AI-native Secure Infrastructures

FABRIZIO GERGELY

Responsabile Architetture ed Innovazione in Italia Cisco Systems

VEM LIVE 2024

AI is changing everything...

Our structural **advantage**

Platform

AI

Silicon

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AI is a **growth driver** and **differentiator**

AI-native products

AI infrastructure

Security for AI

Data

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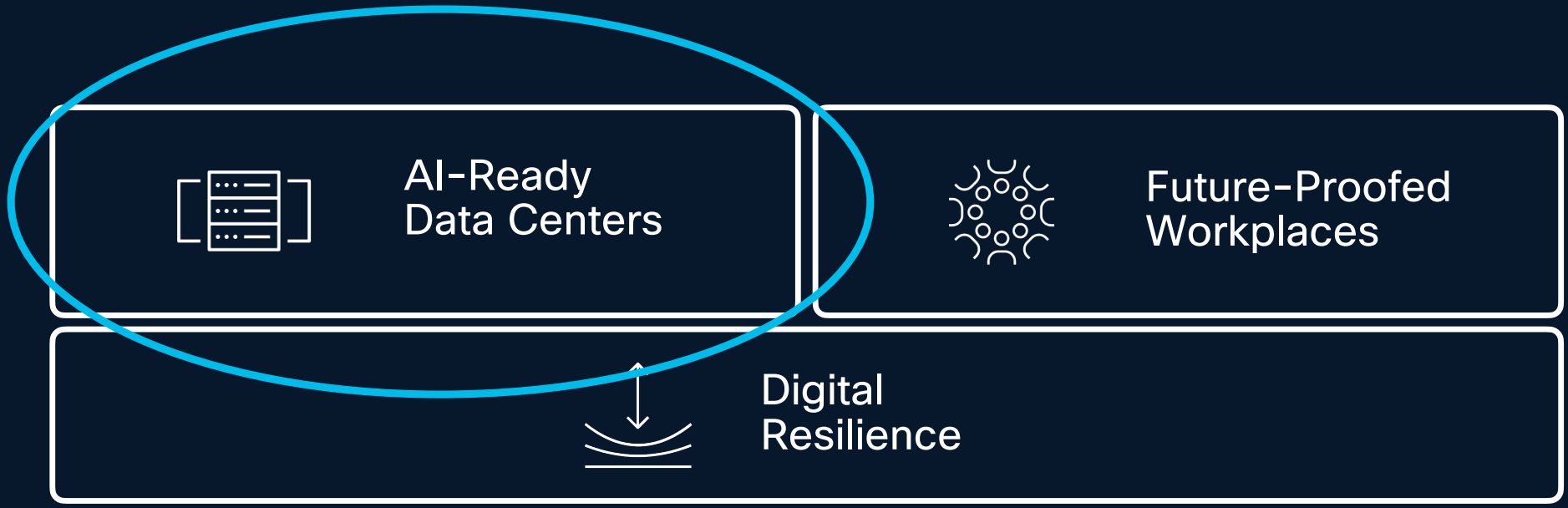

Accelerated
by Cisco AI

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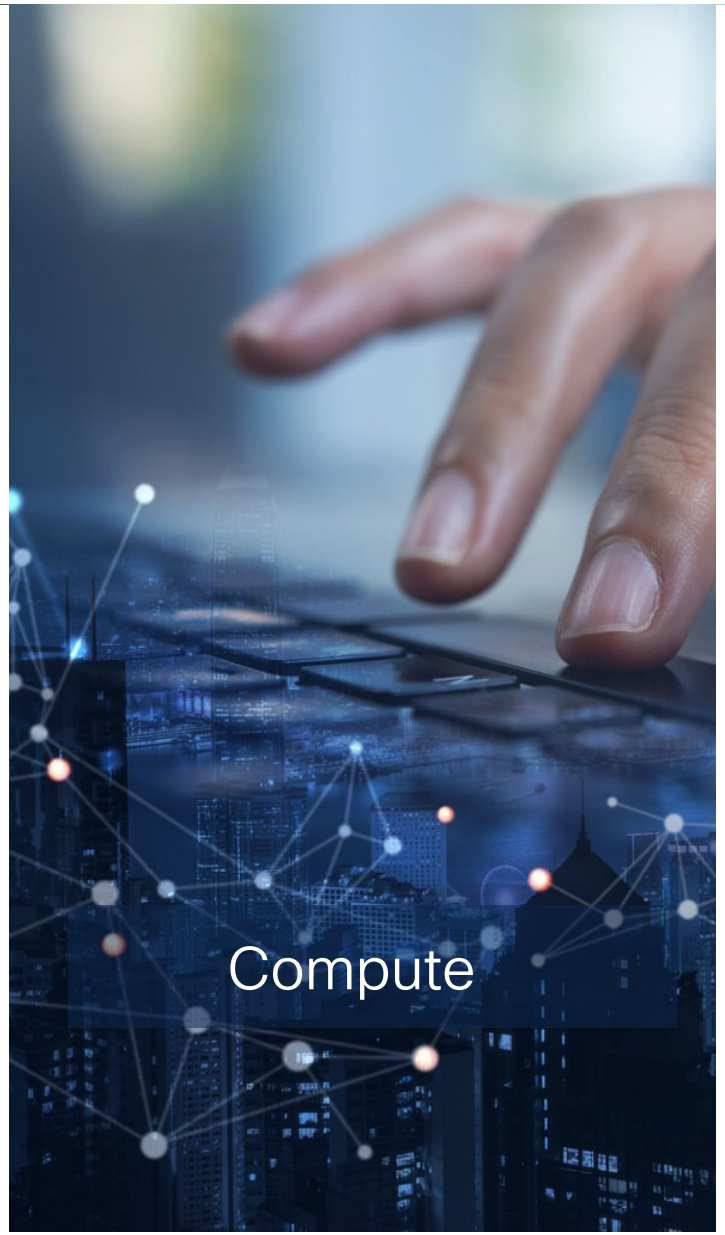
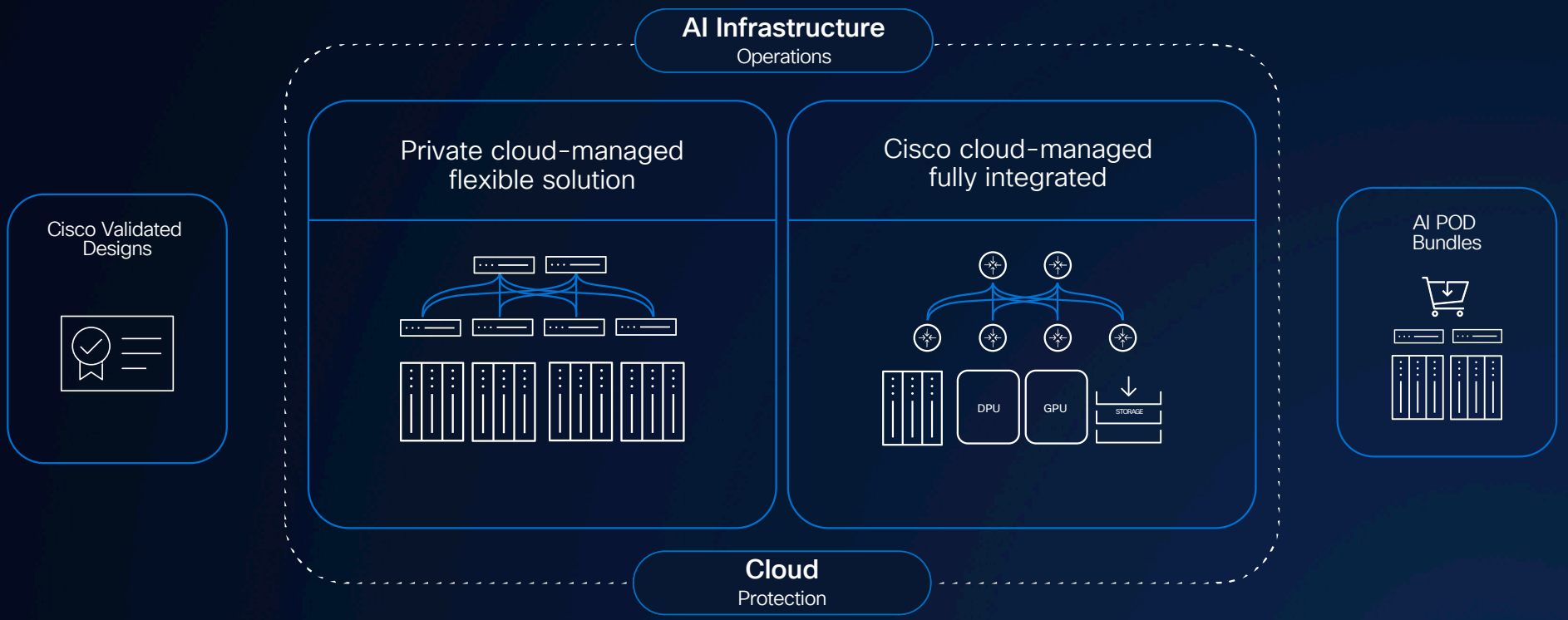
Connectivity


Compute

Security

AI-Ready Data Center



Digital Resilience: security, reliability, and performance

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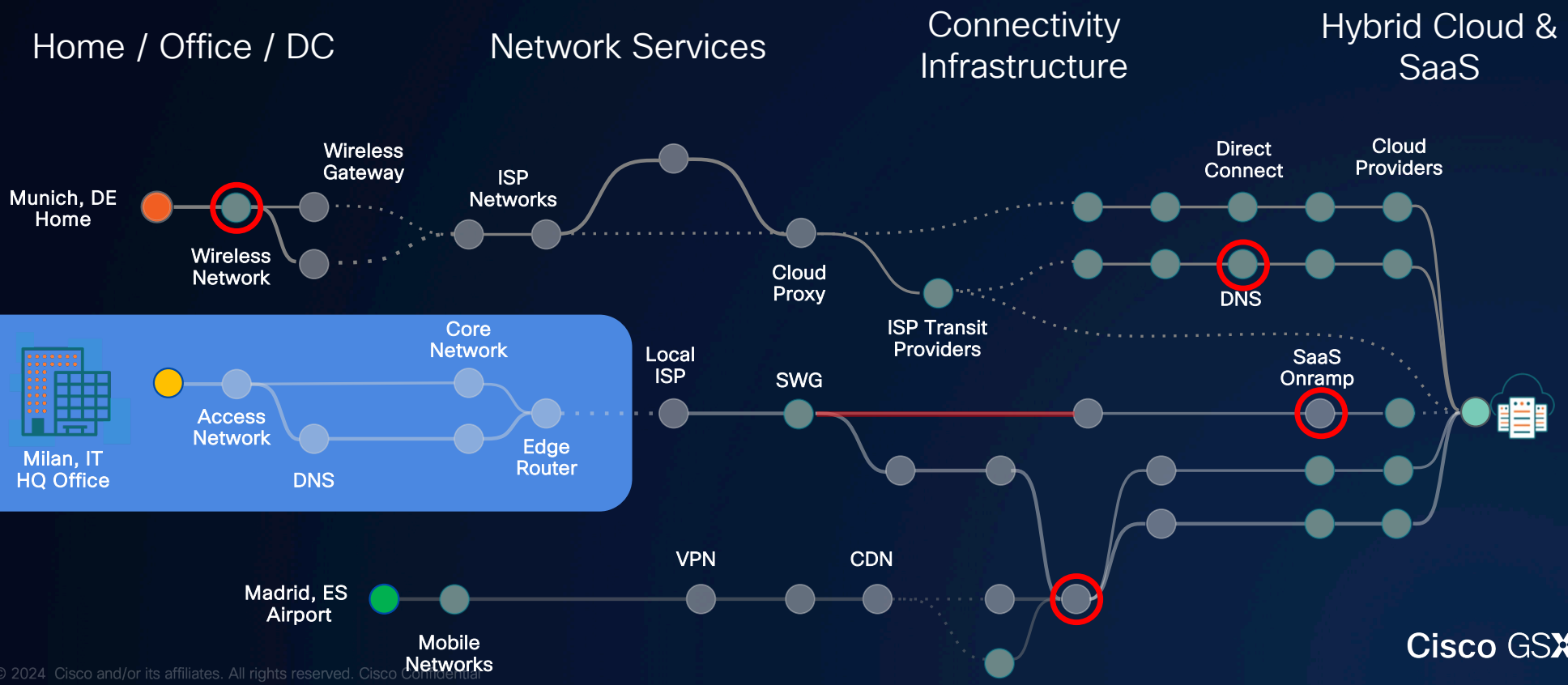
How infrastructures look like….

ThousandEyes End to End Visibility



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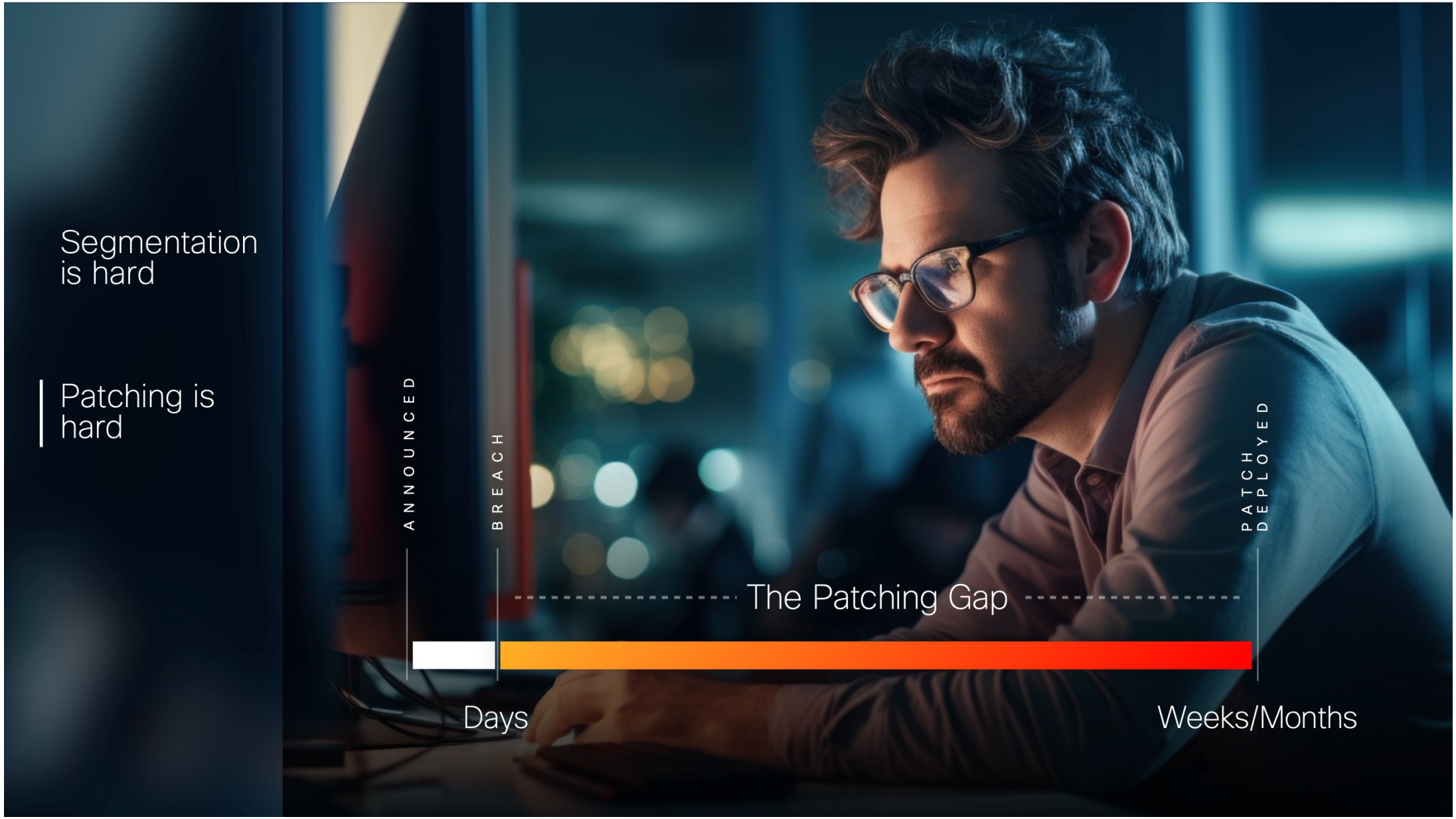
Segmentation is hard


Segmentation is hard
Patching is hard
ANNOUNCED
BREACH
PATCH DEPLOYED
The Patching Gap
Days
Weeks/Months

Segmentation is hard

Patching is hard

Upgrading is hard

Protecting data centers in the AI era requires a **reimagined security architecture**

Hypershield is changing the game

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Enforce locally

Manage globally

Public Cloud

Private Cloud

IOT/OT/Edge

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AI-powered

Cloud Native

Highly distributed

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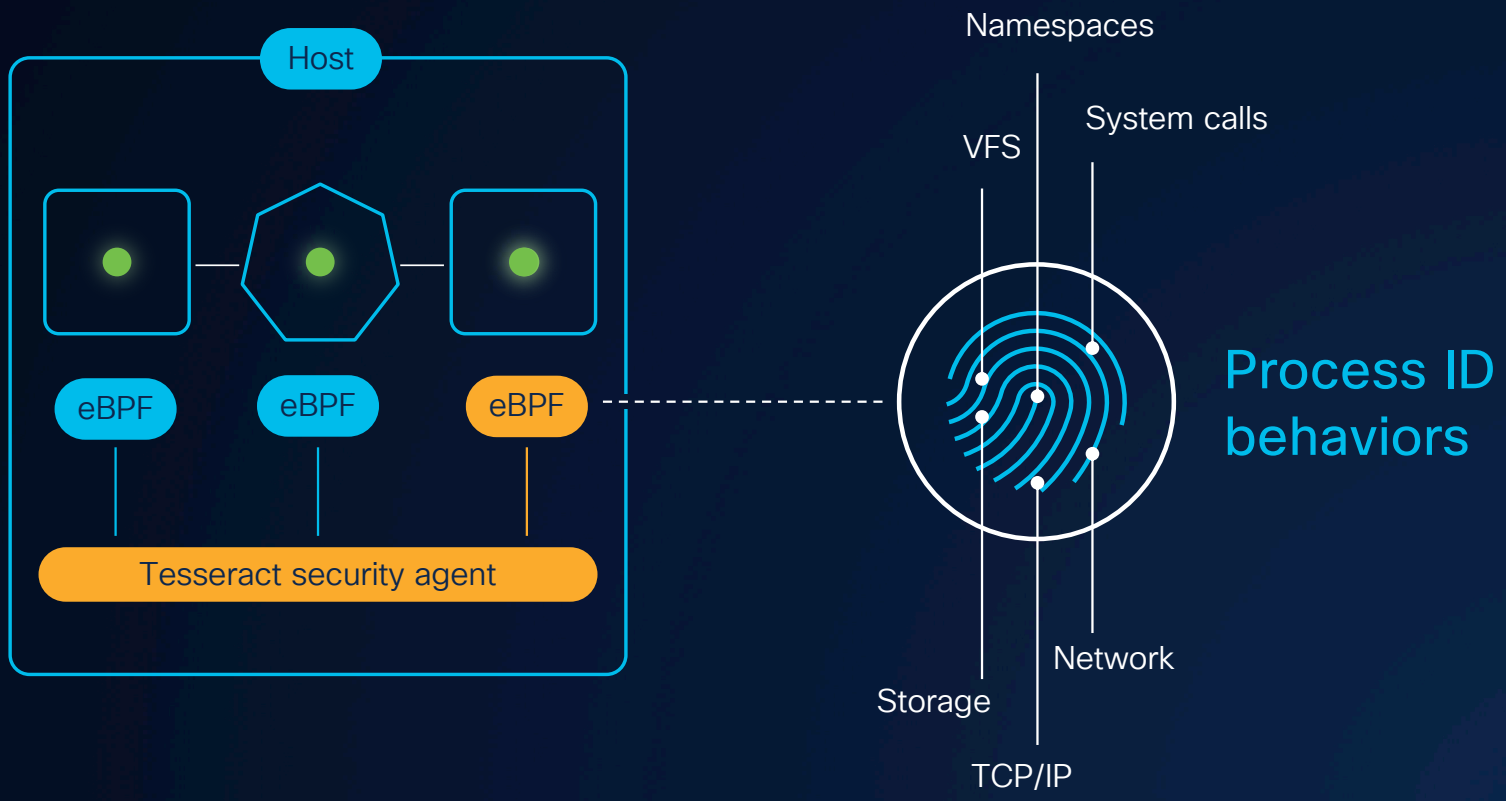
Deep visibility and enforcement in the workload



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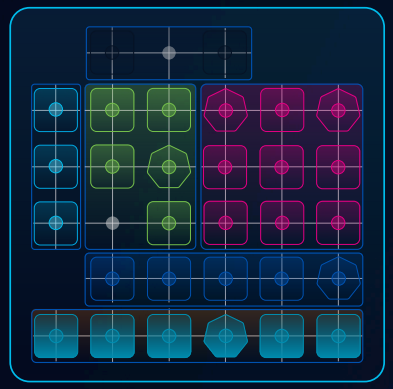
CPU vs. GPU vs. DPU

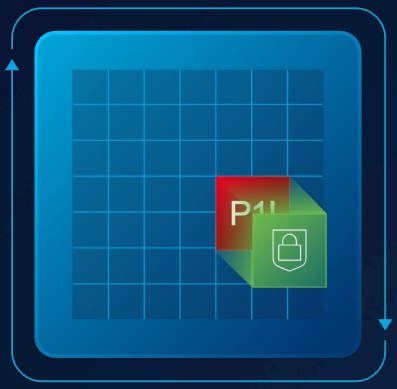
CPU	GPU	DPU
Several cores	Many cores	Dozens of cores
Low latency	High throughput	Higher degree of versatility
Ideal for serial processing	Ideal for parallel processing	Ideal for big data processing
Handles a handful of operations at once	Handles thousands of operations at once	Handles thousands of operations at scale

Cisco Hypershield use cases



Autonomous segmentation

- Deep understanding of app behavior
- Comprehensive inputs for policy creation
- Constantly adapting to changing apps



Distributed exploit protection

- Mitigate known and unknown vulnerabilities
- Surgical mitigating controls
- Protection within minutes, while app keeps running

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Dual dataplane: AI that earns your trust

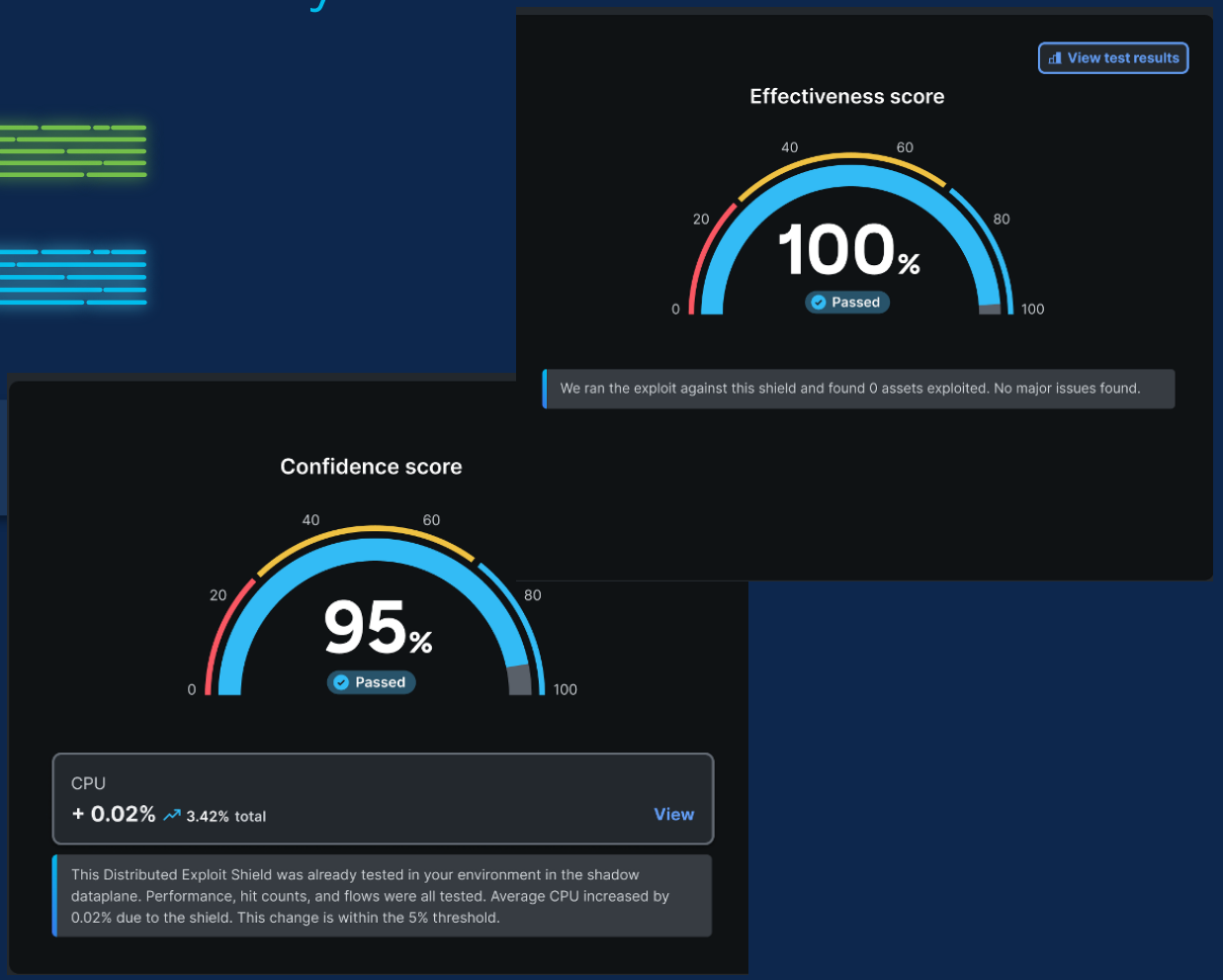
Primary Data Plane

VERSION 2.0 | DEPLOYED POLICY

VERSION 2.1 | POLICY GROUP A

Shadow Data Plane

Self Qualifying SW updates
Policy Verification, Exploit Protection Testing



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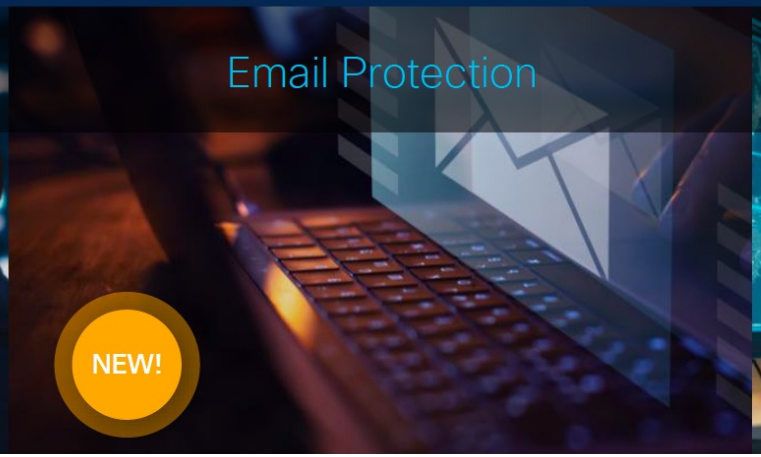
Making AI pervasive across the Cisco Security Cloud



AI-ready Secure Data Centers to build a **Digital Resilient** organisation

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THANK YOU !

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