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Zero Trust Security for Network and Cloud

With Software-Defined Access

Kanu Gupta, SD-Access Product Manager Adrian Finemel, Director of Network Services, UCLA Health BRKENS-1401



Cisco Webex App

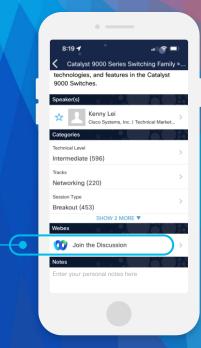
Questions?

Use Cisco Webex App to chat with the speaker after the session

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- 1 Find this session in the Cisco Live Mobile App
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Webex spaces will be moderated by the speaker until June 9, 2023.



https://ciscolive.ciscoevents.com/ciscolivebot/#BRKENS-1401

Agenda

- SD-Access: Driving Relevance and Adoption
- Key Use cases
- Product Strategy and Evolution
- Real-World Insights: UCLA Health's SD-Access Success Story



SD-Access: Driving Relevance and Adoption





Zero Trust Security for Network and Cloud



Enabled on Cisco Catalyst 9K Infrastructure



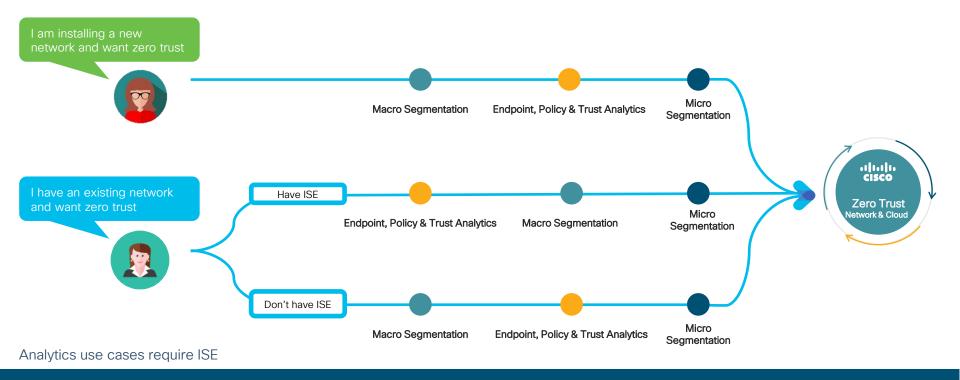








Flexible Options for Quick Value



Offering phased implementation for an extensible network!

Zero-Trust Momentum Accelerates

4800+ Customers 70% deployments with Wireless

270K+ Devices 29M+ Endpoints Aggregate

Adopted by 28% of Fortune25 Companies

761K Endpoints **2,907** Sites

3,227 Devices

Largest Deployments

SD-Access Provides Industry Leading Campus Architecture



SD-Access Driving Customer Business Outcomes

Network Simplification

Unified Wired/Wireless Policy

Seamless L2 Mobility

UCLA Health Higher Education & Research

BBVA Financial

Fiona Stanley Hospital Healthcare

Volkswagen Manufacturing

TOYOTA Manufacturing

NHS Healthcare

Integrated Zero Trust

IT/OT Integration

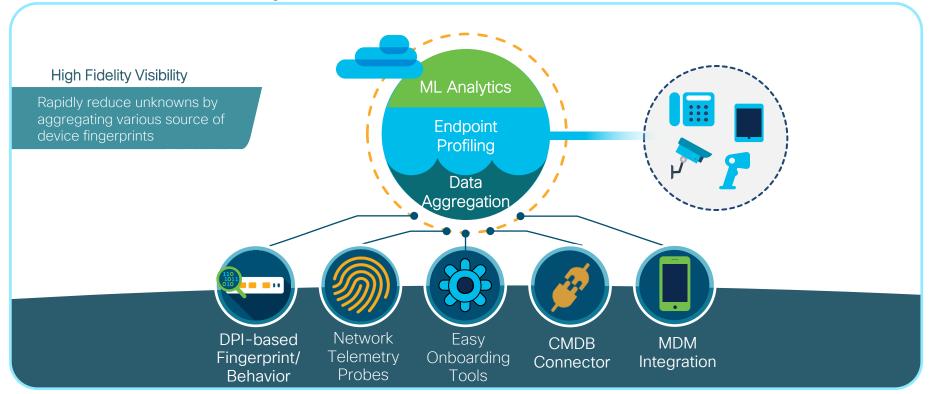


Endpoint Analytics and Trust Analytics





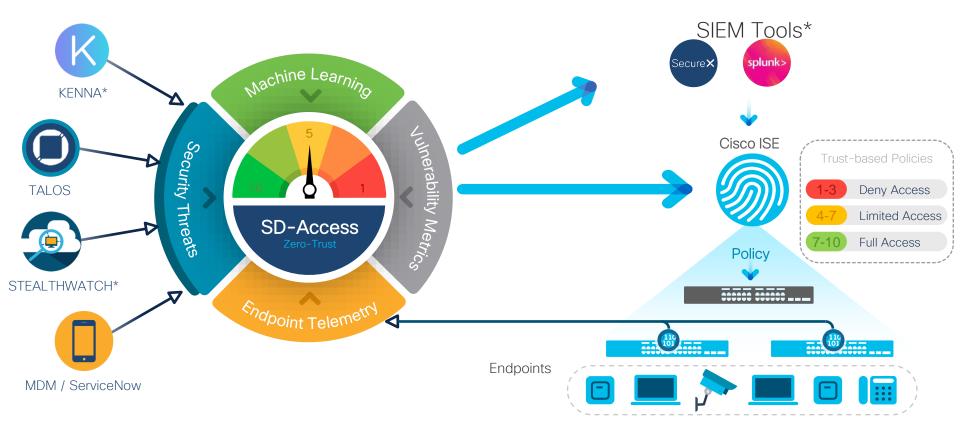
Endpoint Analytics on Access Infrastructure



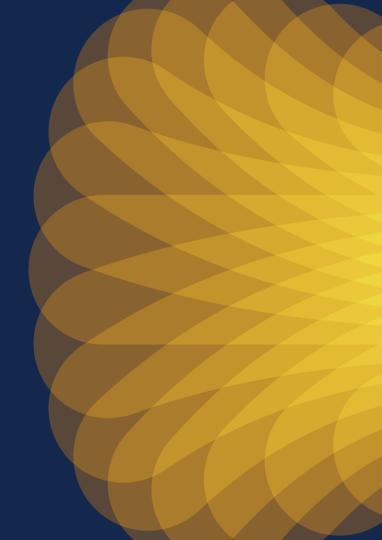




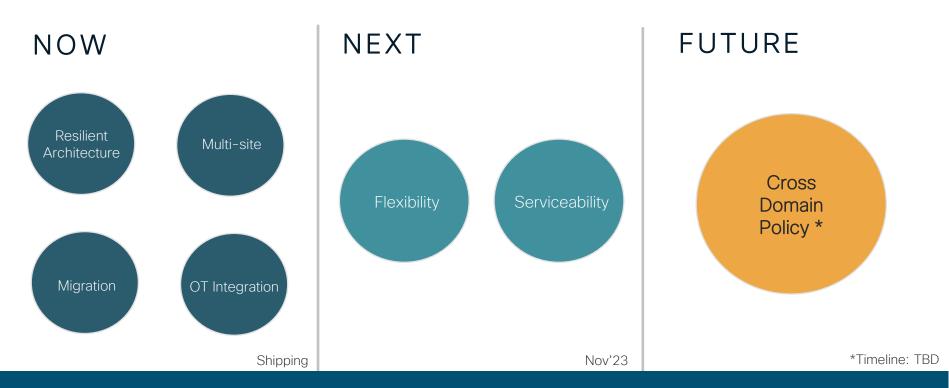
Ecosystem integrations for Trusted Analytics



SD-Access



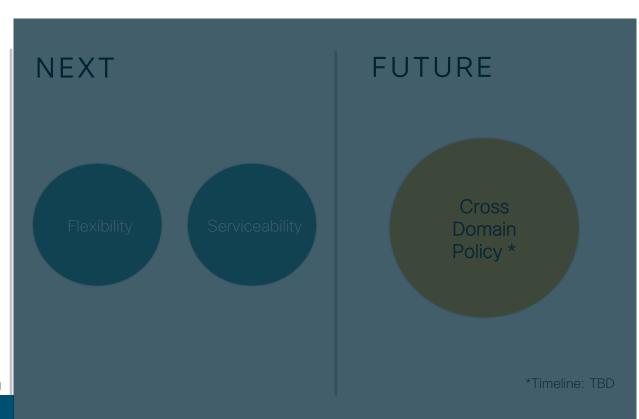
SD-Access *Evolution*: A testament to Innovation!



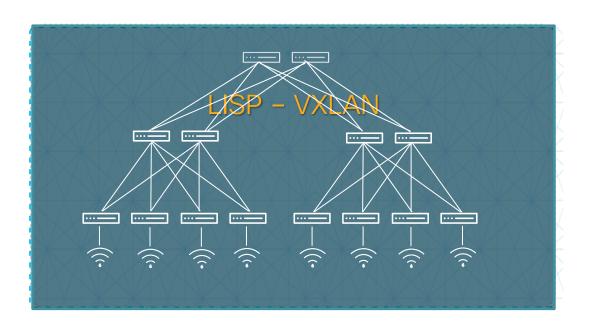
Focus: Improved Experience!

SD-Access *Evolution*: A testament to Innovation!

NOW Resilient Multi-site Architecture Migration OT Integration Shipping



Robust Fabric Architecture: Enabling Powerful Outcomes



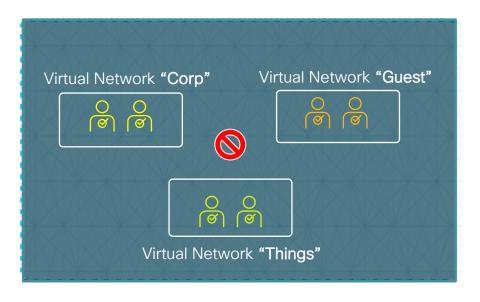
Drastic Network Simplification

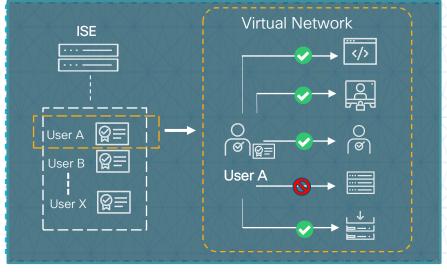
Power of the Layer3 Underlay

Seamless Layer2 Mobility
Native Wireless Integration

Unmatched Scale & Resiliency
LISP Control Plane for faster convergence

Zero Trust Access for Wired/Wireless Infrastructure!

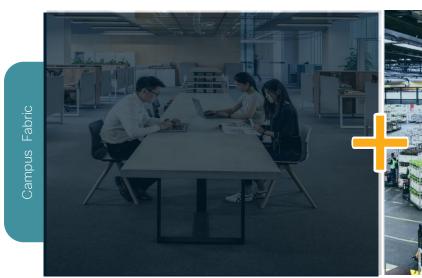




Macro Segmentation
Without Defining ANY Security Policies

Micro Segmentation (using Identity)
Defines Access Rules <u>inside</u> a Virtual Network

Simplifies IT/OT Integration in Manufacturing





Extended Enterprise

IT/OT specific views & functions under one tool

Visibility of IACS devices and communication

Discover, monitor & configure devices & endpoints

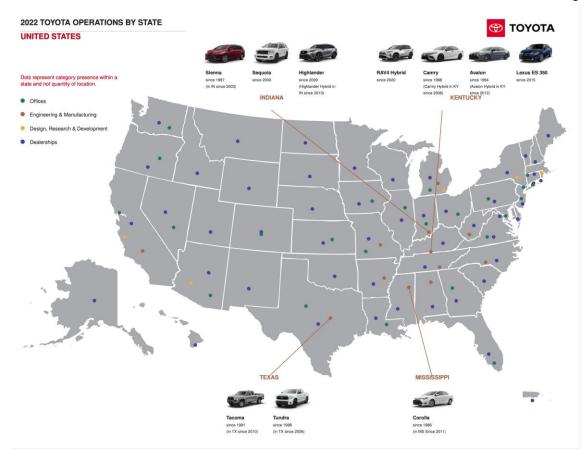
Resilient connectivity for IACS devices: sensors, actuators, controllers

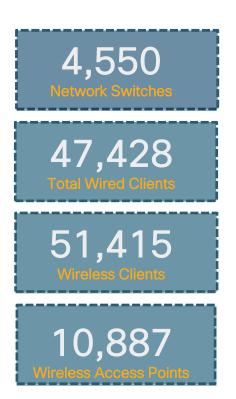
Consistent security policies while maintaining logical separation

Plant & Cell-area zone security and segmentation

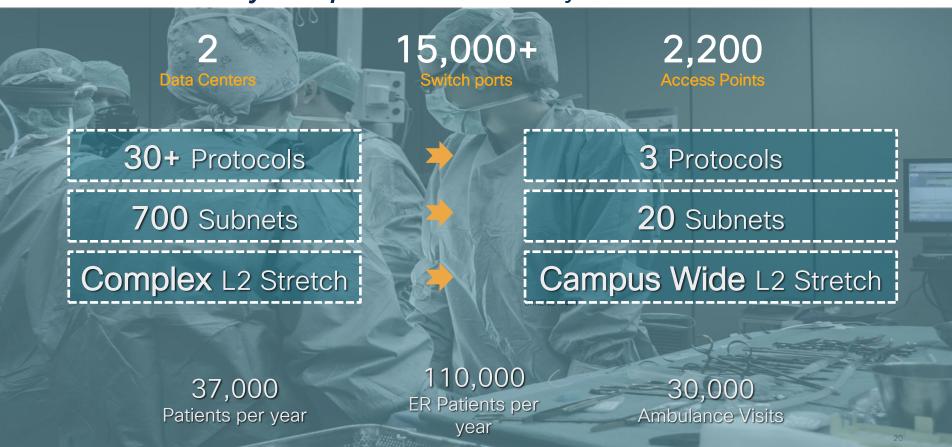
Seamlessly connecting 14k Fabric Sites, 265k devices & 4M endpoints!

TOYOTA: Customer Network by the Numbers!

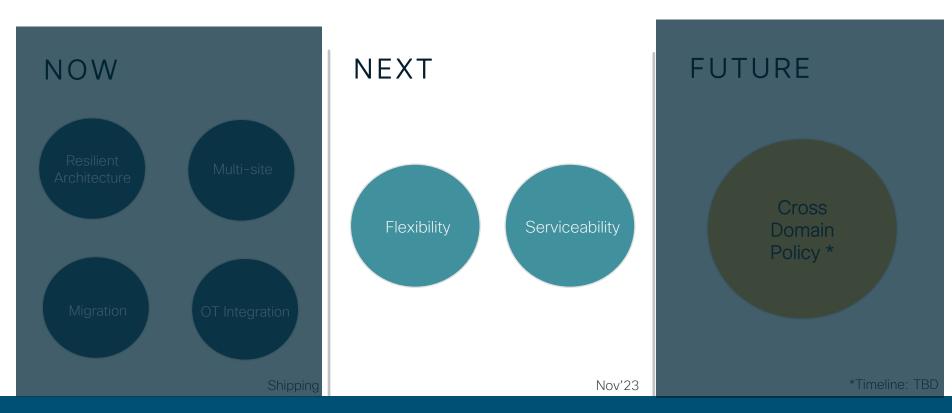




FIONA Stanley Hospital: Network by the Numbers!

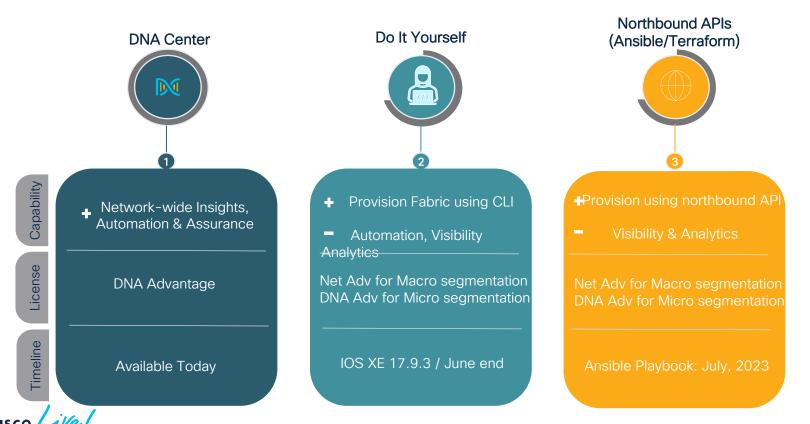


SD-Access Evolution: A testament to Innovation!



Focus: Improved Experience!

Flexible Options to enable LISP Fabric in Campus



Effortlessly deploy the *Fabric of choice*

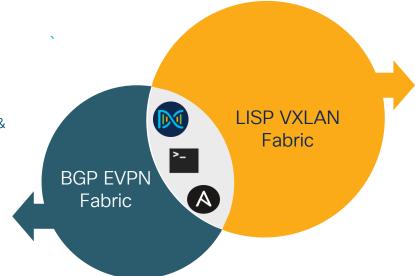
LISP Fabric is the *leading* choice for Enterprise customers!

Extend Fabric across DC & Campus

Multi-vendor deployment

Wireless over the top

Network Segmentation



Simple: Standards-based, Campus optimized BU recommended Control Plane

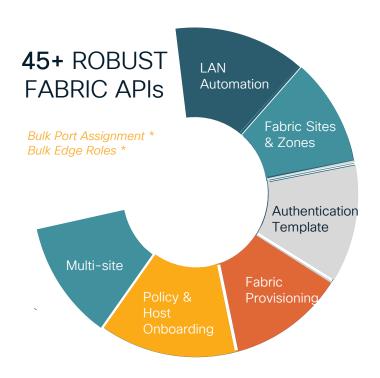
Efficient: Lightweight, unparalleled scale & high performance due to rapid convergence time

Extensible: Highly extensible to drive innovation (PubSub, Multi-site, Extranet etc)

Robust: Integrated wireless w/ L2 mobility support campus wide

DNAC-based EVPN Fabric: EFT Nov'23, FCS March 2024

Automate Your Fabric Operations with LISP Fabric APIs



API FIRST INITIATIVES

Backward Compatibility

Update APIs while certifying no breakage to existing automation suite

Completeness

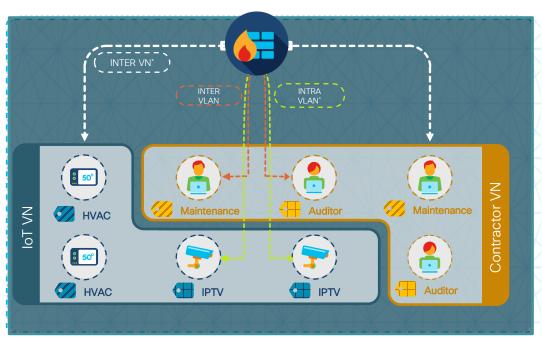
Address functional gaps. Improved scale & concurrency limits.

Conformance to OAS

Encompasses API Design, REST Style, Conventions, Patterns, Versioning & Security

* Coming Soon

Security Service Insertion for East-West Traffic in Campus



Select steering of Traffic Based on SGT, VLANs, VNs, Apps

Topology-Agnostic Security
Services rollout
Saves time

Reduce number of firewalls

Save on OpEx & CapEx

* Planning

Delivering Excellence for *Enhanced User Experience*

Experience the difference!

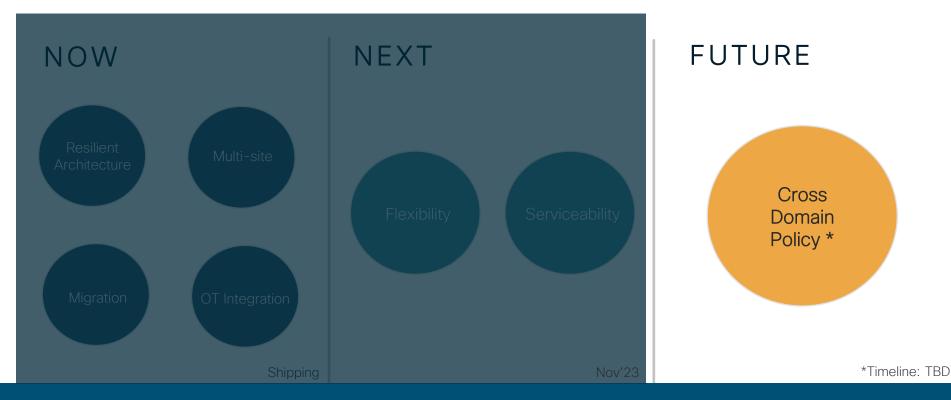
Device Robustness Robustness Serviceability Usability Upgrade **BETA** Preview New SD-Access Your Journey to SD-Access Zero-Trust Workplace Take a Tour Open Port Vuinerabilities Recommended Steps Zero Trust Workplace ROI Report 1 Month V Your journey to **Endpoint Labeling** Zero-Trust Labels Endpoints using Al-based endpoint clustering, crowd-Workplace 4 p 22 Hr 2.8K USD sourced labeling, and a profiling rule recommendation engine. Zero-Trust Workplace Layer 3 Routed Access Customize your path to Zero Trust Enhanced UI with Bulk update operations Layer 2 Switched Access

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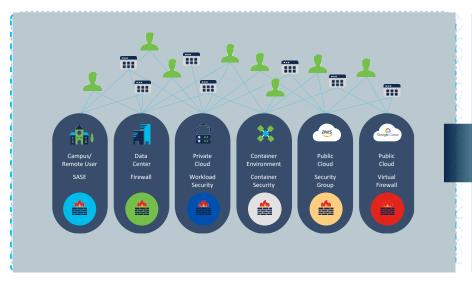
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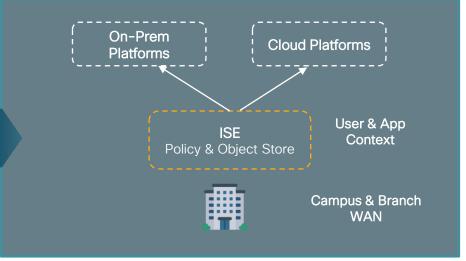
SD-Access Evolution: A testament to Innovation!



Coming Soon!

Common Policy: Integrating across Platforms





Policy Complexity

Multiple groups, policy models, enforcement points Inconsistent and siloed islands of policy controls

Simplifying user-to-application Policy

Create context anywhere
Share context everywhere

Simplifying policy configuration and migration

SD-Access Resources

General

cisco.com/go/sdaccess

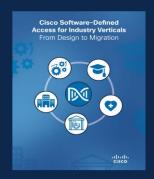
SD-Access At-A-Glance SD-Access Ordering Guide SD-Access Solution Overview SD-Access YouTube Channel *New* SD-Access Design Tool



Technical

cs.co/en-cvds

SD-Access Solution Design Guide
SD-Access Deployment Guide
SD-Access Segmentation Guide
SD-Access Book for Industry Verticals



Related

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Cisco DNA Center At-A-Glance
Cisco DNA Center ROI Calculator
Cisco DNA Center Data Sheet
Cisco DNA Center User Guide
Cisco DNA Center YouTube Channel
Cisco DNA Center Solution Builder







UCLA Health - Information Technology

David Geffen School of Medicine IT (DGIT) SDA Journey

Adrian Finemel, Director of Enterprise Network Services, UCLA Health



UCLA Health - Information Technology

UCLA Health Information Technology

UCLA Health IT maintains the infrastructure and provides technology solutions throughout UCLA Health and the Health Sciences schools to support the delivery of leading-edge patient care, research, and education.



ISS

Information Services & Solutions
(ISS) maintains the central
technology infrastructure for
UCLA Health and provides
services and development for
business, financial and clinical
applications such as
CareConnect.



OHIA

Office of Health Informatics and Analytics (OHIA) serves the data and analytics needs of across UCLA Health, Faculty Practice Group, and David Geffen School of Medicine.



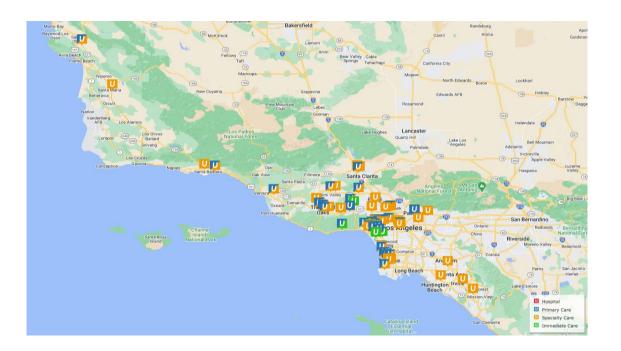
DGIT

Standing for 'digital technology', DGIT serves the IT needs of the UCLA Health Sciences schools and other UCLA Health Science units.





UCLA Health IT by the numbers





240+ locations



1300+ Network Devices



4000+ Access Points



15000+ VoIP Endpoints

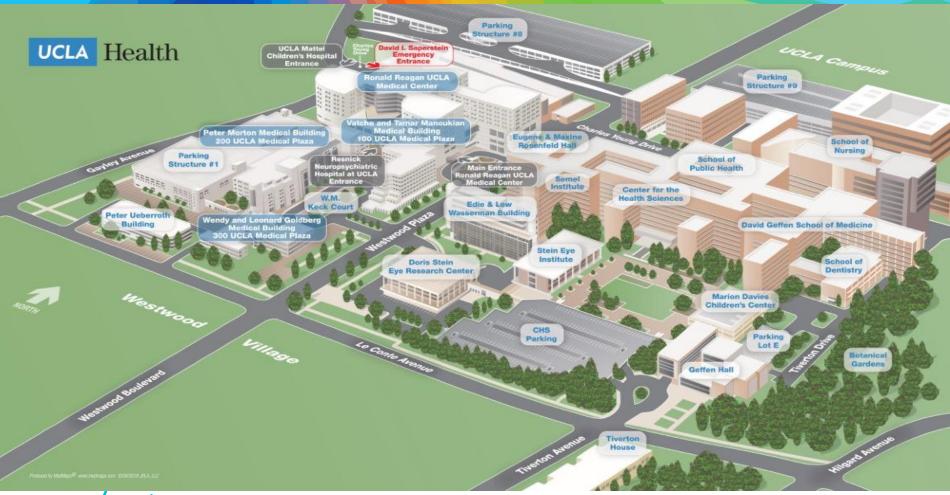


77,000+ Active Interfaces



2 L1 Trauma Centers800 beds







Why Software Defined?

Next-Gen Infrastructure needed

- Current infrastructure was delivering for DGIT, but there was a need to keep up with new demands
- Manual IT Operations, where configuration was error prone
- Scalability concerns for the future bandwidth needs to move from 10/40G to 100/400G due to research demands

Fragmented Visibility & Security Policies

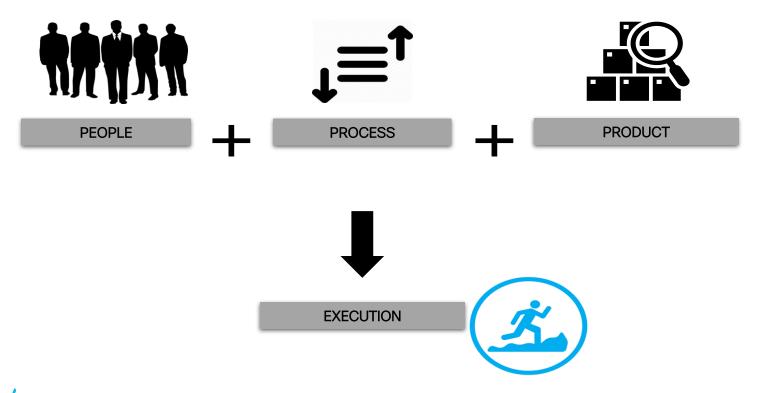
- Lack of centralized policy engine
- Limited capability to reduce network attack surface for IOT devices
- Manual discovery & quarantine of compromised assets
- Workflow automation limited eg. Onboarding, profiling, posture, quarantine etc.

Ease of Technology Consumption

- Combination of perpetual licenses and subscription licenses expiring at different times
- License & Maintenance sprawl.
 Staggered renewals and
 Software subscription renewals
 adding complexity
- Unpredictable OpEx spend which made consumption of Cisco technologies arduous



Comprehensive approach for Next Generation Network





SDA Journey Map Finish DGIT SDA POC & Deployment Plan Strategic Package 2022 & Production Scale out POC & Production Pilot 2018 2020 2019 2023 2021/22 2025 Campus SDA Pilot to Day2 Ops Production COVID-19 Campus wide SDA **Implementation** Cisco Live San Diego POC Completed and Pilot Concepts and ideas user Group Identified being discussed Aka IP Pools 1000 Users Clinical, Students, Research and staff Proof of Concept (POC) ·Cisco engagement · Design being built •Requirements Gathering



Key Business Drivers for UCLA David Geffen IT

Modernize Network Services

- Enhance research & Academic missions at UCLA Health
- Implement technologies that scale to the need of research

Simplify consumption IT Infrastructure

- New Model for consuming hardware, software & support needed
- Simplify consumption of HW, SW & Services

Deliver on project timelines

- Reference Architecture model for 5 year roadmap
- Plan and order early as much as possible

Maintain predictable IT Spend

- Roll 5-year roadmap into yearly predictable spend
- Reduce cost and lock in 5 year pricing where possible



Why CISCO SDA FOR DGIT?

MACRO & MICRO-SEGMENTATION

Separation between clinical & general assets with granular controls



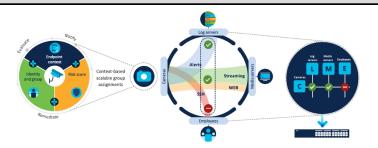
AUTOMATION & ANALYTICS

Full Automation of workflows and Performance Insights on Apps & Users



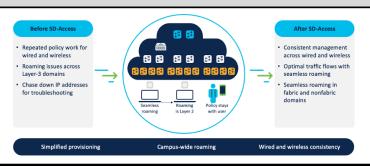
ZERO TRUST & CENTRALIZED POLICY

Edge workflow w/ onboarding, profile & posture using ISE as the central policy engine

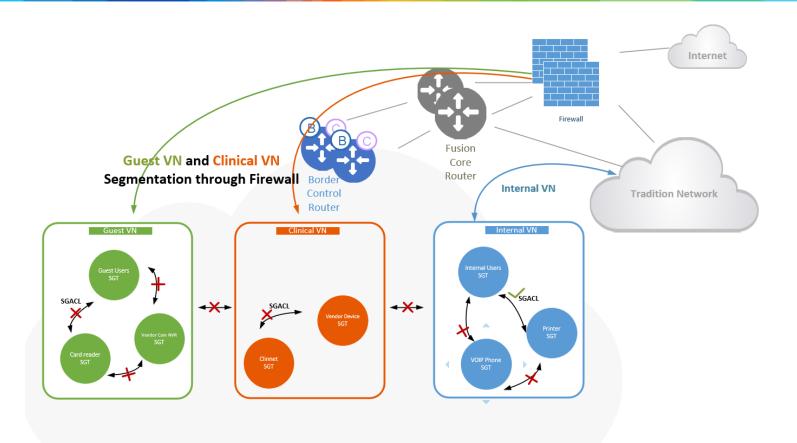


SOFTWARE DEFINED UNIFIED NETWORK SERVICES

Consistent policy on wired and wireless significantly reduced MTTR









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Attendees will also earn 100 points in the **Cisco Live Challenge** for every survey completed.



These points help you get on the leaderboard and increase your chances of winning daily and grand prizes



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- 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



Thank you



Cisco Live Challenge

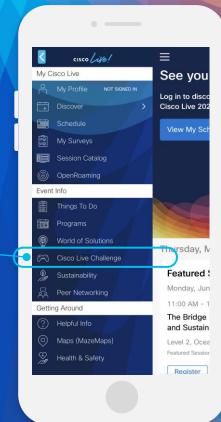
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- 3 Click on View Your Badges at the top.
- 4 Click the + at the bottom of the screen and scan the QR code:







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