



Cisco Catalyst 2960 Series Switches



Business Presentation

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Cisco 2960 Features

AGENDA






21st Century Branches: Taking a Bigger Role



Source: Nemerts Research Virtual Workplace—
Branch Office Strategies

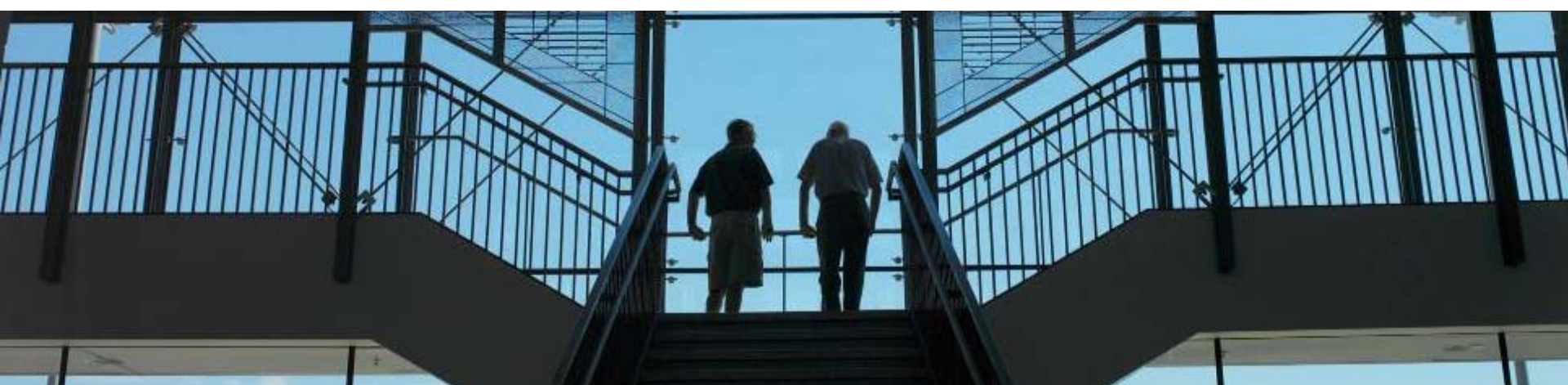
New Business Applications

The Branch Transformation

Today's Branch	Empowered Branch
 Aging, Disparate Data/ Voice Networks	Unified Voice/Data/Video Network Platform
 Struggling to Keep Up with Security	Self Defending Networks
 Limited Mobility, Limited Disaster Recovery	High Availability, Unified Wireless—Wireline Business
 Unmanaged networks	Scalable management
 Inconsistent Branches and Branch-HQ solutions	Consistent Branches and Branch-HQ Services

Branch-Office Customer Challenges

- Lack of branch-office IT support staff
- Growing number of branch offices straining budgets
- Ability to connect diverse device types
- Meeting regulatory compliance
- Need for 24-hour network uptime

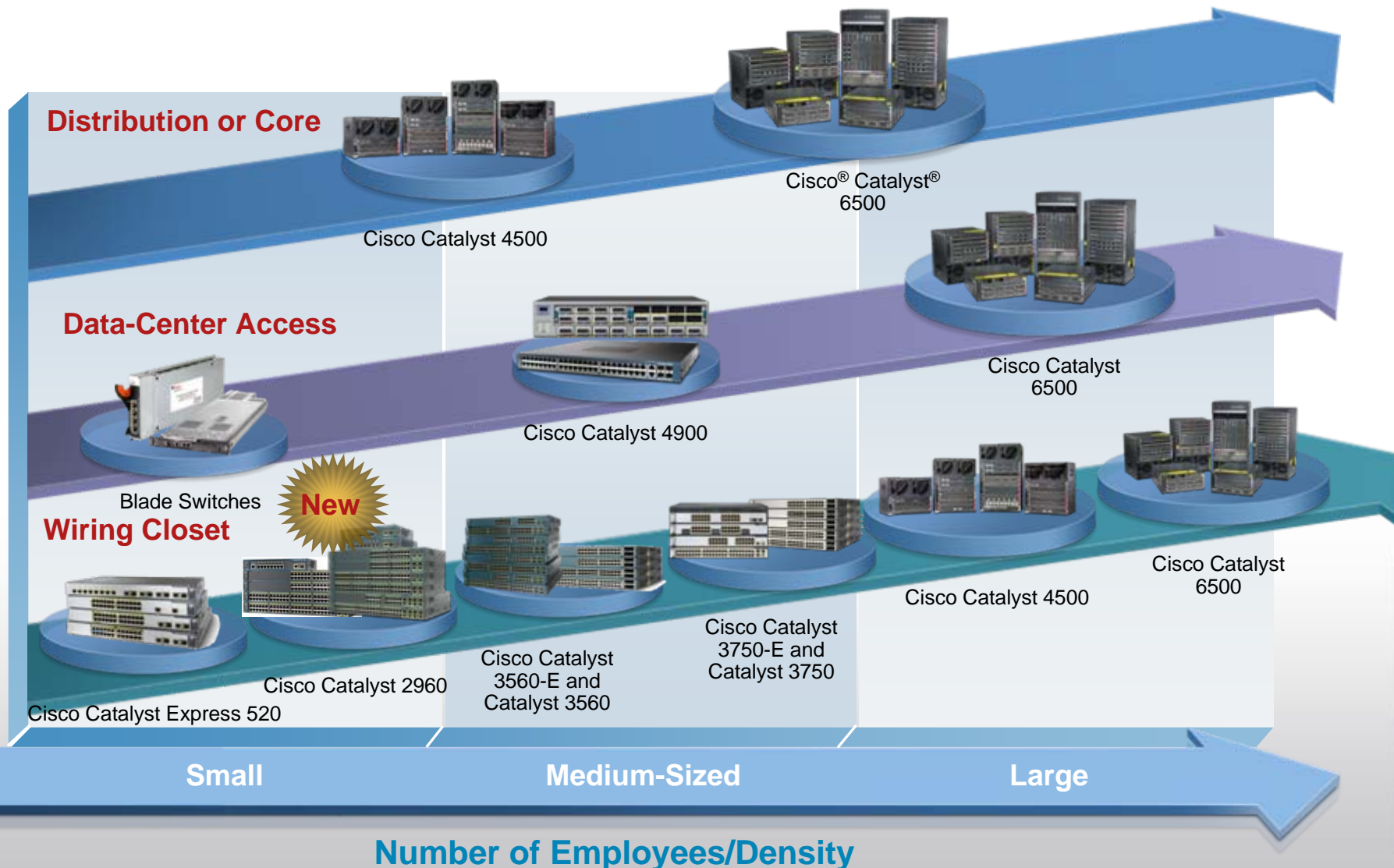


Introducing: Empowered Branch



Cisco Catalyst Switching Portfolio

Features, Scalability, Longevity



Most Complete Line of Fixed Configuration LAN Products

Price-Performance

Full Layer 3 Routing



Cisco Catalyst 4948

- 10/100/1000 + 2 10GE wire-speed switching
- Rack-optimized server switching
- Jumbo frame support
- Dual, hot swappable, internal power supplies
- Hot swappable fan tray



Cisco Catalyst 3750-E and Catalyst 3750

- Stackable 10/100 and GE configurations + 2 10GE
- Cisco StackWise™ Plus and StackWise technology
- Enterprise-class intelligent Layer 3/4 services
- Modular power supply with 3750-E
- PoE configurations with up to 15.4W on all 48 ports



Cisco Catalyst 3560-E and Catalyst 3560

- 10/100 and GE configurations + 2 10GE
- Enterprise-class intelligent Layer 3/4 services
- Modular power supply with 3560-E
- PoE configurations with up to 15.4W on all 48 ports

Layer 2 Intelligent Services



Cisco Catalyst 2960

- 10/100 and 10/100/1000 Layer 2 switching
- 8-, 24-, and 48-port configurations with dual-purpose Gig uplinks
- PoE configurations with up to 15.4W up to 24 ports
- Entry level LAN Lite IOS and enhanced LAN Base IOS for intelligent services

GUI-Managed



Cisco® Catalyst® Express 500

- Low-density, standalone, managed 10/100 switching
- Tailored for businesses with up to 250 users

Function, Flexibility, Scalability

Cisco Catalyst 2960 Series Switches

Cisco® Catalyst® 2960 LAN Base Series



- Provides Fast Ethernet, Gigabit Ethernet, and Power over Ethernet for entry-level enterprise and mid-market customers
- Offers enhanced Layer 2+ intelligent LAN services:
 - Availability**
 - Enhanced security**
 - Advanced quality of service (QoS)**
- Offers simplified management and troubleshooting for lower total cost of ownership
- Offers CiscoWorks LMS, Cisco Network Assistant and Cisco Smartports
- Provides limited lifetime hardware warranty and software updates at no additional charge

Catalyst 2960 LAN Lite Series



Sep.
2008

- Two new models –
 - 48 Ethernet 10/100 ports and two copper uplinks and 8 Ethernet 10/100 ports with one dual-purpose uplink
- Offers Fast Ethernet in various configurations for small branch offices and wiring closets
- Offers standard Layer 2 services with entry-level availability, security, and QoS
- Scalable and secure network management
- Offers simplified management and troubleshooting for lower total cost of ownership
- Offers CiscoWorks LMS, Cisco Network Assistant and Cisco Smartports
- Provides limited lifetime hardware warranty and software updates at no additional charge

Uses Cisco ASICs for superior quality and hardware and software integration

New Cisco Catalyst 2960 LAN Lite Highlights

- New entry-level Cisco® Catalyst® 2960 LAN Lite Switches
- Same as existing Cisco Catalyst 2960 LAN Base Switches except:
 - Only basic QoS, security, and availability
 - Only 10/100 switching with Gigabit Ethernet uplinks
 - Designed for small branch offices and wiring closets
 - Lower total cost of ownership
- Limited lifetime hardware warranty
- Software updates at no additional cost
- Public launch and availability: October 2008



**Cisco Catalyst
2960 LAN Lite**

**Designed for
Small Branch Offices
and Wiring Closets**

**Sep.
'08**

Part Number	Description
WS-C2960-8TC-S	8 Ethernet 10/100 ports with one dual-purpose uplink
WS-C2960-24-S	24 Ethernet 10/100 ports with LAN Lite
WS-C2960-24TC-S	24 Ethernet 10/100 ports and two dual-purpose uplinks
WS-C2960-48TT-S	48 Ethernet 10/100 ports and two copper uplinks
WS-C2960-48TC-S	48 Ethernet 10/100 ports and two dual-purpose uplinks

New models shown in blue

Cisco Catalyst 2960 Series

Unified Network Services



Business Problem

- Inability of the network to evolve with the business
 - Lack of business flexibility
 - Poor return on investment
 - Business disruptions due to network upgrades

Solution

- 24 or 48 10/100/1000 ports
- 24 or 48 10/100 ports
- Fast Ethernet with Full 15.4W PoE on all 24 ports
- Fast Ethernet with Full 15.4W PoE on 8 ports

Benefits

- Faster deployment for services and applications
- Maximized investment protection
- Flexibility

Cisco Catalyst 2960 Series

Integrated Security



Business Problem

- Security threats continue to grow
 - Risks intellectual property loss
 - Lowers employee productivity

Solution

- Supports NAC
- Identity Based services - 802.1x and extensions
- Catalyst Integrated Security Framework (CISF)
- Unicast Reverse Path Forwarding (RPF)
- Secure Management
- Port, L2, IPv4, and IPv6 based ACLs

Benefits

- Business continuity
- Company reputation

Cisco Catalyst 2960 Series

Operational Manageability



Business Problem

- High operational complexity and expense
Costly
Stall innovation and business progress

Solution

- Secure L2+ connectivity
- Generic On-Line Diagnostics (GOLD)
- Intelligent power management
- Out-of-band management
- Robust CiscoWorks
- Cisco Smartports

Benefits

- Simplified manageability
- Ensures continuous proper operation
- Fast and easy configuration

Cisco Catalyst 2960 and Cisco Catalyst Express 500/520

Positioning

Cisco® Catalyst® Express 500/520 Series



- Ideal for small and medium businesses (up to 250 users)
- Intelligence for delivering converged applications for SMB customers
- Integrated within the Cisco's Small Business Communications Solution
- Simplified management and troubleshooting for lower total cost of ownership
- Cisco Network Assistant and Cisco Smartports
- Limited lifetime hardware warranty and software updates at no additional charge

Cisco Catalyst 2960 Series



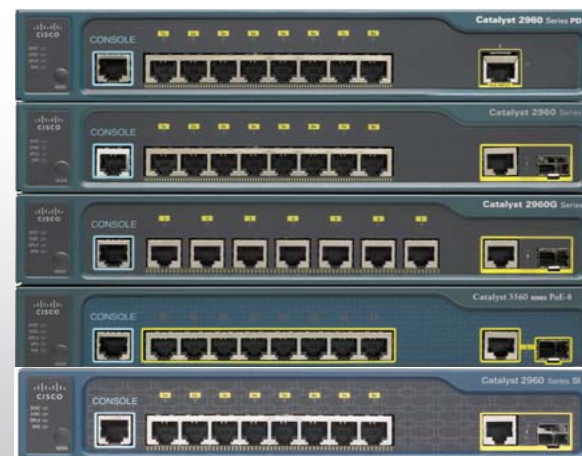
- Ideal for mid-sized businesses and branch offices
- Targeted for networks that require scalable and secure network management
- Cisco Catalyst 2960 LAN Lite switches for replacing unmanaged switches and hubs in small branch offices and wiring closets
- Cisco Catalyst 2960 LAN Base with intelligent LAN services for entry-level enterprise and mid-market customers
- Simplified management and troubleshooting for lower total cost of ownership
- CiscoWorks LMS, Cisco Network Assistant, and Cisco Smartports
- Limited lifetime hardware warranty and software updates at no additional charge

Addressing Space Constrained Environments

Cisco Catalyst 3560 and Cisco Catalyst 2960 Compact Switches

Product ID	Product Family	Access Ports	Uplink Port	Software
WS-C2960PD-8TT-L	Cisco® Catalyst® 2960	8 10/100	1 10/100/1000 PoE Input	LAN Base
WS-C2960-8TC-S	Cisco Catalyst 2960	8 10/100	1 10/100/1000 or SFP	LAN Lite
WS-C2960-8TC-L	Cisco Catalyst 2960	8 10/100	1 10/100/1000 or SFP	LAN Base
WS-C2960G-8TC-L	Cisco Catalyst 2960	7 10/100/1000	1 10/100/1000 or SFP	LAN Base
WS-C3560-8PC-S	Cisco Catalyst 3560	8 10/100 PoE	1 10/100/1000 or SFP	IP Base

- Enable advanced technology at the network edge for deployments outside the wiring closet:
Office workspaces, micro branch offices, classrooms, cruise ships, and other wiring-constrained environments
- Integrated with the existing Cisco® Catalyst® 3560 and Cisco Catalyst 2960 Series Switches
- Durable, silent, and versatile small form-factor



Increasing Demands Placed on Networks

- Desktop computing power increasing
 - Acting as servers
 - Gigabit connections
 - Flooding network with traffic
- Multiple types of access devices
 - Voice and data traffic at the desktop
 - Traffic classification needs
- New, advanced applications with less-predictable traffic patterns
 - Greater reliance on servers
 - New, less-predictable traffic patterns
- Stronger network security
 - Increased flow of sensitive information on the network
 - Internal and external threats



Bring Increased Bandwidth with High-Density 10/100/1000 Everywhere

- Investment protection for a longer lifecycle deployment
 - Reduces the incremental cost over time of upgrading switches to take advantage of higher speeds
- Takes advantage of available desktop Gigabit
 - Growing numbers of desktops and laptops are now shipping with on-board 10/100/1000
- Improve desktop and server performance
 - Reduce wire time and buffer congestion and relieve flow control mechanisms for the simultaneous use of multiple applications

Cisco Catalyst Intelligent Switching Infrastructure

Intelligent Switching

is a Common Foundation of Capabilities across Cisco® Catalyst® Switches



Performance, Availability

- Wire-speed forwarding
- No performance effect with all services enabled



QoS

- Layer 2, 3, 4 classification
- Policing and shaping
- Multiple queues
- Granular control



Security

- Layer 2, 3, 4 access control
- Identity-based authentication
- Management security
- Admission control



Manageability

- End-to-end manageability for centralized administration
- Web-based or command-line interface (CLI)
- Analysis and planning tools

The Need for Admission Control

- Viruses, worms, spyware, etc. still #1 cause of financial loss*
 - Downtime, recovery, lost productivity, credibility, legal implications
- Users routinely authenticated, but...
- Endpoint devices (laptops, PCs, PDAs) are not checked for security policy compliance
- Unprotected endpoints spread infection
 - Required security software not installed, disabled, or out of date
 - Checking for compliance is difficult and expensive

*2005 FBI/CSI Report



“Endpoint systems are vulnerable and represent the most likely point of infection from which a virus or worm can spread rapidly and cause serious disruption and economic damage.”

—Burton Group

Lower Total Cost of Ownership

Cisco® Catalyst® 2960 Series Switches lower the network total cost of ownership by combining high reliability with simplified installation, troubleshooting, and maintenance

Simplified Configuration	Shorten the time required for switch installation with fewer configuration errors
Intelligent Monitoring	Multiple network management tools to streamline monitoring network performance and health
Higher Reliability	Cisco designed hardware and IOS software provide higher device reliability, reduce energy costs, and enhance network-level stability. Faster time to resolution for network problems

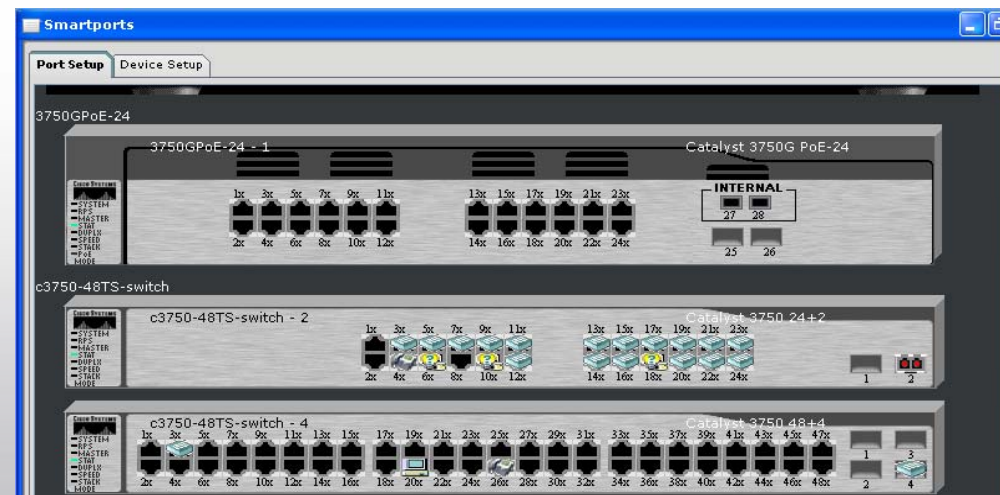
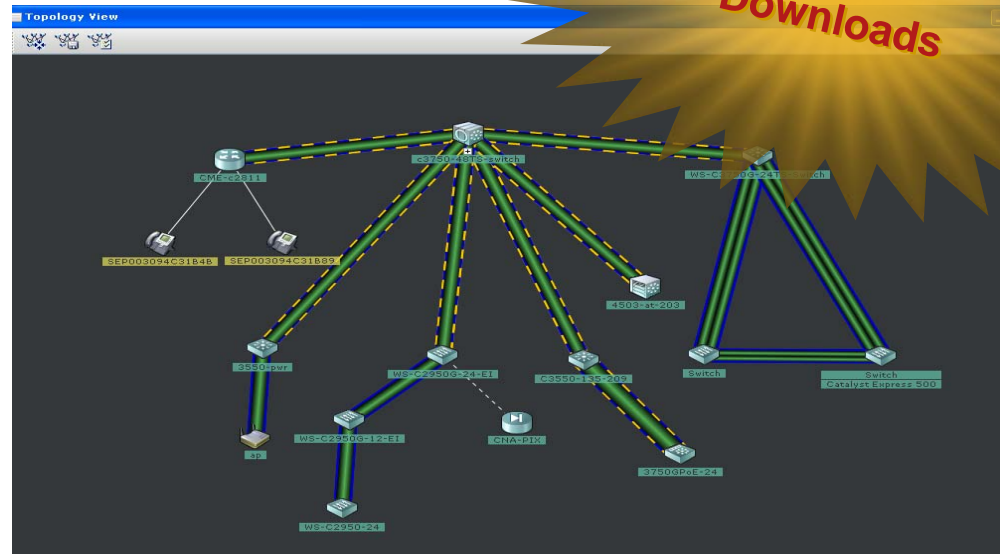
Services and Warranty for the Cisco Catalyst 2960 Series

- Limited lifetime hardware warranty
 - Advance Replacement shipping within 10 business days
 - Guest access to Cisco.com
- Ongoing Cisco IOS Software updates at no additional cost
- Cisco SMARTnet® and SMARTnet Onsite Support
 - Around-the-clock, global access to the Cisco Technical Assistance Center (TAC)
 - Access to the extensive Cisco.com knowledgebase and tools
 - Next-business-day advance hardware replacement (premium options available for business-critical devices, such as 2-hour replacement and onsite parts replacement and installation)
- Cisco Smart Foundation Service (formerly SMB Support Assistant)
- Cisco Foundation Technology Optimization Service

Cisco Network Assistant Release 5.0

- Multiproduct, multitechnology management tool
- Supports up to **40 devices**: switches, routers, and firewalls and **unlimited** IP phones and access points
- Interactive topology and front-panel views
- Configuration, monitoring, troubleshooting, and network optimization
- Highlight your VLANs, telnet to devices, drag-and-drop IOS upgrades
- Localized in French, Italian, German, Spanish, Chinese, and Japanese
- **Free download:**
www.cisco.com/go/cna

**300K +
Downloads**



Installation and Configuration

Simplify network installation and configuration with the following tools:

- Express Setup
- Smartports and Smartports Advisor
- DHCP AutoInstall (IP address, config file, IOS image)
- Config replace to rollback configuration changes
- Neighbor discovery using Cisco Discovery Protocol and LLDP
- Familiar Cisco IOS command-line interface via telnet and console access

Cisco Catalyst 2960 Case Study: Retail

Large Retail Food Chain

Customer Need

- Ability to manage branch offices from a central location
- Support for connecting different device types
- Implement new payment card industry (PCI) compliance
- Basic QoS and security services

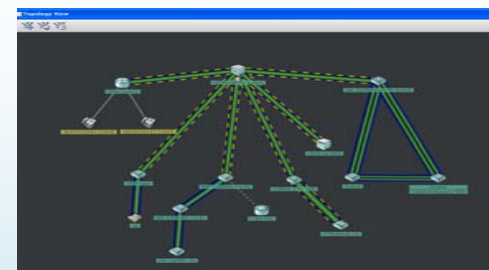
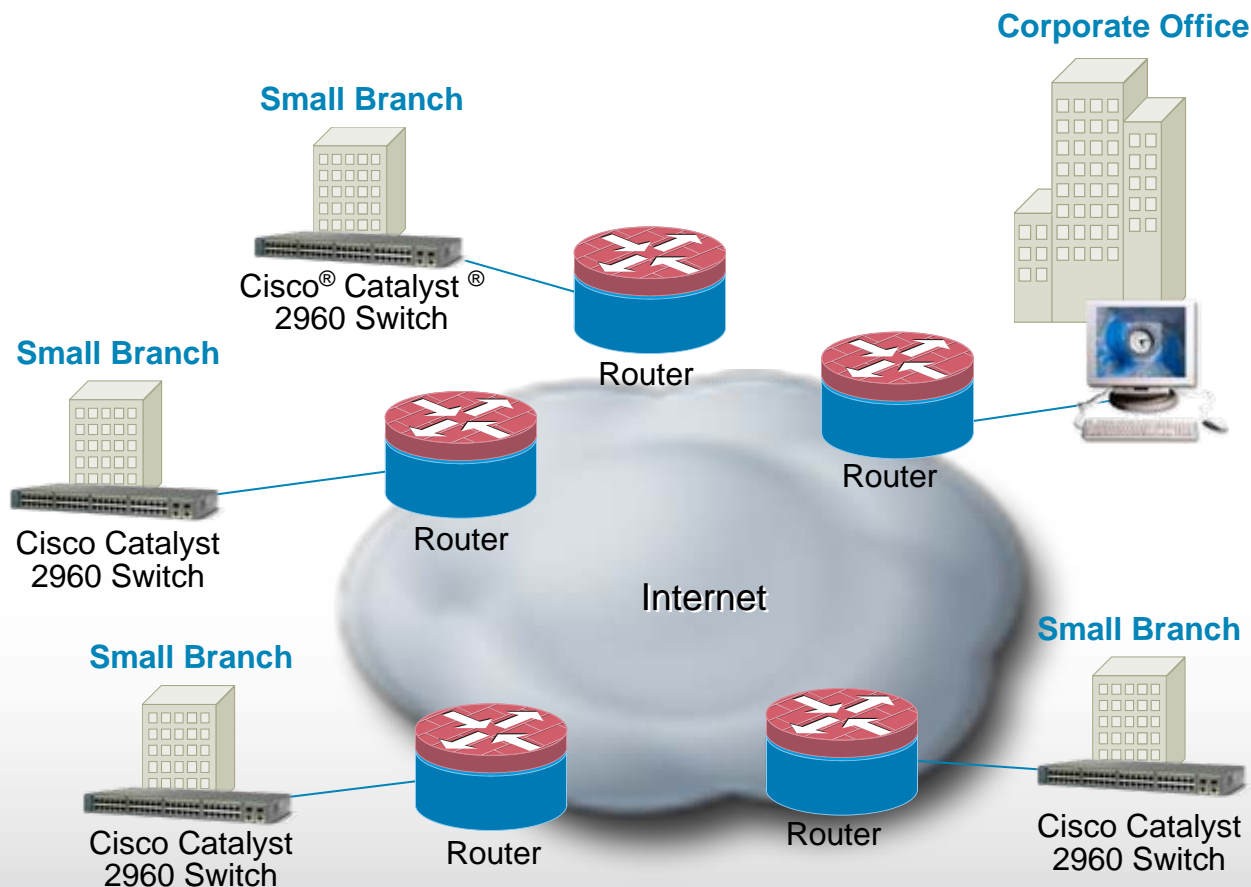
Cisco® Catalyst® 2960 Solution

- Secure access to information
- Simplified configuration, Cisco IOS® Software updates, and troubleshooting
- Connection of devices, i.e. PoS system, cash register, debit card reader, and bottle-return scanner
- Centralized management
- Improved business continuity
- SSH and SSL to implement PCI compliance



Centrally Manage Branch Offices

Simplified Configuration



Cisco Network Assistant
(Up to 40 devices)

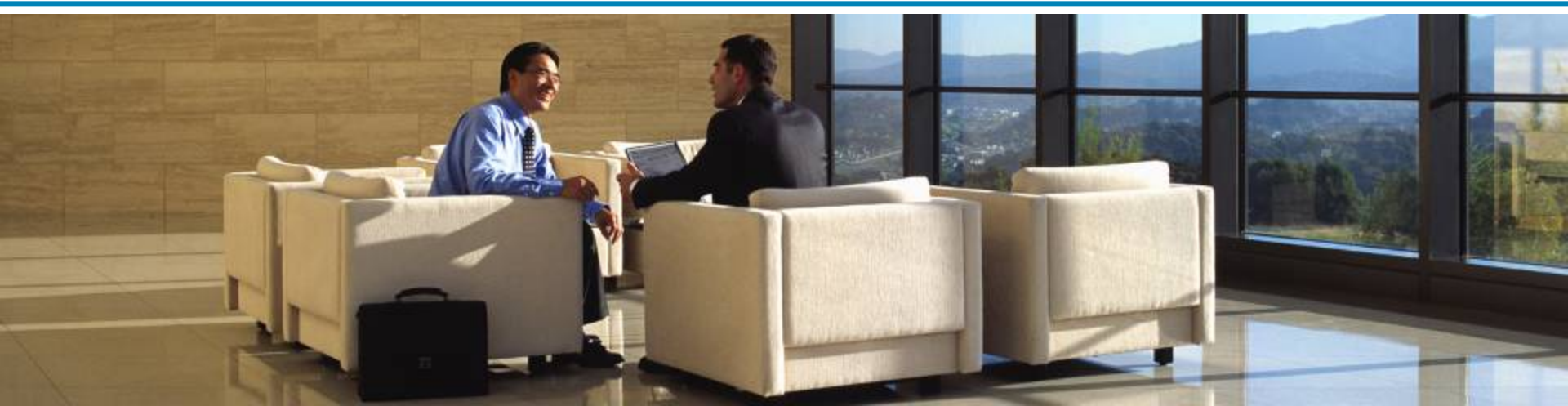


CiscoWorks LAN Management
(Thousands of devices)

Centrally Manage and Configure One to Thousands of Locations

Cisco Catalyst 2960 Series Summary

- Over 1 million Cisco® Catalyst® 2960 switches shipped in less than two years
- Cisco Catalyst 2960 LAN Base Switches deliver intelligent LAN services with enhanced Layer 2+ security, quality of service, and availability
- Cisco Catalyst 2960 LAN Lite Switches simplify the migration from unmanaged devices to a fully scalable managed network with lower total cost of ownership



Why Cisco Is the Best

- Customized ASICs allow better interoperability and support for an end-to-end solution with Cisco transceivers, routers, phones, and wireless access points.
- Single Cisco IOS® Software train creates feature parity across all switching platforms versus multiple outsourced software trains used by competitors.
- Ease-of-use applications and tools simplify network management while maintaining wire-speed performance:
 - Express setup
 - Smartports
 - Auto-QoS
 - DHCP autoconfiguration
 - Cisco Network Assistant
- True global availability support with more than 26 technical support centers worldwide versus 2 to 3 support centers for competitors



**“An Outstanding
Customer Service
Experience”**

This Changes Everything

**Welcome to a
network where...**

...Businesses transform themselves

...Network Systems makes it
all possible

**Welcome to
the human network**



