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The bridge to possible

Automating Deployments of Secure Networks

with Cisco DNA Center

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BRKOPS-1506

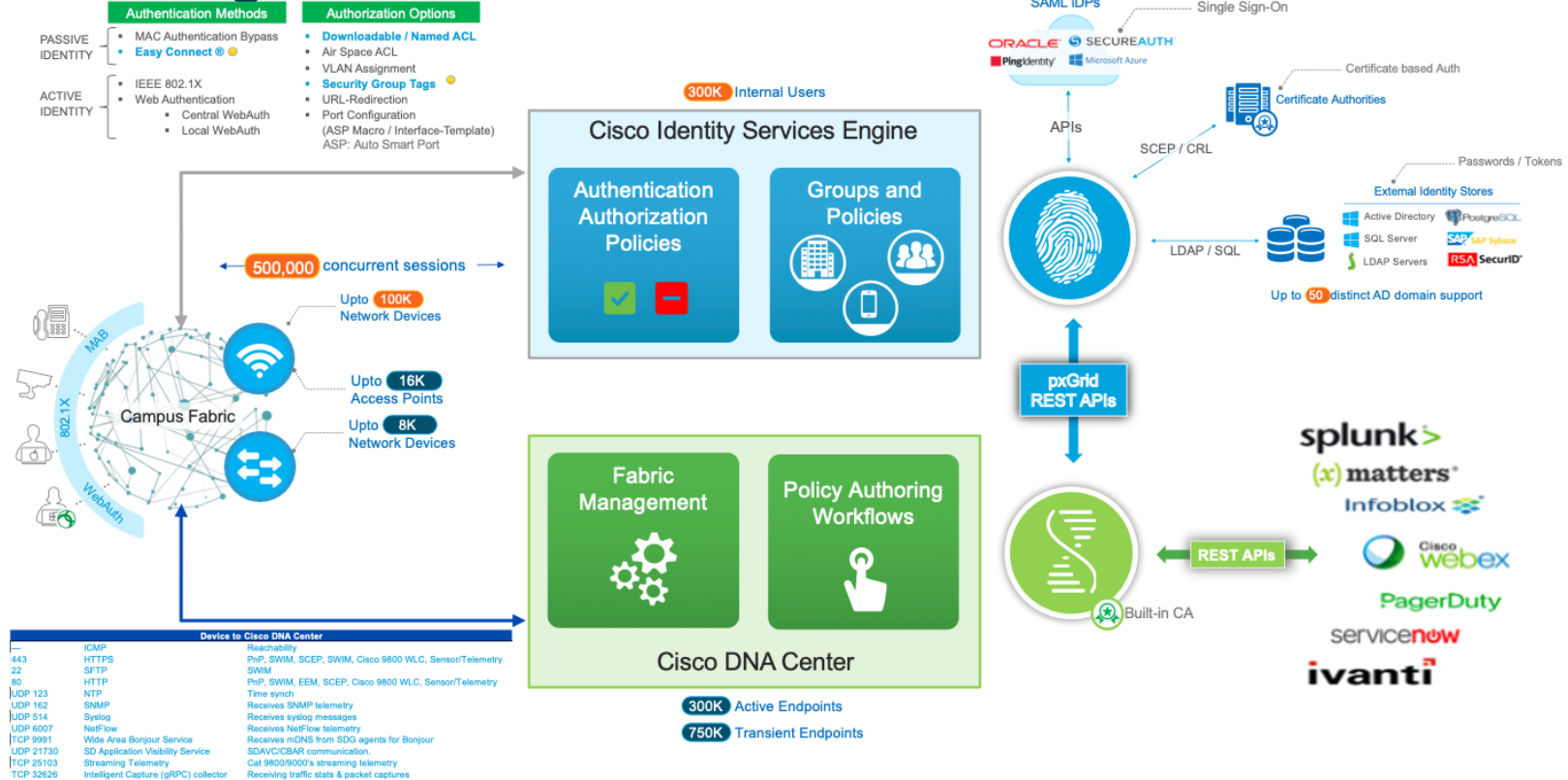


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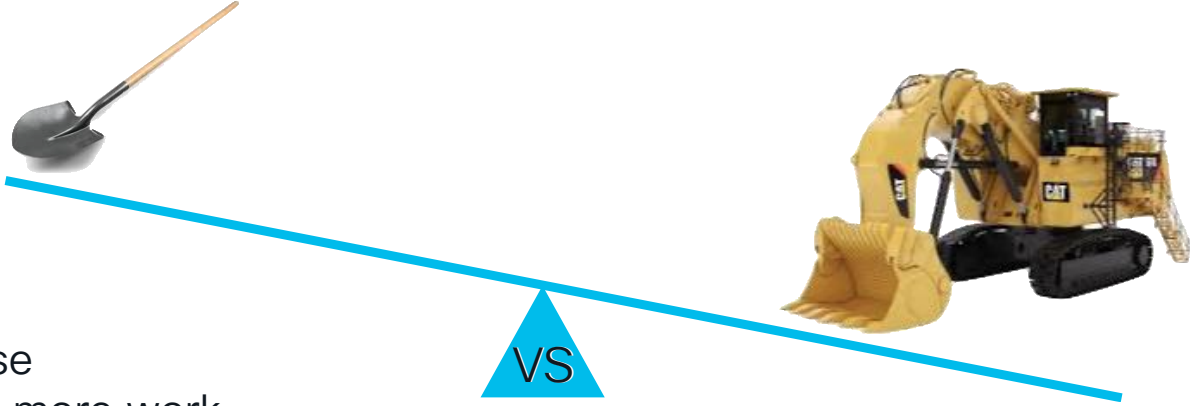
“Do the difficult things while they are easy and do the great things while they are small. A journey of a thousand miles must begin with a single step.

Lao Tzu

Challenges



Everything in life is about Balance



Easy to use

- means more work
- changes take longer

VS

Over



Complexity

- means less work
- more learning up front
- Easily repeat tasks effortlessly

Agenda

- DNA Center and ISE
- Deploying Secure Networks via Automation
- Visibility driven Segmentation
- Deploying Stealthwatch for Proactive Testing
- Deploying Umbrella for DNS Security
- Troubleshoot Hosts in Secure Networks

DNA Center & ISE

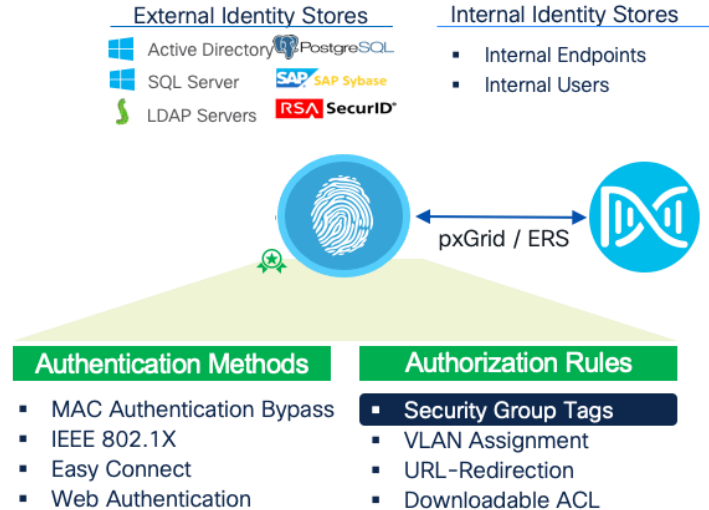


Automating Secure Networks

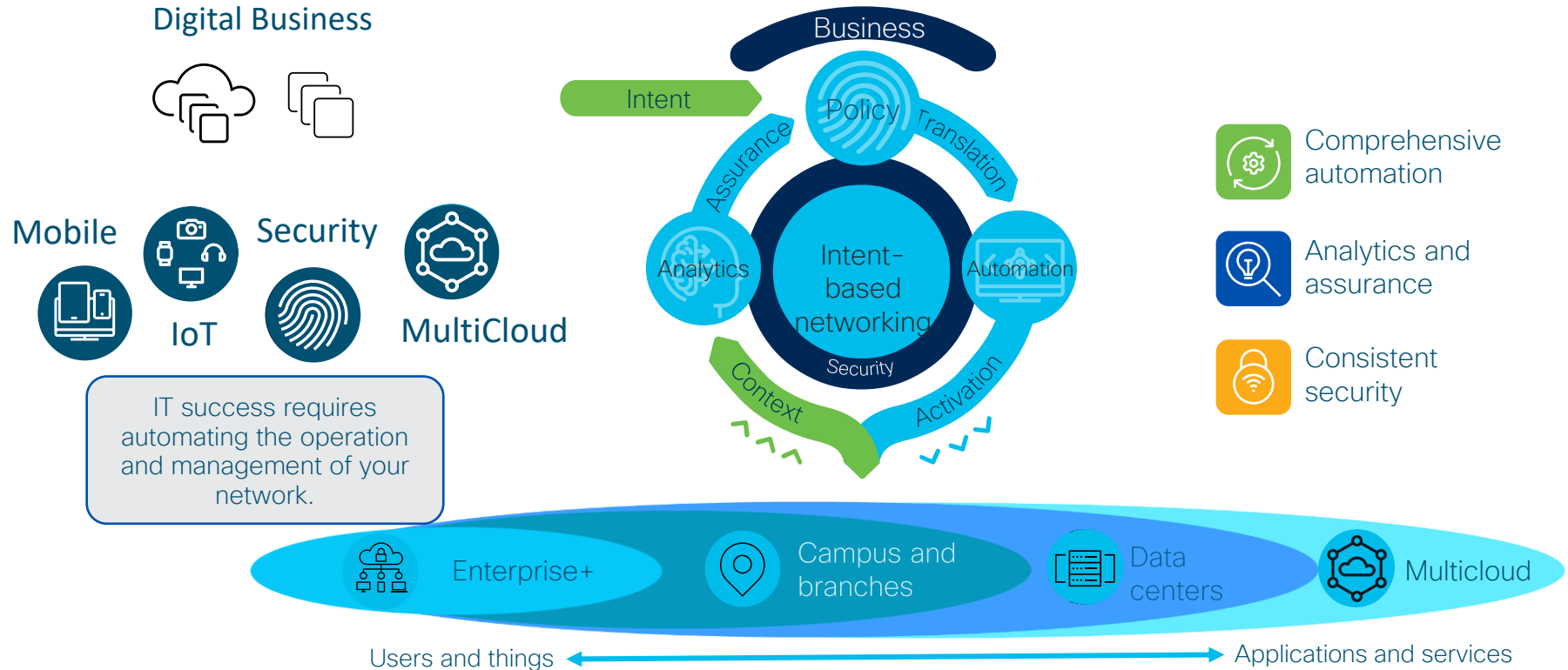


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Securing Onboarding with Micro-Segmentation



Intent-based networking



Capabilities with Cisco DNA Center



AIOps

AI/ML and Machine Reasoning to ensure the health, performance, reliability and resilience of applications and infrastructure

End to End Visibility
Full Stack Observability
Smart Alarms with AI/ML
Automated Troubleshooting with Machine Reasoning Engine (MRE)
ITSM Closed-Loop Incident Management



NetOps

Automation and workflows to simplify building and maintaining large scale networks

Zero Touch Onboarding (PnP)
Automated SW Image Management (SWIM)
Configuration Monitoring and Compliance Reporting
ITSM Closed Loop Change Management



SecOps

Implement Zero Trust architectures with SD access and SecOps automation to secure the workplace

AI-Endpoint Analytics
Group-based Policy Analytics
Software Defined Access (SD-Access)
Firewall, Stealthwatch, Umbrella automation



DevOps

Enterprise integration and programmability on foundation of out-of-the-box connectors, open APIs and public SDKs

Ansible and Terraform Collections
Intent-based APIs
Webhooks
Python SDK
Developer Guides
Cisco DevNet

A Business Outcomes Focus with AI Centricity

Increase
IT Team Agility ①

Provide a Consistent
Wireless Experience ②

Deliver a
Secure Network ③

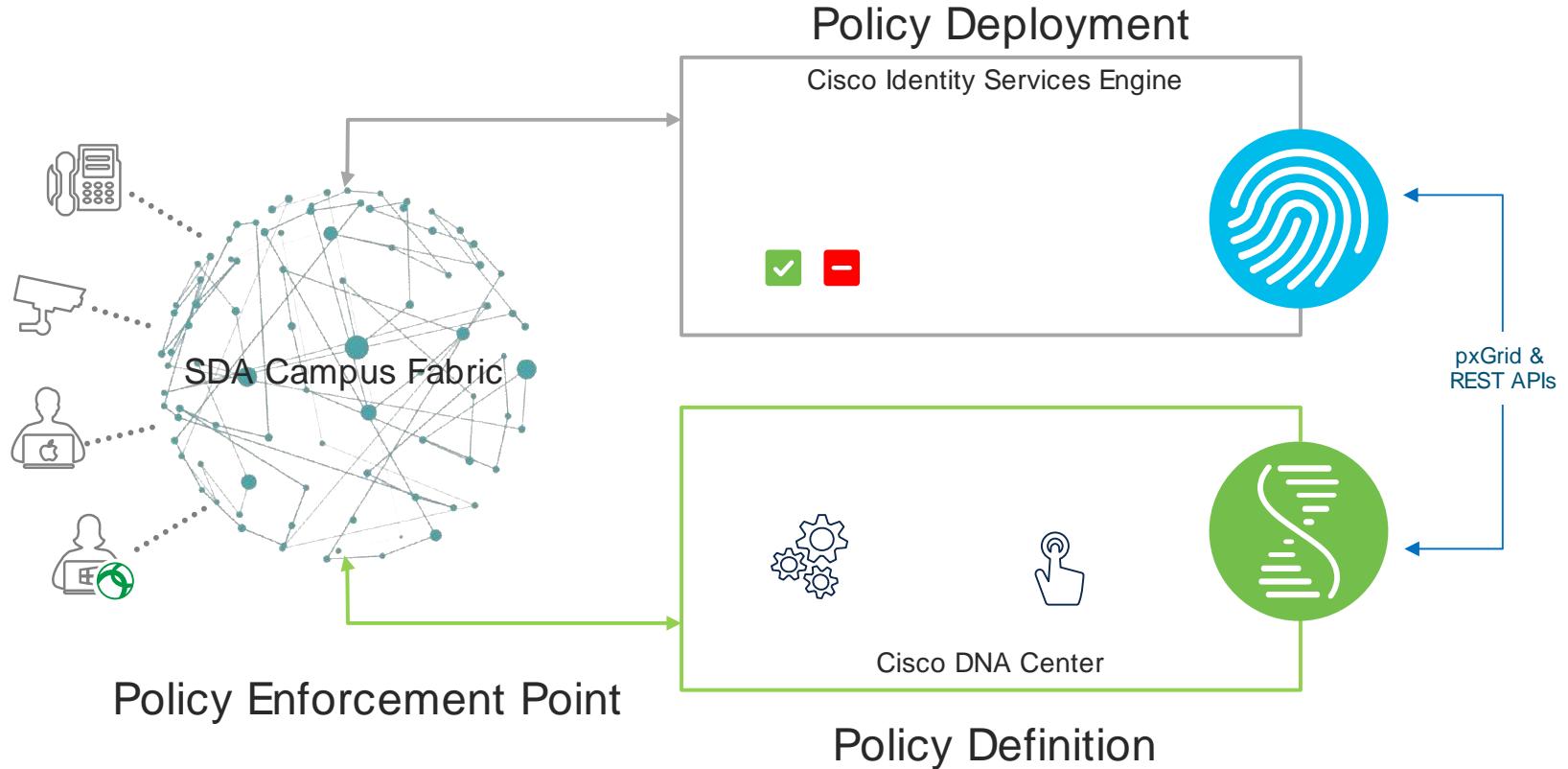


④ Proactively
Detect Issues

⑤ Improve Application
Experience

⑥ Manage Smart Buildings
and Accelerate IoT

ISE and DNA Center Integration



DNA Center & ISE Demo

Automating Secure Networks



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Deploying Secure Networks via Automation

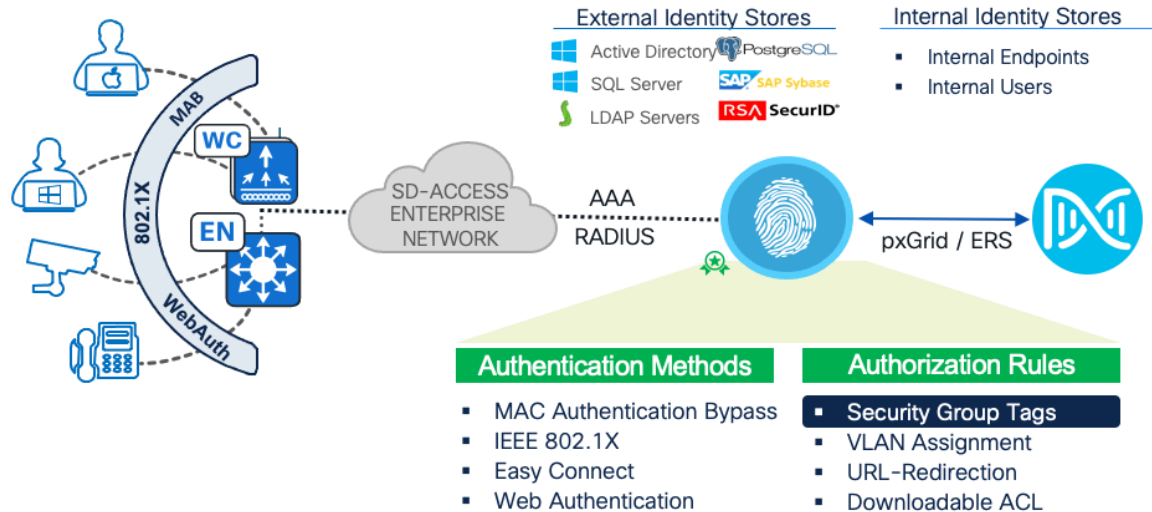


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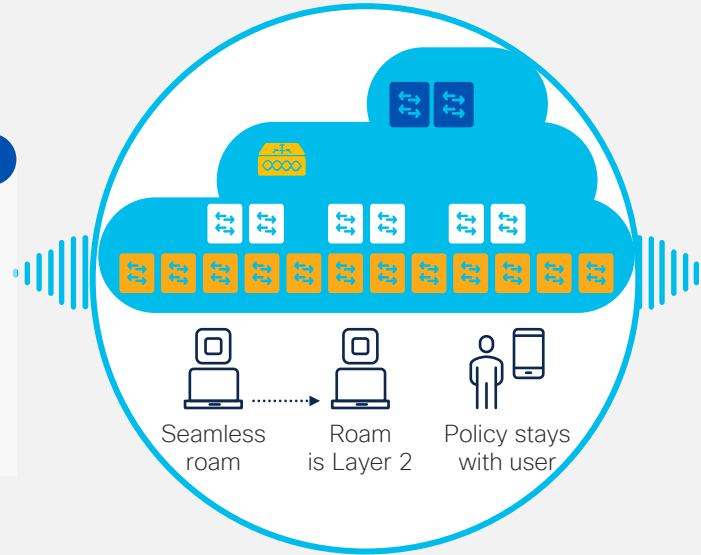
Securing Onboarding with Micro-Segmentation



Consistent wired and wireless management

Before DNA Center

- Repeated policy work for wired and wireless
- Roaming issues across Layer 3 domains
- Chase down IP addresses for troubleshooting
- Create IP-based ACLs for access policy
- Deal with policy violations and errors manually



After DNA Center

- Consistent management for entire network
- Seamless roaming with optimal traffic flows
- IP Independent role based policy
- Define one consistent policy
- Policy follows Identity

Simplified provisioning

Campus-wide roaming

Wired and wireless consistency

Deploying Secure Networks Demo

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Visibility driven Segmentation

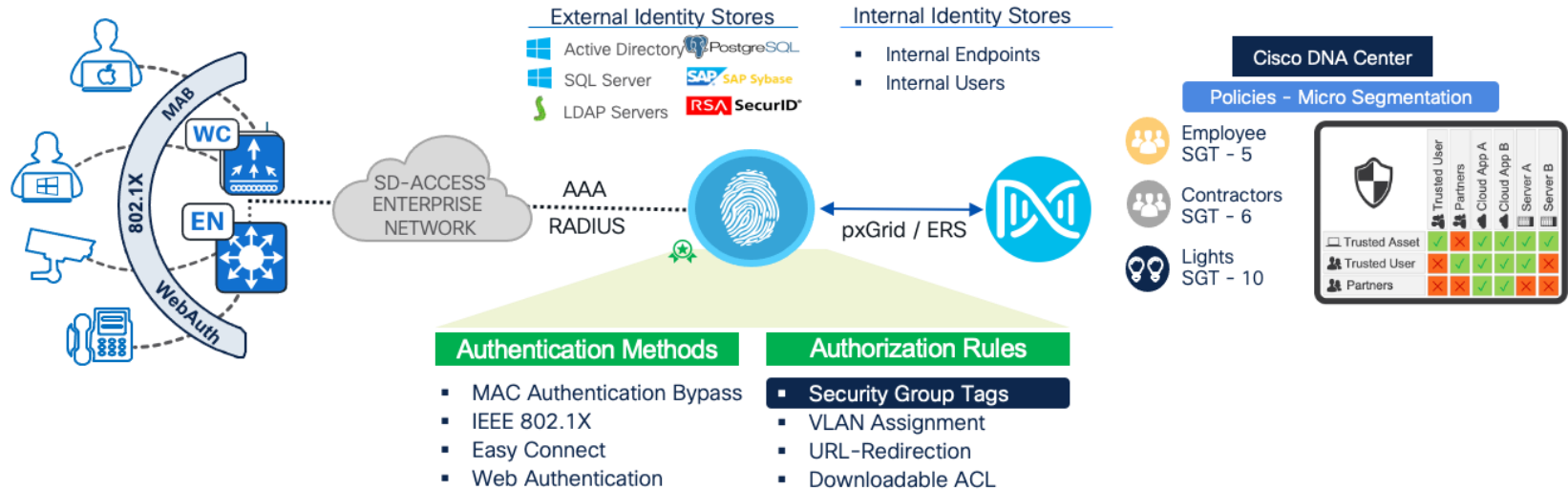


Automating Secure Networks

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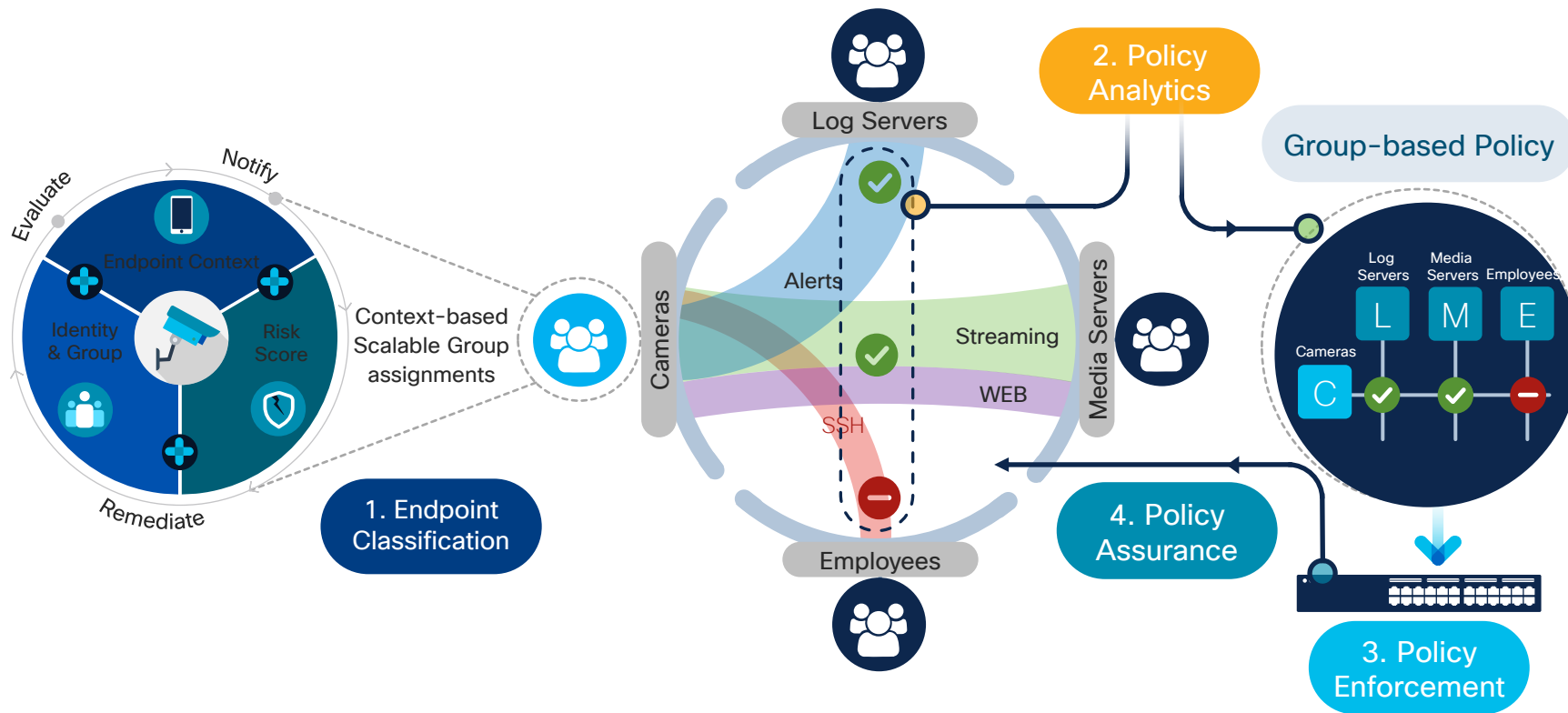


Visibility Driven Segmentation

Bringing it together



Cisco DNAC and ISE



Visibility driven Segmentation Demo

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Deploying Stealthwatch for Proactive Testing

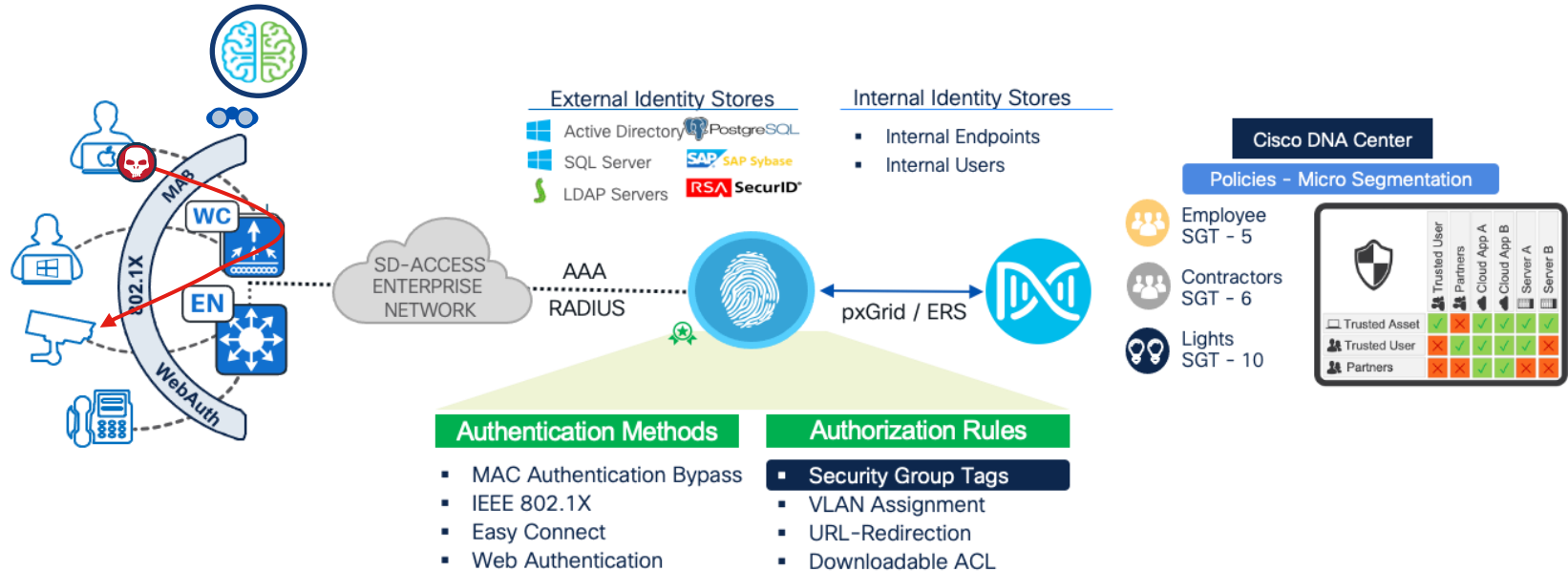


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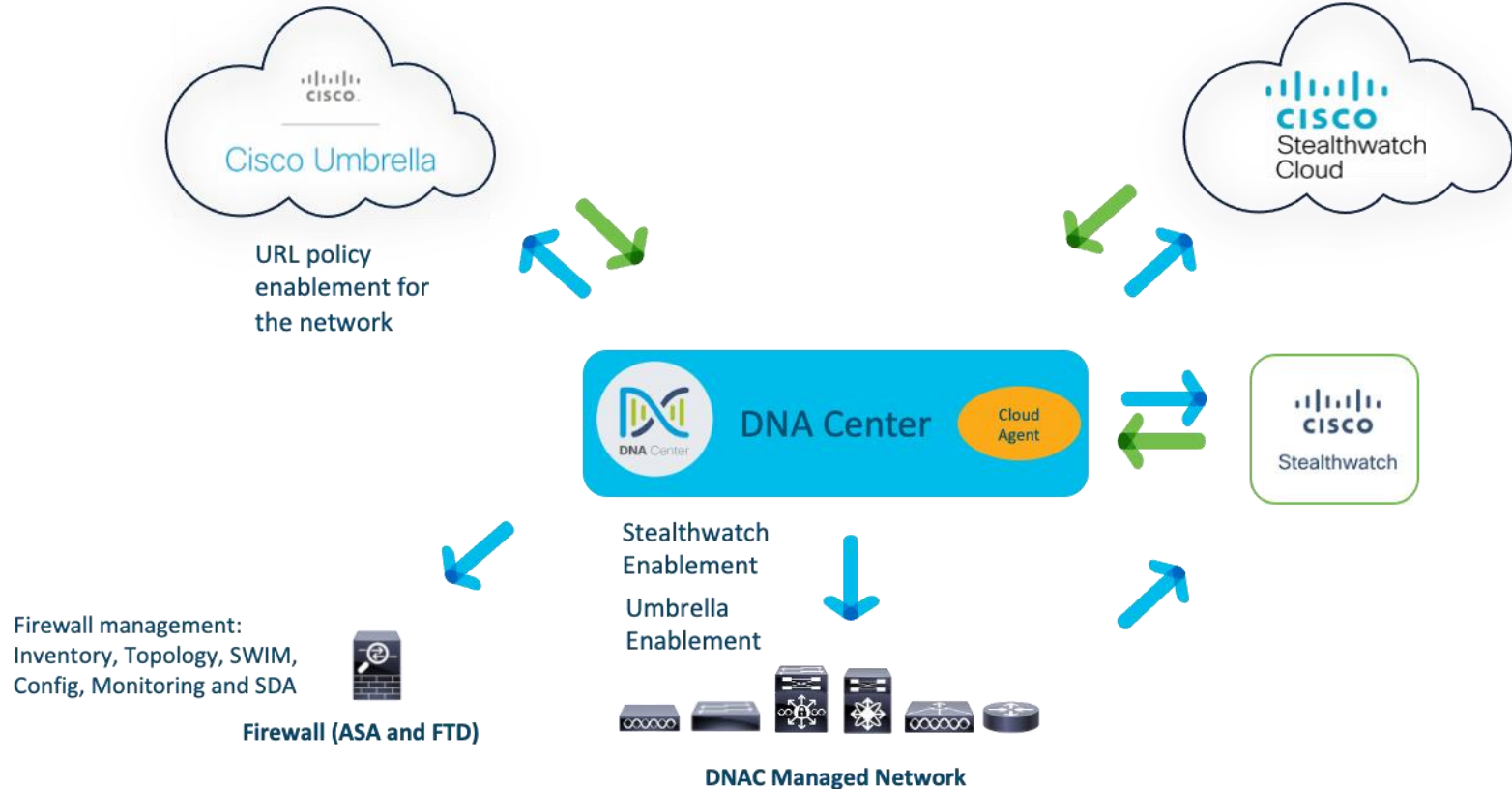


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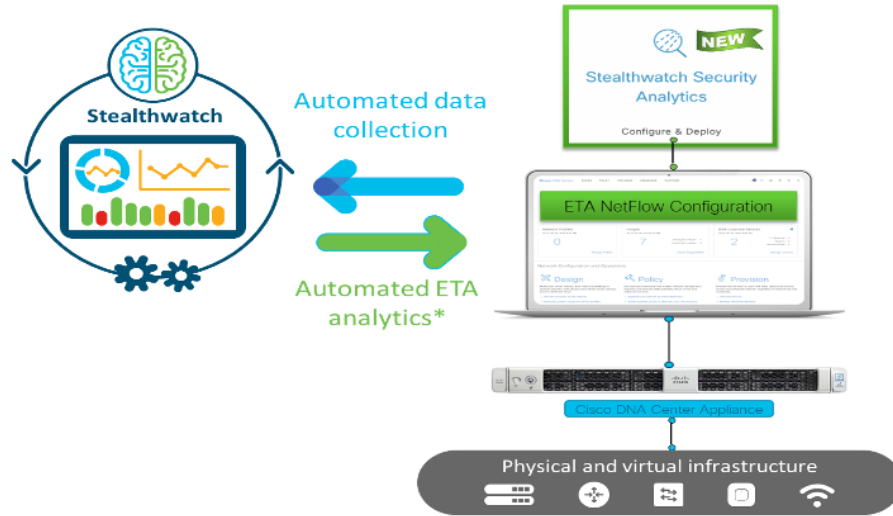
Securing Onboarding with Micro-Segmentation



Security Integrations



Stealthwatch



❖ Deploy ETA in Minutes!

- ❖ Guided workflow makes it easier for networking teams to enable Stealthwatch Security Analytics
- ❖ Site based provisioning
 - ❖ Traditional Wired Networks
 - ❖ SD-Access Fabrics
- ❖ Automated readiness check
- ❖ Visibility of deployment status

Deploying Stealthwatch Demo

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Deploying Umbrella for DNS Security

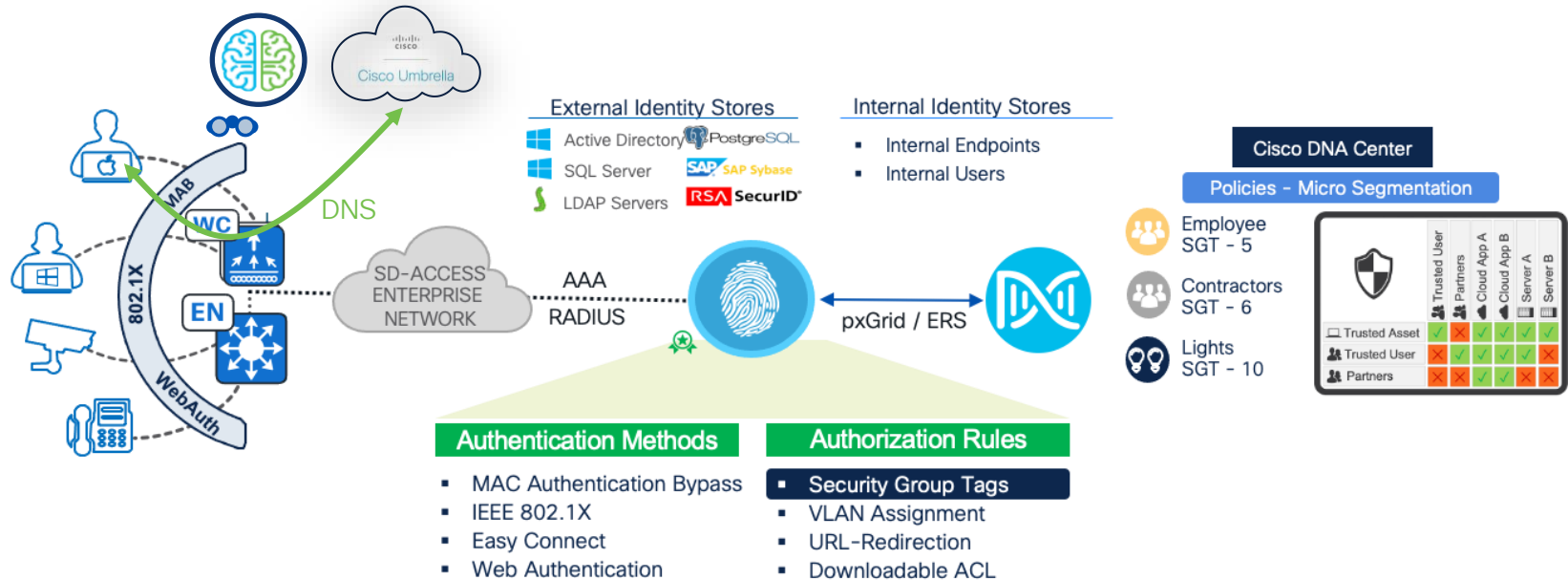


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DNA Center – Umbrella Integration

DNS is often used in attacks

- DNS
- DNS
- DNS

90%

of malware use DNS in attacks



1 in 3

of malware use DNS in attacks



100-200B

global losses could have been prevented by DNS

Umbrella DNS protection can lower the risk to organizations



Threat Blocking

As the first line of defense, Umbrella blocks malware, phishing, and C&C callbacks before they reach any endpoints



Content Filtering

Umbrella blocks inappropriate websites and applications

Deploying Umbrella Demo

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Troubleshoot Hosts in Secure Networks

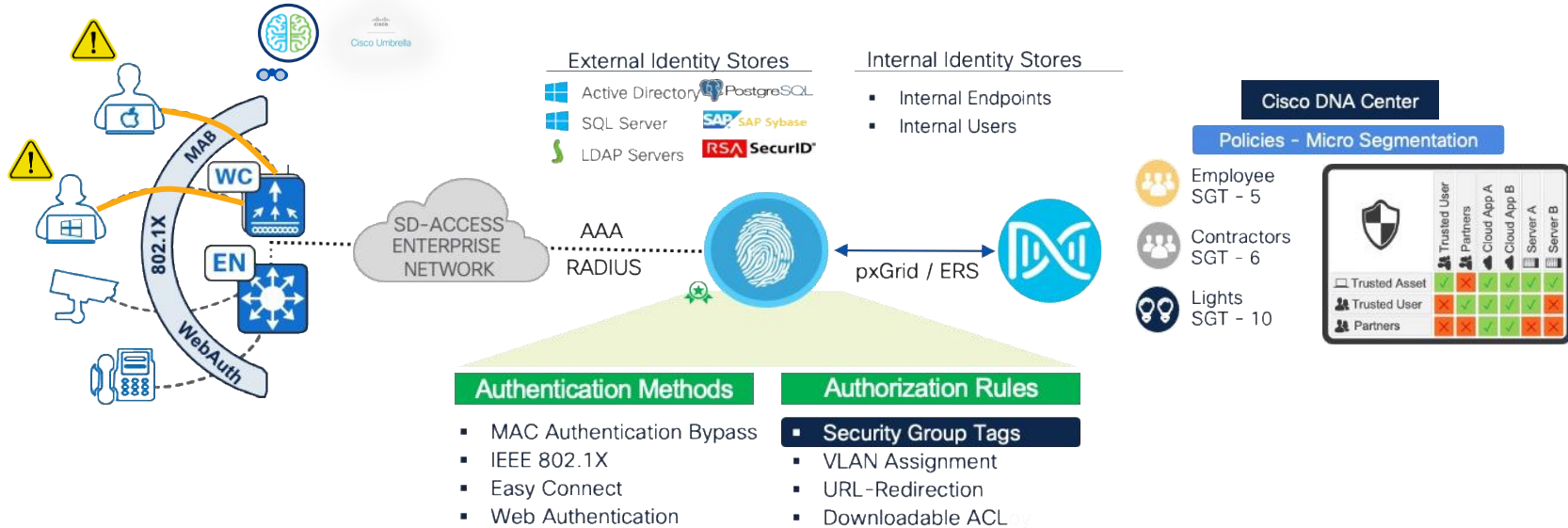


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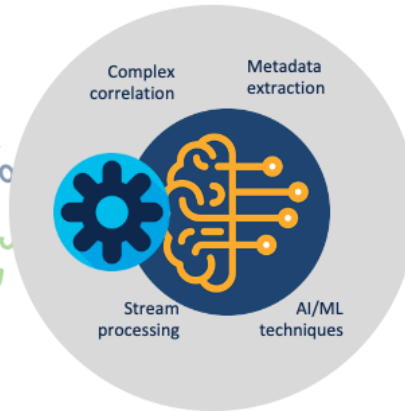
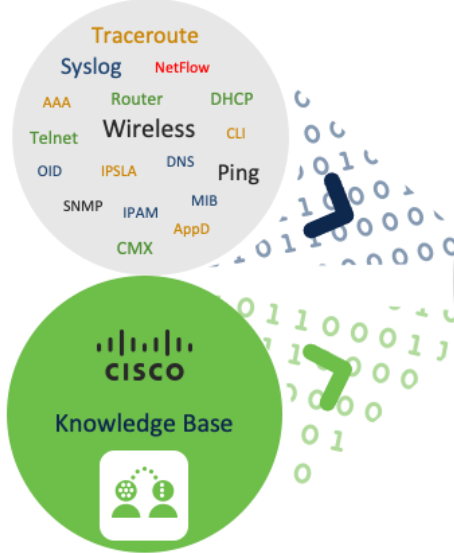
Host & Application Visibility

Network telemetry and contextual data

Complex event processing

Correlated insights

Suggested remediation



<https://www.cisco.com/go/dnaassurance>

Over 100 actionable insights
Client | Applications | Wireless | Switching | Routing

Troubleshoot Hosts in Secure Networks Demo

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Key Takeaways

Use DNA Center to:

- Automate tasks in ISE
- Deploy Secure Networks Automatically
- Deploy Visibility driven Segmentation
- Deploy Stealthwatch and Umbrella to Enhance Security
- Troubleshoot Host Connectivity

Continue your education



- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand

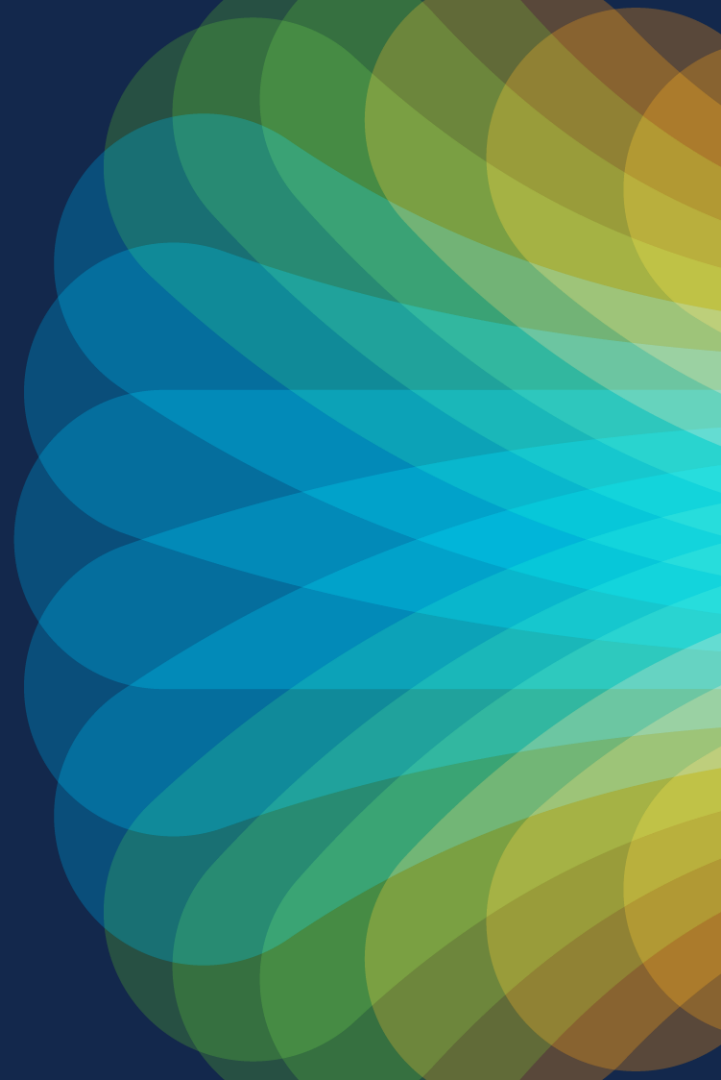


The bridge to possible

Thank you

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