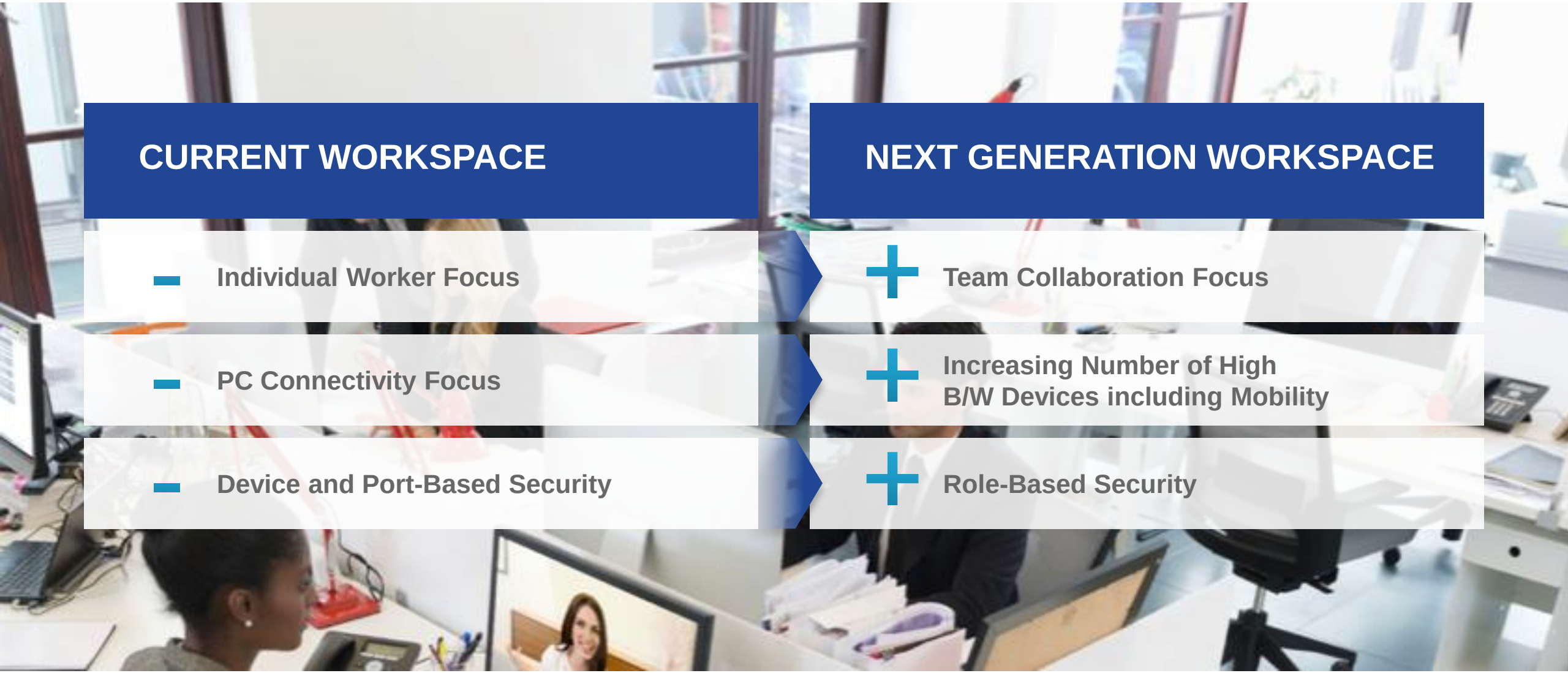
Fast IT. Fast Networks.

Redefine the Workspace

Sanjay Kumar Kundnani

Next Generation Workspace



CURRENT WORKSPACE	NEXT GENERATION WORKSPACE
– Individual Worker Focus	+ Team Collaboration Focus
– PC Connectivity Focus	+ Increasing Number of High B/W Devices including Mobility
– Device and Port-Based Security	+ Role-Based Security

Collaborative Work Spaces

- Unique layouts
- Far from the wiring closet
- No dedicated room to mount the rack for networking gear
- No prior cabling, old buildings etc.
- Limited power outlets
- Noiseless operation
- Network reliability, failover support

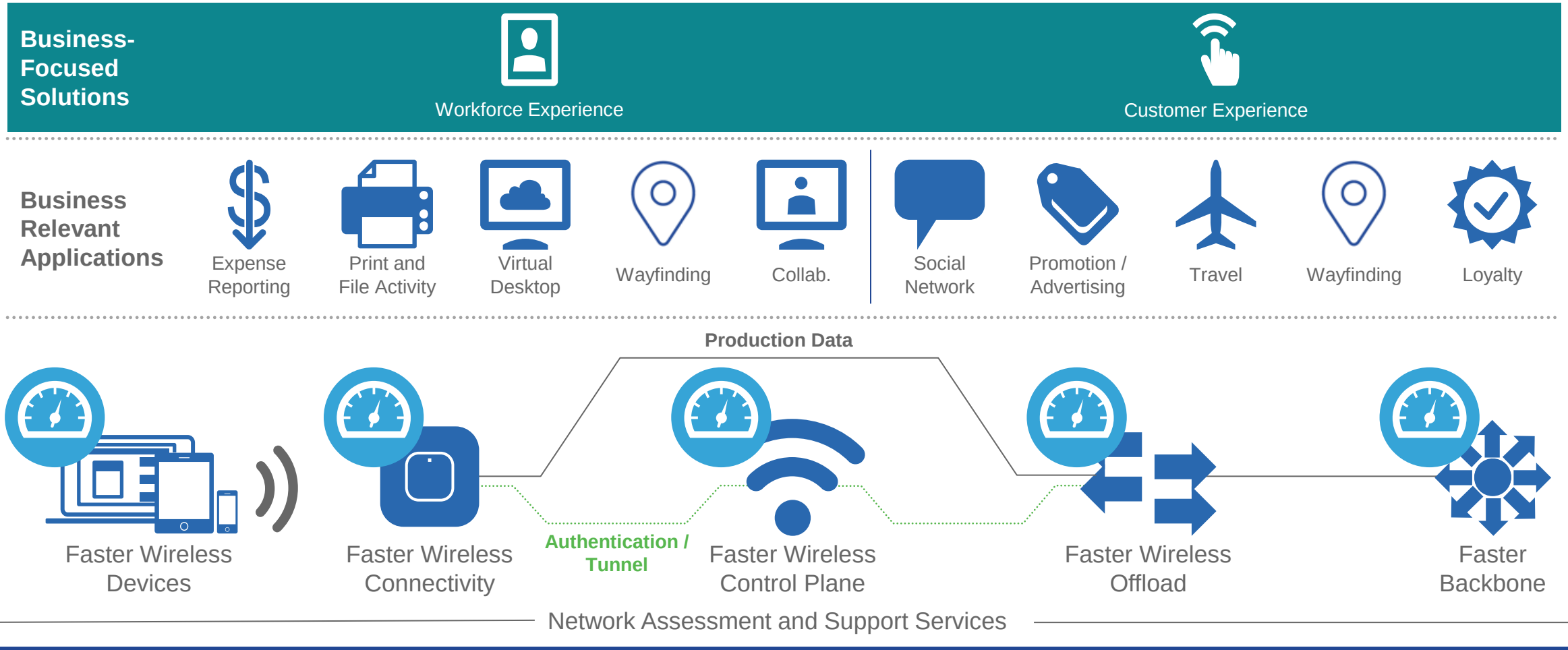
Conference and Ad-hoc Training Rooms

Requirements

- Many IP end points
- Quiet working environment
- Space constraints
- Wireless access
- High speed end to end wired connectivity
- Enterprise security
- Simplified manageability

Looking Beyond Wireless

For Large Wi-Fi Deployments



FASTER MOBILITY

Not Just A Wi-Fi Access Problem

The Tipping Point

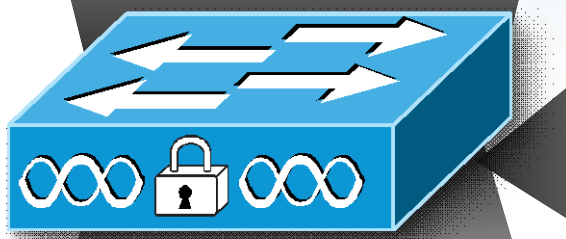
NBASE-T

NBASE-T Alliance

Start with Cisco Catalyst Switches

One Network

UNIFIED SERVICES



Simplify Application Delivery

APPLICATION OPTIMIZATION

Network Virtualization

SECURE CONNECTIVITY

Converged Wired and Wireless Switching/Routing

Catalyst 6807-XL

Catalyst 4500 Sup8E

Catalyst 3850

Capabilities Embedded in the Switch

What Is New?

Fast IT. Fast Mobility.

END-TO-END READINESS FOR NEXT-GEN MOBILITY FOR LARGE DEPLOYMENTS

802.11ac Wave 2-Ready Wireless

NEW!

Cisco Aironet 1850 Access Point

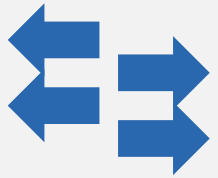
NEW!

5520 Services Controller

NEW!

8540 Services Controller

Future-Proofed For 802.11ac Wave 2: Access & Backbone



NEW!

Catalyst 3850 10G Series Switches

NEW!

Catalyst 6840-X Series Switches

Cisco Catalyst Compact Switches

Dramatically Reduce Cabling Costs

PoE+: Deploy Applications Without Access to Power Outlets

Small Form Factor for Easy Deployment

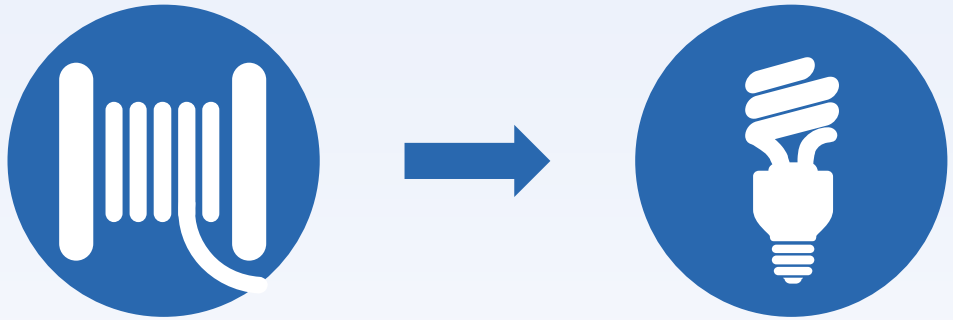
Fan-less: Providing Quiet, Pleasant Working Environment

10G End-to-End Connectivity for Power Users and High-Performance Apps

Adaptable to New Business Requirements

10

Requirements from Power Source Equipment



High Voltage (110/227V)
AC Wiring in the Ceiling

Requires High-Voltage Electrician

Low-Voltage Ethernet/
DC Wiring in the Ceiling

Better LED Lighting Experience, Lower TCO

PoE switch (PoE+, 30W/port)

Mountable above the ceiling

Passive cooling: **no fan, noiseless**

8–24 ports

Management via SNMP (e.g., link status, PoE status)

Support for IEEE 802.3az (**Energy-Efficient Ethernet**)

Centralized **Power Management Solution**

Network **Redundancy**, **Reliability**

Deploying Cisco Compact Switches on ceilings is one alternative but not the only one

Perpetual Power over Ethernet

PoE devices connected to switch stay powered on even on switch reboot!

PoE devices continue to get last negotiated power

Minimum software version: 3.7E1 (H1CY2015)

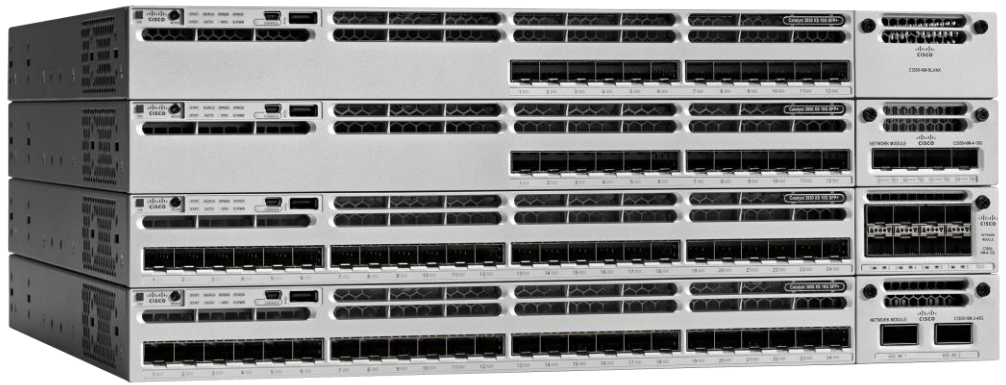
Not applicable when switch is in hibernation mode

12

Cisco Catalyst 3850 10G Aggregation Switch

Complements the recently launched 3850 Multigigabit switches

- **High Capacity for Next Generation Wi-Fi**
  - Stackable 12-port and 24-port models of 10G ports
  - Option to extend with New high capacity uplink modules – 8x10G, 2x40G
  - Standalone design with 48-port 10G with 4x 40G uplinks for high density deployments
- **Programmability and Manageability**
  - Built on innovative Unified Access Dataplane (UADP) ASIC architecture
  - Stackable up to 480G, Stackpower*
- **Network Security and IT Simplicity**
  - Network as a Sensor with TrustSec and ISE
  - Integrated with Prime Infrastructure for Converged Access



2x40G

8x10G

*All models except the 48 port SKUs are stackable with other 3850 switches

Network ready for Gigabit Wi-Fi

Cisco Catalyst 6840-X 10G/40G Backbone Switch

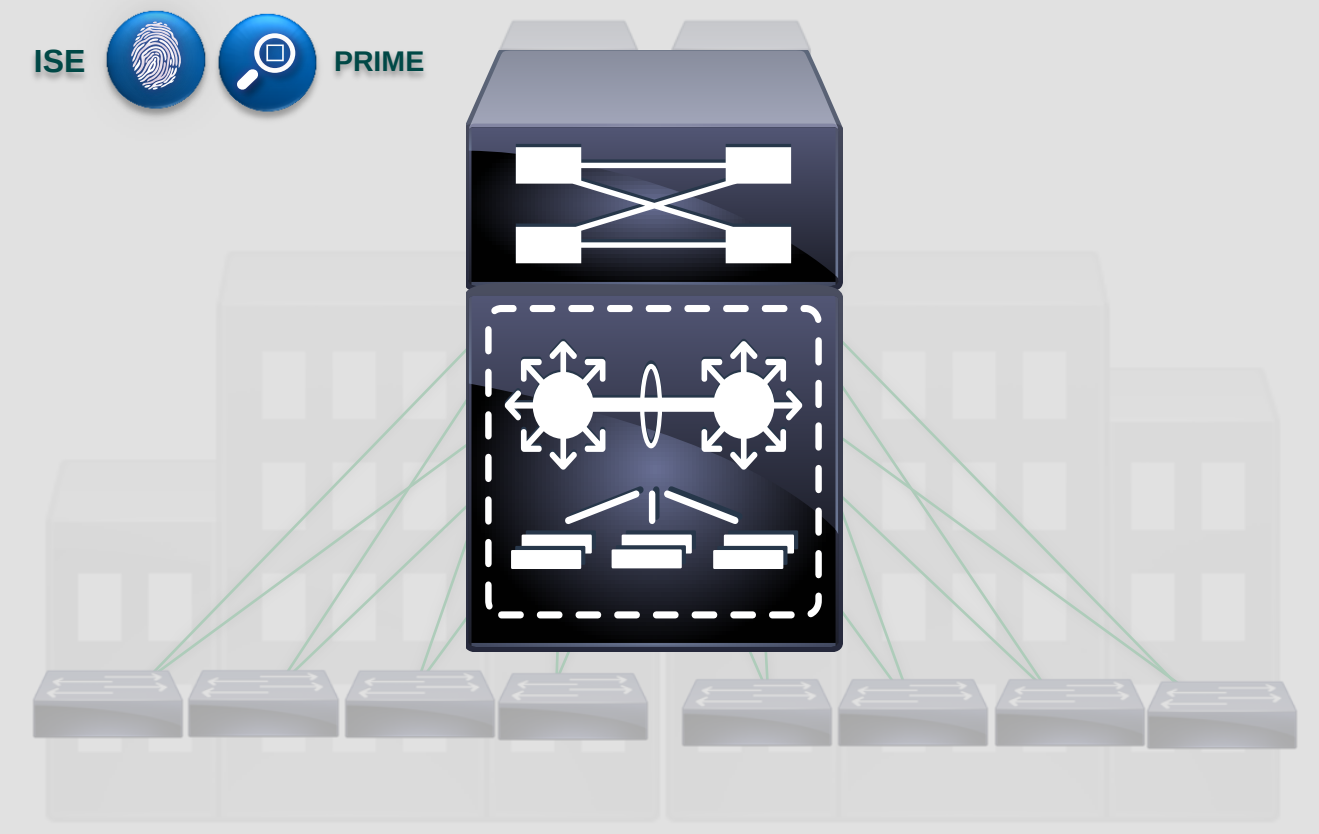
Catalyst 6k in 2RU form factor

- Fixed Full Featured Backbone Switch
  - Available in 16, 24, 32 and 40 10G Port models
  - 40G uplinksoptions
  - Legendary 3000+ Catalyst 6500/6800 features from day One
- Built for Manageability
  - Instant Access for simplified management of access switch ports in a centralized configuration
- Uncompromised Security and Segmentation
  - Advanced Services with MPLS, VPLS, A-VPLS, LISP and EVN
- High Availability
  - Robust availability with VSS, 1+1 power redundancy

Smallest full featured MPLS backbone Catalyst switch!

Catalyst Instant Access

Managed Devices = ~~40~~ 40+



500 Port Campus Distribution Block

Satellite Device capable of **Stacking & POE+**

Single Point of **Management, Configuration** and **Troubleshooting**

Simplified Network Design for VLANs and Port-Channels

Agile Infrastructure to add **new features** uniformly across **Access Layer**

A Single Image to Deploy and Manage across Distribution Block

REDUCED TCO!

What's New: Catalyst Fixed 10G Switches

Preparing for the Impact of 802.11ac Wave 2

Features

FIXED

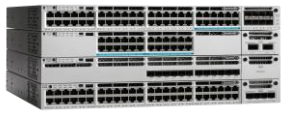
MODULAL

Catalyst 3850 10G Fiber

NEW

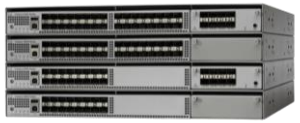
12/24/48p 10G
1RU Aggregation

Catalyst 3850 1G Fiber



12/24p 1G 1RU
Aggregation

Catalyst 4500-X



16p/32p 1 RU
10GE Aggregation

Catalyst 6880-X

Up to 80 10G Ports
5 RU Core

Catalyst C6840-X

NEW

Up to 40 10G Ports

2RU, NG Backbone

Catalyst 6807-XL/6500-E

- Comprehensive
- Borderless Feature Set
- Highest Performance and Scalability
- Lower TCO

Industry-Leading Campus
Backbone Platform

Scale

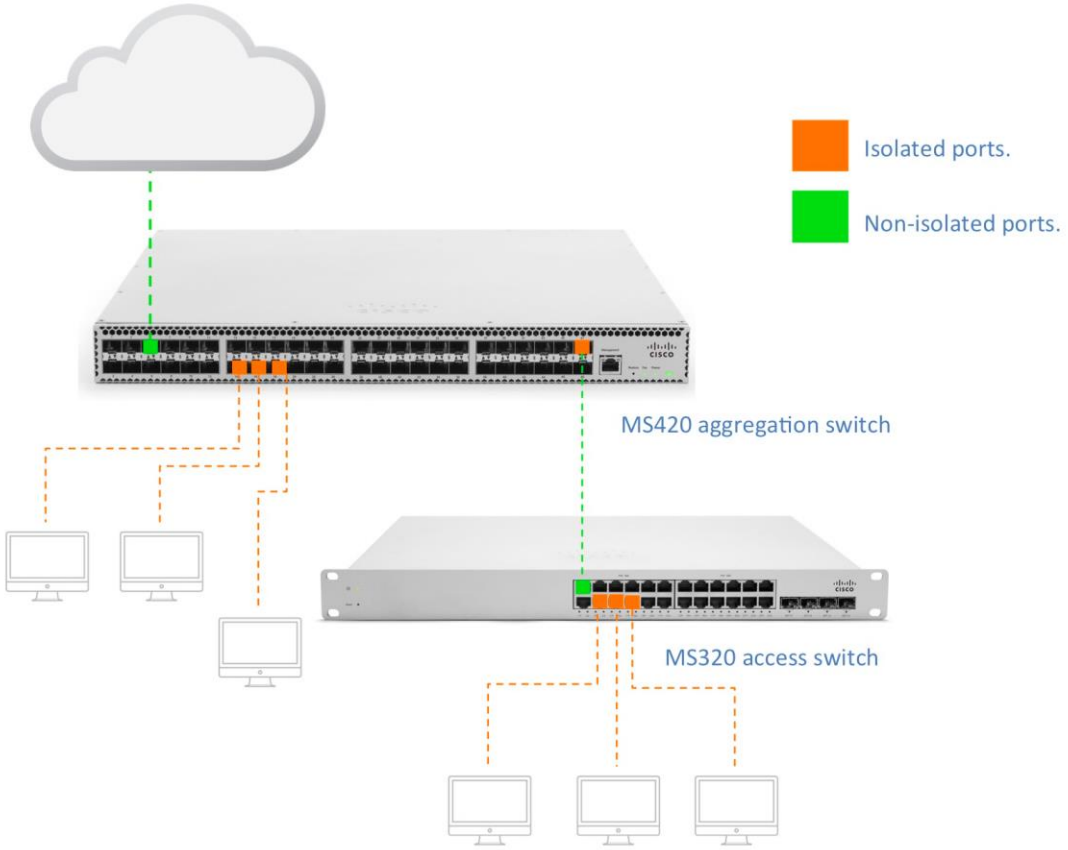
A Year of Meraki Switching Features

Meraki MS
Ethernet Switches

Mac authentication bypass
Mac whitelist (sticky)
CDP / LLDP Power Negotiation
Warm Spare (VRRP)
OSPFv2
Access Control Lists
DHCP Server & Failover
Warm Spare
Intelligent upgrade
RADIUS
Voice VLAN
bypass
Isolated Ports
(Guest Mode)
New

Software upgrade visibility
Switch Mobile App
New Live tools
IPv6 Traffic Analytics
Network Topology
Ethernet Power
Reporting
New
New

Isolated Ports (Guest Mode)



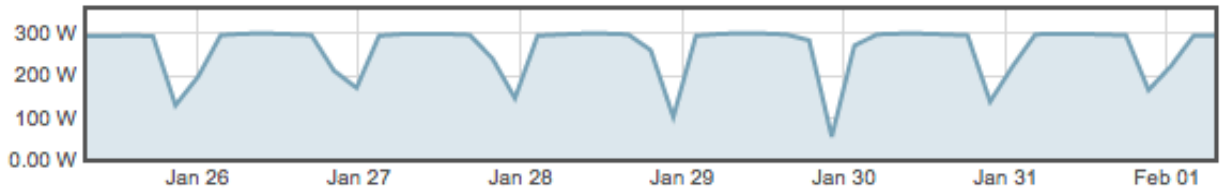
Simplify deployments in verticals like hospitality

- Ensure client traffic is kept separated, even for clients on the same VLAN
- Leverage the Virtual Stack to quickly find ports of interest and create isolated ports (e.g., vlan: 110)
- Secure simplified deployments that use the same VLAN for multiple clients

Energy Consumption Reporting

Ethernet power

Power rate over time (Avg: 266 W, Max: 301 W, Min: 56.3 W)



Top switches by power usage

#	Name	Model	Power usage ▾
1	MAIN HUB SWITCH	MS42P	12.6 kWh
2	PLT POE 2	MS42P	8.48 kWh
3	PLT POE 3	MS42P	5.55 kWh
4	00:18:0a:75:e1:24	MS42P	4.73 kWh
5	PLT POE 4	MS42P	4.66 kWh
6	00:18:0a:76:12:a2	MS42P	4.08 kWh
7	PLT POE 1 Top	MS42P	3.81 kWh

Visibility into the daily power consumption of all PoE network devices

- Full report of top switches by power usage
- Max, Min and Average of power rate
- Support for tag-based reporting
- ROI by reducing power consumption with power-saving features

Network topology

A truly unique view of the network featuring support for:

- Automatic and end-to-end network discovery
- Interactive and dynamic
- Detailed link information and support for redundant links
- Full Meraki stack
- Support for non-Meraki devices
- Options to export to Visio and other file types for further customization

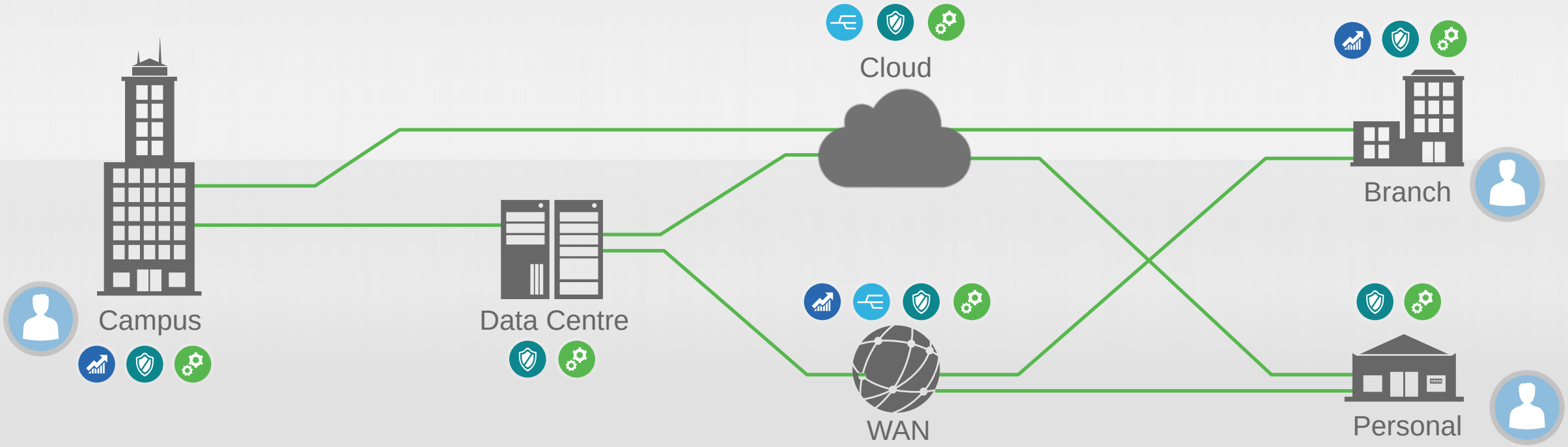
The Network Matters

SIMPLE

OPEN

AGILE

SECURE




CISCO
TOMORROW starts here.