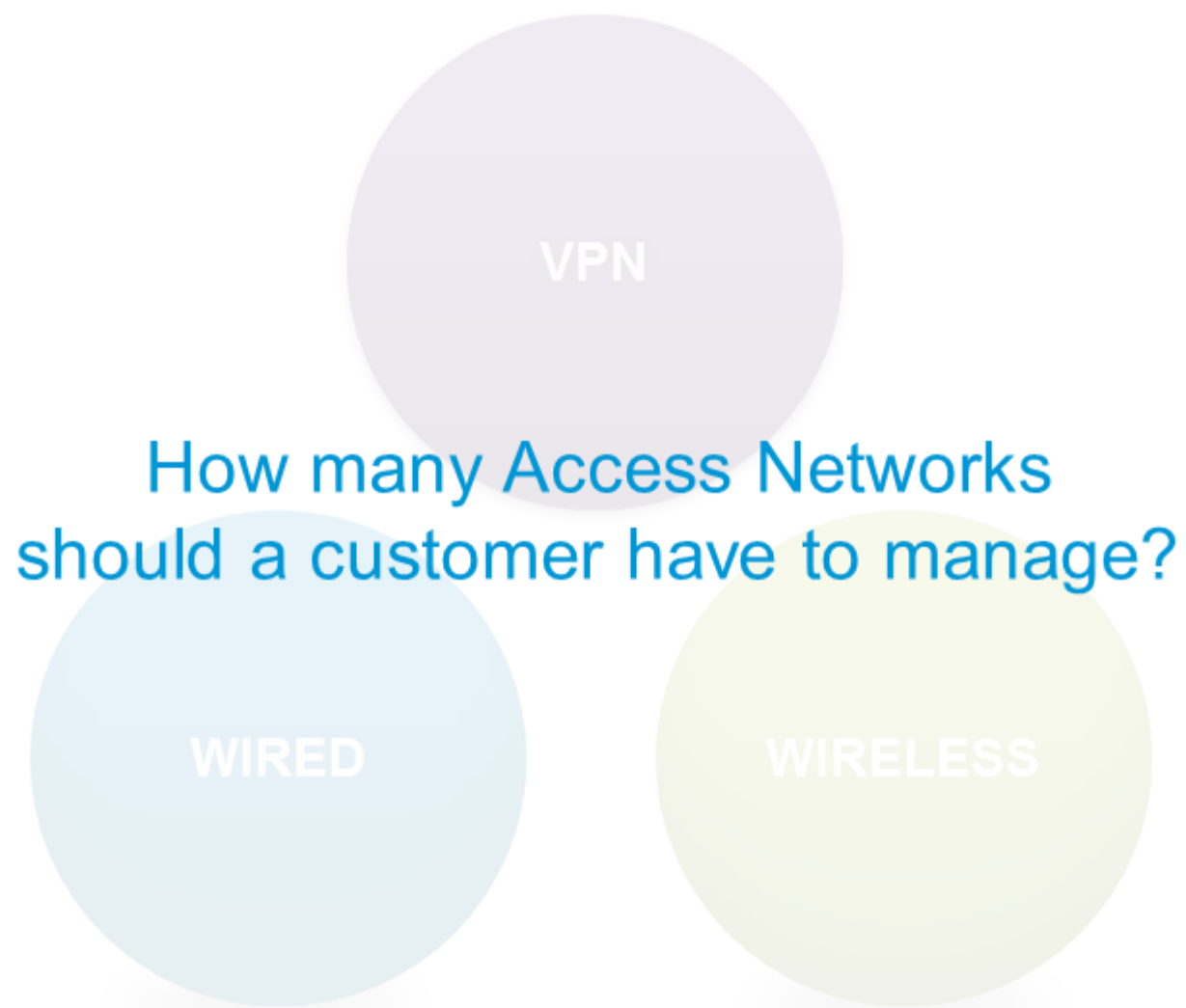




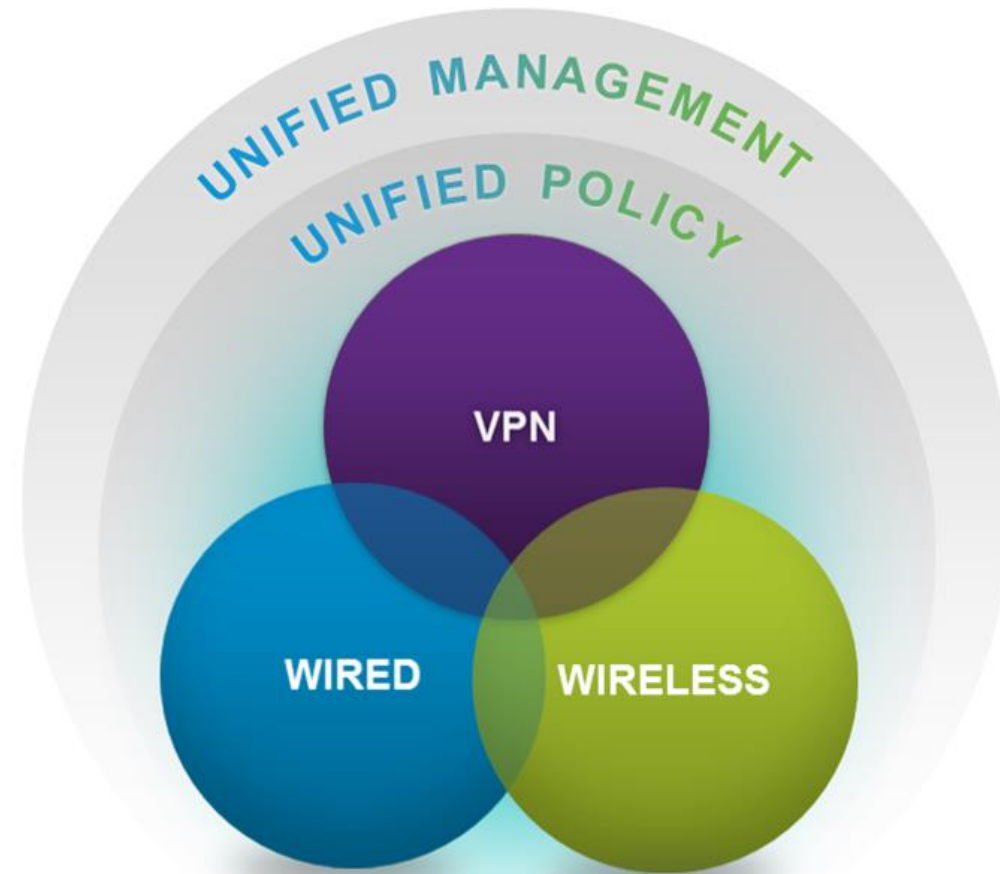
Cisco Unified Access

Mar. 19. 2013

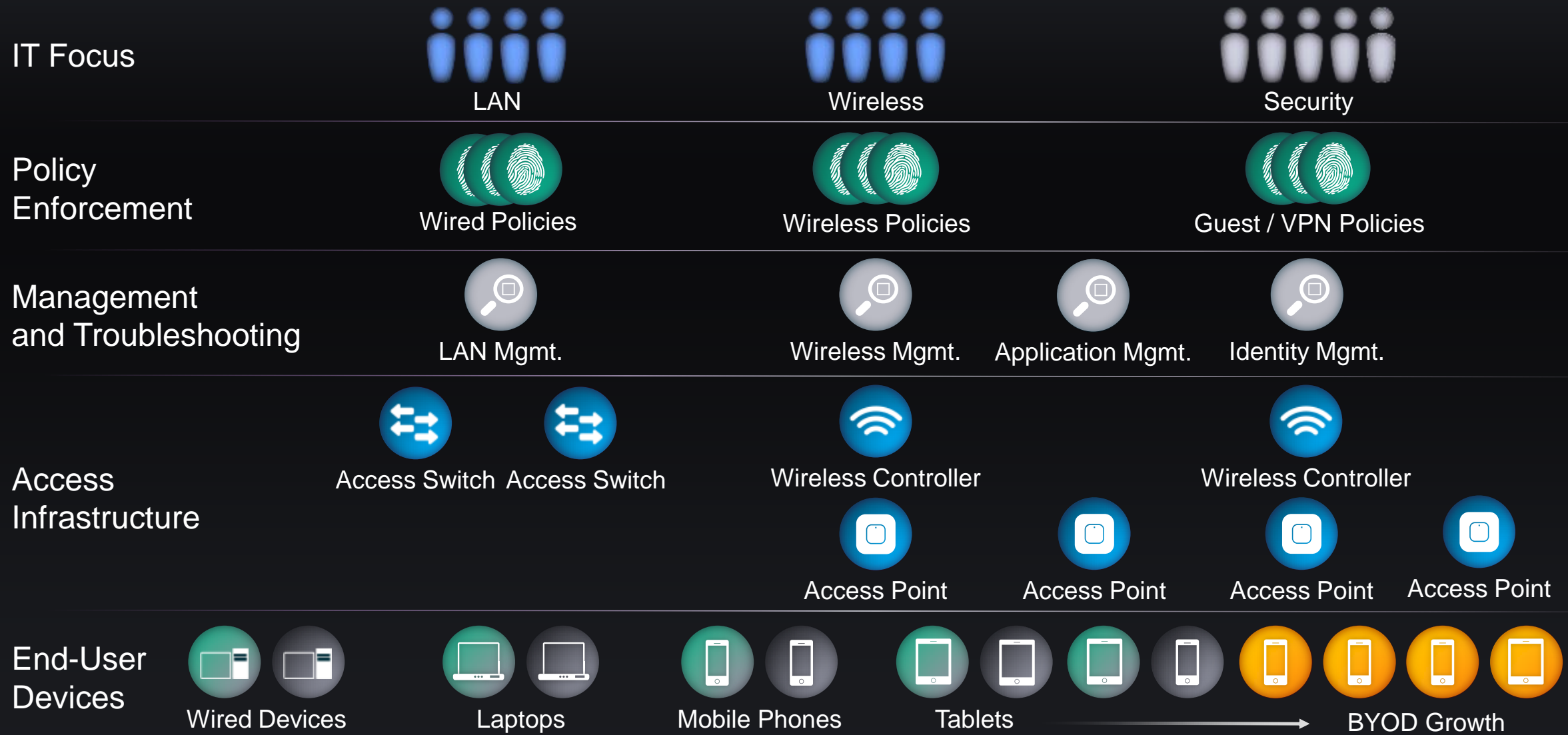
BYOD: The Need for Unified Access



BYOD: The Need for Unified Access

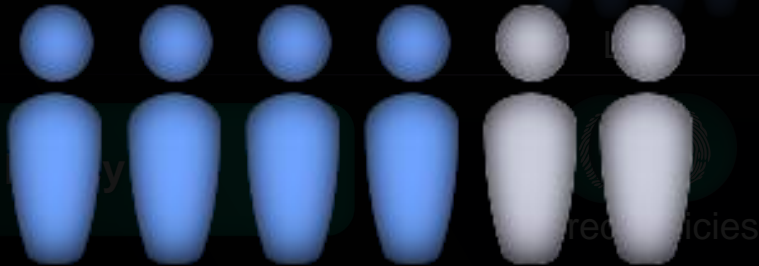


Before Unified Access



With Cisco Unified Access

IT Focus



One Policy

One Management

IT

LAN Mgmt.

Simplified BYOD

One Wireless Access

Lower TCO

Wireless Policies

Guest / VPN Policies

New Innovative Services

Wireless Structure

Application Mgmt.

Identity Mgmt.

End-User



New Connected Experiences

Access Switch Access Switch

Wireless Controller

Access Point

Wireless Controller

Increased Productivity

Access Point

Access Point

Access Point

Access Point

Wired Devices

Laptops

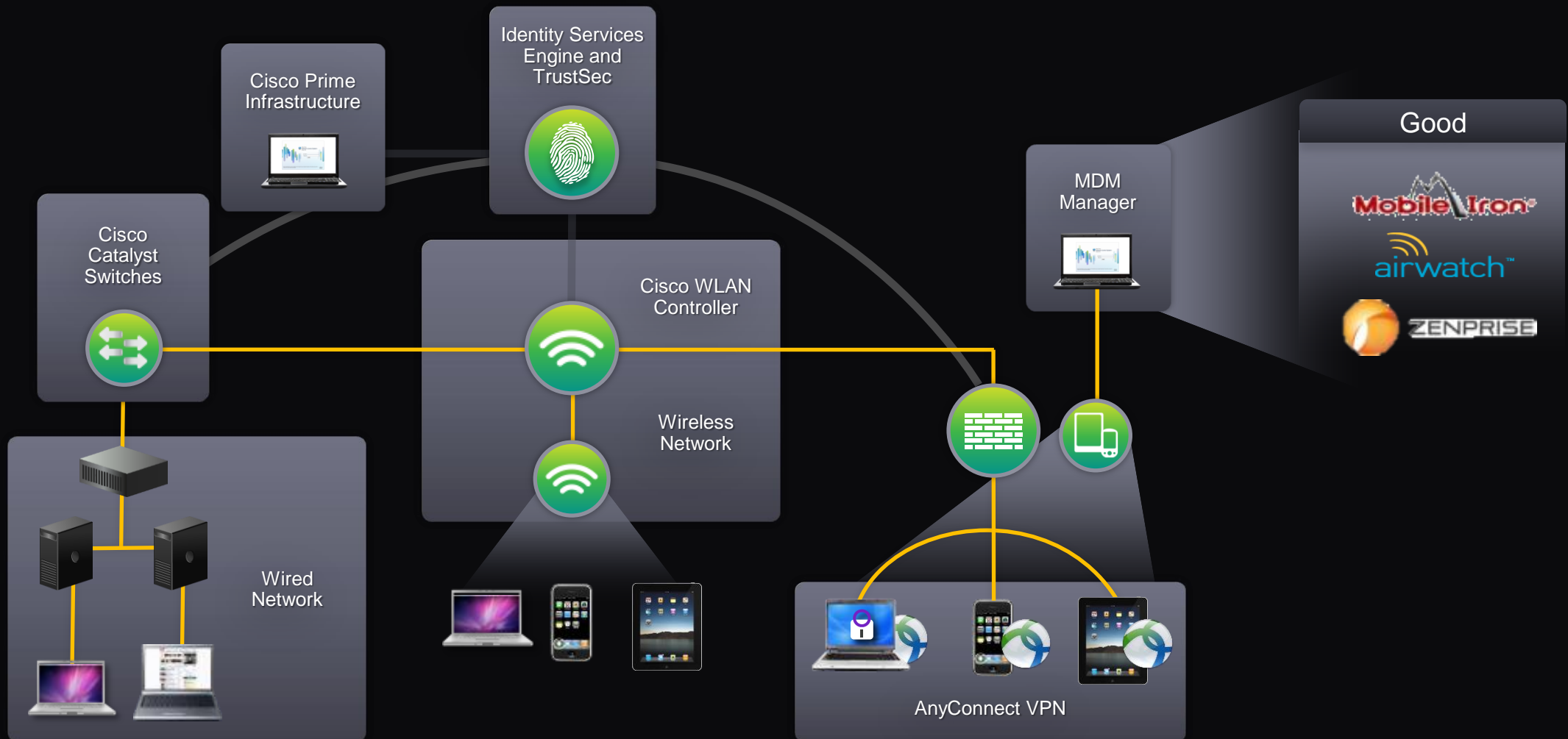
Mobile Phones

Tablets

BYOD Growth

Unified Access Architecture

One Policy, One Management, One Network





One Network

One Network

도전 과제

BYOD

- 액세스 환경 요구도 증가
- 사용자 모바일 기기 다양성

기업모빌리티

- 스마트워크
- 이동 서비스
- 클라우드 액세스

기업 서비스

- 비디오
- 원격 액세스
- 성능

지속적인 사용자
서비스/요구

Any Where,
Any Time

- Any Device



One Network

기존 유선 네트워크



기존 무선 네트워크

Autonomous



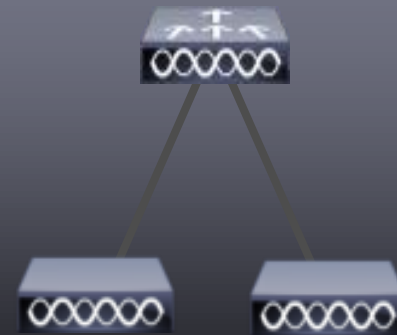
단독형 AP

FlexConnect



AP 단에서 트래픽처리

Centralized



트래픽 -컨트롤러

Virtual Controller



2500



WISM2

5508



8500



Flex 7500

Now ! New Challenge



BYOD



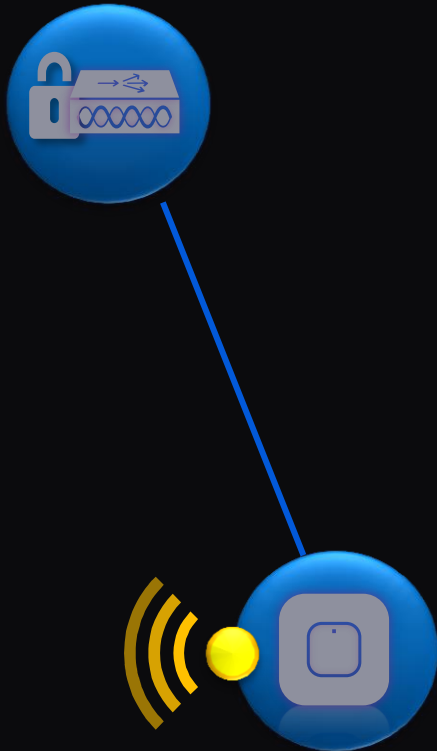
Mobility



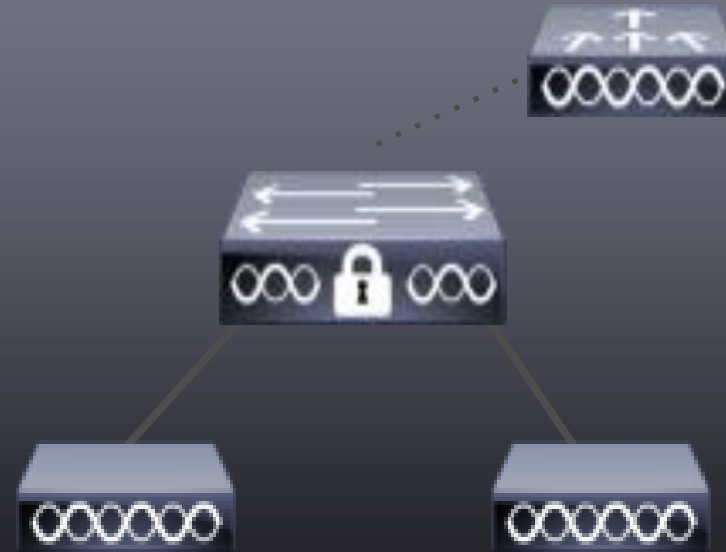
새로운 액세스 환경
5세대 Wifi, 802.11ac

New Access Infrastructure

Cisco Wireless
LAN Controller

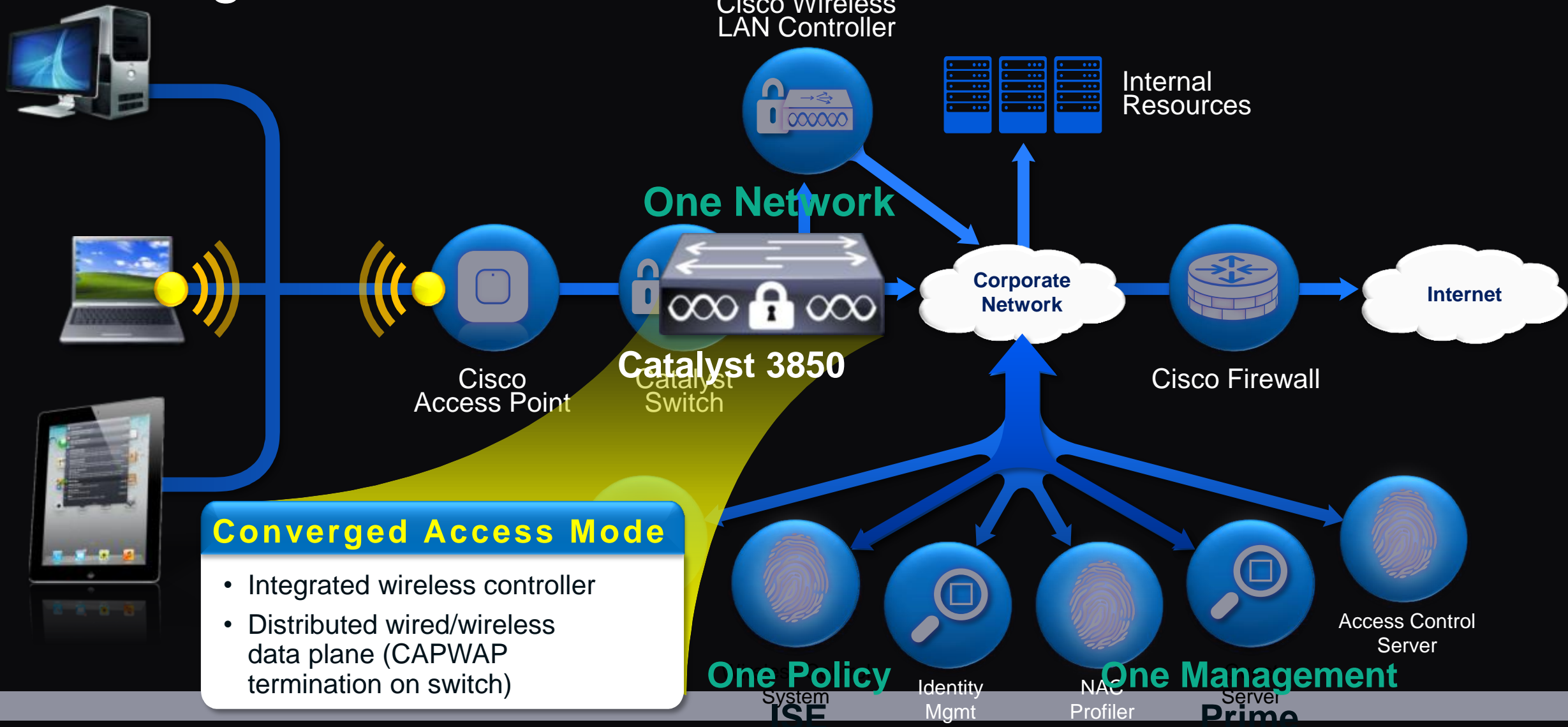


새로운 Access 환경 요구



다수의 고성능 AP 에서 발생이 되는
이동 사용자의 트래픽 분산 처리

Convergence Access



Converged Access Mode

- Integrated wireless controller
- Distributed wired/wireless data plane (CAPWAP termination on switch)

Wired – Wireless Access



WIRELESS

**480G W/Stacking
Up to 40G Integrated WLAN Controller**

WIRED



- 802.11n
- CleanAir
- VideoStream
- 802.11ac Ready



- Stackpower
- Trustsec*
- AVC/Medianet*
- Granular QoS
- Smart Operations

One Physical Infrastructure, Unified Access Data Plane (UADP) ASIC

One Operating System — IOS-XE

Catalyst 3850

Best-in-class fixed, stackable switch

- High performance 24/48 port GE switch, with 480 G stacking
- Granular, hierarchical bandwidth management
- 4X1/2X10/4X10 G uplinks
- StackPower
- Full POE+
- Multi-core CPU
- FRU fans, power supplies, uplinks

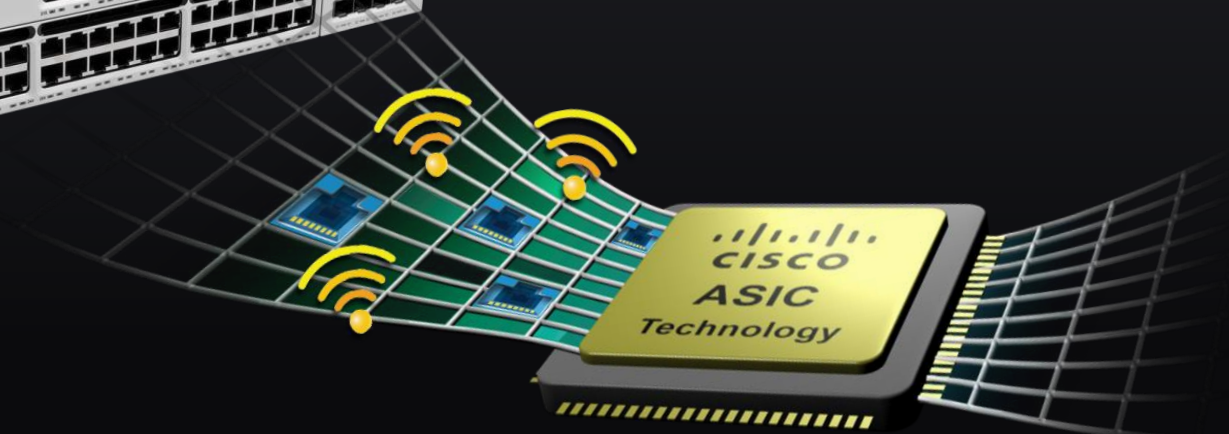


Converged wired + wireless

- Single platform with built-in wireless controller
- Up to 40 G wireless throughput
- Support for 50 Access Points & 2000 wireless clients per switch/stack
- Network-wide visibility
- Consistent QoS and security
- Support for 802.11ac

Distributed intelligent services

- Flexible NetFlow on all ports
- Hardware capability for TrustSec and MediaNet
- Resiliency (Stateful Switch Over)
- SmartOps (Smart Install, Auto Smart Ports)



High Performance WLAN Controller



Cisco 5760 Wireless LAN Controller



Powered by New Unified Access Data Plane (UADP) ASIC

High Performance

60Gb throughput, 1000APs, 12k clients

Rich Feature Set

Application Visibility and Control*, TrustSec*, Granular QoS

Maximum Resiliency

Centralized or Converged

IOS Excellence—Now on Wireless

Catalyst 3850 비교



Features	Catalyst 3850	Catalyst 3750-X	Catalyst 2960-S
Stacking	480 Gbps	64 Gbps	20Gbps
Native Wireless Controller Support Over IOS	Yes	No	No
10GE Uplinks	4 x 10 GE / 2 x 10 GE	2 x 10 Gbps	Integrated 2 x 10GE
Buffers per 48 port	12 MB	6 MB	2MB
Power Supplies and Fans	Modular PS – 2 Modular Fan - 3	Modular PS – 2 Modular Fan - 3	Fixed single PS and Fan
StackPower	Yes	Yes	No
Native Flexible Netflow Support	Yes	No	No
Multi-Core CPU for Hosted Services	Yes	No	No
QoS Model and Queues per Port	MQC, 8	MLS, 4	Basic, 4
Flash / DRAM Size	2 GB / 4GB	64 MB / 512 MB	32 MB / 256 MB
Operating System	IOS-XE	IOS	IOS

One Network – Converged Access



Single platform for wired and wireless

Common IOS, same administration point, one release



Network wide **visibility** for faster troubleshooting

Wired and wireless traffic visible at every hop



Consistent security and quality of service **control**

Hierarchical bandwidth management and distributed policy enforcement



Maximum **resiliency** with fast stateful recovery

Layered network high availability design with stateful switchover



Scale with distributed wired and wireless data plane

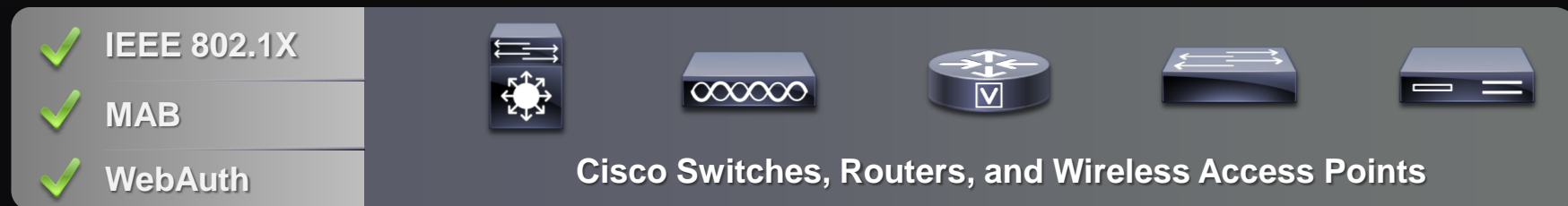
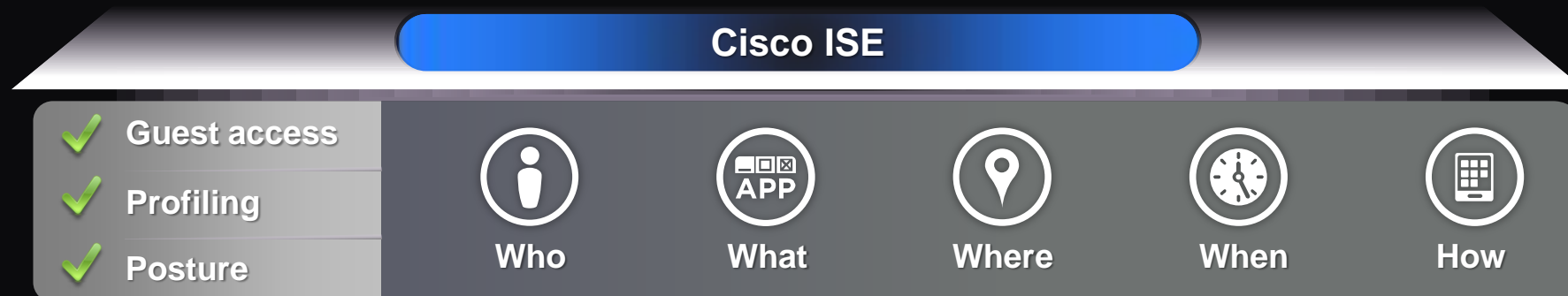
480G stack bandwidth; 40G wireless/switch; efficient multicast



One Policy

Cisco Identity Services Engine (ISE)

All-in-One Enterprise Policy Control



Identity (IEEE 802.1X)-Enabled Network

How Cisco ISE Is Used Today

BYOD

Users get safely on the Internet fast and easy



Guest Access

It is easy to provide guests limited-time and limited-resource access



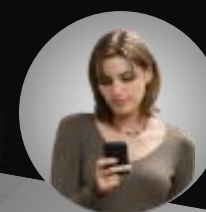
Secure Access on Wired and Wireless Network and VPN

Control with one policy across wired, wireless, and remote infrastructure



Cisco TrustSec® Network Policy

Rules written in business terms control access



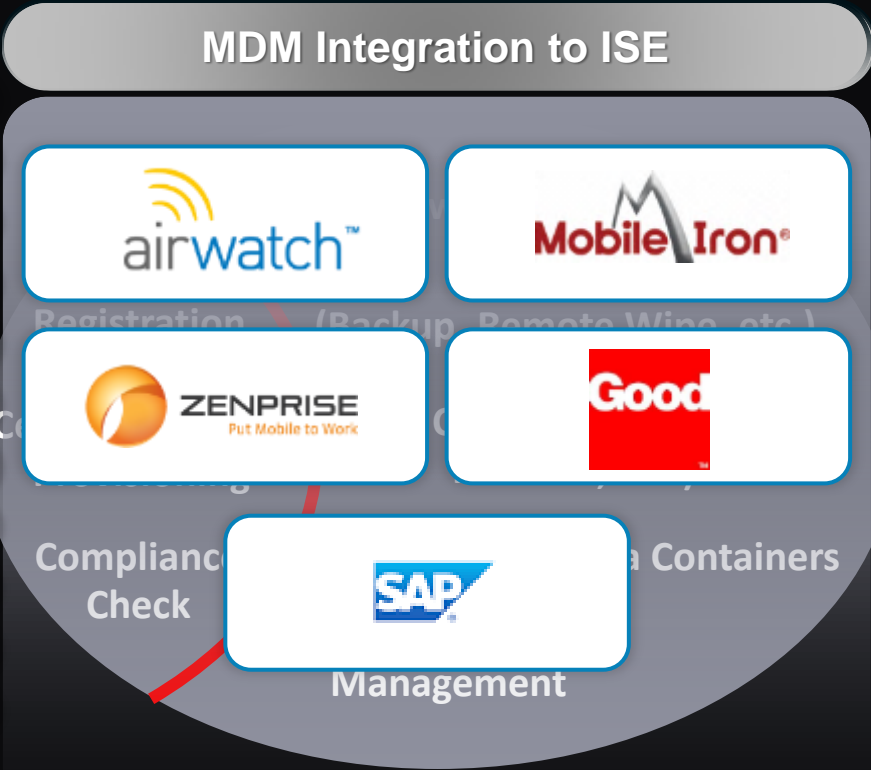
What's new?

Integrated Device Security by MDM



Comprehensive Secure Access

- MDM Policy Check by ISE**
- Device registration status
- Device compliance status
- Disk encryption status**
- Pin lock status
- Jailbreak status
- Manufacturer
- Model
- IMEI
- Serial number
- OS version**
- Phone number



Corporate and Personal Device Posture Check and MDM Remediation

What's new?

Device feed Support

Comprehensive Secure Access

Everyday New Devices !!!

Manually Update new devices' profile?

Device feed —
identity in scale

New
Feature

Manufacturers and ecosystem provide constant updates to new devices

* Scheduled for Spring 2013

Cisco ISE



Device Feed*

New
Feature

Active
Endpoint
Scanning

Device Sensor
(Network Based)

Cisco Device Sensor

What's New?

New Appliances and Scale up for large deployment

Cisco Secure Network Servers



SNS-3415-K9 & SNS-3495-K9

Based on the Cisco UCS C220 Server, but designed for

- Cisco Identity Services Engine (ISE)
- Network Admission Control (NAC)
- Access Control Server (ACS)

Scale Up

With old ISE-33x5

- Max 100,000 End-Points



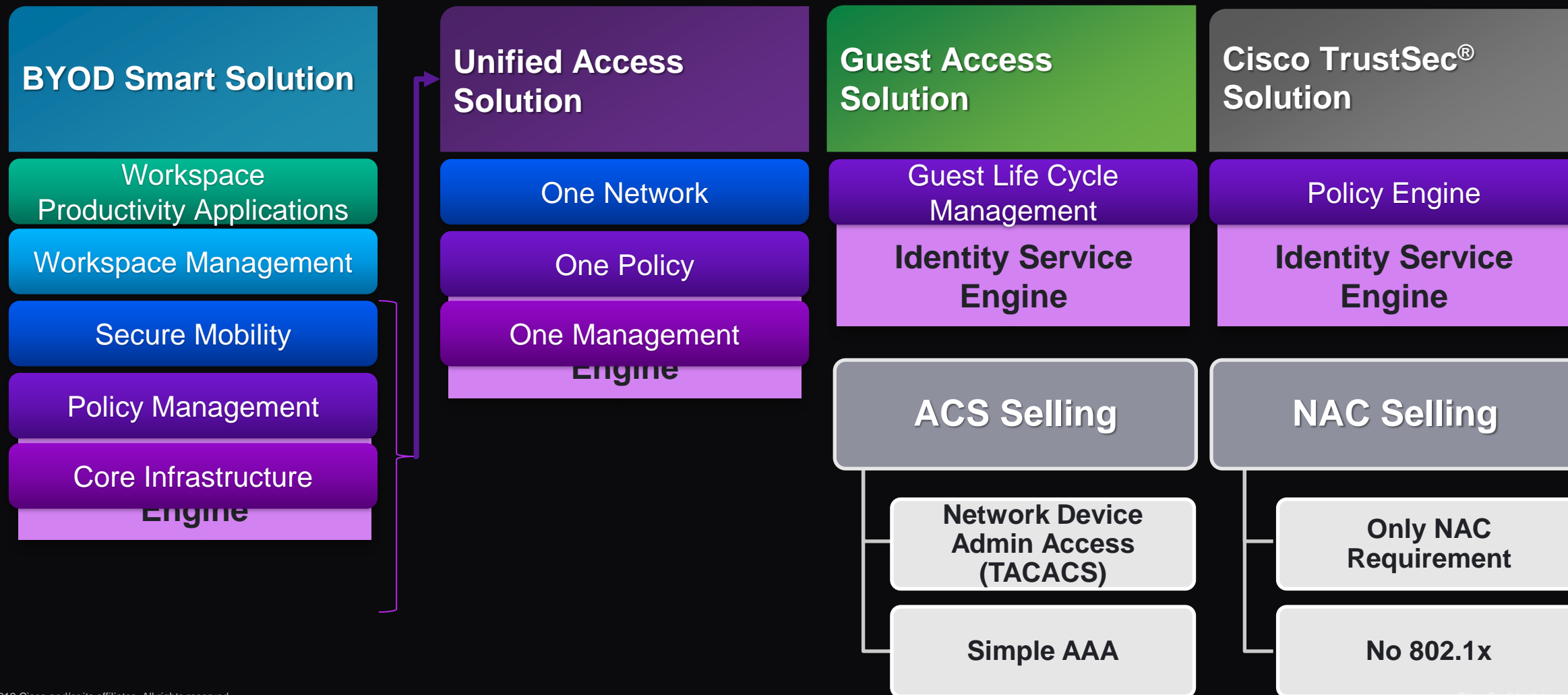
With New SNS-34x5

- **Max 250,000** End-Points
- It can be mixed with old ISE-33x5

New Feature

How to Position

Key Security Product for Security Solution-based position



A woman with curly hair, wearing a dark blazer over a white collared shirt, is looking down at a smartphone she is holding with both hands. The background is a blurred office environment with other people seated at desks.

One Management

It's Prime Time!

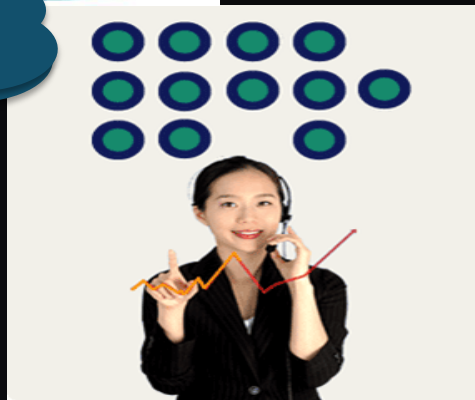
네트워크 서비스 어제와 오늘



청주의 B사업장
2층입니다.



현재
교체작업중입니다.



스티브잡스인데스마
트폰으로
인터넷접속이
안됩니다.



네! 잠시만
확인해드리겠습니다.

인터넷장비
무선장비 모두
문제없고



아!! 정책적용이
잘못되었네!!

PC는 제대로
되는데...

인증도
제대로받으셨고..

One Management

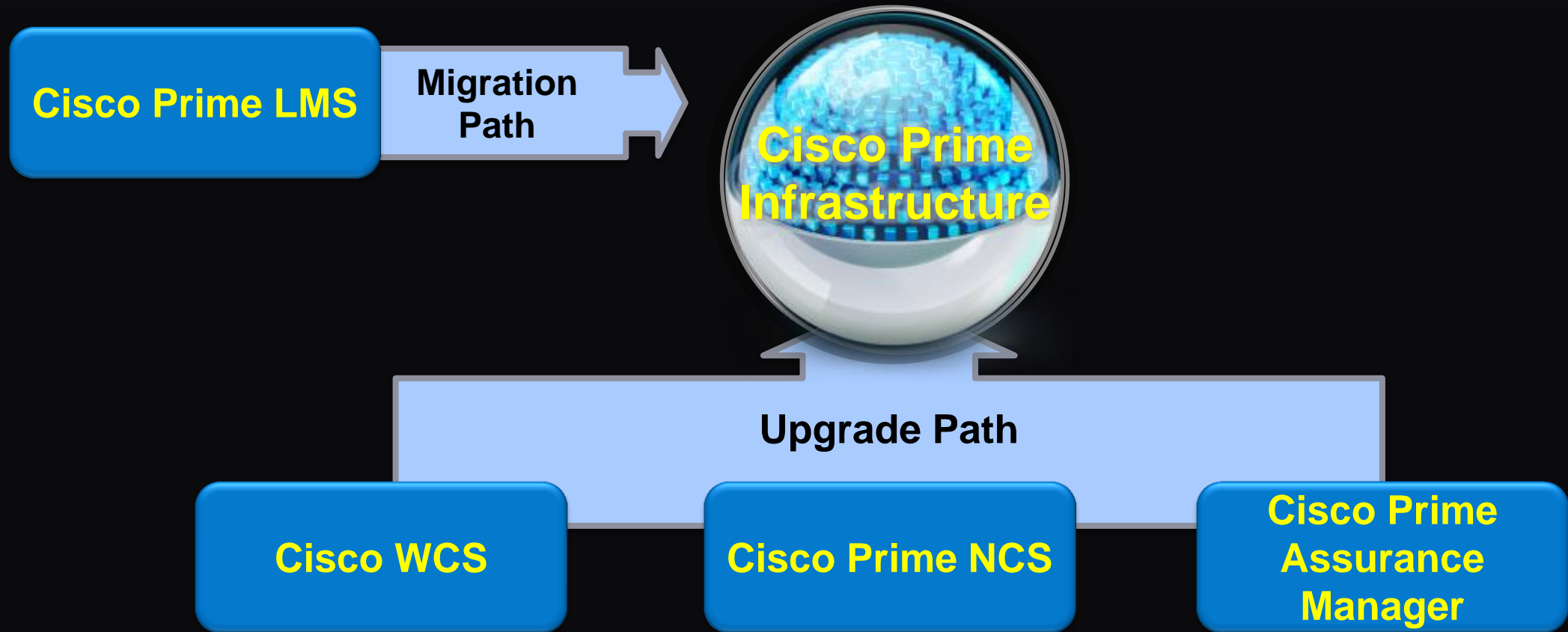
운영 생산성



사용자
서비스
품질

규제 및 운영 가이드
수용 여부

Cisco Prime Infrastructure Upgrade/Migration



Prime Infrastructure 2.0

Wireless

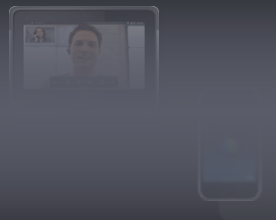


One Infrastructure Management



Wired

Access
Information



**Converged Information
End User Experience**



Application
Visibility

Network Performance – Use Cases

지사 사무실 연결 링크 대역폭 사용율이 급증하였습니다. 어떤 이유로 사용율이 증가한 것인지 확인하고 싶습니다.

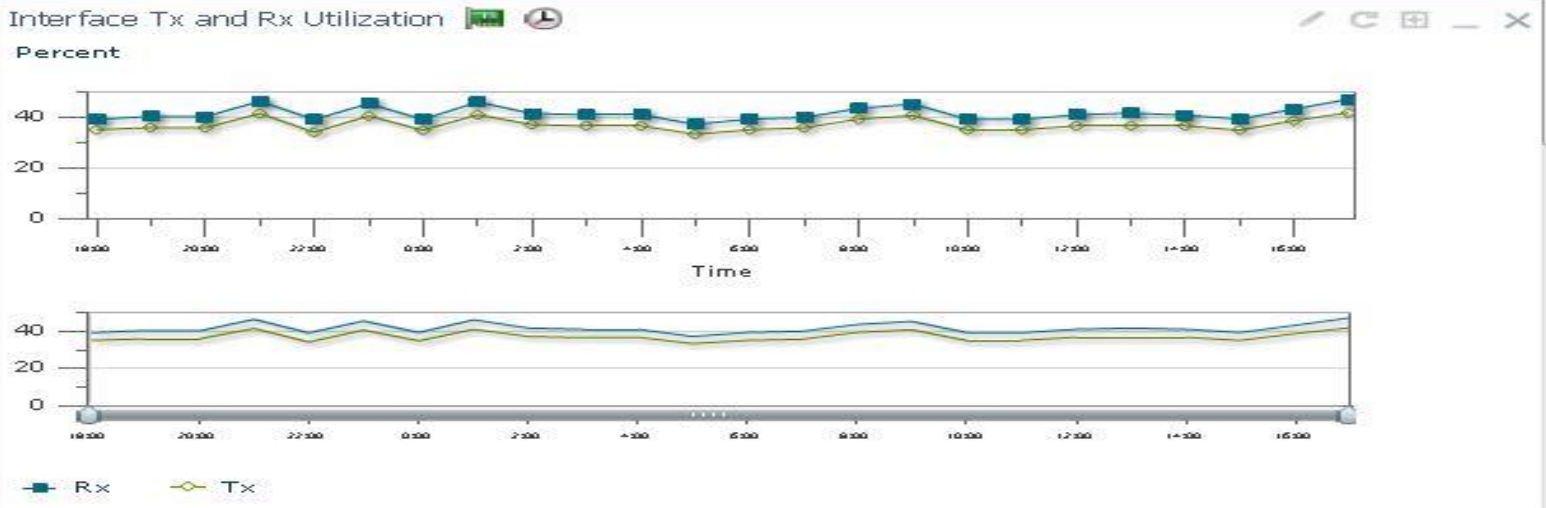
**Interface Dashboard >
Top WAN interfaces**

Top N WAN Interfaces by Utilization Edited

Site	Device	Interface	Maximum Utilization	Average Utilization	Past 24 Hour Trend (%)
London Branch	10.11.1.1	GigabitEtherne...	100%	55%	55.14
Los Angeles Branch	10.0.102.2	GigabitEtherne...	100%	5%	4.89
New York Branch	10.0.104.2	GigabitEtherne...	71%	4%	4.4
WAN Aggregation	192.168.15...	GigabitEtherne...	71%	4%	4.36
RTP Branch	10.0.101.2	GigabitEtherne...	64%	4%	3.92

■ 0%-50%
 ■ 51%-70%
 ■ 71%-90%
 ■ 91%-100%

**Bandwidth utilization
over time**

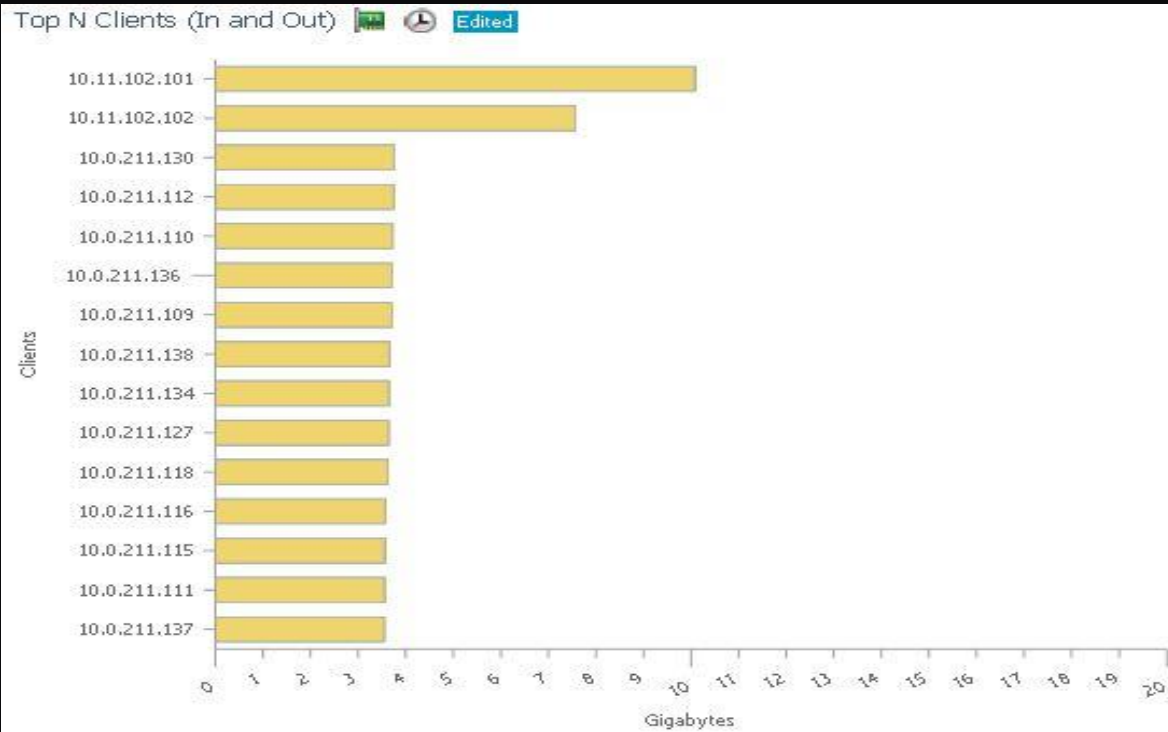


Application Utilization over time

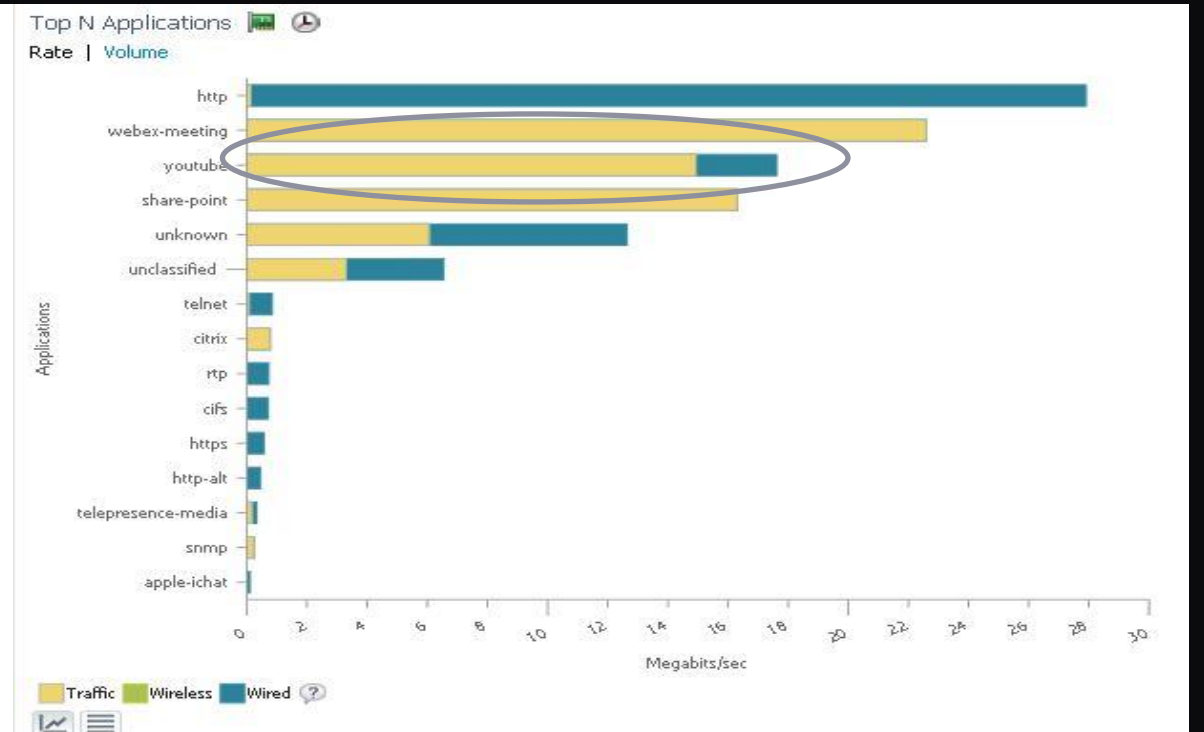


Application utilization
over time

Top N reports for the interface

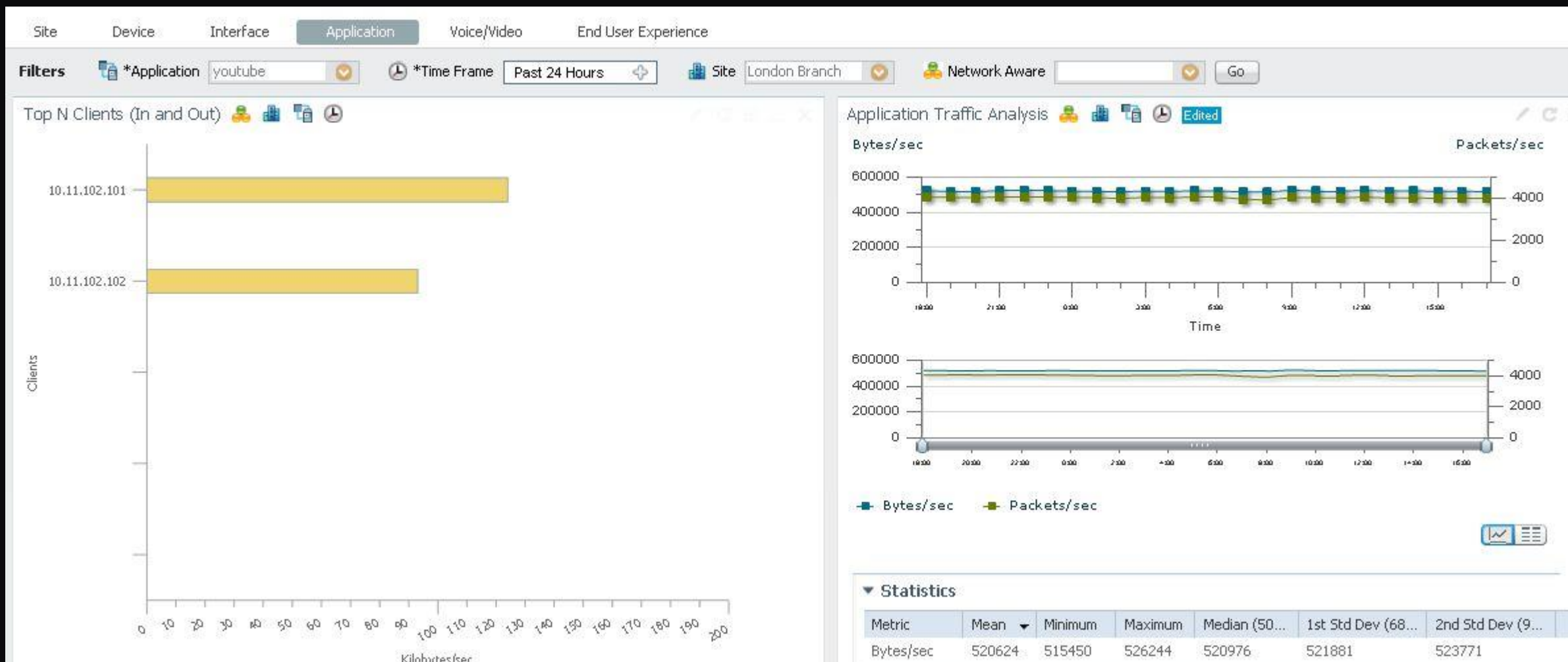


Top Users by bandwidth



Top Applications by bandwidth

Top users for most bandwidth applications



Find the users who are using the most bandwidth for the site

QoS Setting for the Interface

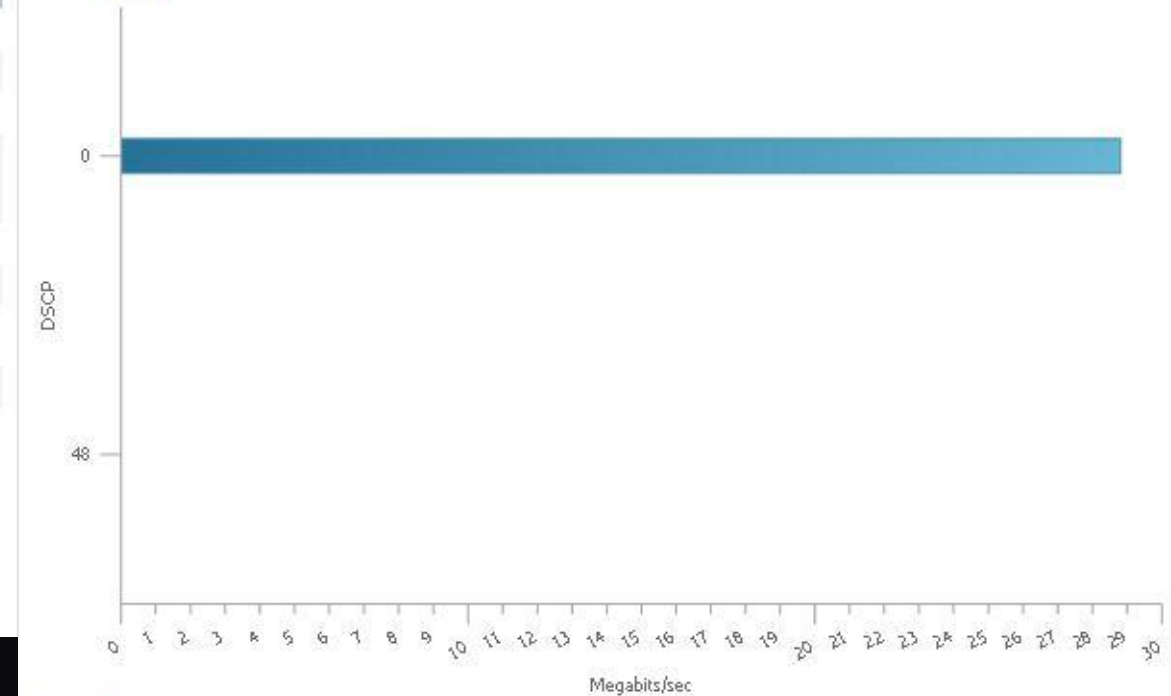
Class Map Statistics

Class Name	Direction	Pre Policy Rate(Bps)	Post Policy Rate(Bps)	Drops
WAN:class-default	Output	3886281282.27	3656613790.27	5.91%
WAN:BGP-ROUTING	Output	0	0	0%
MARK-BGP:DATA	Output	0	0	0%
WAN-INTERFACE-G0/0:NETWORK-CRITICAL	Output	643.18	643.18	0%
MARK-BGP:CRITICAL-...	Output	0	0	0%
MARK-BGP:VOICE	Output	0	0	0%
WAN-INTERFACE-G0/0:class-default	Output	643.18	830.82	0%
WAN:SCAVENGER	Output	0	0	0%
WAN-INTERFACE-G0/0:INTERACTIVE-VI...	Output	0	0	0%

0%-50% 51%-70% 71%-90% 91%-100%

DSCP Classification

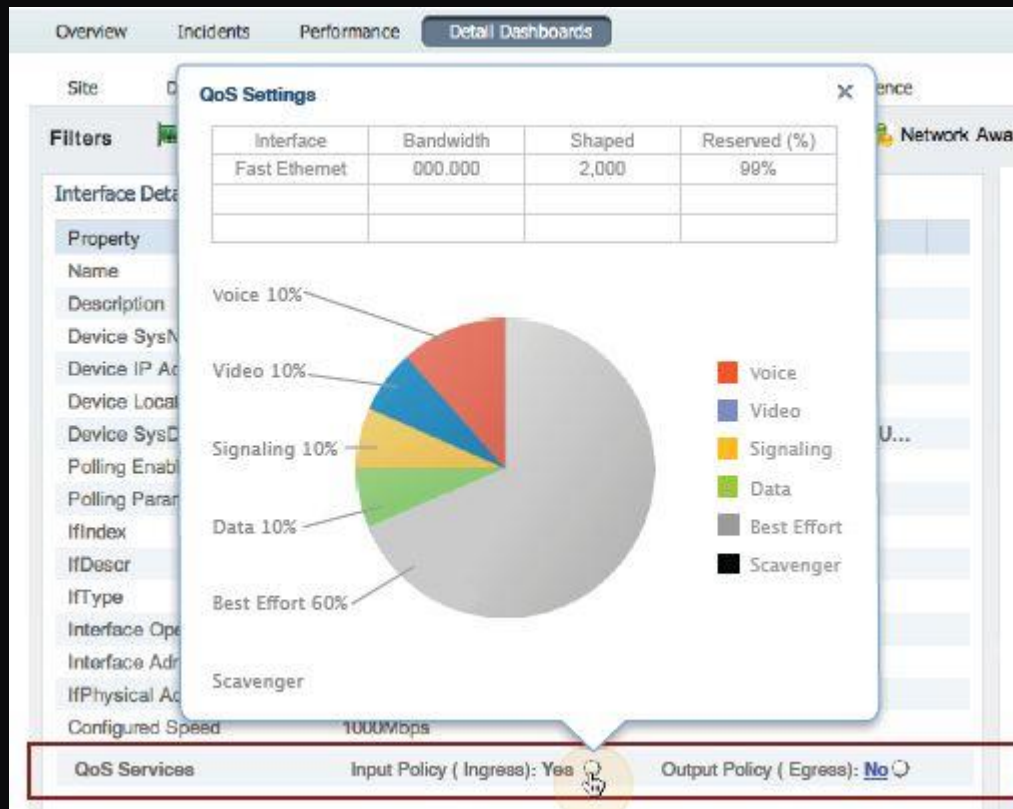
Rate | Volume



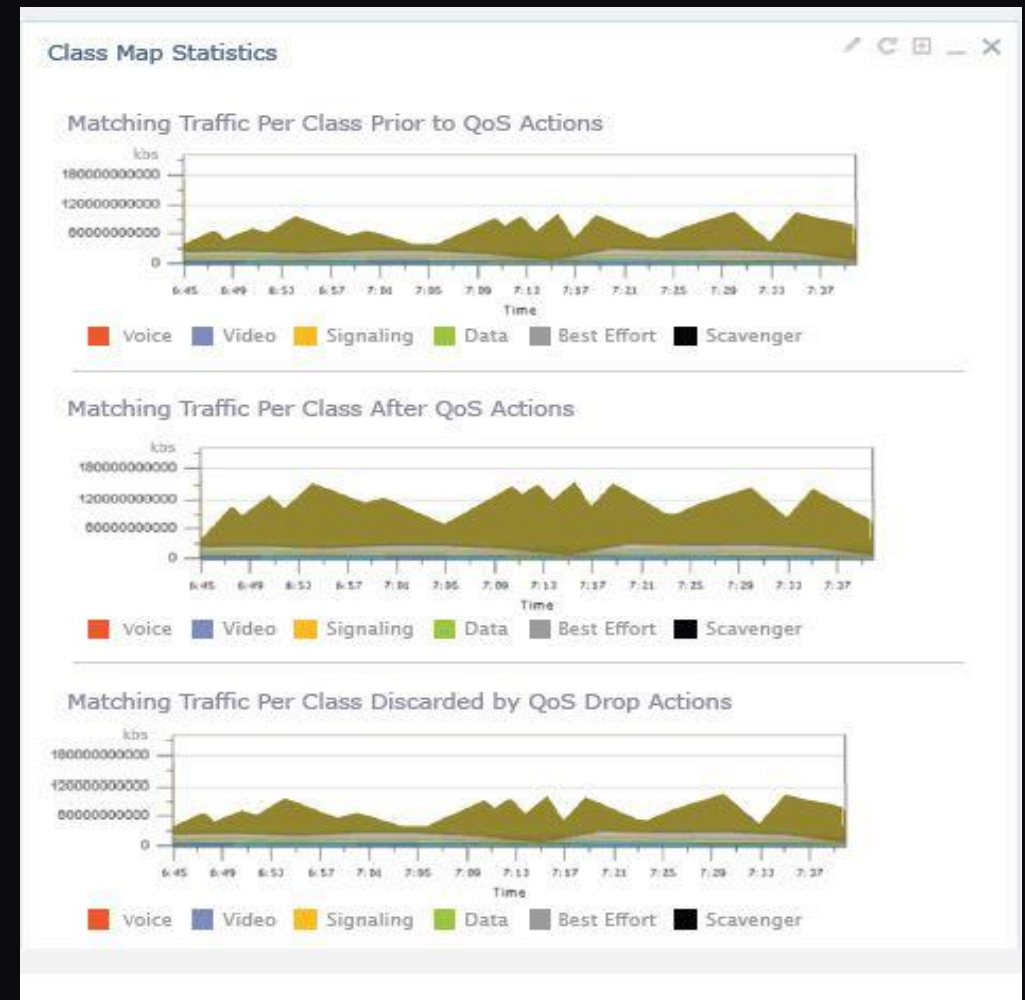
Class Map Statistics

DSCP marking of Traffic

Optimizing the bandwidth



QoS -> Enable QOS on the interface for bandwidth is optimized for the critical applications



Prime of Prime

What's up Gold같은 단순 모니터링 툴이 아닙니다.

모두가 말하는 FCAPS를 위한 NMS가 아닙니다.

최고의 시스코 서비스

시스코
프라임

시스코의 핵심 기술

Borderless
Networks

Collaboration

Data Center



AVC



Media Net



IPSLA



Energywise



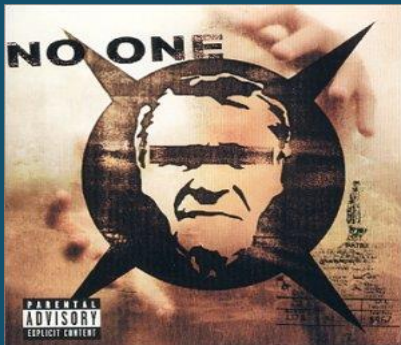
Prime is . .



특별한 Only One
Cisco의
Cisco에 의한



최고의 No. 1
Cisco Management Solution의
최고의 변화



누구와도 견줄 수 없는, NO ONE
Cisco만이 줄 수 있는 모든 Architecture를 아우르는
Management Platform

Still, We are hungry!



TO BE
CONTINUED...

Thank You

