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What Is This Play?

The Just Switch It play provides you with sales enablement and demand-generation resources to help you start new customer conversations; promote migration and upsell to the newest Cisco switches and wireless solutions; and address competitive threats with solutions, services, and financing to help customers successfully move to the next generation of technologies. The Cisco Catalyst® switching portfolio has been refreshed across every platform, creating a once-in-a lifetime sales opportunity.

Grow your annuity business with professional and technical support services. Cisco is helping partners put more money back in your pocket and grow margins by providing unique service discounts on technology migration deals. Migrating your customers from legacy technology and increasing recurring support revenue is a win-win.

The Products and Services

Cisco Catalyst Switching
New products in the Cisco® Catalyst line include:
» Cisco Catalyst 2960-X
» Cisco Catalyst 3650
» Cisco Catalyst 3850
» Cisco Catalyst 4500E with Supervisor 8-E
» Cisco Catalyst 6800 Series Switches
» 6807-XL Switch
» 6880-X Switch
» 6800 Instant Access (6800ia) Switch

Cisco Meraki® Cloud-Managed Access Switching
Cisco cloud-managed access switches include:
Meraki MS220 Family
» Layer 2 Gigabit Ethernet Access Switches
» Available in 8-, 24-, or 48-port configurations
Meraki MS320 Family
» Layer 3 Gigabit Ethernet Access Switches
» Available in 8-, 24-, or 48-port configurations
MS420 Family
» Layer 3 Aggregation Switches
» Available in 8-, 24-, or 48-port configurations

Cisco Wireless Solutions
New wireless products include:
» Cisco Aironet® 3700 Series Access Points

Partner and Cisco Branded Services
Offer innovative smart services, migration methodologies, and tools to increase your margins and build recurring revenue streams.
What Is This Play? cont’d

**Collaborative Services**
- Routing and Switching Assessment
- Network Development Service (standard or advanced)
- BYOD Smart Solution Services
- Smart Care
- Partner Professional Services

**Cisco Branded Services**
- Professional Services

**For Cisco Catalyst to Catalyst migration opportunities:**
- Cisco Network Migration Service

**For Cisco Catalyst to Cisco Nexus® migration:**
- Cisco Upgrade and Refresh Service (per switch)
- Nexus Planning and Design Service

**For wireless migration opportunities:**
- Wireless LAN Network Assessment
- Wireless LAN Planning and Design

**For mobility opportunities:**
- BYOD Service Kit

**For Software Defined Networking (SDN) opportunities:**
- Cisco Services for Open Network Environment (ONE)

**For energy management of the data center, campus, and branch:**
- Cisco EnergyWise™ Discovery and Optimization Service

**Technical Support Services**
- Cisco SMARTnet®
- Cisco Smart Net Total Care

This play contains sales resources for two types of Cisco switching solutions: Cisco Catalyst switches for on-premise management and Cisco Meraki access switches for cloud management. Review both and work with your customers to determine their needs.

**Partner Opportunity**
Partners can capitalize on the huge switching and wireless migration opportunity.

By taking advantage of this play, partners can create awareness and gain additional migration and upgrade revenue within your existing customer base and create new selling opportunities with new customers. The play provides partners with a set of tools and resources to assist in positioning Cisco Catalyst switches and mobility solutions. The benefits to partners that use this play include:
- Increased deal size and margin
- Protect installed base
- New revenue opportunities unlocked by addressing BYOD and mobility trends
- Ability to address customers’ wireless bandwidth challenges

- Sales pipeline creation and enhanced profitability with Cisco incentives and service opportunities
- An enhanced service portfolio with value-added collaborative services and tools that complement your own practice. Cisco offers [Cisco Branded Technical Support](#) if you prefer a model in which Cisco delivers technical support. [Cisco Collaborative Technical Support](#) provides the flexibility for you to combine Cisco expertise along with your own services. Sign up for the [Cisco Services Partner Program](#) to gain additional rebates on your service business.
Why Act Now

Innovation is at the heart of our customers’ business strategies. Innovation in business requires innovation in the network. This makes the network more relevant than ever before. But many of the switches that are currently deployed were not designed for capabilities like BYOD, mobility, advanced security, SDN, cloud management, and more. Therefore, the network has to evolve to better navigate these major technology transitions. The top for reasons to upgrade to new switches include:

• **Speed of change and high stakes.** The stakes for business innovation are higher with rapidly changing technology trends, competitive landscapes, and business environments. The network is more critical to businesses than ever before. Midsize and enterprise IT organizations must upgrade their campus-switching and wireless infrastructure now in order to remain competitive and promote business transformation.

• **Trends are happening now.** BYOD, 802.11ac, security, and regulatory compliance needs are here today. Do not get left behind.

• **End-of-product lifecycles.** Many deployed switches have reached end of support or end of sale. Switches and access points that have reached or are close to end of support (e.g. Cisco Catalyst 6500, 3750G, 2950, Aironet 340, and Aironet 1500) should be upgraded now for business continuity and lower TCO. End-of-sale switches and access points should also be upgraded now, as they may not have a robust roadmap to support new trends like BYOD, 802.11ac, advanced security, SDN, and more. Refer to the product migration maps for more detail.

• **Time and strategy development for deployment.** It takes time to implement deploy new capabilities. You need to start now for imminent deployments of 802.11ac, SDN, energy management capabilities, and more. Delays can result in missed opportunities and lagging behind the competition.

Help Customers Solve Problems

Virtually every company is faced with business-critical technology challenges; IT departments are under more pressure than ever to address them, often having to do more with fewer resources. This is true for both midsize businesses and enterprise organizations. This play helps you communicate how Cisco Switching solutions and services can address customer challenges. See the solutions and customer targeting sections for more detailed information.

There are three key reasons why customers should upgrade their campus and branch switching infrastructure now:

• **To address the BYOD and mobility trend.** Three out of four employees use multiple devices for work, according to our recent survey. By 2014, Gartner reports that 90 percent of organizations will allow personal devices for work use.

• **To secure the network** with contextual policies and to meet regulatory compliance requirements. Security is an ongoing concern. Security is the top concern for BYOD and mobility, according to multiple research sources.

• **To simplify the network** for business agility. IT departments are being asked to do more with less. Two challenges for IT include:

  • **Overwhelming operations**—IT organizations are spending 80 percent of their time on basic operational activities. Just to maintain current processes is monopolizing a huge amount of time and operating expenditures, creating the need for IT simplicity. They want a network that simplifies IT and can allow them to shift their focus from maintenance and crisis management to innovating for the business.

  • **Budget constraints**—Despite many new IT challenges, technology spending remains flat and is projected to grow at only 4.1 percent in 2014, according to Gartner. As a result, the size of IT staffs and budgets remain static and IT must find ways to reduce operating expenditures, protect current network investments, and do more with less. IT energy management tools can help customers reduce operating expenses and total cost of IT ownership.

How to Solve IT Challenges

Software Defined Networks (SDN) are dramatically changing today’s networks and can help IT meet new demands being placed on the network. IT departments are looking at network automation and SDN to facilitate simplicity, business agility, and efficiency.
In cloud-managed networks, many deployments are spread across numerous distributed locations, causing strain on IT staffs for basic monitoring and management. Cloud management allows IT to remotely troubleshoot, spend less time traveling, and focus more time and resources on new business projects.

Next Steps
1. Identify key prospects. Contact customers in your installed base who should be ready for a technology refresh (see Migration Pathways and Cisco Access Switch Positioning information), or contact your Cisco account manager for a list of customers with fully depreciated or last-day-of-support Cisco switching hardware who may be ready to upgrade. Other prospects will include your customers who have initiatives in place for BYOD, collaboration and video, and cloud-based applications.
2. Sell the value of Cisco solutions by explaining the unique features.
3. Identify and validate customers’ business needs. Use migration services to help align business requirements with migration strategy and recommendation, perform assessment of current state, and plan and design a successful migration.
4. Use sales resources to engage customers. Use selling resources such as email templates, call guides, white papers, case studies, design guides, and demonstrations to communicate how Cisco switching and associated services can solve your customers’ problems and meet their needs. Resources are listed in the Sales Resources section of this playbook or available on Cisco Partner Marketing Central (PMC).
5. Share key offers. Use Cisco Promotions and Programs to increase your profit and provide a stronger customer incentive to purchase Cisco switching products and services. The combination of Cisco innovative products and support services rivals any competitive offering and can offer partners more opportunity than competitor offerings.
6. Capture the full opportunity and attach technical support services. Cisco offers Cisco Branded Technical Support if you prefer Cisco to deliver the service. Or, Cisco Collaborative Technical Support provides the flexibility for you to deliver support service backed by Cisco expertise if and when you need it. Sign up for the Cisco Services Partner Program to gain additional rebates on your services business.
Why Upgrade Catalyst Access Switches and Wireless Solutions

Cisco Catalyst Access Switches and Aironet Access Points
Cisco Open Network Environment (ONE) Enterprise Networks Architecture can transform IT through an open, programmable, and application-centric platform across routing, switching, mobility, and security. Cisco Catalyst Access Switches, as part of this architecture, provide a platform for enterprise-wide automation and programmability. This section of the guide will help you migrate and upgrade to Cisco Catalyst 3650, 3850 and 4500E platforms and wireless solutions while addressing customer challenges. Also included is the Cisco Catalyst 2960-X, a competitively priced, fixed-access switch platform with a robust baseline feature set to help you compete in the low end of the switching portfolio.

Catalyst switches scale to work with networks of all sizes, and you can tailor a solution to meet your customers’ specific needs. Review the Catalyst migration map to determine solutions to recommend.

Sell the value of Cisco Catalyst Access Switches by discussing unique competitive differentiators in BYOD. Promote how the switches support mobility growth and 802.11ac; optimize security; and deliver IT simplicity, all through a highly secure, resilient network infrastructure. Review a summary of "Why New Catalyst Switches Are Better."

Made for Midmarket
Cisco “Made for Midmarket” network infrastructure solutions can enable midsized organizations to deliver differentiated value to their customers. With Cisco Unified Access solutions, the midsize business network architecture can deploy competitive services quickly and provide highly secure, pervasive connectivity for employees and customers. This section of the guide will help you expand your Cisco footprint with Catalyst 2960-X, 3650, or 4500E switches and Aironet 1600 or 3700 access points.

Cisco midmarket switches and wireless products are targeted specifically for networks with less than 1000 users. Simplify with the Catalyst 3650, or economize the midmarket network with the Catalyst 2960-X. Optimize wireless network performance with an 802.11ac Aironet 3700 Series Access Point or create a pervasive, yet economic, wireless network with an Aironet 1600 Series Access Point. Meet your customer’s network and budget needs with Cisco “Made for Midmarket” network infrastructure solutions. Review the midmarket migration map for more details.

Why Customers Should Upgrade Support BYOD and Mobility
BYOD and mobility are so critical for businesses that CIOs often have dedicated budgets to address these challenges.

Simplify with Converged Access with the Cisco Unified Access Solution
Cisco Catalyst Access switches simplify BYOD deployments by providing converged access. Organizations have to resolve inconsistencies between wired and wireless infrastructure in order to deliver operational simplicity, business agility, and better user experience. This requires upgrades to new converged wired and wireless switches like Catalyst 3850 and 3650, and Catalyst 4500E with Supervisor 8E, with Cisco Identity Services Engine (ISE) and wireless access points such as the Aironet 3700, 2600, and 1600 for BYOD deployments.

Sales Tip for Midmarket
For the midsize business, converged wired and wireless Catalyst 3650 access switches or Catalyst 2960-X fixed-access switches are ideal. For wireless deployments, high-performance 802.11ac Aironet 3700 Series Access Points or affordable, 802.11n Aironet 2600 and 1600 Access Points are ideal.
Manage Mobile Device Surge: Manage Three Times More Devices on the Network Now

An average user now carries three times more devices due to BYOD and mobility. A company of 1000 users seems like a company of 3000 users. And, Internet Of Things devices like sensors, closed-circuit televisions (CCTVs), and building automation are being connected to the network. Customers can welcome this surge with a highly secure, reliable wireless network consisting of Aironet 3700, 2600, and 1600 access points. Current networks cannot sustainably handle the exponential growth of devices and applications without upgrading to newer, higher-performing switches like Catalyst 3850, 3650, 4500E, and 6800.

Address Traffic Growth from the Emergence of 802.11ac Gigabit Wireless: Three Times More Bandwidth Demand

802.11ac mobile devices create three times more bandwidth demand than 802.11n on campus and branch infrastructure across the access and backbone layers. High-density 802.11n devices create more bandwidth demand than 802.11a/b/g. And, an average mobile device creates 500 Mb to 1 Gb background traffic per month due to operating system and application updates and backups. Growth in video traffic is also propelling bandwidth growth. Current wired and wireless networks will soon be saturated as traffic is forecasted to triple over next five years. To meet these demands, customers should:

- **Upgrade to Gigabit wireless**—802.11a/b/g access points will require upgrades to the newer Aironet 3700 Series 802.11ac access points to support Gigabit wireless. With 802.11ac access points priced comparably to 802.11n access points, 802.11ac is the clear choice. Midsize and large enterprise customers will get more performance with 802.11ac for the same price as 802.11n.
  - For lower-end, price-sensitive midsize customers, migrate legacy 802.11a/b/g to entry-point 802.11n access points (Aironet 1600 and 2600).
  - **Expand the deal**—when you migrate customers to 802.11ac, you can upgrade their network infrastructure too.
  - **Upgrade to Gigabit Ethernet**—Customer should upgrade Fast Ethernet switches to Gigabit Ethernet switches in access to match the wireless Gigabit speeds.
  - **Upgrade to converged access**—Current Gigabit Ethernet switches will require upgrades to converged access switches like Catalyst 3650, 3850, and 4500E with Supervisor 8E to terminate wireless traffic locally for network efficiency, scalability, operational simplicity, and superior user experience.
  - **Upgrade to 10 Gb and 40 Gb uplinks**—Current Gigabit uplinks in access and aggregation will require upgrades to 10 Gb and 40 Gb uplinks. Today, 10 Gb is much more economical than ever before.
    - Gigabit speeds in access will require upgrades to 10 to 40 Gigabit backbone switches like the Catalyst 6800.
    - Making sure current versions will be compatible with future ones is also critical because 802.11ac will support speeds beyond one Gigabit in the future.

Radically simplify and secure BYOD deployments with Cisco Unified Access: One Policy, One Management, and One Network.

Cisco One Policy is delivered by the Cisco Identity Services Engine (ISE), which simplifies design and implementation of policy and security with one policy across the entire wired and wireless network and VPN infrastructure.

Cisco One Management is delivered by Cisco Prime Infrastructure, and provides comprehensive lifecycle management, performance assurance, and compliance for converged wired and wireless networks, simplifying network management across wired and wireless networks.

Cisco One Network is the convergence of wired and wireless networks into one physical infrastructure (available with the Cisco Catalyst 3850, Catalyst 3650, and the Cisco Catalyst 4500E with Supervisor 8E) with greater intelligence and performance and with open interfaces that enable software-defined networking. (The Cisco Catalyst 2960-X supports Unified Access with integration with Cisco ISE and Cisco Prime Infrastructure.)
Support Pervasive Mobility with a Superior User Experience

Your customers do not just now require pervasive mobility for access anywhere. They require reliable user experiences that facilitate increased employee productivity and quality end-customer experience to cement loyalty. Therefore, existing access points need to be upgraded to the newer Aironet 3700, 2600, and 1600 Series Access Points, which have Cisco RF excellence features like CleanAir™ technology for RF interference management and ClientLink for improved coverage and performance of both 802.11ac/n clients as well as older 802.11a/b/g clients. Both technologies are ideal for optimizing midsize and large enterprise network performance. Customer networks also need more access points (one per 2500 square feet) to increase reach and density, improve user experience, and support pervasive mobility. Precise location-based services, utilized in generating customer loyalty and growing revenue, require even higher-density access point deployments (one per 1000 square feet). Pervasive mobility requires upgrades to newer, high-performance switches such as the Catalyst 3650, 3850, and 4500E with higher PoE+ and Cisco Universal PoE (UPOE) port density to connect access points.

Cisco BYOD Services can complement your services portfolio and help customers develop an enterprise mobility strategy and implementation roadmap.

Secure the Network

Security is a high priority for enterprises due to BYOD, regulatory compliance, and increased network attacks. IT directors for midsize and large enterprise organizations often have dedicated budgets to address security and compliance challenges. Cisco solutions can help your customers that currently have separate, inconsistent security policies for wired, wireless, and remote access and who also lack context-based security. The Cisco integrated security strategy is to take full advantage of the network as a highly intelligent control platform with consistent and simplified access policy that is easy for IT staff to understand. No other network provider currently offers the depth and breadth of security like Cisco, with superior visibility and control. Cisco infrastructure offers the following benefits as unique competitive advantages:

Automate and Simplify Access Control and Security for Wired, Wireless, and VPN with Cisco ISE

A centrally-deployed Cisco ISE solution can grant access based on role—employee or visitor—and use this same access policy with multiple devices. ISE integrates with leading mobile device management (MDM) and security integrated event management (SIEM) vendors to offer increase device security and threat prevention.

Cisco ONE is the company’s overarching vision to bring more openness and programmability to all networks—across service providers, data centers, and enterprises. Now, you can begin making that vision a reality across campus and branch, WAN and LAN, and in both wired and wireless environments with the Cisco ONE Enterprise Networks Architecture. This architecture brings openness and programmability to enterprise networks through open APIs. It goes beyond SDN by offering a much wider- and larger-scale approach to network programmability.

The Cisco ONE Enterprise Network Architecture consists of three integrated layers:

- The Network Element Layer encompasses the industry's broadest portfolio of devices, ASICs, and Cisco IOS Software across routing, switching and mobility, and provides programmatic access to the entire network through APIs
- The Control Layer abstracts away network infrastructure elements from network applications, and provides automated provisioning and policy control
- The Application Layer consists of network-aware applications, developed by Cisco and third-parties, that communicate with network infrastructure and services in real time

For more information: http://www.cisco.com/go/en
Enforce Consistent Security Policies with Highly Efficient Segmentation
Cisco TrustSec® technology is a security enforcement technology that efficiently segments networks using role-based access control (RBAC) policy developed by Cisco ISE. TrustSec is uniquely embedded in the Cisco infrastructure (switching, routing, firewalls, and wireless LANs) to protect assets, endpoints, and applications. To gain the TrustSec advantage, upgrades to Catalyst switches are required.

Automatically Scale Network Access from Remote and Branch Sites, Campus, and Data Center
Cisco TrustSec provides a simple manner to define user and device roles and what their access is on the network by using Security Group Tags (SGTs). Cisco Catalyst 2960-X (using SGT Exchange Protocol [SXP]), 3650, 3850, and 4500E switches automatically tag all incoming traffic with user-identity information through the SGT feature. After the incoming traffic is tagged with user identity information, a central security policy can be applied, not only at the network edge where the user initially connects, but also throughout the entire network, including the data center and private cloud.

Efficiently Profile Devices to Reduce Network Complexity
The unique device sensor feature integrated into Cisco Catalyst 3000-X and 4500E switches automatically identifies the devices connecting to the switches, including laptops, IP phones, wireless access points, printers, and video conferencing units. Device sensors send the profile information to Cisco ISE. Cisco ISE, in concert with the device sensor feature, can profile employee laptops, tablets, and e-readers. Cisco ISE can then automatically apply appropriate security policies such as authentication, VLAN assignment, and blocking of compromised endpoints. There is no Switched Port Analyzer (SPAN) traffic (bandwidth increased) trying to determine the device because the device is detected and profiled at the point of ingress. And there is no need for an additional, separate in-line node to be inserted on the network because it’s already included in the switch.

Detect Denial-of-Service (DoS) Attacks and Network-Propagated Worms Quickly
Flexible NetFlow provides information about how the network is being utilized. It will let you understand who, what, when, where, and how network traffic is generated and flowing. Flexible NetFlow plays a vital role in network security by detecting DoS attacks and network-propagated worms. In addition to detection functionality, NetFlow data provides a rich source of forensics for the network, allowing incident response teams to understand risks associated with compromise. Expanding the footprint of NetFlow data throughout the infrastructure provides Cisco customers exceptional visibility. Cisco has developed a strong Flexible NetFlow ecosystem with members such as Lancope. Flexible NetFlow is supported on Catalyst 2960-X (NetFlowLite), 3650, 3850, and 4500E with Supervisor 8-E.

Help Ensure Data-in-Transit Confidentiality
Secure communications are provided for authorized endpoints on the LAN with MACsec. MACsec encapsulates and protects the entire network traffic between switches, including the metadata field that carries the SGT. MACsec helps ensure data confidentiality by providing strong encryption at layer 2 throughout the entire switching network—from the edge to the data center—while preserving network visibility and intelligence on a hop-by-hop basis.

Compliance
Regulatory compliance is non-negotiable, ever changing, and industry-specific. See the following industries’ standards as examples.

- The public sector is transitioning from the 128-bit MACSec encryption to 256-bit MACSec encryption standard.
- The United States Federal government now requires that all security products comply with Federal Information Processing Standards (FIPS). Fiber-To-The-Desktop is also a U.S. Federal government mandate.
- In the healthcare industry, Health Insurance Portability and Accountability Act (HIPAA) requires context-based security and encryption to protect patient data.
- In retail, business-to-consumer interactions, while increasing efficiency and productivity, require PCI compliance to ensure data integrity and security.
This requires upgrades to newer Cisco Catalyst switches that support advanced security features required for industry-specific compliance standards.

**Competitive Sales Tip**
HP access switches and Juniper EX-Series access switches do not offer device recognition with a device sensor, tightly integrated centralized policy across wired and wireless networks (which Cisco delivers with Cisco ISE), or RBAC (which Cisco delivers with the SGT function). HP promotes a limited lifetime warranty for switches in lieu of selling technical support. This truncates the service and support opportunities and annuity revenue streams for partners. When you sell technical support with Cisco switches, you gain visibility into the account over the life of the solution while building your profitability and recurring revenue streams.

### Simplify Onboarding of Devices
Cisco security features such as device sensor and SGT are built into Catalyst switches so that they can work with ISE to apply centralized policies for new devices that are coming onto the network. The identity-aware security capabilities and policy consistency are scalable and they simplify IT network security operations.

### Simplify Management of Access Switches with Smart Operations
Cisco Catalyst Smart Operations consist of a set of tools, capabilities, and available management applications to simplify deployment, management, and troubleshooting of Cisco networks. Smart Operations include:
- **Smart Install**—Provides zero-touch deployment, replacement, and automatic configuration backups
- **Auto Smartports**—Automatically recognize end devices, and quality of service (QoS) and other policies
- **Cisco Network Assistant**—This no-cost application for PCs and Macs with an intuitive GUI simplifies configuration, deployment, and ongoing management and maintenance of Cisco networks. Users can easily deploy common services, conduct on-demand or scheduled tests, and apply drag-and-drop Cisco IOS® Software upgrades—all without learning command line interface (CLI).

### Simplify with Converged Access
Enterprises have to resolve inconsistencies between wired and wireless infrastructure in order to deliver operational simplicity, business agility, and better user experience. This requires upgrades to new converged wired and wireless switches like Catalyst 3850, 3650, and Catalyst 4500E with Sup 8E.

- **Cisco Prime™ Infrastructure**—Delivers comprehensive network lifecycle management to simplify configuration, administration, monitoring, and troubleshooting of Cisco networks, while easily unlocking value-added features and applying end-to-end services.
- **Cisco SMARTnet Service with Smart Call Home**—Get proactive detailed diagnostics and immediate alerts on core network devices to help you quickly identify and resolve issues, conserving valuable staff time and improving network availability.

### Why Upgrade Catalyst Access Switches and Wireless Solutions cont’d

Every IT department is being asked to do more with less. At the same time, complexity is multiplying with more devices, more applications, and more traffic on the network. As a result, IT departments are looking at network automation and SDNs to facilitate simplicity, business agility, and lower TCO. Cisco Services for ONE help customers understand the business benefits of SDN, validate use cases relevant to their business and industry, and develop a design to support successful adoption.
Why Upgrade Catalyst Access Switches and Wireless Solutions cont’d

Simplify Energy Management Across the Network to Cut IT Costs
The Cisco EnergyWise Suite of software and services will significantly reduce energy costs throughout the campus or distributed office environment. With Cisco EnergyWise, you can gain visibility into the energy consumption of 100 percent of the physical and virtual devices in the data center and reduce energy costs in the campus or distributed office by 35 percent (an average of USD $50 per port per year.) EnergyWise also provides an inventory of all network infrastructure and network-attached devices (Cisco and non-Cisco) on a customer’s network, providing you—the channel partner—an opportunity to identify other migration and upsell or cross-sell opportunities, and to help show how energy savings can justify equipment refresh and upgrade acceleration.

Simplify Video Deployments
Unlike access switches from other vendors, the Cisco Catalyst 3850, 3650, and 4500E can deliver the following Medianet capabilities to promote high-quality user experience and to simplify IT operations:

- Assess network readiness for video by simulating video traffic with built-in IP service-level agreement video operation (SLA VO) tools even before customers deploy video
- Help ensure a consistent, high-quality video experience with automated hop-by-hop troubleshooting with Cisco Mediatrace technology
- Adapt the network to changing traffic patterns by monitoring per-flow and per-hop flow metrics such as packet loss and network jitter with performance monitoring tools to identify and resolve potential problems before they occur.

Finally, integration with third-party software such as Wireshark allows Cisco switching products to offer more granular insight and information in real time for better troubleshooting and problem resolution.

Simplify Network Programming
Cisco ONE and Cisco One Platform Kit (OnePK)™ lay the foundation for making the network programmable for agility and simplicity. Cisco ONE Enterprise Networks Architecture provides automated provisioning and rapid deployment of network services and applications. This architecture brings openness and programmability to enterprise networks through open APIs. It goes beyond SDN by offering a much wider- and larger-scale approach to network programmability.

Deliver a Resilient Access Infrastructure
The value proposition for high availability may also be useful as a supporting benefit during your BYOD, collaboration, and video conversations with the customer. Because so many devices are connecting to the access layer, a large number of users can experience downtime if the access layer is not highly resilient.

Cisco Catalyst 3850 and 4500E switches have three main capabilities for resiliency that are competitive advantages:

- In Service Software Upgrade (ISSU) on the Catalyst 4500E
- Cisco StackPower® technology (Catalyst 3850) and Cisco StackWise® (Catalyst 3850 and 3650)
- Cisco UPOE increases energy efficiency and resiliency for endpoint devices

Services Equal Why and How to Migrate
Migration Services help customers align business requirements with their infrastructure migration strategy, successfully migrate with minimal risk, and take advantage of mobility, security, and SDN technologies to achieve the business outcomes they need. Services are the profit engine for partners, and when sold with solution opportunities, will increase the total opportunity size, help insure customer satisfaction, and provide long-term visibility into the account so you can continue to deliver value to the customer over the lifetime of the solution. Cisco products and solutions are the “what”; services from partners and Cisco provide the “why” and “how.” Cisco provides services, tools, and programs to help our partners plan, build, and manage the best IT solutions to help your customers excel at their business.
Many customer networks running Cisco® Catalyst® 6500 non-E Series switches are more than ready for a refresh. There is a proliferation of connected devices and applications, brought about by trends such as bring-your-own-device (BYOD), increasing security threats, and the need to simplify the network for a lower TCO. This situation is putting new demands on a switching infrastructure consisting of first-generation Cisco Catalyst 6500 non-E Series systems and older supervisor engines. Promote Cisco Catalyst 6500 migration opportunities:

In the campus backbone:

- First-generation Catalyst 6500 (non-E-Series chassis) to Catalyst 6800 or 6500-E Series chassis
- Previous-generation Catalyst 6500 supervisor engines (Sup 1/2/720) to Supervisor Engine 2T
- Fully depreciated Catalyst 6500-E switches to Catalyst 6800 Series Switches
- Older integrated service modules such as WiSM-1, NAM-1, NAM-2, and FWSM for Layer 4 through 7 services to WiSM-2, NAM-3, and ASA-SM

and in the data center:

- First-generation Catalyst 6500 (non-E Series chassis) to the Cisco Nexus® family

### Why Upgrade Cisco Catalyst Backbone Switches

**Catalyst and Nexus Positioning**

Switching requirements differ between campus and data center. Choose Catalyst for campus and Nexus for data center. See Table 1 for guidance on positioning.

**Table 1. Catalyst and Nexus Positioning**

<table>
<thead>
<tr>
<th>Catalyst Family, Cisco IOS Software for the following top campus requirements</th>
<th>Nexus Family, NX-OS for the following top data center/cloud requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>User access control and segmentation (with 802.1X, Cisco Easy Virtual Network (EVN), Cisco TrustSec® classification)</td>
<td>Cloud security and VM awareness (with Cisco Nexus 1000v, Virtual Security Gateway (VSG), ASA 1000v, TrustSec enforcement)</td>
</tr>
<tr>
<td>User and device mobility (with Cisco Identity Services Engine [ISE] integration, LISP across subnet mode [ASM])</td>
<td>Virtual machine mobility (with LISP, Virtual Extensible LAN [VXLAN], Overlay Transport Virtualization [OTV])</td>
</tr>
<tr>
<td>Wired and wireless convergence (with wireless controller)</td>
<td>LAN and SAN convergence (with unified ports, Fibre Channel over Ethernet [FCoE])</td>
</tr>
<tr>
<td>Rich media intelligence (with medianet, Network-Based Application Recognition [NBAR], NAM-3)</td>
<td>Fabric scale and resilience (with FabricPath, vPC, wire-speed 10/40/100 Gigabit Ethernet)</td>
</tr>
<tr>
<td>Campus and branch simplification (with Instant Access, Cisco Prime®, UPOE®, and EnergyWise®)</td>
<td>Data center consolidation (with virtual device context [VDC], fabric extender [FEX], and Data Center Network Manager [DCNM])</td>
</tr>
</tbody>
</table>
Cisco Catalyst 6500 Migration Opportunity in the Data Center

Many of the Cisco Catalyst 6500 non-E chassis that reach end of support are in the data center. You can use this event as a compelling reason to start a conversation with your customers about the value of network infrastructure that specifically addresses data center requirements, such as consolidation and virtualization, integration of secure cloud services, and interconnectivity (between data centers) for seamless disaster recovery and business continuity. Use these conversations to introduce the advantages of Cisco Nexus switches in the data center (see Table 1), as well as the Cisco Unified Data Center platform, including Cisco Unified Fabric (Cisco Nexus and Cisco MDS), the Cisco Unified Computing System™ (Cisco UCS®), and Cisco Unified Management. Customers may also be interested to know more about the introduction of Cisco’s Application Centric Infrastructure. Visit Partner Marketing Central and get the Data Center Network Evolution Sales Playbook for more information on selling data center switching (available December 2013).

Benefits of Upgrading

Cisco Open Network Environment (ONE) Enterprise Networks Architecture transforms IT through an open, programmable, and application-centric platform across routing, switching, mobility, and security. Cisco Catalyst 6800 and 6500-E Series switches, as part of this architecture, provide a platform for enterprise-wide services and programmability. Sell the value of these switches by discussing unique competitive differentiators in BYOD, support for mobility growth and 802.11ac, optimized security, and IT simplicity.

For specific product migration guidance in the backbone, please see Migration Pathways and Cisco Access Switch Positioning.

Enable BYOD/Mobility

The backbone of the network is critical in supporting BYOD and mobility. Customers must:

Manage the surge in mobile devices: An average user now has three times more devices due to BYOD and mobility. This makes a company of 1000 users seem like a company of 3000 users. And Internet of Things devices such as sensors, closed-circuit TVs, and building automation are being connected to the network. Current networks cannot sustainably handle the exponential growth in devices and applications without upgrading to newer, higher-performing switches like the Catalyst 6800 Series.

Address traffic growth from the emergence of 802.11ac (Gigabit wireless): 802.11ac mobile devices create three times more bandwidth demand than 802.11n on campus and branch infrastructure across access and backbone. Similarly, high-density 802.11n devices create more bandwidth demand than 802.11a/b/g. And an average mobile device creates 500 Mb to 1 Gb of background traffic per month due to operating system and app updates and backups. Growth in video traffic is also driving bandwidth growth. Current wired and wireless networks will get saturated soon, as traffic is forecasted to triple over the next five years.

The newest Catalyst 6800 and Catalyst 6500-E switches with Supervisor 2T have higher scale and performance than the previous generations of Cisco backbone switches.

• In addition, the Catalyst 6800 and 6500-E support Bonjour gateway functionality to mitigate wireless association between Apple devices and others running the Bonjour protocol, a situation that often compromises wireless networks.
• Cisco Easy Virtual Network (EVN) simplifies assignment of employee-owned devices to a separate virtual network, providing an additional means of access control while sharing the same physical infrastructure and services.
Simplify with converged access: Companies have to resolve inconsistencies between wired and wireless infrastructure in order to deliver operational simplicity, business agility, and a better user experience. The next-generation Cisco Wireless Services Module 2 (WiSM2) for the Catalyst 6500-E and Catalyst 6800 serves as a high-scale, centralized mobility controller, with support for up to 1000 wireless access points and 15,000 wireless clients.

Gain deeper visibility into network usage by applications to manage the network effectively for a better user experience:

- These switches support enhanced application monitoring such as Flexible NetFlow for intelligent and scalable application monitoring.
- Network Based Application Recognition (NBAR) on the Network Analysis Module (NAM-3) and WiSM2 enables application-level policies such as guaranteeing or limiting bandwidth, policing, and marking.

Secure the Network

Customers must transition from device-based security to context-based security. With the emergence of BYOD and mobility in the last few years, security needs have changed significantly. Currently, many customers have separate, inconsistent security policies for wired, wireless, and remote access and also lack context-based security. This means that enterprises need to define, deploy, and enforce context-based security policies for differentiated access. The context needs to be multidimensional: who (type of user), what (device and application), when (time of day), where (location), and how (network type). Enterprises also need deeper application visibility and control to detect and protect against network abuse. The newest Catalyst 6800 and Catalyst 6500-E with Supervisor 2T have the following unique benefits to deliver advanced security that the previous generations of Cisco backbone switches do not support. Cisco’s integrated security strategy is to use the network as a highly intelligent control platform with consistent access policy. No other network provider offers the depth and breadth of security that Cisco does.

Orchestrate role-based access to corporate resources by any user, with any device, from any location at any time

Secure the network and migrate to a comprehensive Cisco TrustSec solution by using security group access control lists (SG-ACL) and security group tag (SGT) mapping to complement the Cisco Identity Services Engine (ISE) in enabling role-based access control. WiSM2 and NAM-3 have NBAR for deeper visibility into applications traversing the network, to detect and protect the network from breaches.

Encrypt to meet regulatory requirements

MAC Security (MACsec) secures communication for authorized endpoints on the LAN. It also encapsulates and protects the metadata field that carries the SGT. MACsec helps ensure data confidentiality by providing strong encryption at Layer 2 throughout the entire switching network, from the edge to the data center, while preserving network visibility and intelligence on a hop-by-hop basis.

Manage consistent access policy for remote users

The Adaptive Security Appliance Services Module (ASA-SM) provides traditional edge security, including firewall and intrusion prevention, as well as serving as a Cisco AnyConnect® secure VPN termination point for mobile devices connecting over the Internet. The module supports secure mobility requirements for corporate-owned devices as well as employee-owned laptops, tablets, and other mobile devices.

Simplify the Network and Deploy SDN

Every IT department is being asked to do more with less. At the same time, complexity is multiplying, with more devices, more applications, and more traffic on the network. As a result, IT departments are looking at network automation and software-defined networks (SDN) to provide simplicity, business agility, and lower TCO. The newest Catalyst 6800 and Catalyst 6500-E with Supervisor 2T have the following unique benefits to help simplify the network that the previous generations of Cisco backbone switches do not support.
Ease of deployment and lower operating expenses through single touch-point configuration and management

Cisco Catalyst Instant Access is a solution that allows customers to dramatically simplify campus network operations. It simplifies operation through a single point of operation and management for campus access and backbone. The solution is composed of Cisco Catalyst 6500 or Catalyst 6800 Series backbone switches and Cisco Catalyst 6800ia Switches (Instant Access). The entire configuration works as a single extended switch with a single management domain. In a traditional architecture, each access switch is managed separately. With Instant Access, up to 20 (40 in future) 6800ia access switches can be managed as one device. Some of the many benefits include:

- **Single switch configuration:** With Cisco Catalyst Instant Access, all access switches are configured and managed at the distribution switch. This saves time and increases efficiency.

- **Consistent features:** Instant Access helps ensure feature consistency across distribution and access because access switches behave like a single extended switch. Network downtime because of access feature inconsistencies is eliminated.

- **Single, consistent security policy:** Instant Access provides a single, consistent security policy across the Instant Access system because the security policies are applied on the single extended switch. IT can stay compliant with regulations cost-effectively.

- **Single software image management:** With Instant Access, only the distribution switch needs software image installation and upgrades. This saves time and maintains software image consistency across access switches.

SDN/programmability for simplicity and business agility

Cisco ONE and ONE Platform Kit (onePK) lay the foundation for making the network programmable for agility and simplicity. Cisco ONE Enterprise Networks Architecture provides automated provisioning and rapid deployment of network services and applications. This architecture brings openness and programmability to enterprise networks through open APIs. It goes beyond SDN by offering a much wider—and larger-scale approach to network programmability.

Catalyst 6800 and 6500-E switches support the Cisco onePK SDN toolkit. You can easily build applications to automate operations and create services across the campus for increased simplicity. These switches also support the industry-standard OpenFlow interface. You can program these switches for custom network services such as network slicing and traffic steering for business agility.
What's New?
The Cisco Catalyst 6800 Series Switches (see video) provides scalable services with higher slot capacity (up to 880 G) and switching capacity (up to 6 Tb). They provide smart and simple network operations using Catalyst Instant Access. Furthermore, they provide converged wired, wireless, and VPN security and unprecedented investment protection to customers with their Catalyst 6500 DNA.

There are three new core switches in the Catalyst family:

**Catalyst 6807-XL**: This is a modular 7-slot switch for campus backbone with up to 880 G capacity per slot and 11.4 Tbps (full duplex) switching capacity. The Catalyst 6807-XL supports the Catalyst 6500 line cards and service modules, and the Catalyst 6500 Series will support Catalyst 6807-XL line cards as well. The Catalyst 6807-XL inherits 15 years of maturity and breadth of Cisco IOS® Software features from the Catalyst 6500 Series, helping ensure feature and operational consistency with the previous model, leading to no change management, lower operational costs, and unprecedented investment protection.

**Catalyst 6880-X**: This switch, with a fixed supervisor and four extensible slots, is optimal for 10 Gigabit Ethernet (GbE) services in the midsize campus backbone. Fixed low-end backbone switches lack advanced services and 10 GbE density, and the high-end modular switches with advanced services are better suited for larger campuses. The Catalyst 6880-X, supporting up to eighty 10 GbE/1 GbE ports or twenty 40 GbE ports, is targeted to fill this gap. It offers the same advanced software features as the Catalyst 6500 and has the optimal combination of 10 GbE density, services, and price for the midsize campus.

**Catalyst 6800ia**: A typical campus network or large branch consists of several buildings with multiple floors and dozens of access switches that connect devices such as IP phones, PCs, virtual desktop infrastructure (VDI) terminals, and mobile devices via wireless access points. The Catalyst 6800ia (Instant Access) dramatically simplifies operations through a single point of operation and management for campus backbone and access.

The solution comprises a Catalyst 6500 or 6800 core switch and Catalyst 6800ia access switches. The Catalyst 6800ia access switches are connected to the Catalyst 6500 or 6800, and the entire configuration works as a single extended switch, with a single management domain and extendable features. Optimized for wired devices with centralized wireless, the solution can support Power over Ethernet Plus (PoE+), and access switches can be stacked together for higher port density and resiliency. IT also has flexibility to deploy the solution with existing network cabling infrastructure, and on all or a subset of a campus network.
## Why New Catalyst Switches Are Better

### Why New Catalyst 2960-X/XR is Better?

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Access Switches</th>
<th>Latest Access Switch</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scale/Performance</strong></td>
<td>Support more traffic through IP address scalability</td>
<td>13.6 Gbps</td>
<td>216 Gbps</td>
<td>Support gigabit access growth for wired and wireless/802.11ac</td>
</tr>
<tr>
<td></td>
<td>Full line rate for all 48 ports</td>
<td>32 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gigabit Downlinks</td>
<td>17.6 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1G/10G uplinks</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stacking bandwidth</td>
<td>176 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gigabit Downlinks</td>
<td>176 Gbps</td>
<td>216 Gbps</td>
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<tr>
<td></td>
<td>1G/10G uplinks</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
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<tr>
<td></td>
<td>Stacking bandwidth</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
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<tr>
<td></td>
<td>PoE/PoE+</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Layer 3 dynamic routing (RIP¹, OSPF²)</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IPv6 Ready</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
<tr>
<td><strong>BYOD/Mobility</strong></td>
<td>NetFlow Lite</td>
<td>216 Gbps</td>
<td>216 Gbps</td>
<td></td>
</tr>
</tbody>
</table>

¹ RIP – Routing Information Protocol
² OSPF – Open Shortest Path First Protocol
Why New Catalyst Switches Are Better cont’d

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Access Switches</th>
<th>Latest Access Switch</th>
<th>Benefits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2950 (EOL)</td>
<td>2960G (EOL)</td>
<td>2960 (EOL)</td>
</tr>
<tr>
<td>Advanced Security</td>
<td>Cisco TrustSec with SXP³</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Flexible 802.1x authentication</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>MACsec⁴ (hardware ready)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>IPv6 First Hop Security</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>Simplicity and SDN</td>
<td>Smart Install</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Auto SmartPorts &amp; Auto QoS</td>
<td>–</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Cross-stack QoS</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>SDN / Programmability</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>• Cisco onePK</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Green</td>
<td>Green features</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

³ SXP – Security Group Tag Exchange Protocol
⁴ MACsec – IEEE Media Access Control Security Standard
### Why New Catalyst Switches Are Better cont’d

#### Why Cisco Catalyst 3850/3650 Switch Is Better

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Access Switches</th>
<th>Latest Unified Access Switch</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scale/Performance</strong></td>
<td>Bandwidth per stack</td>
<td>No stacking</td>
<td>32 Gbps</td>
<td>64 Gbps</td>
</tr>
<tr>
<td>Scale/Performance</td>
<td>No stacking</td>
<td></td>
<td>480 Gbps (3850)</td>
<td>Support gigabit access growth for wired and wireless/802.11ac</td>
</tr>
<tr>
<td>Scale/Performance</td>
<td>160 Gbps (3650)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>Integrated wireless LAN controller</td>
<td>–</td>
<td>–</td>
<td>Enable converged wired-wireless access for operational simplicity and scale.</td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>Common wired-wireless features</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>UADP² ASIC for wired-wireless convergence</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>Application Visibility across wired-wireless</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>Hierarchical wireless QoS</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Advanced Security</td>
<td>Native Flexible NetFlow</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Advanced Security</td>
<td>TrustSec/SGT³ for wired</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Advanced Security</td>
<td>TrustSec/SGT for wireless</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Advanced Security</td>
<td>Native MACsec encryption</td>
<td>Need service module</td>
<td>Need service module</td>
<td></td>
</tr>
</tbody>
</table>

¹ GE—Gigabit Ethernet
² UADP—Unified Access Data Plane ASIC
³ SGT—Security Group Tag
### Why New Catalyst Switches Are Better cont’d

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Access Switches</th>
<th>Latest Unified Access Switch</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simplicity and SDN</td>
<td>Common features for wired-wireless</td>
<td>–</td>
<td>–</td>
<td>✓ Simplicity and business agility</td>
</tr>
<tr>
<td></td>
<td>SmartOperations</td>
<td>✓</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>SDN / Programmability</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>Others</td>
<td>Video/Collaboration</td>
<td>✓</td>
<td>–</td>
<td>✓ Uncompromised user experience. Assess, monitor and troubleshoot network proactively</td>
</tr>
<tr>
<td></td>
<td>Medianet</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Catalyst 3560-X</th>
<th>Catalyst 3750-G (EoS)</th>
<th>Catalyst 3750-X</th>
<th>Catalyst 3850/3650</th>
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</thead>
<tbody>
<tr>
<td>Catalyst 3650-X</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
<tr>
<td>Catalyst 3850/3650</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

Catalyst 3850 offers higher AP support, modular uplinks and StackPower in addition to Catalyst 3650 features.

---

4 SDN—Software Defined Networking
5 onePK—Open Network Environment Platform Kit
Why New Catalyst Switches Are Better cont’d

Why Latest Catalyst 4500-E with Supervisors 8-E / 7-E is Better

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Catalyst 4500 Non-E Series</th>
<th>Latest Unified Access Catalyst 4500-E Series</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale/Performance</td>
<td>Supervisor capacity</td>
<td>64 Gbps</td>
<td>96 Gbps</td>
<td>136 Gbps</td>
</tr>
<tr>
<td></td>
<td>10 Gigabit uplinks</td>
<td>-</td>
<td>-</td>
<td>2 x 10 GE</td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>Integrated Wireless Controller</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Common wired-wireless features</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>UADP¹ ASIC for wired-wireless convergence</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Application Visibility across wired-wireless</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Hierarchical wireless QoS</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Easy Virtual Networking</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Advanced Security</td>
<td>Native Flexible NetFlow</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>TrustSec/SGT² for wired</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>TrustSec/SGT for wireless</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Native MACsec encryption</td>
<td>-</td>
<td>-</td>
<td>✓</td>
</tr>
</tbody>
</table>

¹ UADP—Unified Access Data Plane ASIC
² SGT—Security Group Tag
Why New Catalyst Switches Are Better cont’d

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Catalyst 4500 Non-E Series</th>
<th>Latest Unified Access Catalyst 4500-E Series</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simplicity and SDN</td>
<td>Smart Operations</td>
<td>–</td>
<td>✓</td>
<td>Simplicity and business agility</td>
</tr>
<tr>
<td></td>
<td>Embedded Event Manager</td>
<td>–</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SDN(^3) / Programmability</td>
<td>–</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cisco onePK(^4)</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• OpenFlow</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>EnergyWise</td>
<td>–</td>
<td>✓</td>
<td>Cost savings from automated energy management</td>
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<tr>
<td></td>
<td>UPOE(^5) Support</td>
<td>–</td>
<td>✓</td>
<td>Double the power per port to 60W</td>
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<tr>
<td></td>
<td>Video Collaboration</td>
<td>–</td>
<td>✓</td>
<td>Uncompromised user experience. Assess, monitor and troubleshoot proactively</td>
</tr>
<tr>
<td></td>
<td>• Medianet</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VSS(^6)</td>
<td>–</td>
<td>✓</td>
<td>Deliver superior resiliency</td>
</tr>
</tbody>
</table>

\(^3\) SDN—Software Defined Networking  
\(^4\) onePK—Open Network Environment Platform Kit  
\(^5\) Universal Power over Ethernet  
\(^6\) VSS – Virtual Switching System
## Why New Catalyst Switches Are Better cont’d

### Why New Catalyst 6800 is Better

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Backbone Switches</th>
<th>Latest Backbone Switches</th>
<th>Benefits</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Catalyst 6500 Non-E Series Chassis</td>
<td>Catalyst 6800 or 6500-E with Sup 2T</td>
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<tr>
<td></td>
<td></td>
<td>(End of Sale &amp; End of Support)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Supervisor Engine 1 (End of Support)</td>
<td></td>
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<td>Supervisor Engine 2 (End of Support)</td>
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<td></td>
<td></td>
<td>Supervisor Engine 720 (also deployed in E-series, 3A/3B – EoS)</td>
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<td></td>
</tr>
<tr>
<td>Scale/Performance</td>
<td>System Capacity</td>
<td>32 Gbps</td>
<td>256 Gbps</td>
<td>720 Gbps</td>
</tr>
<tr>
<td></td>
<td>Per Slot Throughput</td>
<td></td>
<td>8 Gbps</td>
<td>40 Gbps</td>
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<td></td>
<td>40 G Support</td>
<td></td>
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<td>✓</td>
</tr>
<tr>
<td></td>
<td>100 G Ready</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>BYOD/Mobility</td>
<td>Integrated Wireless Controller–WiSM2</td>
<td>_ _ _</td>
<td>_ _ _</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Apple Bonjour Service Aware Network</td>
<td>_ _ _</td>
<td>_ _ _</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Network Segmentation</td>
<td>_ _ _</td>
<td>_ _ _</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Application Visibility</td>
<td>_ _ _</td>
<td>_ _ _</td>
<td>✓</td>
</tr>
</tbody>
</table>

1 NBAR – Network Based Application Recognition
## Why New Catalyst Switches Are Better cont’d

<table>
<thead>
<tr>
<th>Trends</th>
<th>Features</th>
<th>Previous Backbone Switches</th>
<th>Latest Backbone Switches</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Catalyst 6500 Non-E Series Chassis (End of Sale &amp; End of Support)</td>
<td>Catalyst 6800 or 6500-E with Sup 2T</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supervisor Engine 1 (End of Support)</td>
<td>Supervisor Engine 2 (End of Support)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supervisor Engine 720 (also deployed in E-series, 3A/3B – EoS)</td>
<td></td>
<td>Orchestrate role based access to corporate resources by any user, with any device, from any location at any time</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supervisor Engine 720 (also deployed in E-series, 3A/3B – EoS)</td>
<td>Encrypt to meet regulatory requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Manage consistent access policy for remote users</td>
</tr>
<tr>
<td>Advanced Security</td>
<td>Context Aware Security (Cisco TrustSec)</td>
<td>–</td>
<td>–</td>
<td>Ease of Deployment &amp; Lower OpEx through single touch point configuration and management</td>
</tr>
<tr>
<td></td>
<td>• SGT² in hardware</td>
<td>–</td>
<td>–</td>
<td>Simplicity and business agility</td>
</tr>
<tr>
<td></td>
<td>• Layer 3 SGT &amp; SG ACL³</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regulatory Compliance</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• MACsec</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integrated Firewall Module – ASA SM</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Simplified Operations</td>
<td>–</td>
<td>–</td>
<td>Uncompromised user experience. Assess, monitor and troubleshoot network proactively</td>
</tr>
<tr>
<td></td>
<td>• Catalyst Instant Access</td>
<td>–</td>
<td>–</td>
<td>Maintain 99.999% up time of your backbone network</td>
</tr>
<tr>
<td></td>
<td></td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SDN / Programmability</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cisco onePK</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• OpenFlow</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>Video / Collaboration</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Medianet</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Advanced Multicast</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Super Resiliency (Quad Sup SSO)</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quad Sup Uplink</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Forwarding only</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

---

2 SGT – Security Group Tagging  
3 SG ACL – Security Group Access Control List  
4 SXP – SGT Exchange Protocol
Cisco Meraki Cloud-Managed Switching

The Cisco Meraki® MS Switch product line provides users with the first cloud-managed switching solution. Providing simplified, out-of-the-box management of distributed site deployments, reduced complexity, network-wide visibility and control, and enterprise security, the cloud brings numerous benefits right to your fingertips.

No matter the size of the network or the models of Cisco® Meraki switches, you can control every aspect of your switch fabric remotely, without the need for complex command-line configurations. Centrally manage all Cisco Meraki devices from the same dashboard—switches, wireless access points, security appliances, and multi-device management (MDM)—from anywhere in the world through a web-based dashboard. Deployments are plug-and-play with device configurations stored in the cloud, eliminating the need for pre-staging or specialized IT staff.

Layer 3 Routing to Improve Performance and Efficiency
Meraki MS320 and MS420 Series Switches can reduce costs and improve performance with routing of inter-VLAN traffic within the switch itself; there is no need to attach extra layer 3 devices. Larger deployments taking advantage of the security and efficiency benefits of VLANs can easily manage routes from any Internet-accessible location.

Prepare Your Network for Bring Your Own Device (BYOD)
More and more personal devices are exploding onto networks. How do you maintain secure network access, assign policies by device type, and protect against outside threats without expending additional time? Cisco Meraki provides device-based security policies, built-in Network Admission Control (NAC), and built-in mobile device management, giving administrators everything they need for a highly secure, reliable, hassle-free BYOD network.

Handle Any Number of Devices with Built-In Tools
From mobile device management to automatically applying policies by device type to having visibility into where devices are connected on your network, Cisco Meraki provides all of the built-in tools you’ll need. With unified management of wireless and wired, you can maintain complete visibility and efficiently manage the multitude of devices on your network. All Cisco Meraki devices are ready out of the box to handle the explosion of devices themselves, as well as their heavy use of applications and bandwidth consumption.

Future-Proof Your Network
Cisco Meraki switches are designed for high performance, even in the most challenging wireless environments. With the emergence of 802.11ac, there will soon be greater demands on your switch infrastructure to support higher Gigabit speeds. Easily support 802.11ac access points and traffic, while also identifying which applications and devices are being used with powerful layer 7 application visibility. Visibility is provided by packet inspection engines running custom parsers on each switch, fingerprinting and identifying applications and groups.

Expand and Keep Users Up to Speed
More devices lead to more bandwidth consumption which leads to the need for additional access points. Network administrators can simply add Cisco Meraki access points to their network as needed without additional controllers or effort. Newly added devices automatically download their configurations from the dashboard and begin delivering high-performance Internet access by automatically scanning the RF environment, checking for interference, and making adaptive configuration changes. Cisco Meraki switches come with varying numbers of ports, making creation or expansion of network spaces simple. This flexibility allows you to add new devices when you need them, guarantee bandwidth, and keep your end-user experience high.
Cisco Meraki Cloud-Managed Switching cont’d

Robust Enterprise Security Across the Network
Cisco Meraki switches provide cloud management through the web-based dashboard, along with automatic upgrades containing the most up-to-date features to provide reliable security and complete network visibility into all Meraki switches. Meraki security features allow administrators to:

Maintain enterprise-level security
Have one administrator, or set role-based network administration and use built-in tools to maintain constant security. Establish per-port network access control, support MAC-based RADIUS authentication and whitelisting, help ensure security with Dynamic Host Configuration Protocol (DHCP) and Cisco Group Management Protocol (GMP) snooping, or take advantage of 802.1X support for port-based network access control—all in a few mouse clicks from the dashboard.

Gain deep, layer 7 application visibility
By fingerprinting and identifying applications and application groups, packet inspection engines provide powerful application visibility. Administrators can search across entire switch deployments, identify users and devices, and efficiently optimize network performance.

Provide a compliant solution
Cisco Meraki is itself, Level 1 PCI Certified (the most rigorous audit level), and offers the same level of trust by delivering a solution that is compliant across multiple industries.

Stay alert with remote live tools
Keep constant insight into the network with remote live tools and stop struggling to diagnose a switch error or make sure hardware is operating correctly. With remote live tools at their fingertips, administrators have deep visibility into everything from layer 1 issues, such as identifying bad Ethernet cables, to performing packet captures for advanced troubleshooting—even receiving automatic alerts for each switch.

Virtual Stacking Reduces Management and TCO
Instantly apply configuration changes and gain visibility into thousands of switch ports from a single pane of glass, all without additional stacking modules or cables. Unlike traditional stacking, virtually stacked switches can be at a single location or distributed among various physical locations, simplifying large-scale and distributed environments.

Simple to Deploy, Simple to Manage
Centralized Management
Administrators can manage and monitor complete Cisco Meraki networks, including wireless access points and security appliances, from anywhere using a web-based dashboard. Whether updating configurations, making a one-time change, or just having deep visibility into how the network is being used and the users and devices on it, the Meraki dashboard puts control over the unified network at the fingertips of administrators.

Simply Deploy to Distributed Sites
With self-provisioning devices and network configurations stored in the cloud, deployments are zero-touch, eliminating the need for pre-staging or specialized IT staff. Simply set configurations in the dashboard. Once the devices are plugged in at the sites, they will instantly apply your settings and be up and running without onsite troubleshooting.

Automatic RF Optimization
Using continuous performance monitoring and interference detection, the powerful auto-RF optimization system delivers high performance in high-density environments and under challenging interference conditions, adapting configurations for optimal performance.

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Cisco Meraki Cloud-Managed Switching cont’d

**High Performance for Voice and Video**
With the growing trend in video and collaboration applications, Cisco switches provide the tools needed to help ensure deep visibility and proper prioritization of voice and other high-demand collaboration traffic. Cisco gives your customers the tools they need to optimize resources and provide a high-quality experience for users.

**Improved Voice and Video QoS**
Maintain end-to-end data, voice, and video traffic prioritization using the rich quality of service functionality present on every switch. With features including per-VLAN and protocol-based prioritization, flexible QoS assignments, and use of Cisco Discovery Protocol and Link Layer Discovery Protocol (LLDP) for intelligent deployment of devices like voice-over-IP (VoIP) phones, your customers can customize their switch network to fit their needs.

**Increase Network Reliability and Efficiency**

**Create a Resilient Network**
Reduce the amount of administrator management by cloning existing configurations to newly added switches and receive automatic updates that continually add the latest features to switching networks. Increase reliability with split-pane architecture that can enable wire-speed switching, even when using advanced software features, like layer 7 application visibility.

**Be Energy-Efficient**
Intelligent power allocation, based on LLDP information, increases the number of supported power over Ethernet (PoE) clients, delivering up to 30 W to support even the most power-hungry devices. Time-based port scheduling permits further energy savings.
Migration Pathways and Cisco Access Switch Positioning

With many products to choose from and many different customer deployments in place, refer to tables 1 through 8 to promote the appropriate migration path for your customers who are ready to refresh their network. Lead and base products are listed.

Table 1 highlights four simple criteria to use when choosing the best campus switch.

### Table 1. Decision Criteria in Choosing Campus Switches

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>Access&lt;br&gt;  • Converged wired and wireless&lt;br&gt;  • Primarily wired&lt;br&gt;  Backbone (distribution and core)</td>
</tr>
<tr>
<td>Preference</td>
<td>Standalone (fixed configuration, non-stackable)&lt;br&gt;  Stackable&lt;br&gt;  Modular</td>
</tr>
<tr>
<td>Connectivity</td>
<td>Fast Ethernet&lt;br&gt;  Gigabit Ethernet&lt;br&gt;  1/10/40/100 Gb&lt;br&gt;  1/10 Gb</td>
</tr>
<tr>
<td>Class</td>
<td>Lead—It is the best-in-class switch that has a high-end differentiated set of features in a given category. This is the switch to lead with in a regular sales situation. This switch has the most differentiation compared to competitors in the same category.&lt;br&gt;  Base—It is the entry-level switch in its category. Also called the foundation switch, it has a lower price and limited feature set, but is still better than competitor offerings. This switch can be used in a high-pressure sales situation with aggressive, low-priced competitors.</td>
</tr>
</tbody>
</table>
Table 2 outlines access switch offerings and Table 3 outlines backbone switch offerings. Match your customers’ requirements to the switch series that supports their requirements.

### Table 2. Access Switching—Functionality-Based Switching

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Switch Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Converged Wired and Wireless (Modular)</td>
<td>Lead—Catalyst 4500E with Supervisor 8E</td>
</tr>
<tr>
<td>Converged Wired and Wireless (Stackable)</td>
<td>Lead—Catalyst 3850&lt;br&gt;Base—Catalyst 3650</td>
</tr>
<tr>
<td>Gigabit Ethernet (Modular)</td>
<td>Lead—Catalyst 4500E with Supervisor 8E&lt;br&gt;Base—Catalyst 4500E with Supervisor 7LE</td>
</tr>
<tr>
<td>Gigabit Ethernet (Stackable)</td>
<td>Lead—Catalyst 3850&lt;br&gt;Base—Catalyst 3650, Catalyst 2960-X, Catalyst 2960-XR for basic layer 3</td>
</tr>
<tr>
<td>Gigabit Ethernet (Instant Access)</td>
<td>Lead—Catalyst 6800ia</td>
</tr>
<tr>
<td>Gigabit Ethernet (Cloud-Managed)</td>
<td>Lead—Meraki MS320 Series&lt;br&gt;Base—Meraki MS220 Series</td>
</tr>
<tr>
<td>Fast Ethernet (Stackable)</td>
<td>Lead—Catalyst 2960-SF</td>
</tr>
<tr>
<td>Fast Ethernet (Standalone)</td>
<td>Lead—Catalyst 2960-SF&lt;br&gt;Base—Catalyst 2960-Plus</td>
</tr>
<tr>
<td>8/12 Port Gigabit Ethernet (Standalone)</td>
<td>Lead Catalyst 3560-C</td>
</tr>
<tr>
<td>8/12 Port Fast Ethernet (Standalone)</td>
<td>Lead Catalyst 2960-C</td>
</tr>
</tbody>
</table>
Migration Pathways and Cisco Access Switch Positioning cont’d

When a customer’s network is ready for refresh, use Tables 4 and 5 to determine the best switch to position, based on the old switch the customer is replacing. Tables 6 and 7 outline migration paths for wireless access points and controllers.

### Table 3. Backbone Switching—Functionality-Based Positioning

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Switch Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/10/40/100 Gigabit Ethernet (Modular)</td>
<td>Lead—Catalyst 6807-XL</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 6500-E with Supervisor 2T</td>
</tr>
<tr>
<td>1/10/40 Gigabit Ethernet (Standalone ≤ 80 ports)</td>
<td>Lead—Catalyst 6880-X (semi-modular)</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 4500-X</td>
</tr>
<tr>
<td>1/10 Gigabit Ethernet (Modular)</td>
<td>Lead—Catalyst 6500-E with Supervisor 2T</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 4500E with Supervisor 8E</td>
</tr>
<tr>
<td>1 Gigabit Ethernet (Standalone)</td>
<td>Lead—Catalyst 4500-X</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 3750-X fiber</td>
</tr>
</tbody>
</table>

### Table 4. Access Switching—Incumbency-Based Migration Paths

<table>
<thead>
<tr>
<th>Existing Switch</th>
<th>New Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalyst 2900XL, 2948-G, Any 2950, 2970, or 2960 Series Switch</td>
<td>Lead—Catalyst 3850</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 3650, 2960-X</td>
</tr>
<tr>
<td>Catalyst 3500XL, Any 3550, 3560, or 3750 Series Switch</td>
<td>Lead—Catalyst 3850</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 3650</td>
</tr>
<tr>
<td>Catalyst 4500 Series (not 4500E Series)</td>
<td>Lead—Catalyst 4500E with Supervisor 8-E</td>
</tr>
<tr>
<td>Any Catalyst 4500 Without Supervisor 8E or 7LE</td>
<td>Base—Catalyst 4500E with Supervisor 7LE</td>
</tr>
<tr>
<td>Catalyst 6500 Series Switches (not 6500-E Series) Any Catalyst 6500 Without Supervisor 2T</td>
<td>Lead—Catalyst 4500E with Supervisor 8E</td>
</tr>
<tr>
<td></td>
<td>Base—Catalyst 4500E with Supervisor 7LE, Instant Access</td>
</tr>
</tbody>
</table>
### Migration Pathways and Cisco Access Switch Positioning cont’d

**Table 5. Backbone Switches—Incumbency-Based Migration Paths**

<table>
<thead>
<tr>
<th>Existing Switch</th>
<th>New Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalyst 6500 (not including 6500E Series) Any Catalyst 6500E Without Supervisor 2T Any non-Catalyst 6500 Series (such as Catalyst 4500, Nexus switches, etc.)</td>
<td>1/10/40/100 Gigabit Ethernet (Modular) Lead—Catalyst 6807-XL Base—Catalyst 6500E with Supervisor 2T 1/10/40 Gigabit Ethernet (standalone with 80 ports or less) Lead—Catalyst 6880-X (semi-modular) Base—Catalyst 4500-X 1/10 Gigabit Ethernet (modular) Lead—Catalyst 6500E with Supervisor 2T Base—Catalyst 4500E with Supervisor 8E 1 Gigabit Ethernet (standalone) Lead—Catalyst 4500-X Base—Catalyst 3750-X fiber</td>
</tr>
</tbody>
</table>

**Table 6. Access Points Upgrade Path**

<table>
<thead>
<tr>
<th>Category</th>
<th>Product Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Existing 802.11a/b/g/n Access Point 802.11b: Aironet 340 802.11b/g: Aironet 1121, 1300 802.11a/b/g: Aironet 1130,1230,1500,1520 802.11a/g/n: Aironet 1040,1140,1260,3500</td>
<td>To New 802.11ac/n Access Point Lead—Aironet 3700 and 3600 (802.11a/g/n/ac) Base—Aironet 2600 and 1600 (802.11a/g/n)</td>
</tr>
</tbody>
</table>

**Table 7. Wireless Controller Upgrade Path**

<table>
<thead>
<tr>
<th>Category</th>
<th>Product Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>4400 Series Wireless LAN Controller (WLC)</td>
<td>Lead—Cisco 8510 Wireless LAN Controller (WLC), 5760 WLC Base—5508 WLC</td>
</tr>
<tr>
<td>2100 Series WLC</td>
<td>Lead—3850, 3650 WLCs Base—2500, Virtual Controller</td>
</tr>
<tr>
<td>Autonomous Access Points</td>
<td>Cisco Flex® 7500 Series WLC, Virtual Controller (vWLC)</td>
</tr>
<tr>
<td>WiSM Service Module</td>
<td>Wireless Services Module-2 (WiSM-2)</td>
</tr>
</tbody>
</table>

Refer to Table 8 to determine which products to recommend to your midmarket customers.

**Table 8. Midmarket Products**

<table>
<thead>
<tr>
<th>Category</th>
<th>Product Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Access Switches</td>
<td>Lead—Catalyst 3650 Base—Catalyst 2960-X</td>
</tr>
<tr>
<td>Campus Backbone Switches</td>
<td>Lead—Catalyst 6800,6500 Base—Catalyst 4500</td>
</tr>
<tr>
<td>Wireless Access Points</td>
<td>Lead—Aironet 3700, 3600 Base—Aironet 2600,1600</td>
</tr>
<tr>
<td>Wireless Controllers</td>
<td>Lead—5500 Series Base—2500 Series</td>
</tr>
</tbody>
</table>
Target Audience

This play targets new and current midmarket (100–999 users), enterprise (more than 1000 users), and public sector customers.

The ideal target organization has the following attributes:

- Has current plans to securely enable BYOD, collaboration, video, or cloud-based applications throughout the organization
- Has current plans to expand business operations, and need greater network capability and capacity
- A resilient access network infrastructure is mission-critical for their business, for example in healthcare, financial services, and retail.
- Are current customers with fully depreciated, end-of-service, or end-of-life Cisco Catalyst switches that require migration

Midmarket and Enterprise Segments

While this play targets both the midmarket and enterprise segments, there are a few distinct differences. Midmarket buyers tend to be more concerned about the cost of network infrastructure, manageability, speed, and ease of implementation. Enterprise buyers are typically more focused on deploying a scalable, consistent, resilient, and highly customizable network to support applications and new business services. See Table 10 for target audience information, including customer conversation tips.
# Target Audience cont’d

## Table 9. Target Audience and Key Customer Conversations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IT manager, director</td>
<td>CIO</td>
<td>CSO</td>
<td>Sr. VP of finance</td>
</tr>
<tr>
<td>Network manager, director</td>
<td>CIO</td>
<td>CSO</td>
<td>Sr. VP, global controller</td>
</tr>
<tr>
<td>Network administrator</td>
<td>CEO</td>
<td>VP IT</td>
<td>VP of risk management</td>
</tr>
<tr>
<td>Wired and wireless LAN administrator</td>
<td>Director of operations</td>
<td>Improve security</td>
<td>In many cases, the CIO</td>
</tr>
<tr>
<td>Network architect</td>
<td>Director of business unit</td>
<td>Network compliance</td>
<td>and IT organization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>report to this role.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>This is especially true</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in mid-market companies.</td>
</tr>
</tbody>
</table>

### Top Priorities
- Reduce operating expenses
- Reduce time and resources spent on operations
- Reduce helpdesk calls and achieve high user satisfaction
- Enable the business
- Streamline operations
- Increase productivity
- Business strategy
- Improve security
- Network compliance
- Ensuring business decisions are grounded in sound financial criteria
- Security and compliance to protect the organization’s reputation and credibility
- Leading key initiatives in finance that support overall strategic goals
- With the growing number of devices, applications, and bandwidth demands, is the size of your IT staff and budget also growing or is it remaining static?
- How can you streamline operations so your staff can spend more time supporting current and future business priorities and less time managing the network?
- Is your organization challenged by the complexity of managing separate wired and wireless networks, multiple management systems, multiple network operating systems, and chaotic device onboarding processes?
- Would you like help in developing a comprehensive mobility strategy that combines business needs and compliance requirements?
- Do you have consistent policy across all access methods—wired and wireless?
- Do you have context-based control, including who, what, when, and where; application visibility and control; and advanced segmentation capabilities?
- Are you concerned about increased network attacks?
- Would you like help with developing a security strategy or assessment of possible security gaps?
- What are your plans for security and risk management?
- Does your company have a strategy for supporting the mobility trend?
- Is your company keeping pace with technology advancements?
- Were you aware that Cisco offers flexible financing options?
- Are you interested in reducing energy costs?
## Target Audience cont’d

|------------------------|-------------------------|-------------------------|-------------------------|
| Solutions              | • Based on One Policy, One Management, and One Network, the Cisco Unified Access solution delivers an integrated and simplified intelligent network platform. It can enable IT to spend less time running the network and more time encouraging innovation that can differentiate and transform business.  
• Converged wired and wireless with one network starts with the new Cisco Catalyst 3850 and 3650 Series Switches, and the Catalyst 4500E with Supervisor 8E, which combines wired and wireless by supporting wireless tunnel termination and full wireless LAN controller functionality.  
• Optimize wireless network utilization with Cisco CleanAir Technology and adopting Aironet 3700 802.11ac Access Points; increase client performance with ClientLink,  
• Medianet capabilities can enable high-quality user experiences and simplify IT operations.  
• Lower your TCO with Cisco Catalyst Smart Operations—a set of tools, capabilities, and available management applications to simplify deployment, management, and troubleshooting of Cisco networks.  
• Assessment services and migration services help you identify gaps and develop a successful migration strategy. | • IT innovations deliver a competitive advantage for companies. Based on “one policy, one management, one network,” the Cisco Unified Access solution delivers an integrated, simplified, and intelligent network platform that can enable IT to spend less time running the network and more time collaborating and innovating with stakeholders to differentiate and transform the business.  
• Mobility and BYOD professional services from Cisco and our partners help you create comprehensive planning and deployment roadmaps. | • Today, only Cisco security has integrated a policy-based platform, the Cisco Identity Services Engine, with our TrustSec technology to support identity-aware infrastructure such as Cisco Catalyst switches. With our technologies you can enforce context-aware access control decisions in a scalable manner.  
• Cisco ISE facilitates this centralized policy platform for the enterprise. Cisco ISE helps enable you to identify devices (fingerprinting) and authenticate users, so that you can validate endpoint devices and enforce policy before users can connect to your network.  
• Flexible Netflow plays a vital role in network security by detecting DoS attacks and network-propagated worms.  
• Professional assessment, migration, and support services from Cisco and our partners can help you with the planning, deployment, and alignment of business needs with compliance requirements. | • End-to-end security integrated with third-party MDM solutions connect with entry-level to feature-rich Aironet 1600, 2600, and 3700 Access Points.  
• Cisco TrustSec, embedded in Cisco Catalyst switches:  
• o Provides a growing mobile and complex workforce with appropriate and more secure access from any device.  
• o Lowers security risks by providing comprehensive visibility of who and what is connecting to the wired or wireless network.  
• o Reduces total cost of ownership through centralized, highly secure access policy management and scalable enforcement mechanisms.  
• Cisco EnergyWise software allows you to view, monitor, and manage the energy consumption of all network-connected devices (PCs, IP phones, servers, network and storage equipment, etc) to reduce IT management costs in the data center, campus, and branches. Using Energywise, customers see savings of an average of $50 per switch port per year.  
• Financing from Cisco Capital® can help you make the most of Cisco innovation and optimize technology lifecycles, avoiding obsolescence thanks to flexible upgrade and migration options, as well as easy equipment disposal or recycling. |

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Comprehensive Positioning

Cisco Catalyst Switches

How Does Cisco Compare?

With the largest installed base of customers, and over 60 percent market share, Cisco is a clear leader in switching solutions. Cisco has also been named the leader in the Gartner Magic Quadrant for wired and wireless LAN access infrastructure. For detailed competitive analysis, visit the Competitive Information portal on Partner Central. Listed below are key competitive differentiators for each switch series, along with links to additional competitive resources.

Cisco Catalyst 2960-X/XR Key Competitive Differentiation

Support for BYOD

The Cisco 2960-X provides superior user experience through application visibility and control with NetFlow Lite. NetFlow Lite provides information about where, why, when, how, and by whom specific applications are used and how the usage might affect the network. No one currently comes close to matching Cisco in support for BYOD.

Enhanced Security

The Cisco 2960-X provides highly secure access end to end. Access control through integration with Cisco ISE, IPv6 support, and MACsec are benefits the competition cannot match today.

IT Simplicity

The Cisco 2960-X is efficient and scalable, lowering TCO. These benefits are delivered through Auto Smartports, Smart Call Home, and Auto QoS. Discuss these features with your customers. Other vendors cannot currently compete with Cisco in this area and do not provide these benefits.

Cisco Catalyst 3850 and Catalyst 4500E Key Competitive Differentiation

Support for BYOD

Converged access terminates wireless traffic locally for network efficiency, scalability, operational simplicity, and superior user experience. Cisco is a recognized leader for Unified Access, with support for one policy, one management, and one network—no other vendor can make this claim today.

Enhanced Security

Highly efficient integrated security (scalable identity and context-based access control with Cisco TrustSec and SGT) enabled by one policy for both wired and wireless networks with Cisco ISE, device recognition with a device sensor, and network-based encryption with MACsec allows customers the ability to protect the network while preserving productivity and reducing operational costs. Other vendors do not currently provide this level of security.

IT Simplicity

Zero-touch deployment with Smart Install, automated port configuration with Auto Smart Port, and proactive diagnostics with Smart Call Home provide simplify the network and lower TCO. No other vendor can match these features today.

Cisco Catalyst 6800 and 6500E Key Competitive Differentiation

Cisco Catalyst 6800 and 6500E Equates to Innovation with Investment Protection

Cisco Catalyst 6500/6800 are currently the only platforms in the industry that have allowed customers to take advantage of industry-leading innovation while preserving the investments in hardware, software, skills, and operations. In fact, Catalyst 6000 Series Switches have delivered forward and backward compatibility with successive generation switches for more than 10 years.

Our newest generation, Catalyst 6800, has 100 percent software and operational consistency with existing Catalyst 6500E Series. Customers can carry over Catalyst 6500 line cards and service modules into the Catalyst 6800. This means that customers can upgrade their network without expensive and disruptive foundational upgrades, and without learning new skills.
No Compromised Scale and Performance

Cisco Catalyst 6800 can scale up to 57 percent more per-slot capacity than other vendors with up to 880 Gb per slot and 11.4 Tb of switching capacity. The Catalyst 6800 supports exceptional breadth and depth of network services, such as an integrated, highly scalable wireless controller (WiSM2), super resiliency with Virtual Switching System (VSS), in-depth application visibility and control withFlexible NetFlow, end-to-end security with Cisco TrustSec, perimeter security with a firewall module, best-in-class MPLS and VPLS functionality, network analysis and management (network analysis module [NAM]), and more.

More Cisco Catalyst Competitive Resources

HP Competitive Batttlecard
Why Customers Should Migrate from HP 5400zl to Newer Cisco Catalyst Switches
Product Positioning Guide for HP Juniper Competitive Batttlecard
Huawei Competitive Batttlecard
Cisco BYOD Smart Solution Competitive Analysis

Cisco Meraki Access Switches

How Does Cisco Compare?

Cisco Meraki is a recognized leader in cloud networking with thousands of customers in countries worldwide. The Cisco Meraki MS line is the world’s first cloud-managed switch solution, bringing the benefits of the cloud—centralized management, simplicity, and lower TCO—to branch and campus Ethernet networks. Cisco Meraki switches are built with high-reliability, enterprise-grade components, delivering enterprise-class features and performance, including optimized voice and video. Visit the Cisco Meraki Partner Portal for up-to-date competitive information.

Cisco Meraki MS Switches Key Competitive Differentiation

Cloud Management

Network administrators gain deep visibility into the users, applications, and devices on their network from anywhere using the Cisco Meraki web-based dashboard. Manage and utilize live tools for troubleshooting your switches or entire networks, including wireless access points and security appliances, without leaving the office. Unlike competitive solutions, scale as needed with zero-touch deployment using self-provisioning devices that automatically download configurations, promoting easy and transparent support of multisite deployments.

Virtual Stacking

Eliminate the need to physically stack switches and go onsite to configure each one. Cisco Meraki switches give administrators the ability to ‘virtually stack’ switches in different physical locations and manage, monitor, and configure a few or thousands of ports remotely, without the need for expensive proprietary stacking modules or cables. No other vendor today has the ability to virtually stack switches and aggregate all of your switch ports under a single pane of glass.

Layer 7 Visibility

The Cisco Meraki MS series switches are the only access switches on the market with integrated layer 7 (application) visibility, allowing administrators to understand and gain deep visibility into how users and applications are using bandwidth. This permits admins to make data-driven decisions, such as traffic shaping, with Meraki wireless and security devices.

Remote Live Tools

Remote live tools, including automatic alerts, cable testing, and packet capture simplify troubleshooting, making maintenance of a live network easy. Eliminate the need for complex CLI and onsite administrator presence for troubleshooting simple to complex switch challenges. Cisco Meraki switches give administrators in-depth control over their switch deployments without the need to leave the office.
Competitive Positioning cont’d

**Cloud Management**

Network administrators have deep visibility into the users, applications, and devices on their network from anywhere using the Cisco Meraki web-based dashboard. Manage and use live tools for troubleshooting your switches or entire networks, including wireless access points and security appliances, without leaving the office. Unlike competitive solutions, scale as needed with zero-touch deployment using self-provisioning devices that automatically download configurations, promoting easy and transparent support of multisite deployments.

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**More Cisco Meraki Competitive Resources**

Cisco Meraki MS Battlecard
Competitive Solution Comparison for HP
Cisco Services

Partner and Cisco Branded Services
Cisco and you, our partners, can offer services for every phase of a customer’s network and IT cycle, resulting in greater opportunities to increase your margins and build recurring revenue streams. Services to support customer planning, design and support help ensure customers achieve the business outcomes they need, whether transforming their network, migrating or refreshing technology, or optimizing their network’s performance. The services listed in Tables 10, 11, and 12 can help you build your networking practice, advance successful network migrations, and deliver technical support services backed by Cisco expertise. Our collaborative partner-led approach, services partner program, and sales engagement strategy can enhance your trusted business partner status with customers.

Table 10. Cisco Services—Americas

<table>
<thead>
<tr>
<th>Collaborative Professional Services</th>
<th>Network Migration Service</th>
<th>Cisco Branded Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Routing and Switching Assessment Service</strong> (ASF-CPSA-RSA): This fixed-price service helps partners implement a methodical and cost-effective device lifecycle management solution. Based on automated Cisco analysis tools, Cisco consultants use domain expertise, industry-proven Cisco routing and switching lifecycle management methodology, and best practices to make recommendations. Partners can proactively assess the customer’s situation, determine the changes needed, select the best software for deployment, implement the changes, and manage the environment on an ongoing basis.</td>
<td><strong>For Catalyst to Catalyst Migration</strong></td>
<td><strong>Network Migration Service</strong>: Provide a structured methodology for product migration, network refresh planning, and network lifecycle management that takes into consideration not only the equipment to be updated, but also where it resides in the network, the applications and performance requirements, and how the changes affect the overall network design (Statement of Work [SOW]; available all regions).</td>
</tr>
<tr>
<td><strong>Network Development Service</strong>: This fixed-price service provides partners with the tools and templates to develop a network design and implementation plan to support wireless and switch infrastructure migration.</td>
<td></td>
<td><strong>For Catalyst to Catalyst and Nexus Migration</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>For Catalyst to Nexus Migration</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>For Mobility Architecture Plan and Build</strong></td>
</tr>
</tbody>
</table>
Cisco Services cont’d

For Wireless Migration

**Wireless LAN Network Assessment** (ASF-CORE-WLAN-WLNA): This fixed price service is delivered remotely and provides an assessment of the architecture, performance, operational status, and client security posture of the existing wireless infrastructure. Get recommendations for configuration changes with respect to best practices for a Cisco Unified Wireless LAN.

For SDN Opportunities

**Wireless LAN Planning and Design:** Provide design, planning, architecture, and assessment services in support of wireless LAN and mobility services solutions, including adaptive wireless IPS, context awareness, voice over wireless LAN, and guest access. This service includes site survey and installation (can be ordered through Advanced Services Pricing Tool [ASPT]).

For Energy Management

**Cisco Services for Open Network Environment:** Help customers build an SDN strategy that aligns to their business objectives. They can also validate use cases, develop customer API-applications, and successfully plan, build, and manage solutions using Cisco ONE technologies and products. [SOW; available all regions]

**Cisco EnergyWise Discovery Service:** This fixed-price service provides customers with detailed energy benchmarking and visibility of their IT assets. It can be delivered remotely or on premises.

**Cisco EnergyWise Optimization Service:** Help customer quickly improve energy management within their organization. The service baselines the current situation, recommends initial improvements, and helps move additional activity forward with regular progress meetings and quarterly business reviews. The customer can realize an exceptional and fast return on energy management investments. [SOW; available all regions]

Technical Support Services

- **Smart Care**—This partner service allows you to combine your expertise with Cisco intellectual property, infrastructure, and tools to create services that meet your customers’ needs.
- **Partner Support Service**—For partners interested in developing managed services, Partner Support Service provides smart capabilities and foundational technical services that make delivering a proactive service easy.
- **SMARTnet**—SMARTnet provides direct, anytime access to the Cisco Technical Assistance Center (TAC), advance hardware replacement, and OS updates. New OS features can enable greater network capacity, enhanced security and regulatory compliance, and better interoperability.
- **Smart Net Total Care**—Manage and track your network devices, align service coverage, and more quickly resolve technical issues.
Collaborative Professional Services

**Routing and Switching Assessment Service (ASF-CPSA-RSA)**: This fixed-price service helps partners implement a methodical and cost-effective device lifecycle management solution. Based on automated Cisco analysis tools, Cisco consultants use domain expertise, industry-proven Cisco routing and switching lifecycle management methodology, and best practices to make recommendations. Partners can proactively assess the customer’s situation, determine the changes needed, select the best software for deployment, implement the changes, and manage the environment on an ongoing basis.

**Network Development Service**: This fixed-price service provides partners with the tools and templates to develop a network design and implementation plan to support wireless and switch infrastructure migration.

- **Standard (ASF-CPSA-BNDS)**—Choose from one of these technology areas—routing and switching, wireless, or security
- **Advanced (ASF-CPSA-BNDA)**—Choose from two of these technology areas—routing and switching, wireless, or security

Cisco Branded Services

### For Catalyst to Catalyst and Nexus Migration

**Cisco Upgrade and Refresh Service** (ASF-SP1-G-NGN-SUPG, ASF-SP1-G-NGN-UPG1, ASF-SP1-G-NGN-UPG2): This fixed-price migration service provides readiness assessment for one network device; fast and accurate bill of materials (BoM) for order placement; reduction of network and device configuration time of up to 90 percent by eliminating manual conversion with the use of a Cisco proprietary automation tool; and reduction of post-migration verification time by 60 to 70 percent with Cisco proprietary automation tools.

### For Wireless Migration

**Wireless LAN Network Assessment** (ASF-CORE-WLAN-WLNA): This fixed price service is delivered remotely and provides an assessment of the architecture, performance, operational status, and client security posture of the existing wireless infrastructure. It offers recommendations for configuration changes with respect to best practices for a Cisco Unified Wireless LAN.

### For Energy Management

**Cisco EnergyWise Discovery Service**: This fixed-price service provides customers with detailed energy benchmarking and visibility of their IT assets. It can be delivered remotely or on premises.

### Technical Support Services

- **Smart Care**: This partner service allows you to combine your expertise with Cisco intellectual property, infrastructure, and tools to create services that meet your customers’ needs.
- **Partner Support Service**: For partners interested in developing managed services, Partner Support Service provides smart capabilities and foundational technical services that make delivering a proactive service easy.
- **SMARTnet**: SMARTnet provides direct, anytime access to the Cisco TAC, advance hardware replacement, and OS updates. New OS features can enable greater network capacity, enhanced security and regulatory compliance, and better interoperability.
- **Smart Net Total Care**: Manage and track your network devices, align service coverage, and more quickly resolve technical issues.
Collaborative Professional Services

Routing and Switching Assessment Service (ASF-CPSA-RSA): This fixed-price service helps partners implement a methodical and cost-effective device lifecycle management solution. Based on automated Cisco analysis tools, Cisco consultants use domain expertise, industry-proven Cisco routing and switching lifecycle management methodology, and best practices to make recommendations. Partners can proactively assess the customer’s situation, determine the changes needed, select the best software for deployment, implement the changes, and manage the environment on an ongoing basis.

Cisco Identity Service Engine (ISE) Assessment Service: This service is for partners who want to gain visibility into their customer’s network readiness for ISE in advance of determining IT strategy or creating a design. Cisco consultants work with the partner to develop an understanding of the customer’s design goals and a comprehensive view of the customer’s network, including operational and interoperability requirements, network topology, and existing and planned security devices. The service identifies any gaps in the existing or planned infrastructure that might affect the performance of the Cisco ISE and creates reports that are immediately actionable.

Network Development Service: This fixed-price service provides partners with the tools and templates to develop a network design and implementation plan to support wireless and switch infrastructure migration.

• Standard (ASF-CPSA-BNDS)—Choose from one of these technology areas—routing and switching, wireless, or security
• Advanced (ASF-CPSA-BNDA)—Choose from two of these technology areas—routing and switching, wireless, or security

Cisco Branded Services

For Catalyst to Catalyst and Nexus Migration

Cisco Upgrade and Refresh Service (ASF-SP1-G-NGN-SUPG, ASF-SP1-G-NGN-UPG1, ASF-SP1-G-NGN-UPG2): This fixed-price migration service provides readiness assessment for one network device; fast and accurate bill of materials (BoM) for order placement; reduction of network and device configuration time of up to 90 percent by eliminating manual conversion with the use of a Cisco proprietary automation tool; and reduction of post-migration verification time by 60 to 70 percent with Cisco proprietary automation tools.

For Catalyst to Nexus Migration

Nexus Planning and Design Service: This service includes Cisco Nexus network assessment, implementation and migration plan, high-level and low-level design reviews, implementation and migration support, and remote knowledge transfer sessions [SOW; available in all regions].

For Mobility Architecture Plan and Build

BYOD Service Kit (AS-UW-CNSLT): The Cisco BYOD Service Kit is a fixed-price service that helps customers take the first step toward deploying a BYOD-ready network by developing a design and implementation plan spanning wireless, wired, security, and Cisco Prime Infrastructure requirements.

For Wireless Migration

Wireless LAN Network Assessment (ASF-CORE-WLAN-WLNA): This fixed-price service is delivered remotely and provides an assessment of the architecture, performance, operational status, and client security posture of the existing wireless infrastructure. It offers recommendations for configuration changes with respect to best practices for a Cisco Unified Wireless LAN.

For SDN Opportunities

Cisco Services for Open Network Environment: Help customers build an SDN strategy that aligns to their business objectives. They can also validate use cases, develop customer API-applications, and successfully plan, build, and manage solutions using Cisco ONE technologies and products. [SOW; available all regions]
Cisco Services cont’d

For Energy Management

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco EnergyWise Discovery Service</td>
<td>This fixed-price service provides customers with detailed energy benchmarking and visibility of their IT assets. It can be delivered remotely or on premises.</td>
</tr>
</tbody>
</table>

Technical Support Services

- Smart Care—This partner service allows you to combine your expertise with Cisco intellectual property. Its infrastructure, and tools to create services that meet your customers’ needs.
- Partner Support Service—For partners interested in developing managed services, Partner Support Service provides smart capabilities and foundational technical services that make delivering a proactive service seamless.
- SMARTnet: Provides direct, anytime access to Cisco TAC, advance hardware replacement, and OS updates. New OS features can enable greater network capacity, enhanced security and regulatory compliance, and better interoperability.
- Smart Net Total Care: Manage and track your network devices, align service coverage, and more quickly resolve technical issues.

Cisco Capital and Sales Resources

**Six-Month Payment Deferral Financing Solution from Cisco Capital***

In this challenging business environment, managing cash flow is critical for most organizations. Meanwhile, there is a need to remain competitive by keeping technology current. What if you were provided a path to get the technology your business needs to remain competitive, while preserving cash? How can you take advantage of future budgets if you are currently experiencing a budget shortfall?

Cisco Capital has the solution. Our flexible payment deferral program means that you don’t have to wait for your next round of funding. Deferring your initial finance payment for up to six months can help eliminate your spending constraints. This means you are free to make the right decisions and support the business by meeting your technology challenges on your own terms and timescale—not the ones dictated by your budget.

Visit [www.ciscocapital.com](http://www.ciscocapital.com) to learn more and to identify your local Cisco Capital representative.

*Terms and conditions apply and program rules vary by country.
Sales Resources for Partners

Promotions and Programs

Take advantage of new and enhanced promotions to increase profitability. Partners can combine several different promotions to save even more.

Use one or more of the following resources in Table 13 to help you sell the Cisco Solutions.

Table 13. Promotions and Programs for Partners

<table>
<thead>
<tr>
<th>Promotion/Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unified Access Breakaway Promotion</strong></td>
<td>Get discounts on combined switching and wireless purchases. Advanced-level specializations are not required, but the deal must be registered through the Cisco Opportunity Incentive Program, Value Incentive Program, or Solution Incentive Program. Note: Does not apply in China.</td>
</tr>
<tr>
<td><strong>Technology Migration Program Discounts to Support Migration</strong></td>
<td>Partners can receive trade-in credits for most major Cisco products, Cisco technical support services, and for select competitive products. Use when upgrading a customer’s existing Cisco network or migrating a customer’s network from a competitive environment to a Cisco networking solution.</td>
</tr>
<tr>
<td><strong>802.11ac Bundle Offer</strong></td>
<td>Receive a discount when you buy bundles of ten 802.11ac modules or bundles of the Cisco Aironet 3600 Series Access Point with the 802.11ac module.</td>
</tr>
<tr>
<td><strong>Catalyst 4500 PoE+ Bundles</strong></td>
<td>Receive up to a 44 percent discount with Cisco Catalyst 4500 Series PoE+ bundles, compared to purchasing components separately.</td>
</tr>
<tr>
<td><strong>Cisco Catalyst Supervisor 2T Bundles</strong></td>
<td>Save up to 24 percent and enjoy scalable performance, intelligence, and a broad set of features with Cisco Catalyst 6500 Supervisor 2T bundles.</td>
</tr>
<tr>
<td><strong>Fast Track</strong></td>
<td>Get discounts on high-volume sales of certain switching, wireless, and security SKUs. Additional accelerator discounts apply in certain regions. Discounts available to distributors who can pass savings to partners.</td>
</tr>
<tr>
<td><strong>Value Incentive Program</strong></td>
<td>Partners can receive up to a 20 percent discount when selling Cisco Solutions.</td>
</tr>
<tr>
<td><strong>Opportunity Incentive Program</strong></td>
<td>Partners receive special pricing when finding and registering new value-incremental Cisco opportunities.</td>
</tr>
<tr>
<td><strong>Solution Incentive Program</strong></td>
<td>Partners can receive special pricing when developing and selling solutions that integrate vendor-partner business applications and services using Cisco technology.</td>
</tr>
<tr>
<td><strong>Cisco Service Partner Program</strong></td>
<td>Apply discounts to either a list or schedule price, depending on the offer family. Eligible partners also earn performance rebates paid quarterly on eligible technical support net bookings. Discounts can be stacked with other partner incentives; see program requirements.</td>
</tr>
</tbody>
</table>
Sales Resources cont’d

Promote the bundles in Table 14 that provide savings to your customers that purchase Catalyst 6800 and 6500E components together.

<table>
<thead>
<tr>
<th>Bundle</th>
<th>Description</th>
<th>List</th>
<th>Bundle List</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>C6807-XL-S2T-BUN</td>
<td>Cisco Catalyst 6807-XL chassis, fan tray, Supervisor 2T, IP service image, 2 power supplies</td>
<td>$59,500</td>
<td>$38,000</td>
<td>36%</td>
</tr>
<tr>
<td>C6880-X-LE</td>
<td>Cisco Catalyst 6880-X chassis with 16-port 10 Gb (standard tables), fan tray, IP services image</td>
<td>$34,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>C6880-X</td>
<td>Cisco Catalyst 6880-X chassis with 16-port 10 Gb (XL tables), fan tray, IP services image</td>
<td>$46,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>VS-C6506E-S2T-6904</td>
<td>Cisco Catalyst 6506E chassis, Supervisor 2T, fan tray, 2 6904 40/10 Gb line cards, IP services image</td>
<td>$115,995</td>
<td>$84,000</td>
<td>28%</td>
</tr>
<tr>
<td>VS-C6506E-S2T-6816</td>
<td>Cisco Catalyst 6506E chassis, Supervisor 2T, 2 6816 10 Gb line cards, IP services image</td>
<td>$107,995</td>
<td>$78,000</td>
<td>28%</td>
</tr>
<tr>
<td>VS-C6509E-S2T-6904</td>
<td>Cisco Catalyst 6509E chassis, Supervisor 2T, 2 6904 40/10 Gb line cards, IP services image</td>
<td>$119,995</td>
<td>$88,000</td>
<td>27%</td>
</tr>
</tbody>
</table>

Table 14. Product and Bundles for Cisco Catalyst 6800 and 6500E

Cisco Smart Acceleration Uncovered Rebate Promotion
Cisco partners that adopt Cisco Smart Services capabilities receive an incremental 15 percent rebate on eligible Smart Care, Smart Net Total Care, and Partner Support Service bookings. The offer is available through January 31, 2014.

Cisco EnergyWise 90-Day Free Trial
Cisco EnergyWise –Fast Start free trial software offer helps customers leverage their Cisco investments to see, measure and manage energy like they have never been able to before. Best of all, the program is free.

SMARTnet 3 for 2
Purchase three years of Cisco SMARTnet 8x5 next-business-day technical support service for roughly the price of two years (Cisco suggested resale price) for selected products. The promotion is valid on Limited Lifetime Warranty and Enhanced Limited Lifetime Warranty products, and many products included in the Fast Track program. The Cisco distributor and partner set the actual price. This promotion can be combined with Unified Access Breakaway (see above), and expires January 31, 2014.
## Partner Playbook

### Bundle Description List

<table>
<thead>
<tr>
<th>Bundle</th>
<th>Description</th>
<th>List</th>
<th>Bundle List</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>VS-C6509E-S2T-6816</td>
<td>Cisco Catalyst 6509E chassis, Supervisor 2T, 2 6816 10 Gb line cards, IP services image</td>
<td>$111,995</td>
<td>$82,000</td>
<td>27%</td>
</tr>
<tr>
<td>VS-C6503E-SUP2T</td>
<td>Cisco Catalyst 6503E chassis, Supervisor 2T, fan tray, IP services image</td>
<td>$40,995</td>
<td>$30,500</td>
<td>25%</td>
</tr>
<tr>
<td>VS-C6504E-SUP2T</td>
<td>Cisco Catalyst 6504E chassis, Supervisor 2T, fan tray, IP services image</td>
<td>$41,000</td>
<td>$31,000</td>
<td>24%</td>
</tr>
<tr>
<td>VS-C6506E-SUP2T</td>
<td>Cisco Catalyst 6506E chassis, Supervisor 2T, fan tray, IP services image</td>
<td>$43,995</td>
<td>$34,000</td>
<td>23%</td>
</tr>
<tr>
<td>VS-C6509E-SUP2T</td>
<td>Cisco Catalyst 6509E chassis, Supervisor 2T, fan tray, IP services image</td>
<td>$47,995</td>
<td>$38,000</td>
<td>21%</td>
</tr>
<tr>
<td>VS-C6509VE-SUP2T</td>
<td>Cisco Catalyst 6509VE chassis, Supervisor 2T, fan tray, cable chassis management, IP services image</td>
<td>$48,995</td>
<td>$40,000</td>
<td>18%</td>
</tr>
<tr>
<td>VS-C6513E-SUP2T</td>
<td>Cisco Catalyst 6513E chassis, Supervisor 2T, fan tray, IP services image</td>
<td>$55,400</td>
<td>$44,000</td>
<td>21%</td>
</tr>
<tr>
<td>WS-SVC-ASASM1B-K9</td>
<td>ASA Service Module for Catalyst 6500-E</td>
<td>$115,000</td>
<td>$97,750</td>
<td>15%</td>
</tr>
<tr>
<td>WS-SVC-NAM3KS2T-K9</td>
<td>NAM-3 Service Module for Catalyst 6500 Supervisor 2T</td>
<td>$59,000</td>
<td>$53,100</td>
<td>10%</td>
</tr>
<tr>
<td>WS-SVC-WISM2-K5-K9</td>
<td>Wireless Services Module 2 with 500 access points support license</td>
<td>$84,995</td>
<td>$80,995</td>
<td>5%</td>
</tr>
<tr>
<td>WS-SVC-WISM2-KK-K9</td>
<td>Wireless Services Module2 with 1000 access points support license</td>
<td>$167,995</td>
<td>$159,995</td>
<td>5%</td>
</tr>
</tbody>
</table>
Sales Resources cont’d

Sales Resources for Partners Websites
Cisco Incentives and Promotions
Cisco Partner Central: Switches

Demos
Cisco Unified Access Demonstration—See Enterprise Networking or Security tabs
Cisco Prime for IT Demo Series

Cisco Meraki
Cisco Cloud Networking Partner Demand Generation Center
Cisco Meraki MS Switch Introduction
Cisco Meraki Training Videos

Security
Cisco Secure Access
Cisco Identity Services Engine
Cisco Identity Service Engine Assessment Service

Cisco Services
Sell Services
Cisco Branded Migration Services
Collaborative Routing and Switching Assessment Overview
Collaborative Network Development Service—Standard
Collaborative Network Development Service—Advanced
BYOD Partner Professional Services
The Value of Selling Cisco Technical Services
Demonstration: Cisco Smart Care Services

Sales Resources to Provide to Customers
White Papers
Total Economic Impact of Cisco SMARTnet Service: A Forrester total economic impact study prepared for Cisco
Lippis Report Research Note: Catalyst 2960-X
Cisco Catalyst 2960-S, 2960-X, and 2960-XR Stacking with FlexStack and FlexStack-Plus Technology: Description, Usage, and Best Practices
Secure Unified Access with the Cisco Catalyst 2960-X
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