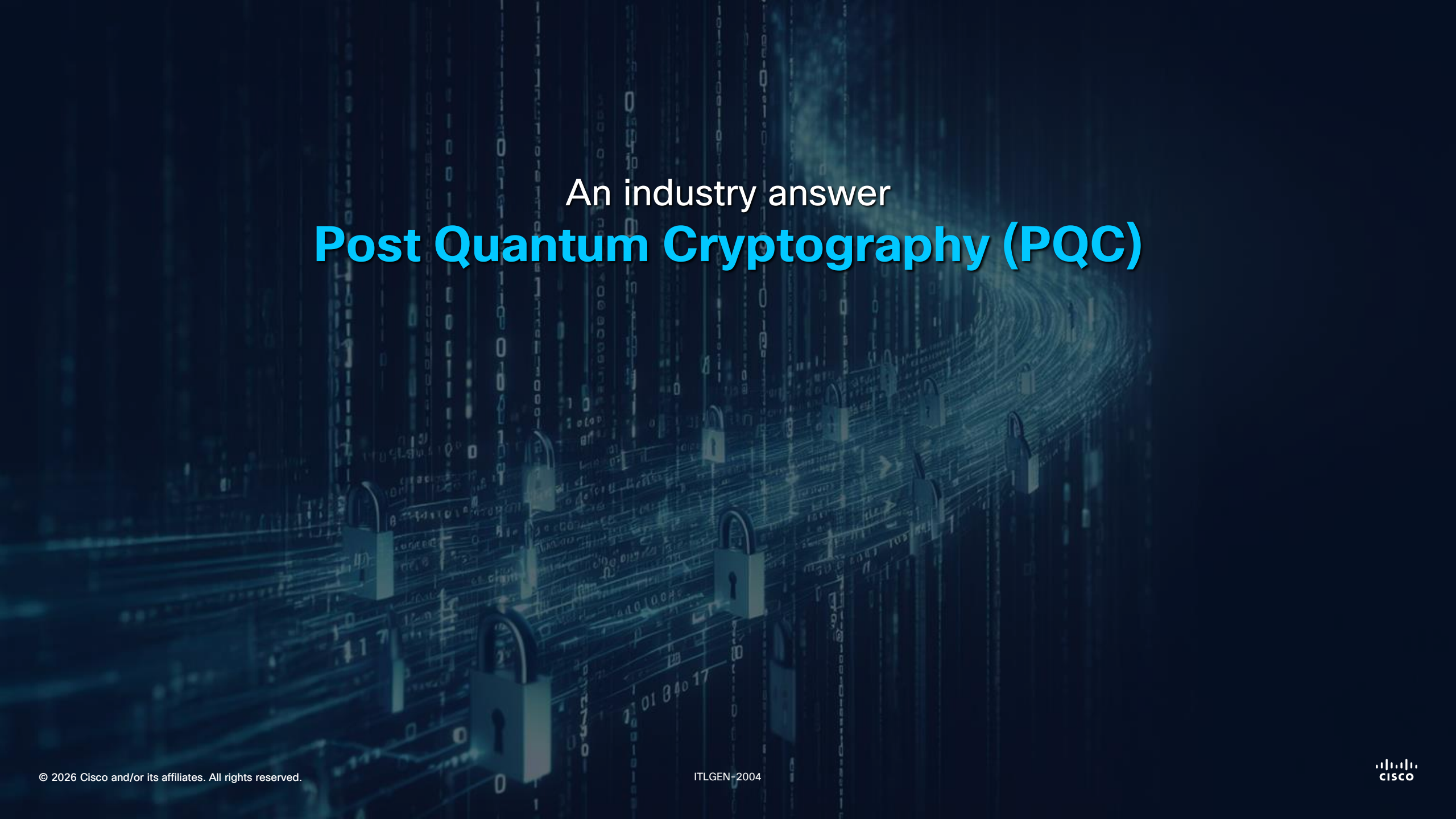
The background is a dark blue, abstract digital landscape. It features vertical streams of binary code (0s and 1s) that appear to be flowing or falling, reminiscent of the 'Matrix' effect. Several glowing, metallic padlocks are scattered throughout the scene, some in the foreground and others further back, creating a sense of depth. The overall aesthetic is high-tech and futuristic, representing themes of data security and quantum computing.

How many Qubits are needed to break  
today's encryption?



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

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

The background is a dark blue gradient with a digital theme. It features vertical streams of binary code (0s and 1s) and several glowing, metallic padlocks of various sizes. The padlocks are positioned at different depths, creating a sense of perspective. Some padlocks are open, while others are closed. The overall aesthetic is futuristic and tech-oriented.

# An industry answer **Post Quantum Cryptography (PQC)**



**Protecting  
infrastructure today**



**Quantum networks  
for the future**



**Partnerships  
for the long term**

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**

# The Challenge of **Shadow AI**

*Detect Unauthorized AI Apps – Prevent Data Leaks – Ensure Compliance*

To defend against  
*Machine Scale*  
*Attacks*, you need  
**Machine Scale**  
**Defense**



A woman with dark hair tied back, wearing a beige trench coat, is shown in profile. She is pointing her right index finger at a small, vertical digital screen mounted on a wall. In her left hand, she holds a smartphone. The background is a blurred office environment with shelves and equipment. The overall image has a dark, blue-tinted overlay.

## **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 Baselineing – 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?

# Securing AI



**AI Asset Visibility**



**Model Validation**



**AI Model Protection**



**Prompt Security**



**Ethical Framework**

# 4 Evolution of your workplace

## *Smart Programmable Buildings*



# Making the office a **Magnet for Returning Workers**



**Global Growth**



**OT Convergence**

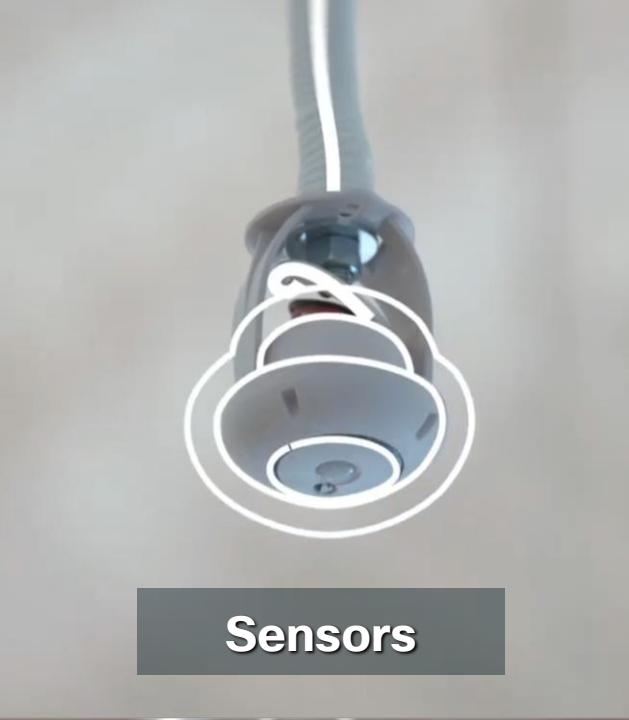


**Power over  
Ethernet**

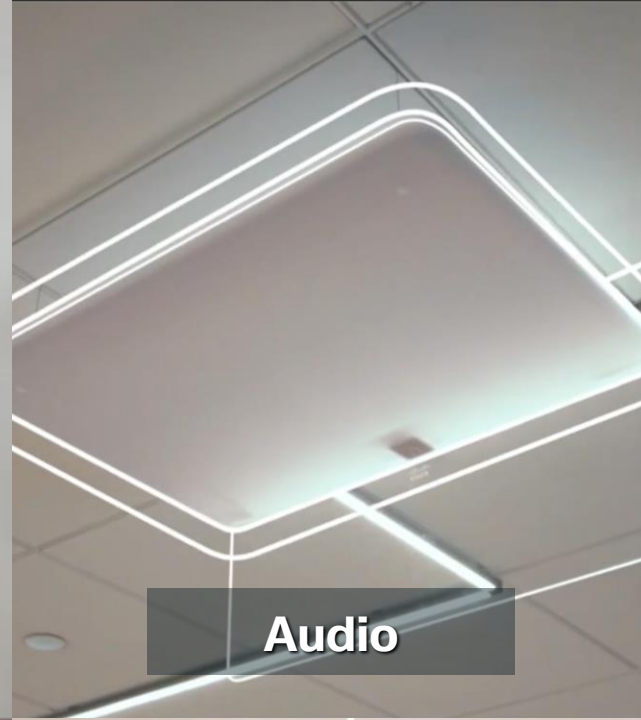
It Starts With  
**Power over Ethernet**



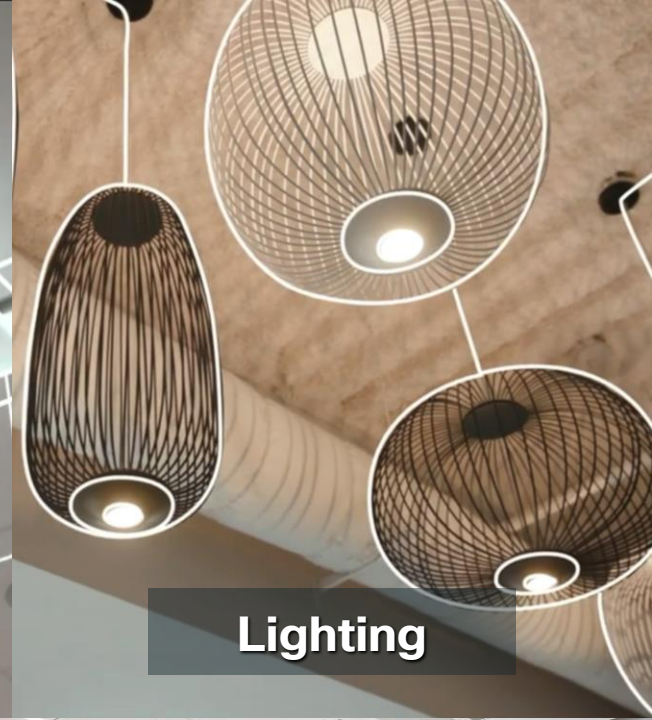
**Wi-Fi**



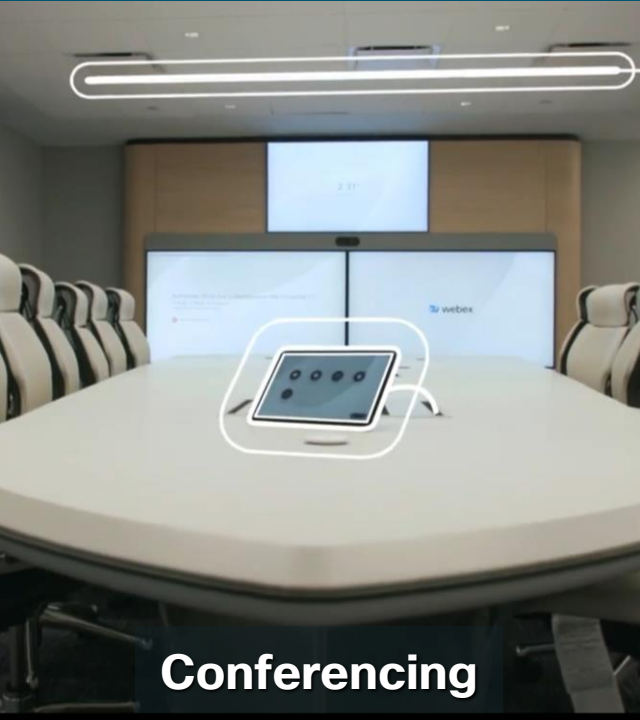
**Sensors**



**Audio**



**Lighting**



**Conferencing**



**Cameras**



**Thermostat**



**Window Shades**

# Pace of the Evolution of WIFI



Wi-Fi 7



4K QAM



MLO



Enhanced Security



320MHz in 6GHz



Multi RU

A woman with dark hair in a bun, wearing a light blue denim shirt and black leggings, is walking from left to right in a hallway. She is holding a tablet in her hands. The background consists of a wall of grey lockers. The floor has a geometric pattern.

# **Location** *Analytics*

**Indoor Navigation**

**Space Utilization**

**Behavior Analytics**

**Asset Tracking**

**Environmental Monitoring**

**Asset Location**

**Location Troubleshooting**

**Rogue Device Detection**

**Smart Desking**

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



**Distance Zero**

# Distance Zero Technology *Innovations*



**Head  
Detection**



**Noise  
Removal**



**People  
Frames**



**Meeting  
Zones**



**Cinematic  
Meetings**

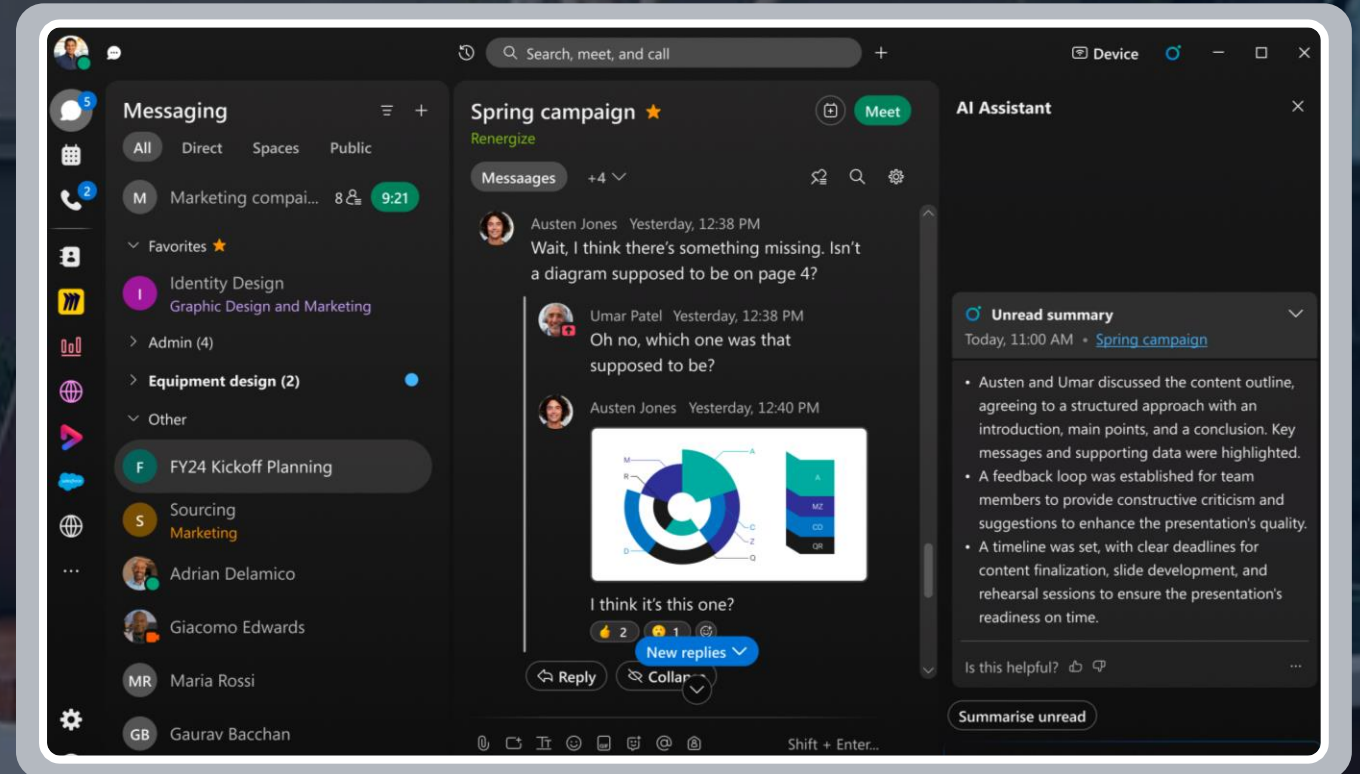
# 5 Say hi to your new co-worker

## *Agentic AI Operations*

A person wearing a military-style camouflage uniform is shown from the chest down, holding a tablet computer. Their right hand is pointing at the screen, while their left hand supports the device from below. The background is dark and out of focus, with some blue light reflecting off the tablet's surface.

# The Operator Paradigm is *shifting* **FAST**

# End User AI Assistants



**Writes, Summarizes, Translates**  
***Finds Answers***

# AI Agents for *IT Operators*



**Day 0, 1, 2 Functions**



**Documentation**



**How Do I?**

# Tomorrows *IT Engineers*

*Prompt to Code – AI Infrastructure Mgmt. – Use Git Copilots  
AI Module Generation – AI Automated Remediation*

# Ethical AI Framework



**Transparency**



**Fairness**



**Accountability**



**Privacy**



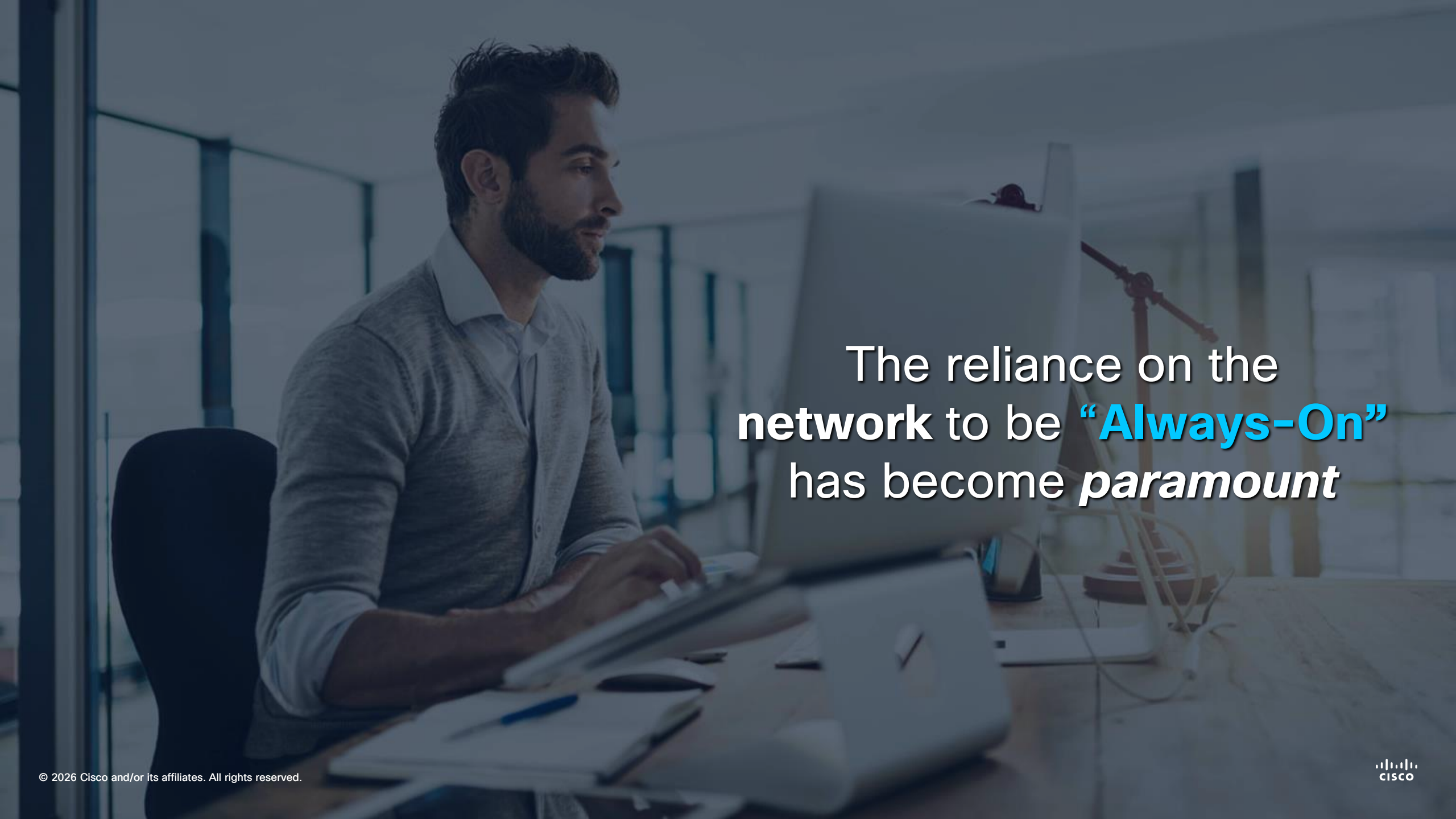
**Security**



**Reliability**

# 6 Separating the signal from the noise

## *Data Fabric Architectures*

A man with a beard, wearing a light-colored shirt and a grey cardigan, is sitting at a desk in a modern office. He is looking at a large computer monitor and typing on a keyboard. The office has large windows in the background, and the overall lighting is soft and professional. The text is overlaid on the right side of the image.

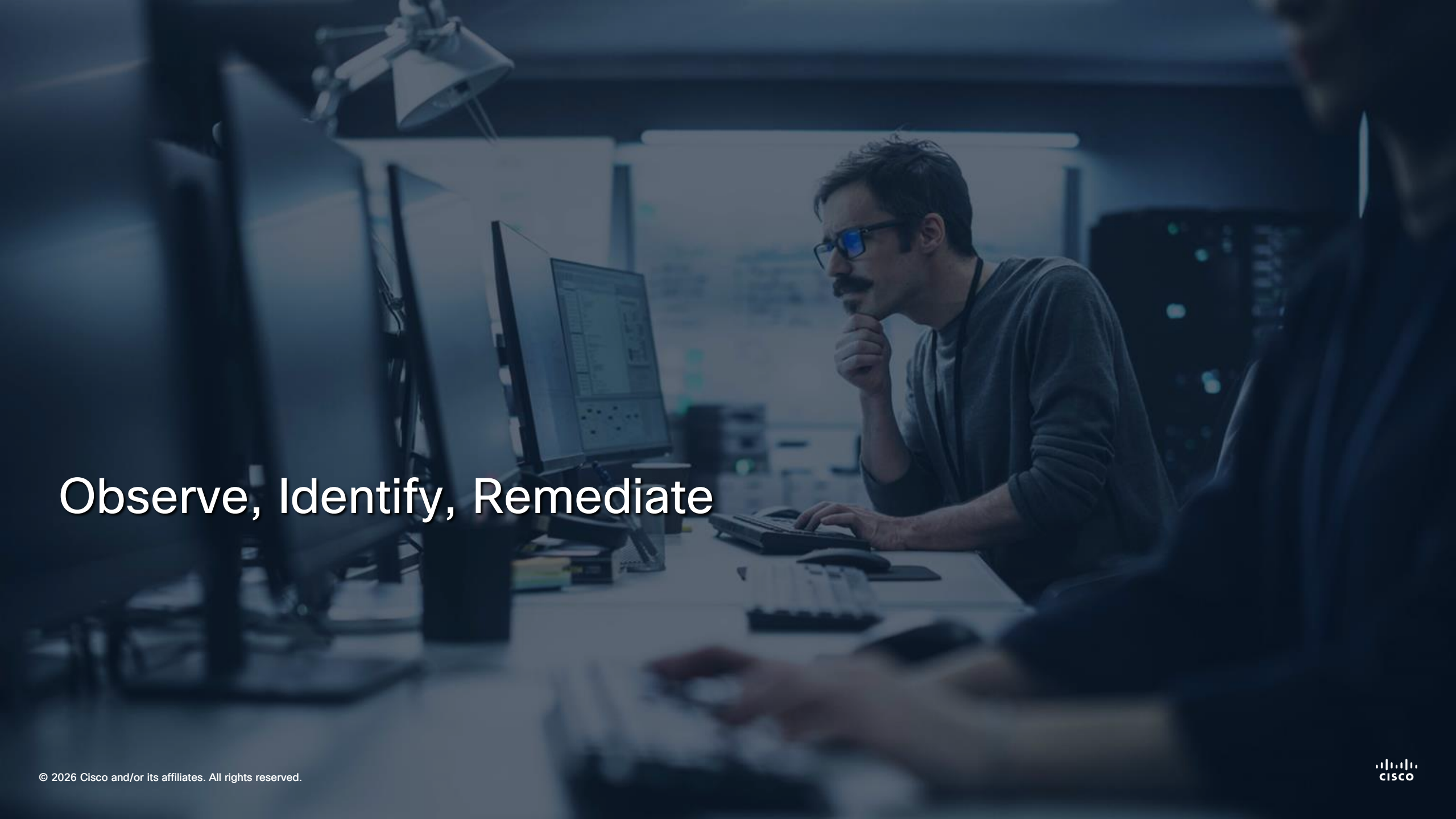
The reliance on the  
**network** to be “**Always-On**”  
has become *paramount*



# Business Continuity

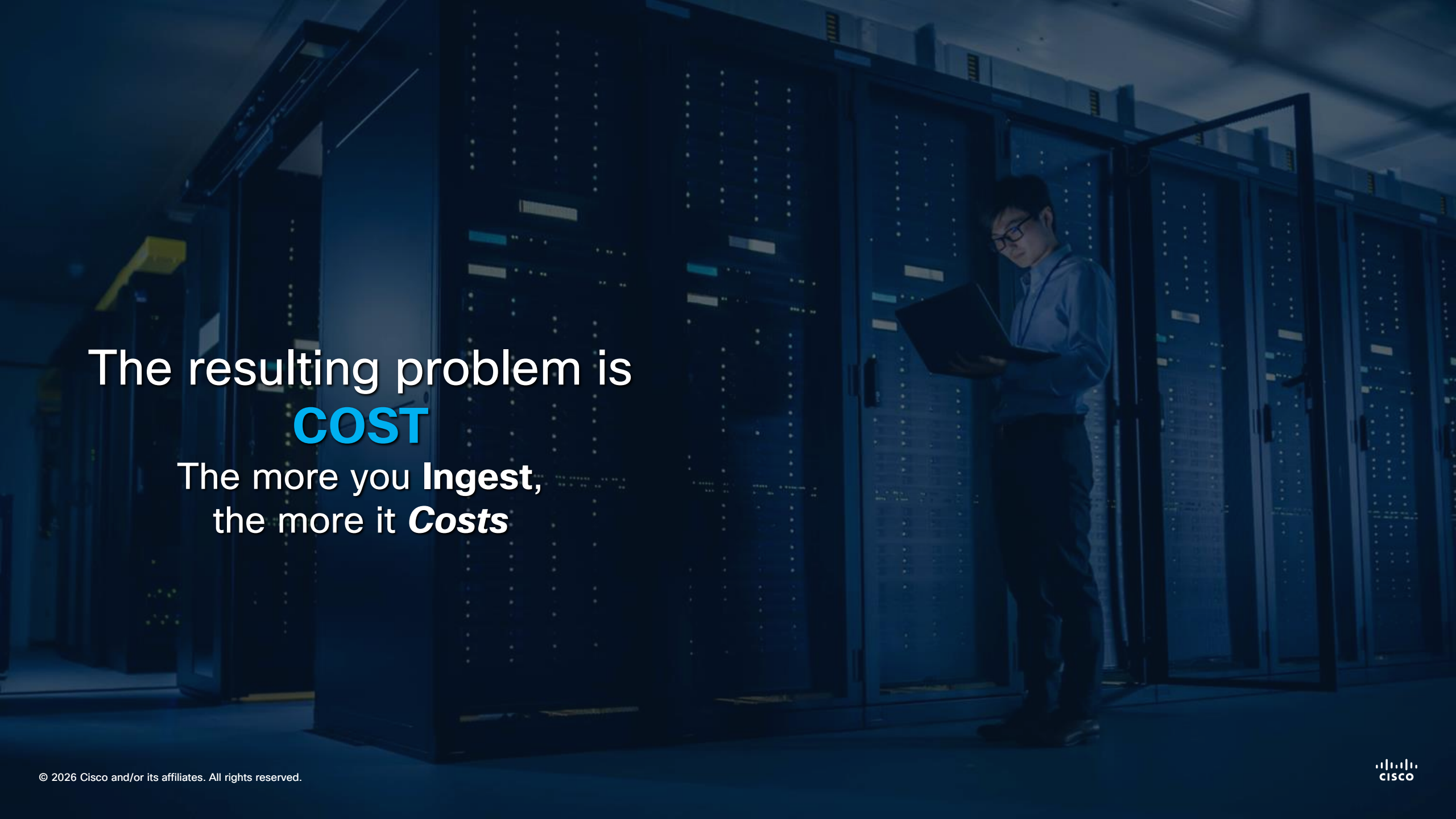
## The Network is the 4<sup>th</sup> Utility

*Water – Gas – Electricity – Network*

A man with a mustache and glasses is sitting at a desk in a server room, looking at several computer monitors. He has his hand on his chin, appearing to be in deep thought. The room is dimly lit with blue tones, and server racks are visible in the background. The text "Observe, Identify, Remediate" is overlaid on the left side of the image.

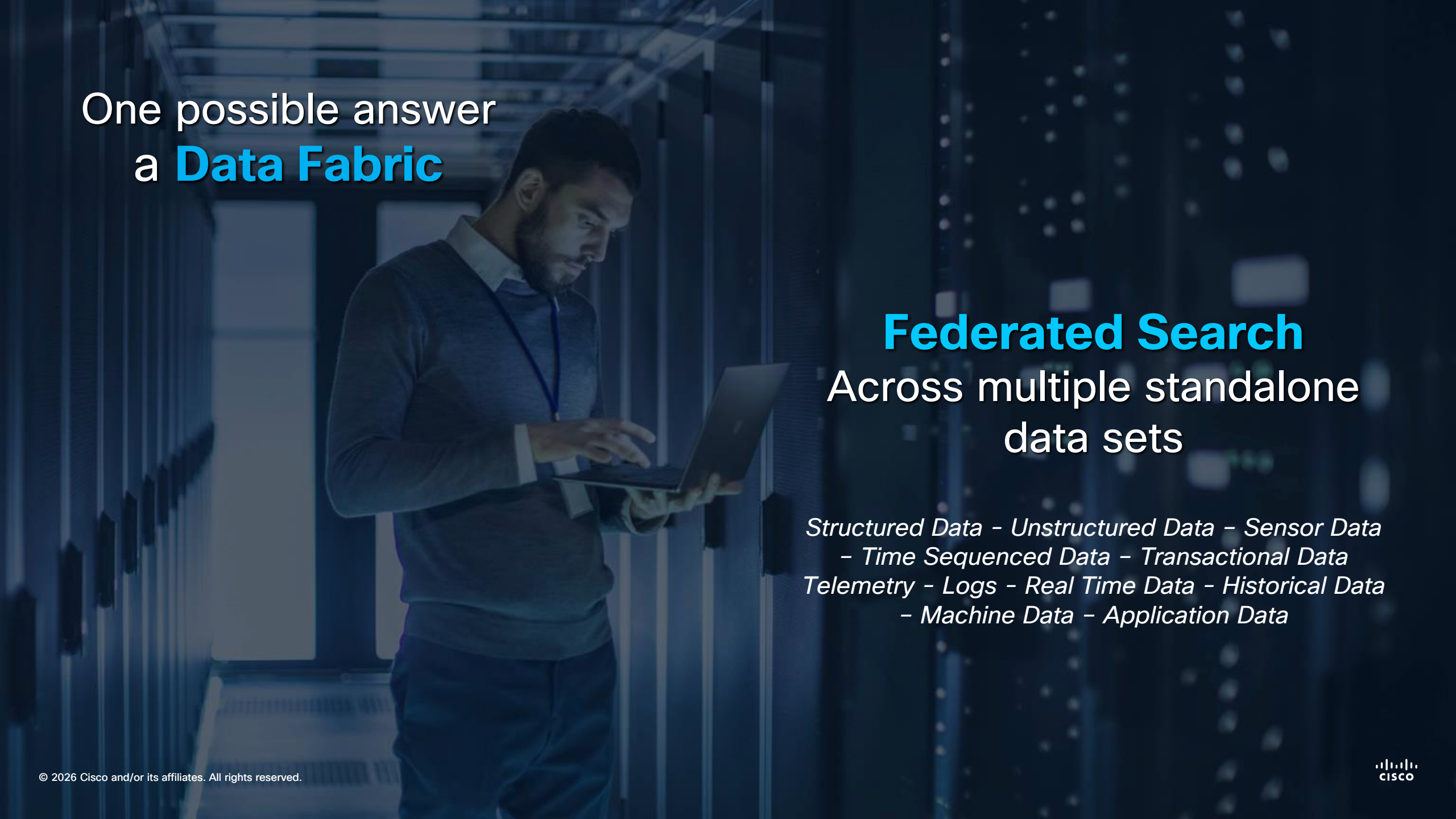
Observe, Identify, Remediate

You need **DATA**  
and a LOT of it...

A man wearing glasses and a light blue shirt is standing in a server room, looking at a laptop. He is positioned in front of several rows of server racks. The room is dimly lit with a blue tint, and the server racks are filled with equipment.

The resulting problem is  
**COST**

The more you **Ingest**,  
the more it **Costs**

A man with a beard, wearing a grey sweater over a light blue collared shirt and dark trousers, stands in a server room. He is holding a laptop and looking at the screen. The background shows rows of server racks with blue lighting.

One possible answer  
a **Data Fabric**

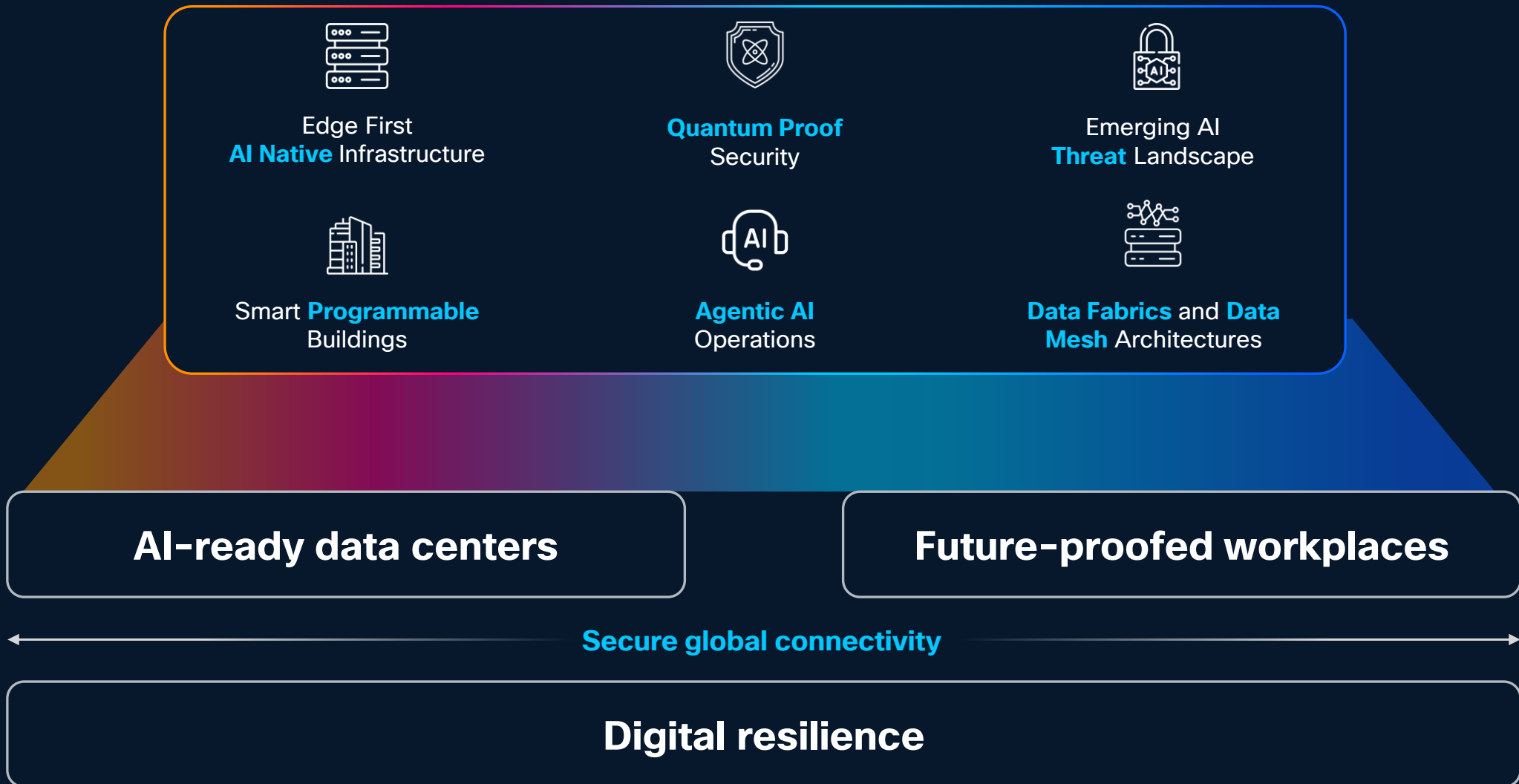
## **Federated Search**

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*

**Your radar to move forward**

# And Cisco is preparing you for what lies ahead





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



Thank you



