

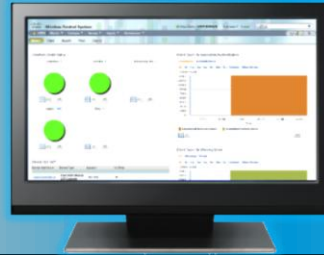


Cisco Borderless Networks4

What's New in Mobility and Management

New Cisco Wireless Announcements

- Extending Management and Control



Cisco Prime
Network Control
System

Management

OfficeExtend | Clientlink | VideoStream | CleanAir | PCI, wIPS | ISE

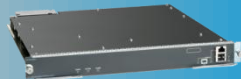
Services



2500 Series



Controller on
ISR G2



Wireless Service
Module 2



5500 Series



Flex 7500 Series

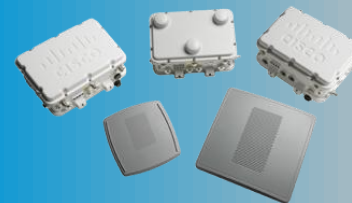
Controllers



600 Series
OfficeExtend



Indoor APs



Outdoor APs

Access Points

Flex Connect Solution

Cisco Flex 7500 Series Cloud Controller

New



Highly scalable centralized controller
for lean branch deployments

Key Product Capabilities

- Supports up to 500 Branch offices with up to 50 access points per branch
- Configure, manage and troubleshoot up to 2,000 access points and 20,000 clients from the data center
- WAN tolerance & survivability features specifically designed for multisite wireless deployments
- Rich RF features supported Clean Air, Clientlink
- Secure guest access, rogue detection for Payment Card Industry Data Security Standard (PCI DSS) compliance
- Pay as you grow model starting at 300 access point support

• Customer Value Proposition

- Highly scalable for supporting many enterprise branches on a single controller
- Operational efficiency due to consolidation of operations to the datacenter
- Designed specifically for wireless branches with local survivability features

■ Sales Value Proposition

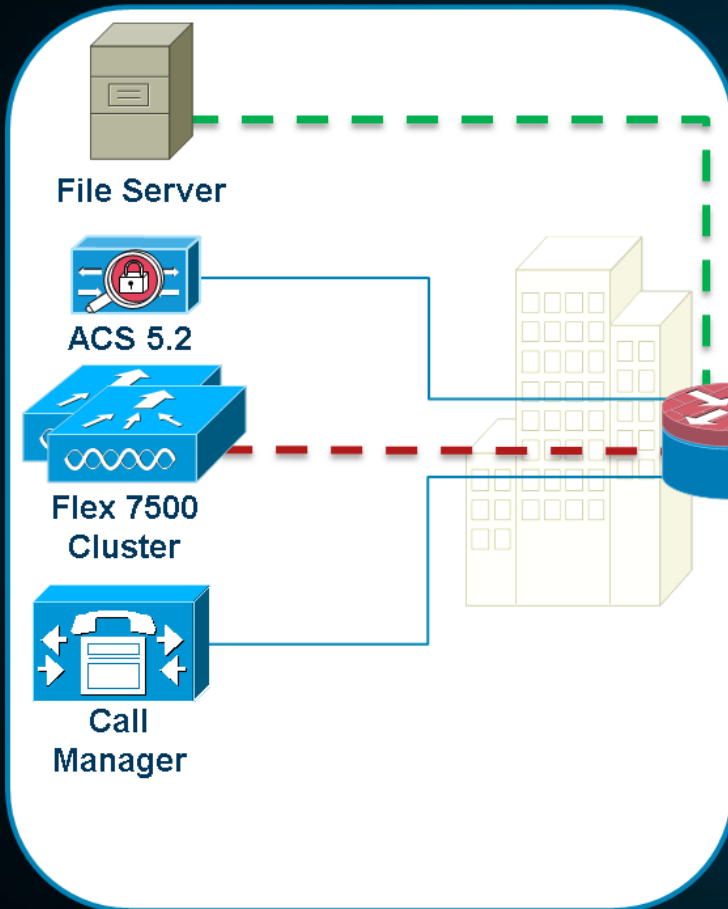
- Economies of scale opens up opportunity in retail, financial services, hospitality, insurance
- Lower OpEx for customers having large number of branches

■ Partner Value Proposition

- Highly scalable & flexible platform for offering WLAN managed services

FlexConnect Solution

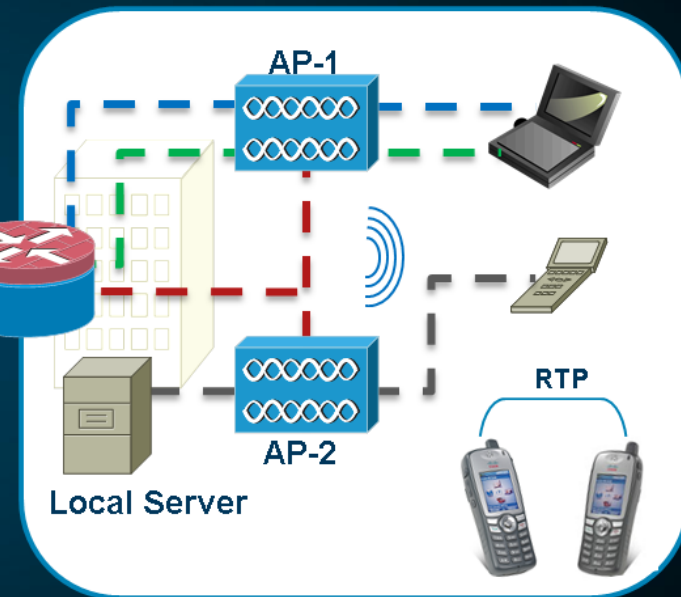
Data Center



Internet

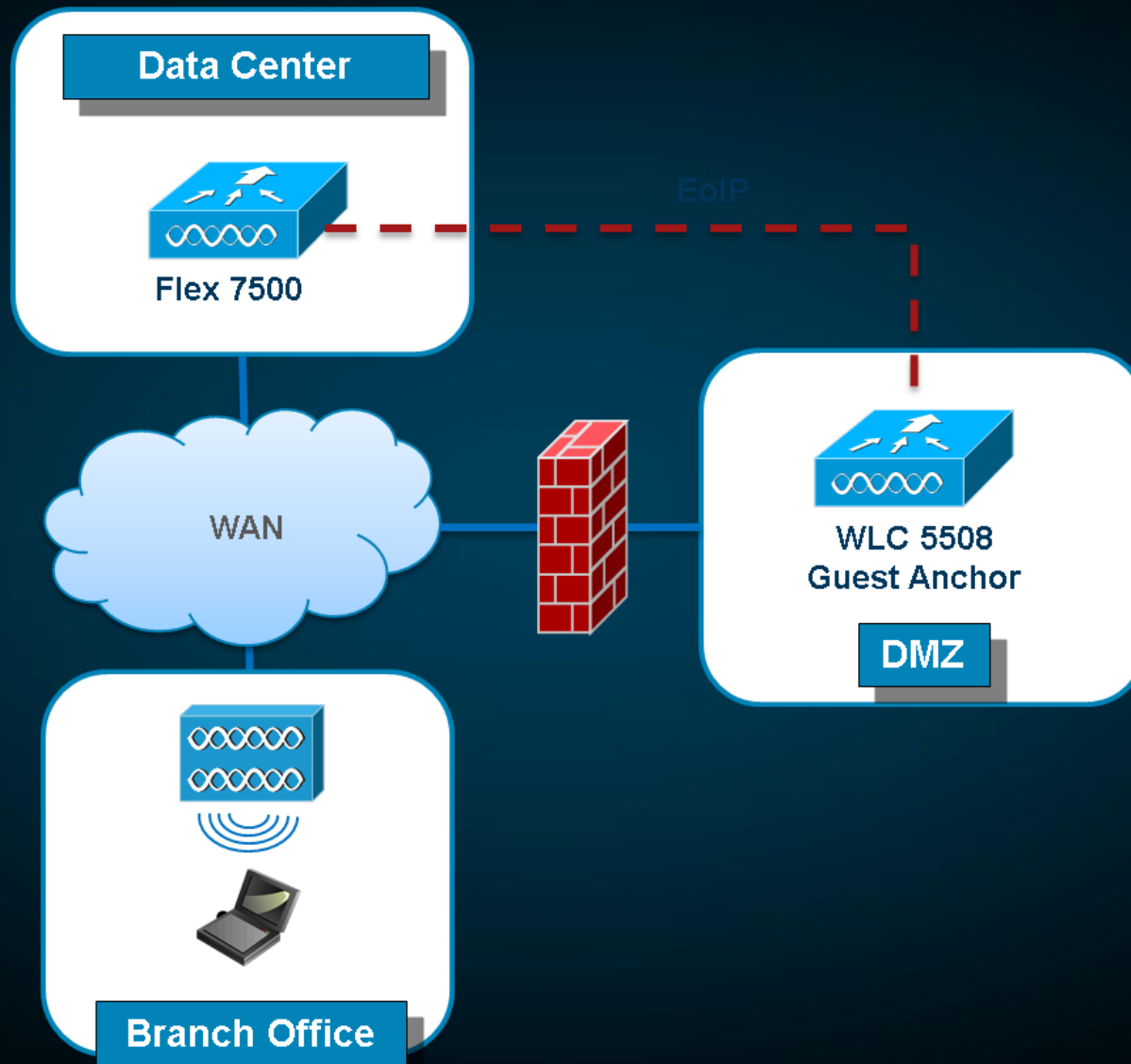
<http://www.cisco.com>

Branch Office



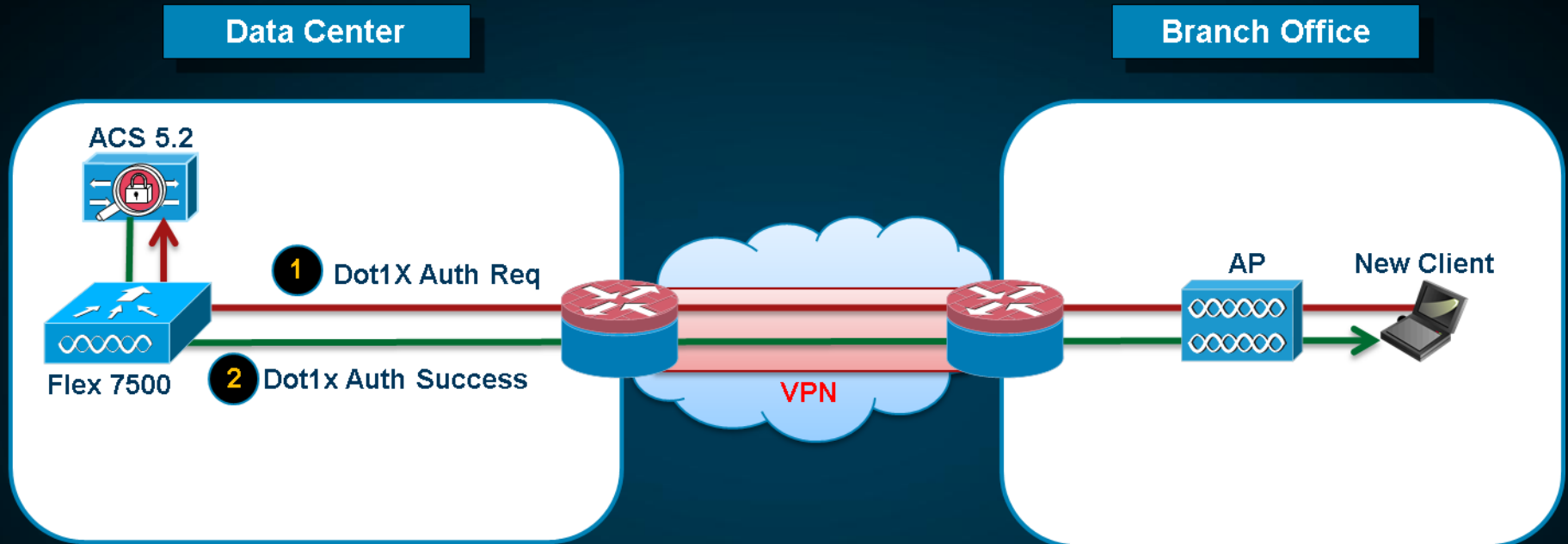
- Control Channel
- Internet Traffic
- DataCenter Data Traffic
- Branch Data Traffic

Cisco Flex 7500 – Guest Anchor



Cisco Flex 7500 – Client Authentication Flexibility

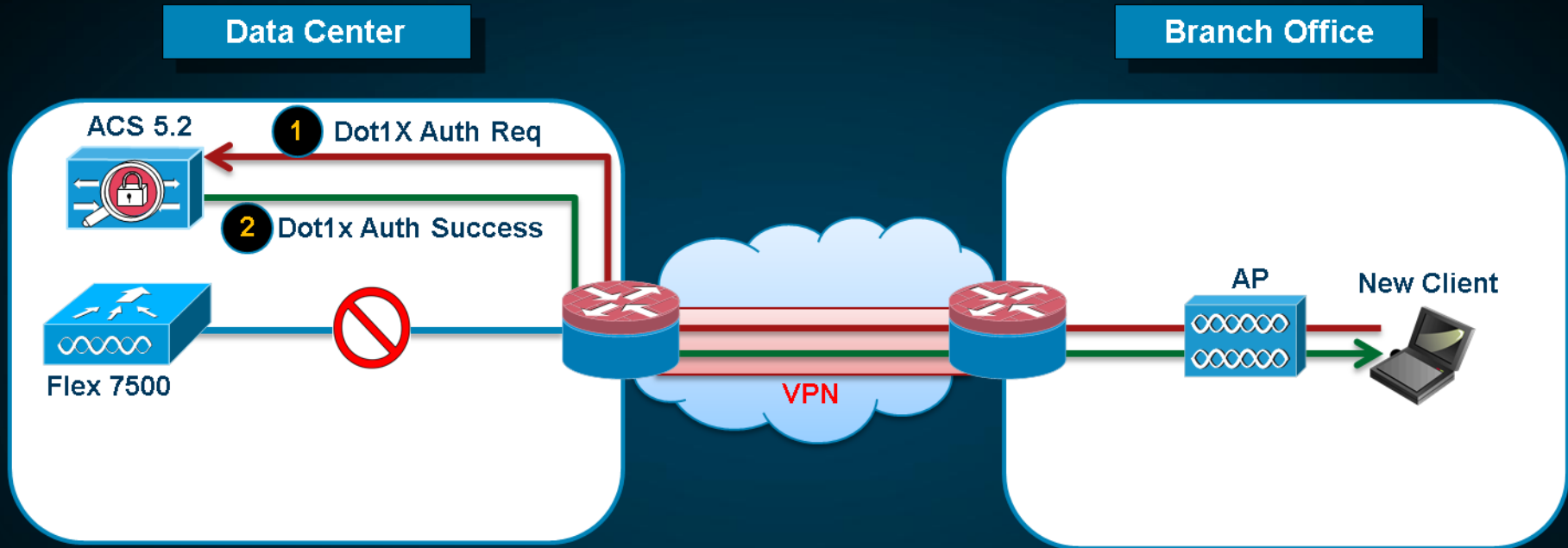
Central Authentication – WLC Authenticator



- All the client authentication requests travels through Central Controller
- If Controller is not reachable, then no clients can authenticate

Cisco Flex 7500 – Client Authentication Flexibility

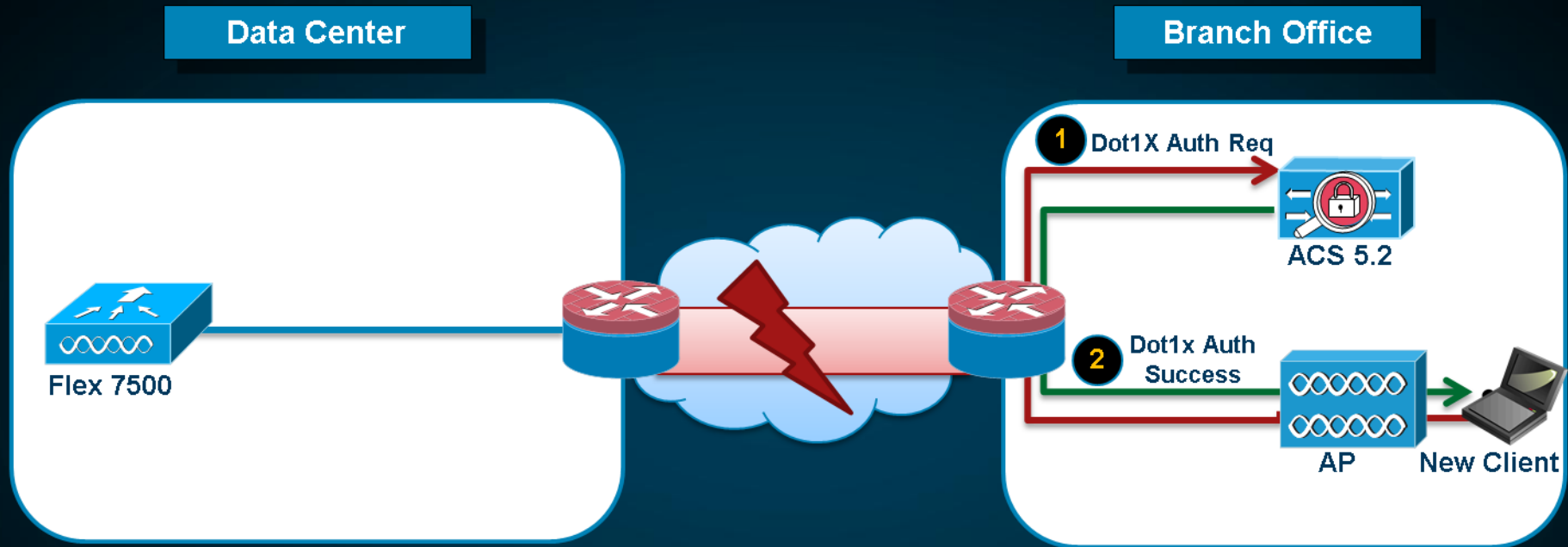
Central Authentication – AP Authenticator



- All the client authentication requests travels straight from AP to ACS Server.
- If Controller is not reachable, clients can still continue to authenticate and access network services.

Cisco Flex 7500 – Client Authentication Flexibility

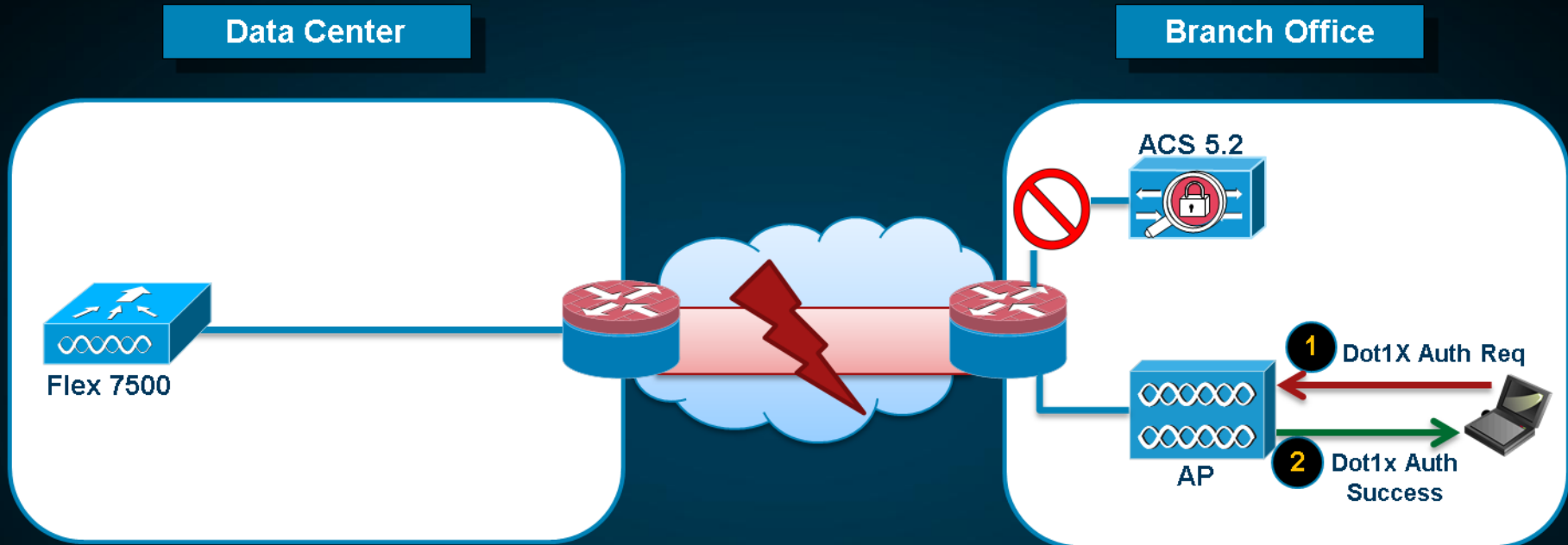
Local Branch Authentication – AP Authenticator



- All the client authentication requests travels straight from AP to Local Branch ACS Server.
- If WAN link is down, clients can still continue to authenticate and access network services.

Cisco Flex 7500 – Client Authentication Flexibility

Local Branch Authentication – AP as Radius Server



- All the client authenticated directly by the AP.
- If WAN link & Local Backup Radius Server is down clients can still continue to authenticate and access network services.

Cisco 600 OfficeExtend Access Point 802.11n Teleworker AP

NEW! Cisco 600 OfficeExtend Access Point

**The Industry's only Dual Band AP
purposely designed for the teleworker**



- 802.11n AP with dual concurrent 2.4GHz and 5GHz radios for teleworker home
- 4 local Ethernet ports
 - 1 Corporate-bound port, 3 for local Ethernet devices
 - Up to 4 clients behind the corporate port
- Corporate SSID and user-configurable Personal SSID
- Traffic segmenting supported (corporate vs. personal traffic)
- Local DHCP and NAT support
- Control and data plane encryption

A Seamless and Secure Corporate Experience... At HOME

Corporate Network Experience

Extends Borderless Network services from the core to the home

Home Networker - Corporate Connection

Application of
Borderless Network
services and policies

Industry Standard CAPWAP Encryption using DTLS
No Impact to controllers | Line rate support for broadband connections

Corporate
Network



WISM2 / 5500
Controller

WWW

Cloud
Services

Home
modem / router

OfficeExtends
600 AP

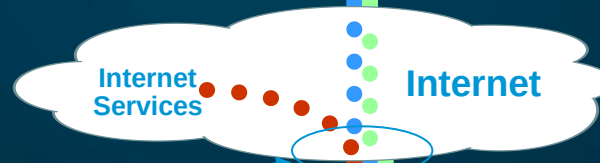
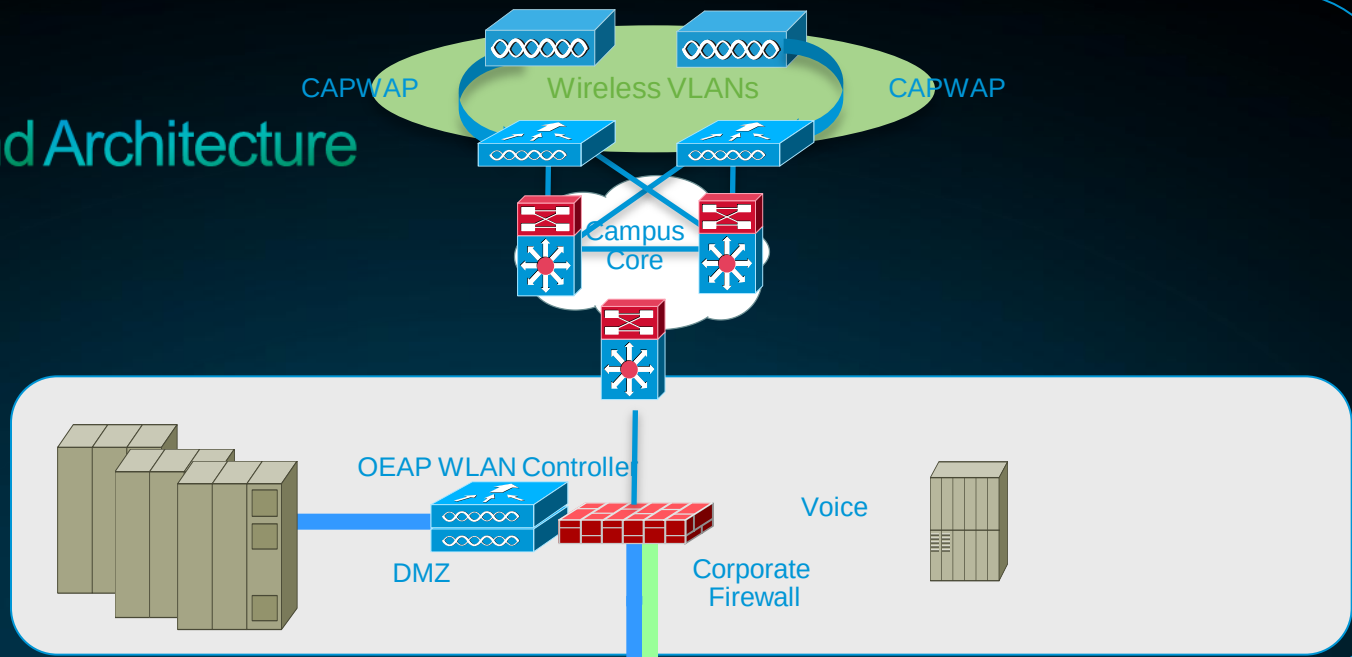
**Segments and
Supports Home
Network Activities**

Other Household Members -
Personal Access

OfficeExtend Architecture



Enterprise

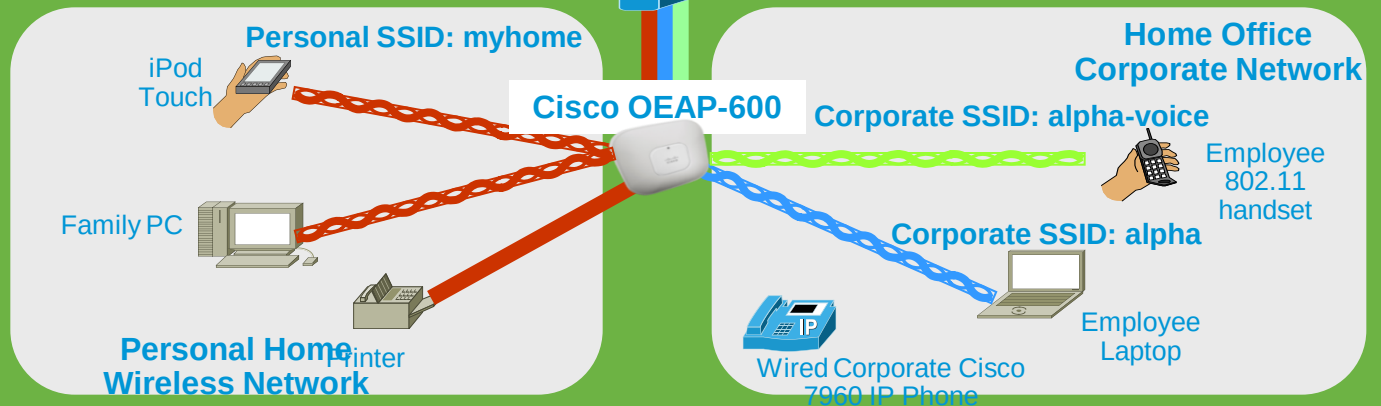


Traffic Segmentation

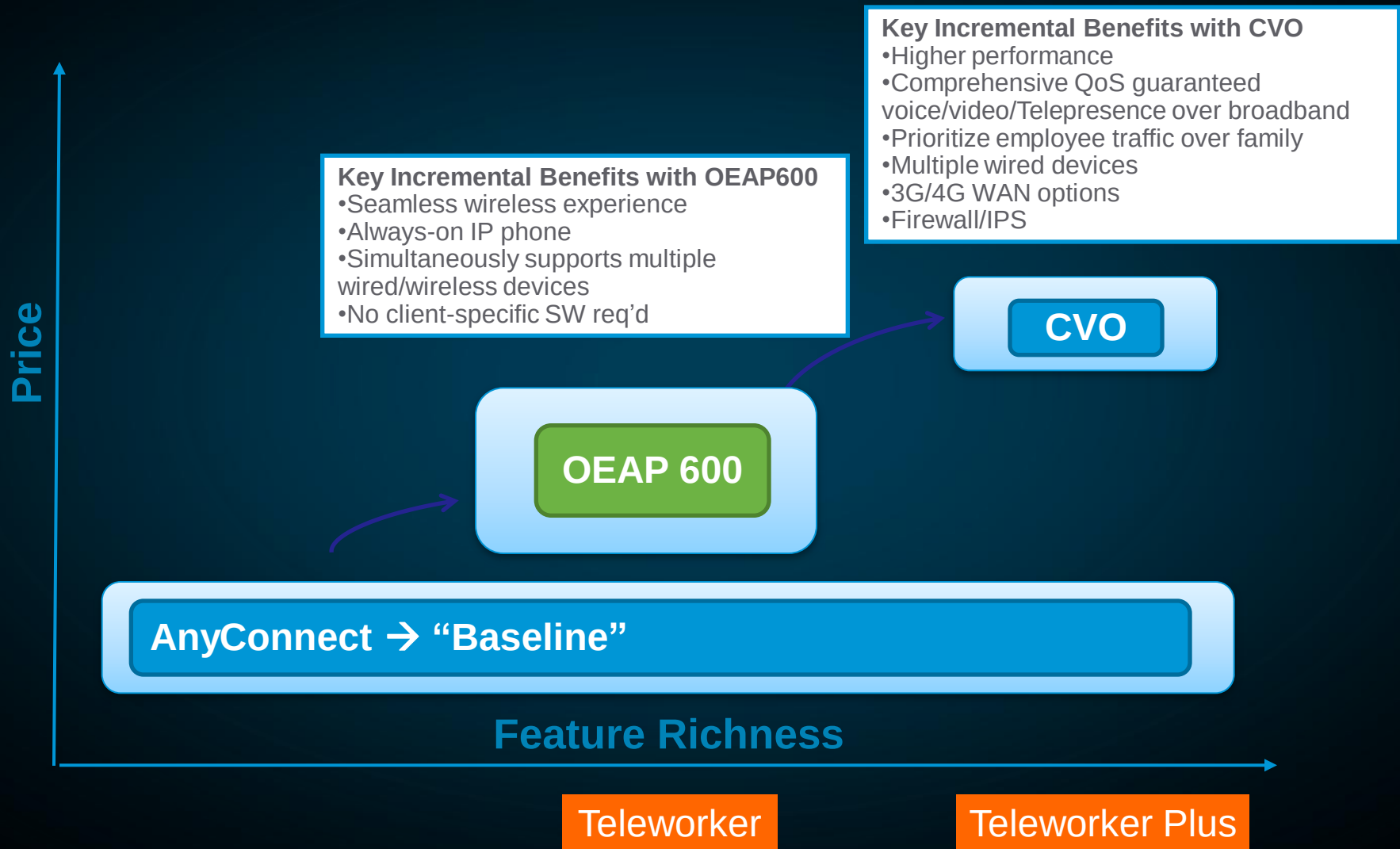
ISP Modem
w/ integrated Router



Home
Office



Cisco Teleworker Solution Lineup



Wireless IPS

Cisco Adaptive Wireless IPS with “Enhanced Local Mode (ELM)”

AwIPS scanning into data serving access points - This functionality is available as a free SW download for existing wIPS Monitor Mode customers.

Attacks Detected	ELM	Monitor Mode
DoS Attack Against AP		
Association Flood	Y	Y
Association Table Overflow	Y	Y
Authentication Flood	Y	Y
EAPOL-Start attack	Y	Y
PS-Poll flood	Y	Y
Probe request flood	N	Y
Unauthenticated association	Y	Y
DoS Attack Against Infrastructure		
CTS flood	N	Y
Queensland University of Technology Exploit	N	Y
RF Jamming	Y	Y
Client Servicing	Yes	No
Rogue Detection and Containment	Yes	Yes
Attack Detection	17	17
MSE Needed	No	No
WCS needed	No	No
Attack Encyclopedia in Alerts	No	No
Forensics	No	No
Anomaly Detection	No	No
Event Correlation	No	No
HREAP Support	Yes	No

Alarm Number	Alarm Name
95	CTS_FLOOD
112	VIRTUAL_CARRIER
115	QUEENLAND
157	RTS_FLOOD
102	AIRSNARF_ATTACK
113	FAKE_DHCP_SERVER

ELM Alarms
On-channel NO
Off-channel YES

39 45

Without ELM

With ELM

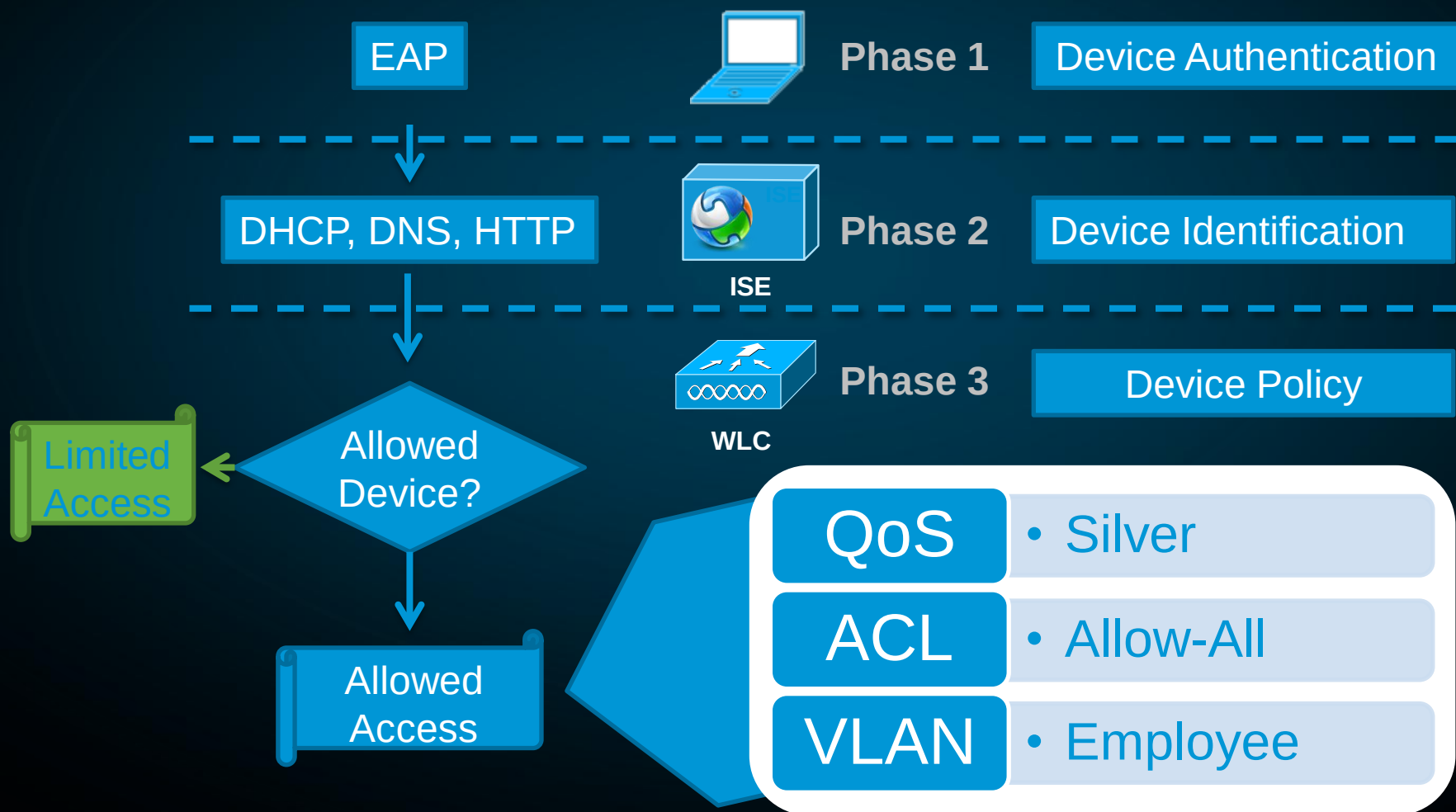
Data Serving Monitor Mode

Single Data and WiIPS AP

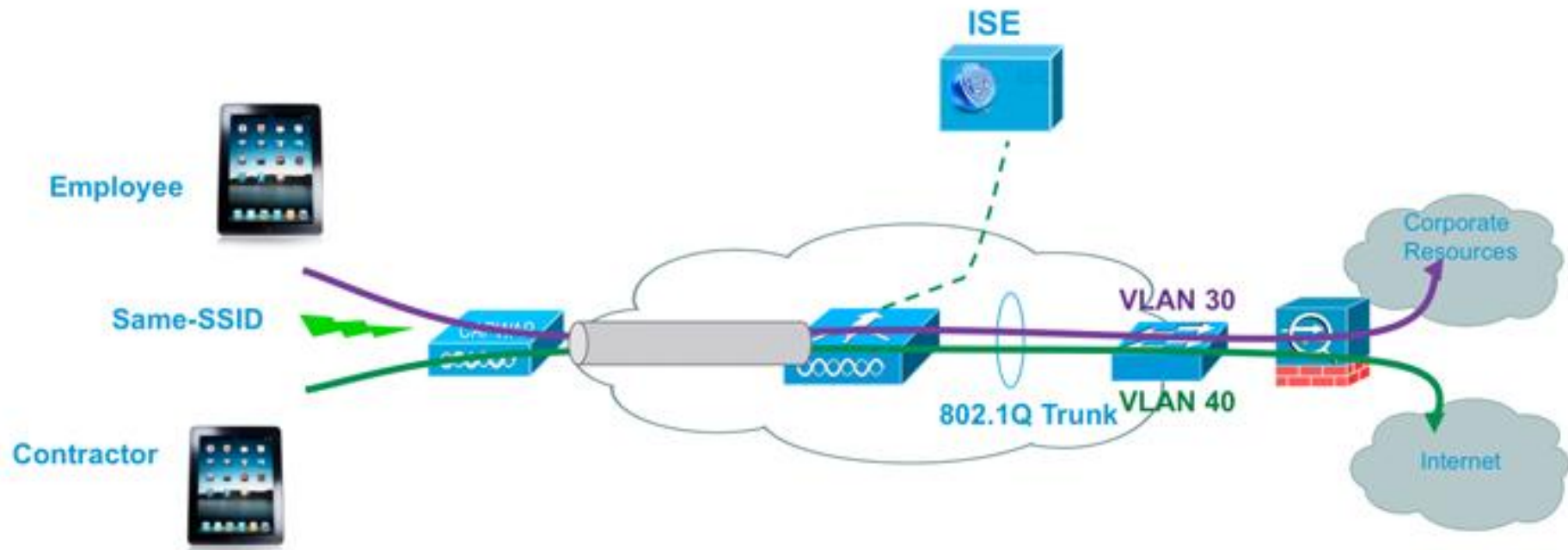


Unified Wired and Wireless Policy

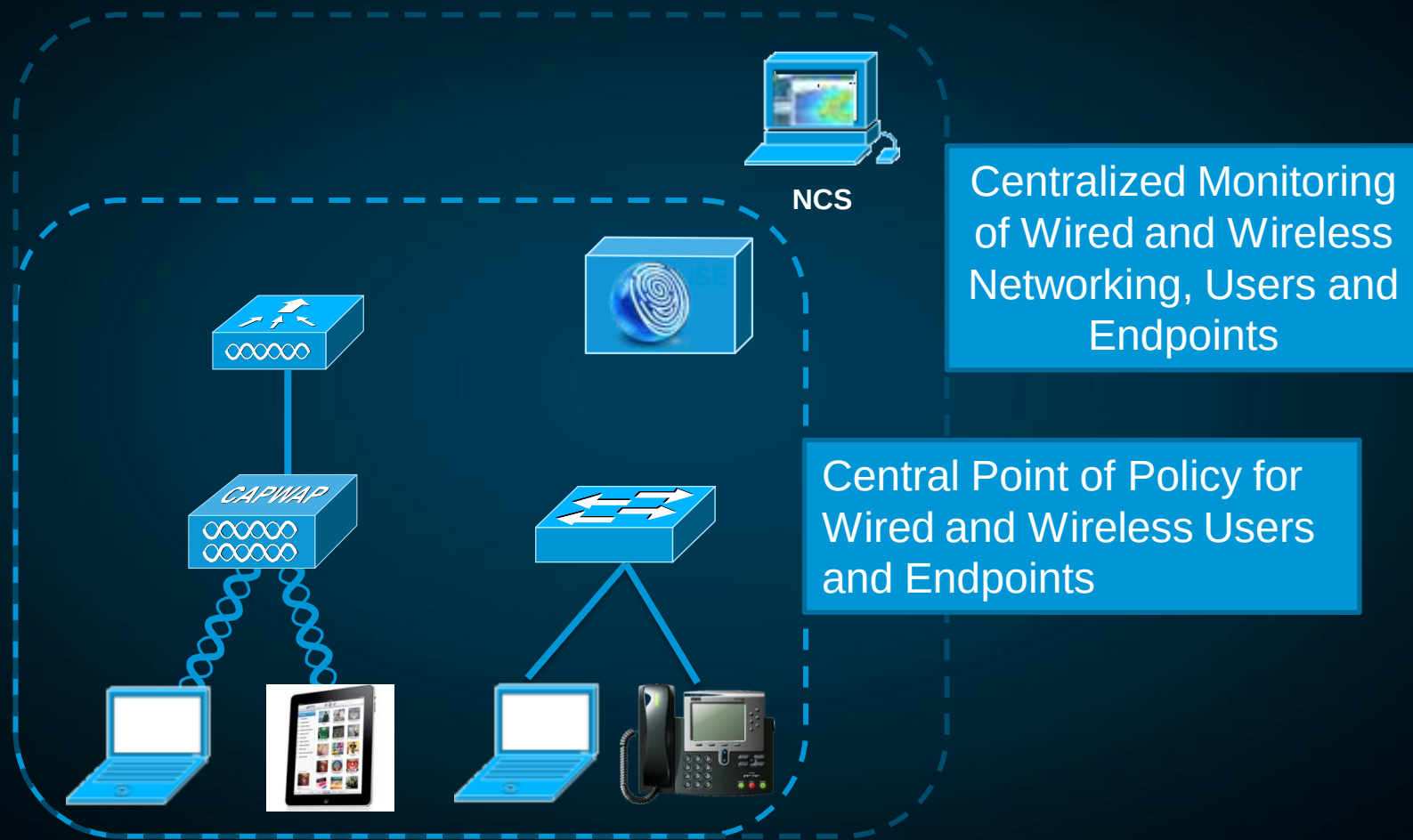
Cisco ISE Device Profiling and Policy Steps



Cisco ISE : Wireless Use Case



Cisco Solution Advantages



- Only Cisco can provide unified wired and wireless policy (ISE) and management (NCS).

BN4 Mobility Portfolio

Cisco 802.11n AP Portfolio

Business
Ready

Rich Media

Mission
Critical

Ruggedized



1260



3500e

Carpeted

Wired+Wireless
Teleworker



600



1040



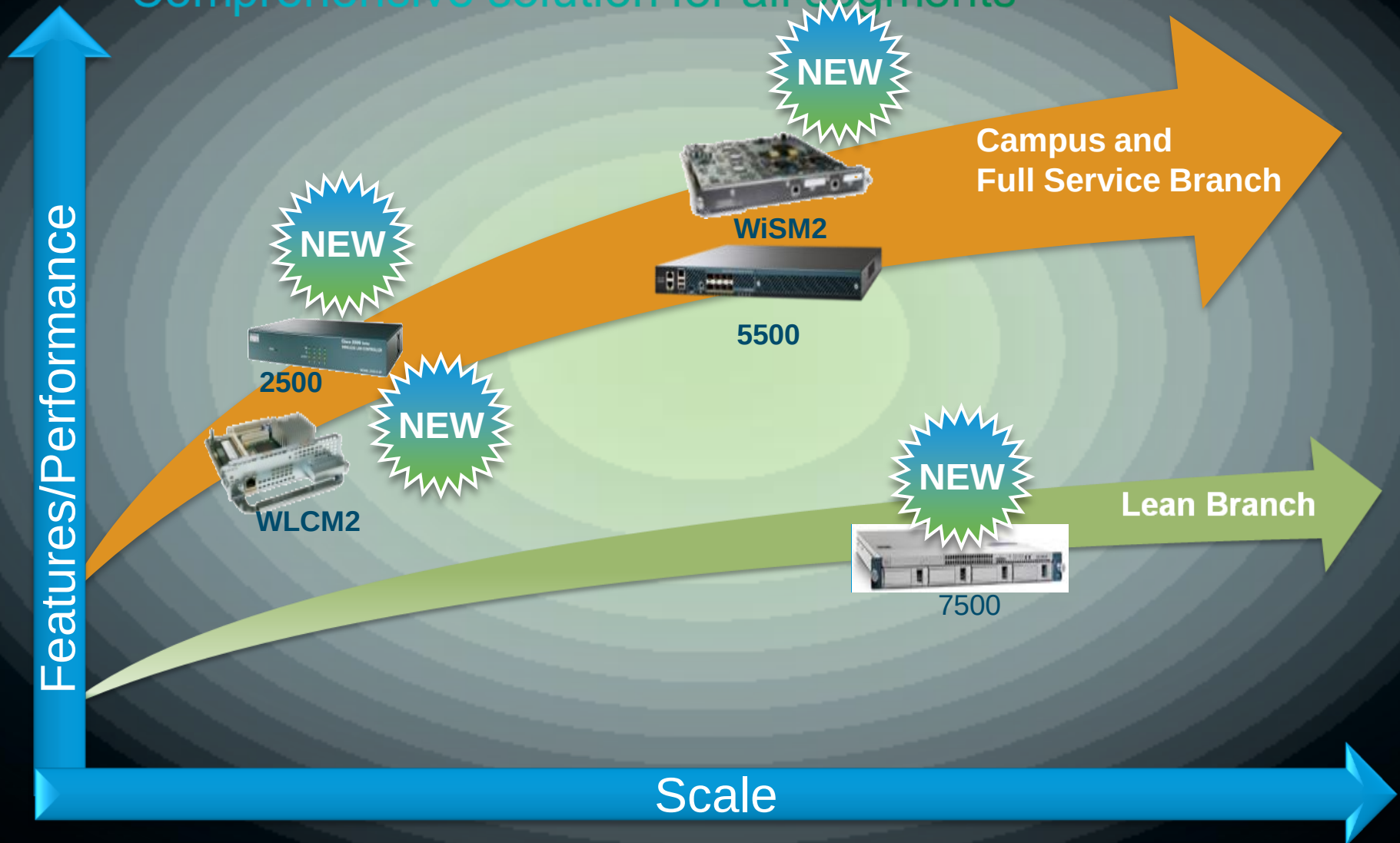
1140



3500i

Controller Portfolio

Comprehensive solution for all segments



Cisco Prime

BN4 Cisco Prime Management for Enterprise Session Objectives

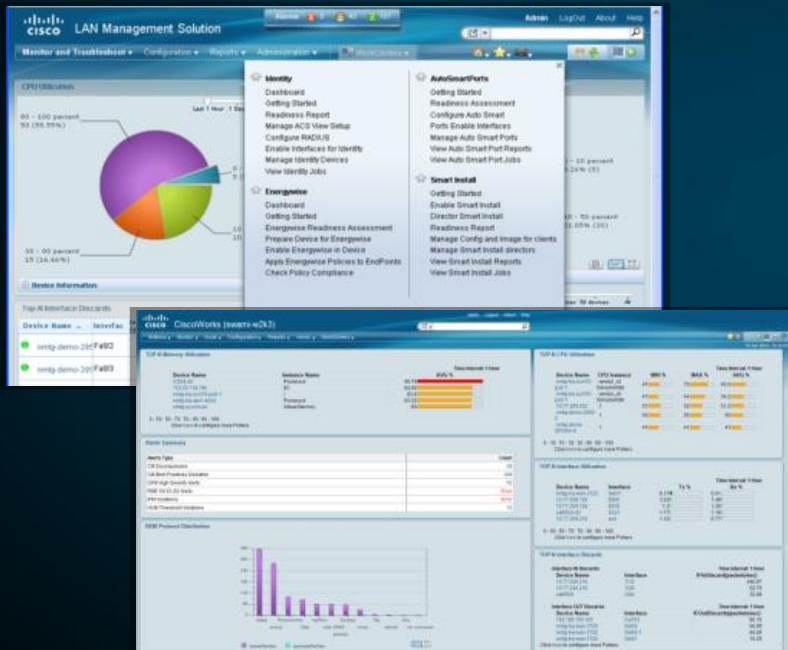
At the end of the session, the participants should be able to:

- Understand the new features available with these new Cisco Prime products:
 - Cisco Prime LAN Management Solution (LMS) 4.1
 - Cisco Prime Network Analysis Module (NAM) 5.1
 - Cisco Prime Collaboration Manager (CM) 1.0
- Explain the detailed benefits and value of Cisco Prime Network Control System (NCS) 1.0

Cisco Prime

LAN Management Solution (LMS) 4.1

Cisco Prime LMS 4.1



An evolution of CiscoWorks LMS 4.0

- Work Center enhancements for Medianet, EnergyWise and TrustSec

Enhanced application performance and energy savings

- New Cisco Smart Business Architecture (SBA) templates

Integrated Cisco validated designs and best practices

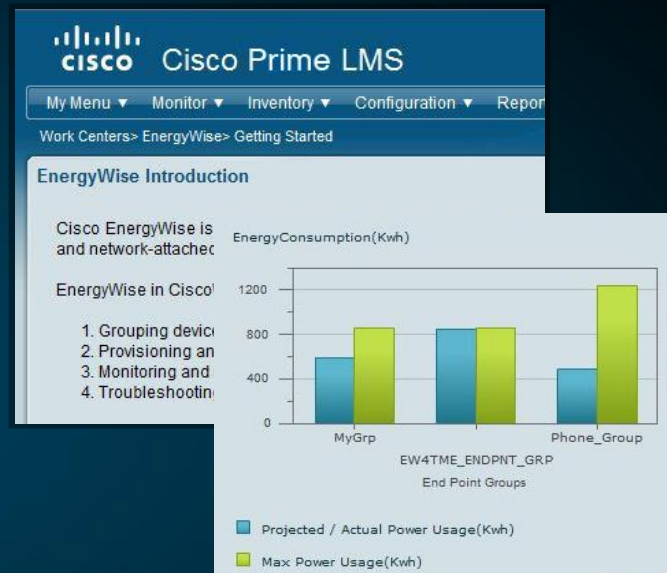
- Smart Interactions

Automated self-help tools speed the resolution of network problems and TAC trouble tickets

Borderless Networks Services

New Enhancements in Cisco Prime LMS 4.1

- Medianet Work Center
 - Readiness assessment for Medianet 2.2
 - IPSLA video operations
 - Template support for performance monitoring, QoS , PfR, RSVP and video trans-coding
 - Added Medianet endpoint dashboard
- EnergyWise Work Center
 - Auto learning of EnergyWise domains
 - Support for EnergyWise SDK compatible endpoints like PC's and smart IP phones
 - Expose EnergyWise domain information through database view to other apps like Orchestrator
- TrustSec/Identity Work Center
 - Mac-sec configuration support on access ports
 - Configuration template for SGA



Cisco Smart Business Architecture

A Blueprint for Business Success

High-Performance Network

- Pre-tested modular network architecture with integrated network-level Smart Services

Prescriptive Solutions

- Cisco tested and validated solutions tailored to your business size and requirements now and in the future

Modular Design

- Component-based design delivers future flexibility and ensures new projects build on your existing investment

SBA Designs



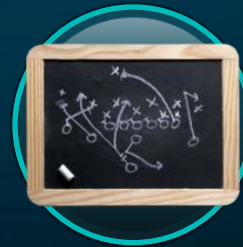
- Scalable solutions from 100 to 10,000 endpoints
- Investment protection and migration strategies for growing businesses



Tested and
Validated Solutions
Work Together



Comprehensive
Architectural
Solution



Modular,
Systematic
Approach



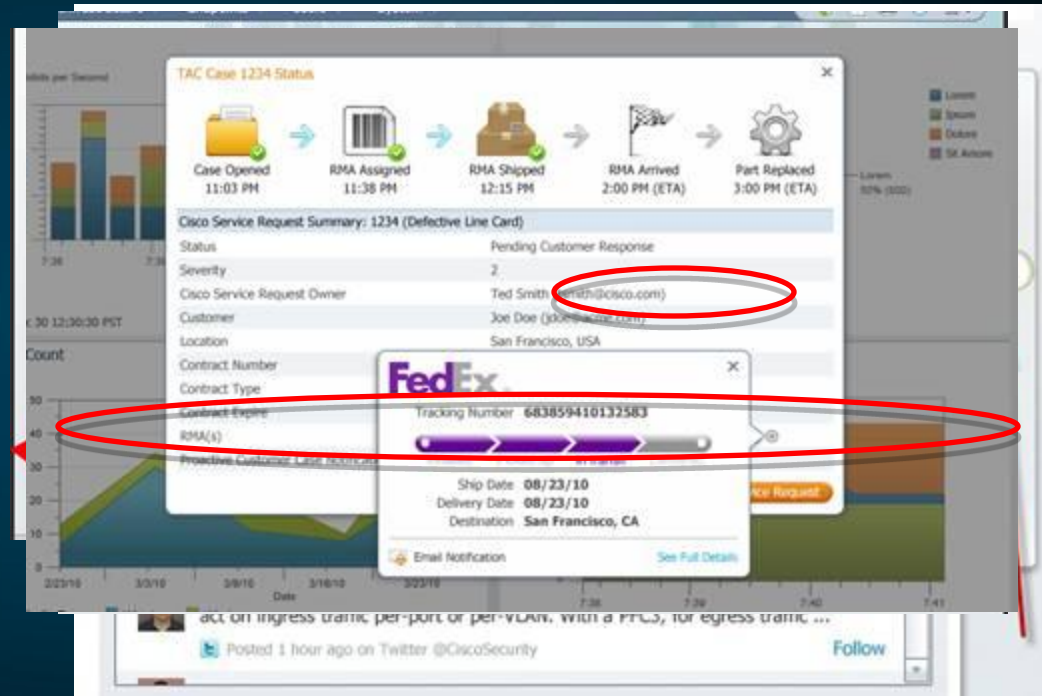
Expert Partner
Installation and
Configuration

Speed Problem Resolution

Utilizing Cisco Smart Interactions

USE CASE: Help desk operator sees a problem with a core switch and uses Cisco smart interactions to help quickly isolate and solve the problem

1. Fault notification on core switch
2. Operator engages support community
3. If no answer...Validates issue and opens TAC case
4. TAC engineer validates problem
5. If needed....RMA issued to resolve problem



Seamless access to Cisco support communities

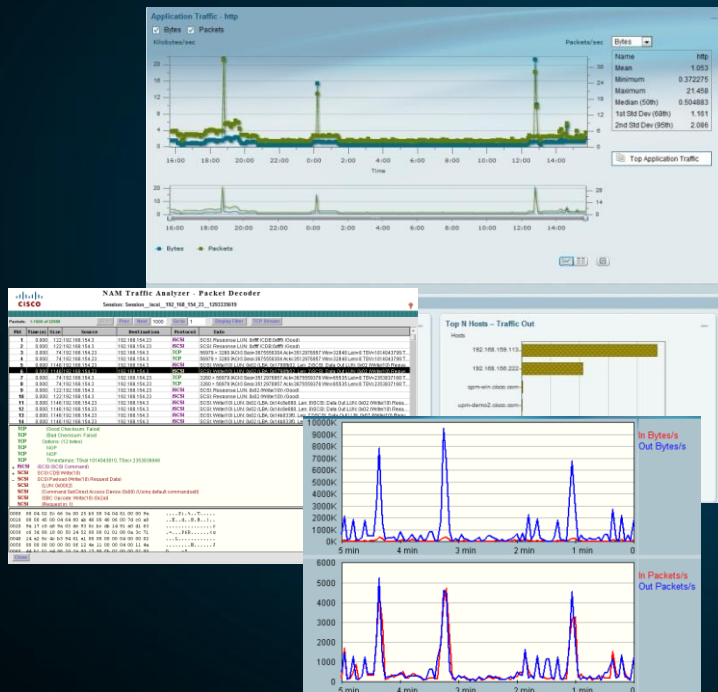


Significantly reduces time required to resolve problems

Cisco Prime

Network Analysis Module (NAM) 5.1

Cisco Prime NAM 5.1



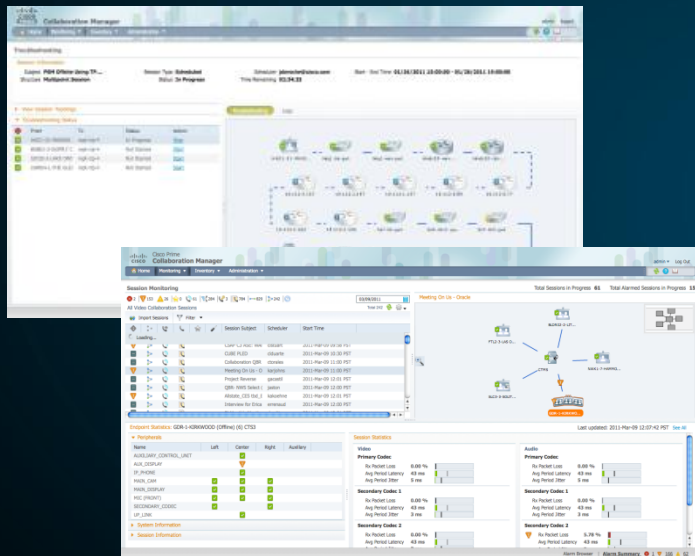
An evolution of Cisco NAM 5.0

- NAM-3 10 Gig blade for Catalyst 6500 (SW v. 5.0)
- 10X performance and extended storage
- Introduction on ISR G2 /SRE
- Integration with Performance Agent on ISR G2
- Integrated reporting with WAAS CM
- State-of-art dashboards and workflows

Cisco Prime

Collaboration Manager (CM) 1.0

Cisco Prime CM 1.0



- End-to-end visibility and isolation of video-related issues for Cisco TelePresence sessions, endpoints, and the network
- Detailed analysis of the media path with critical fault and performance statistics
- Comprehensive inventory, health, and status
- Reports for usage and problem history

Automated Video and Voice

Introducing: Medianet Enhancements, MXE, and Management

Quality of Experience

Planning

Auto
Configuration

Visibility and
Monitoring

Rapid
Problem Resolution

Optimization

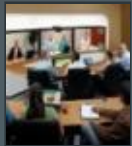
Any to Any
Video Adaptation

Automation and rapid problem resolution in the network to deliver application quality of experience, particularly video

Automated Video and Voice

What's New?

Endpoints / Users



Medianet Services

Media Monitoring:

- Performance monitor
- Mediatrace
- IPSLA VO

Auto Configuration:

- Auto smart ports

Flow Metadata

Media Services Interface

Media Services Proxy



Network Elements

Network Management



Cisco Prime:
Collaboration Manager 1.0
LAN Management Solution 4.1
Network Analysis Module 5.1



Cisco Developer Network
Tools

Medianet Readiness Assessment Service

Medianet Media Monitoring Features

New



Improved visibility to assess and troubleshoot video impact on the network

Key Product Capabilities

- Advanced video troubleshooting and monitoring
- Pre-deployment assessment
- Supported on:
 - Cisco ISR G2 routers; Catalyst 3K/6K switches;
- Available as a Feature License (ISR) or Base IOS (Catalyst)

Customer Value Proposition

Takes the guesswork out of deploying video

Enhanced visibility of network performance with extensive video services running

Assured quality user experience

Sales Value Proposition

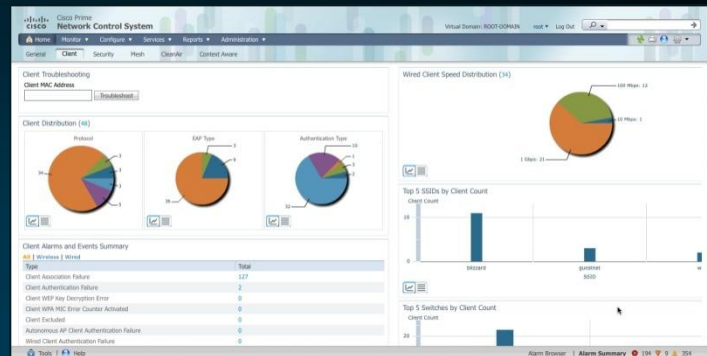
Key Cisco Borderless Networks Infrastructure differentiator

Valuable addition to video endpoint sales

Provides reason for upgrade and migration

How is Cisco Prime NCS Different in the Market?

- Enables a shift from network element to user and endpoint management
- Complete visibility into endpoint connectivity – regardless of device, network or location
- Converged wired, wireless and policy user access information in a single view
- Helps IT better leverage resources to resolve end-user access problems faster
- Built on proven Wireless Control System technology for comprehensive wireless lifecycle management
- Central view of Cisco leading wireless innovations: CleanAir, Adaptive WIPs, Context Aware and Identity Service Engine



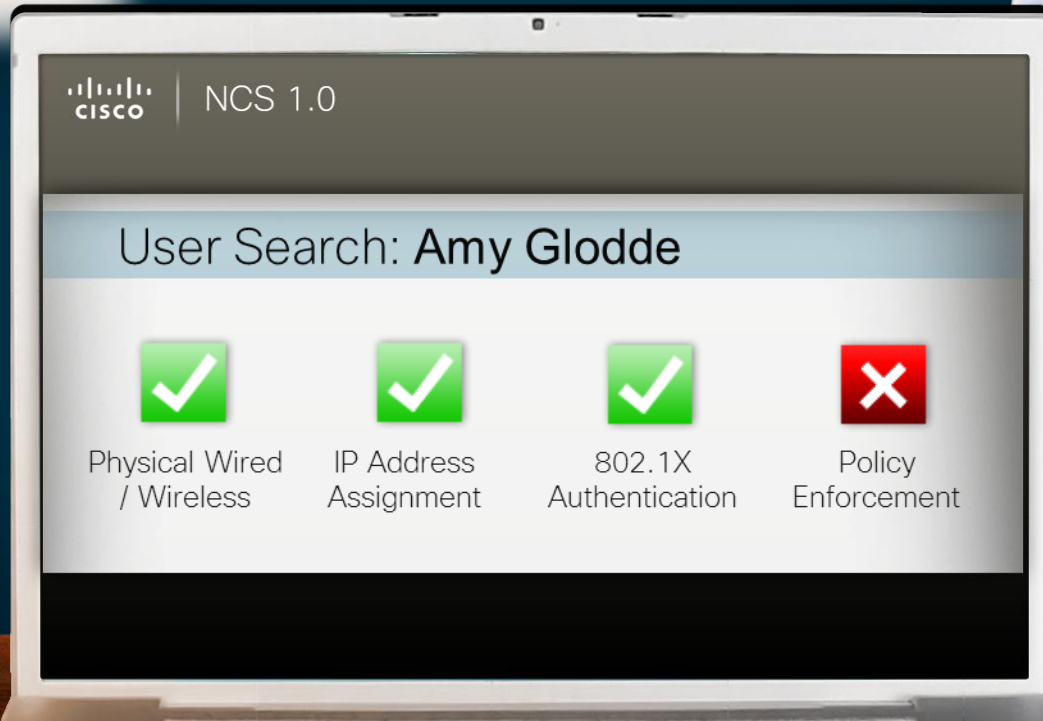
Answer the who, what, when, where and how access related questions

Plan, Deploy, Monitor and Troubleshoot, Remediate and Optimize the RF environment

Cisco Prime NCS 1.0 Use Case

“ I can't get access to the financial data I need.
I guess both the wireless and wired networks
must be down! ”

“ Sorry Amy, as a contractor, you are
not authorized to access financial data. ”



The Tech Searches on Her Name and Immediately
Can See Full Diagnostics

Key Takeaways

The Key Takeaways of this presentation were:

- Cisco Prime LMS 4.1 is an evolution of CiscoWorks LMS 4.0 offering several new features and enhancements
- Cisco Prime NAM 5.1 is an evolution of Cisco NAM 5.0 now offering new form factors
- Cisco Prime Collaboration Manager (CM) 1.0 is a new product for managing and troubleshooting video collaboration including TelePresence
- Cisco Prime NCS delivers converged user and access management for wired and wireless networks with comprehensive WLAN lifecycle management

Thank you.

