Cisco catalyst Express 520 Product Overview

Cisco E-Service Training

Course acronym vx.x—#-1

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- Revision 1.0.0

Product Overview 1

Objectives

Upon completion of this course, you will be able to identify the following aspects of Cisco Catalyst Express 520 series switches:

- Product overview
- Hardware configuration
- Hardware features
- Software features: Device Manager, Cisco Configuration Assistant
- Deployment scenarios
- Cisco Smart Business Communications System
- References

Catalyst Express 520 Product Overview

- Fixed-configuration, standalone managed Ethernet devices
- Designed specifically for organizations with fewer than 250 employees
- Wire-speed Fast Ethernet and Gigabit Ethernet connectivity
- Built-in PoE or in-line power capabilities
- Easy installation and configuration with Cisco Configuration Assistant
- Quality-of-service (QoS) enhances IP voice and video services
- Component of Cisco Smart Business Communications System
- Robust integrated security

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- The Cisco Catalyst Express 520 Switches are a series of fixed-configuration, standalone managed Ethernet devices that provide the reliability, security, scalability, and rich feature set that growing businesses need in an affordable, easy-to-use platform.

- Designed specifically for small and medium sized organizations with up to 250 employees.

- The solutions provide wire-speed Fast Ethernet and Gigabit Ethernet connectivity, integrated security, quality-of-service (QoS) and Power-over-Ethernet (PoE) features to support IP communications and wireless LAN applications.

- Cisco Catalyst Express 520 series is one of the components of the Cisco Smart Business Communications System (SBCS).

Catalyst Express 520 H/W configuration

- The Cisco Catalyst Express 520 Series includes five models, each optimized for different types of deployments
  - Cisco Catalyst Express 520-8PC
  - Cisco Catalyst Express 520-24TT
  - Cisco Catalyst Express 520-24LC
  - Cisco Catalyst Express 520-24PC
  - Cisco Catalyst Express 520G-TC

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- The Cisco Catalyst Express 520 Series includes five models and each optimized for different types of deployments: Catalyst Express 520-8PC, 520-24TT, 520-24LC, 520-24PC, and 520G-TC.

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Cisco Catalyst Express 520 Hardware

Product Name (SKU)		Description
Cisco Catalyst Express 520-8PC-K9 Switch (WS-CE520-8PC-K9)		• 8 10/100 access ports with PoE • 1 10/100/1000BASE-T or Small Form-Factor Pluggable (SFP) uplink
Cisco Catalyst Express 520-24TT Switch (WS-CE520-24TT-K9)		• 24 10/100 access ports for desktop connectivity • 2 10/100/1000BASE-T ports for uplink or server connectivity
Cisco Catalyst Express 520-24LC Switch (WS-CE520-24LC-K9)		• 20 10/100 access ports for desktop connectivity • 4 10/100 access ports with PoE for desktop, wireless access point, IP telephony, or closed-circuit TV camera connectivity • 2 10/100/1000BASE-T or SFP ports for flexible uplink or server connectivity
Cisco Catalyst Express 520-24PC Switch (WS-CE520-24PC-K9)		• 24 10/100 access ports with PoE for desktop, wireless, IP telephony, or closed-circuit TV camera connectivity • 2 10/100/1000BASE-T or SFP ports for flexible uplink or server connectivity
Cisco Catalyst Express 520G-24TC Switch (WS-CE520G-24TC-K9)		• 24 10/100/1000BASE-T ports for uplink or server connectivity • 2 10/100/1000BASE-T or SFP ports for flexible uplink or server connectivity

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• This slide provides the part numbers and brief description of each Cisco Catalyst Express 520 series switch.

Catalyst Express 520 Hardware Features

1	AC power connector	7	RPS LED
2	RPS connector	8	ADMIN LED
3	Security slot	9	ADMIN button
4	SYSTEM LED	10	Uplink ports
5	ALERT LED	11	Downlink ports
6	PoE LED	12	Port LEDs

RPS: Redundant Power System

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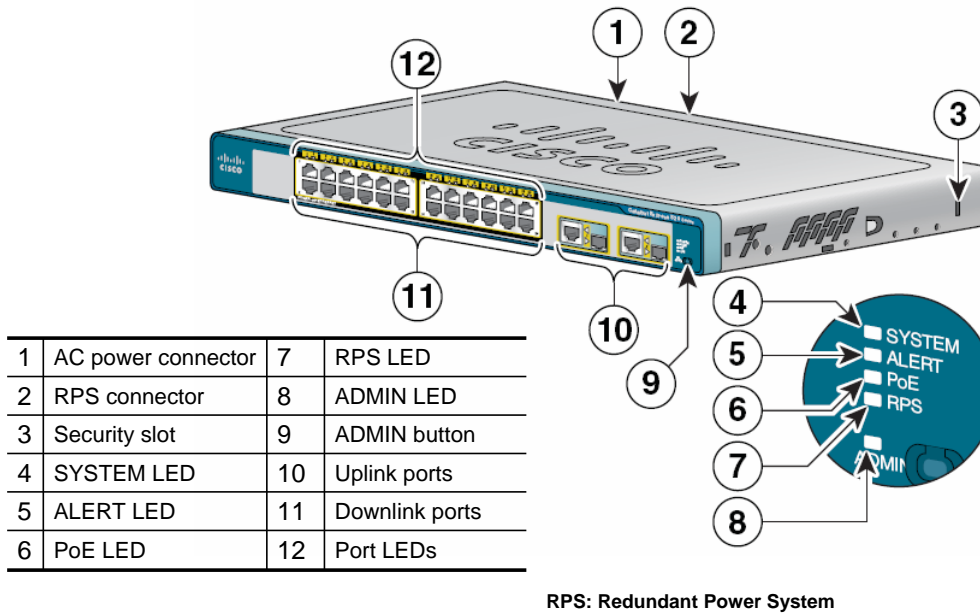
• This slide highlights the switch hardware features.

Catalyst Express 520 Software Features

- Catalyst Express 520 software features are accessible from:
  - Device Manager
  - Cisco Configuration Assistant
- **Device Manager**
  - graphical device management tool for basic setup, monitoring, and troubleshooting of individual switches
- **Cisco Configuration Assistant**
  - enhanced set of features for configuring, monitoring, and troubleshooting the devices in your network
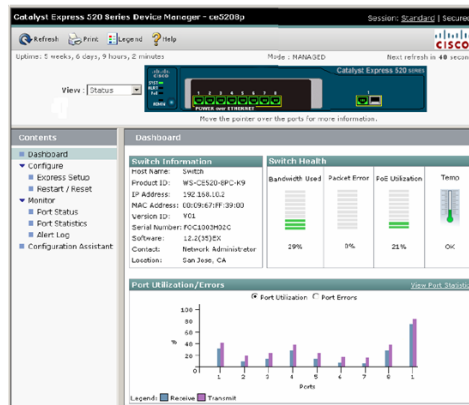
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- The Catalyst Express 520 series switch software features are accessible from two management interfaces: Device Manager and Cisco Configuration Assistant.

  - A subset of the basic software features are accessible through the device manager.

  - All software features are accessible through the Cisco Configuration Assistant.

- The device manager is a graphical device management tool for basic setup, monitoring, and troubleshooting of individual switches.

- Compared to the switch device manager, the Cisco Configuration Assistant offers an enhanced set of features for configuring, monitoring, and troubleshooting the devices in your network.

Catalyst Express 520 Device Manager

- Display real-time views of switch configuration and performance
- Simplify configuration tasks
- Simplify monitoring tasks by graphical, color-coded displays
- Access switch through web browser
- Features accessible through the Device Manager :
 - **Express Setup**
  - **Monitoring**
  - **Security**

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- The device manager displays real-time views of switch configuration and performance.
- It simplifies configuration tasks with features such as Express Setup for quickly setting up the switch.
- It uses graphical, color-coded displays, such as the Front Panel view, graphs, and animated indicators to simplify monitoring tasks.
- It provides alert tools to help you to identify and to solve networking problems.
- You can display the device manager from anywhere in your network through a web browser such as Microsoft Internet Explorer.
- The software features accessible through the device manager are **Express Setup, Monitoring,** and **Security.**

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Cisco Configuration Assistant

- Discovers all devices in the network
- Configure all supported routers, switches, wireless access points and controllers, Cisco Unified Communications call-routing and voice-mail systems
- general Cisco Configuration Assistant features include:
  – centralized, common services for Cisco switches, routers, access points, and voice appliances in the network
  – network monitoring using physical view and logical view
  – drag-and-drop software upgrade for multiple devices
  – security configuration for all the Cisco APs in the network
  – authenticated and encrypted communications between client and each connected network device
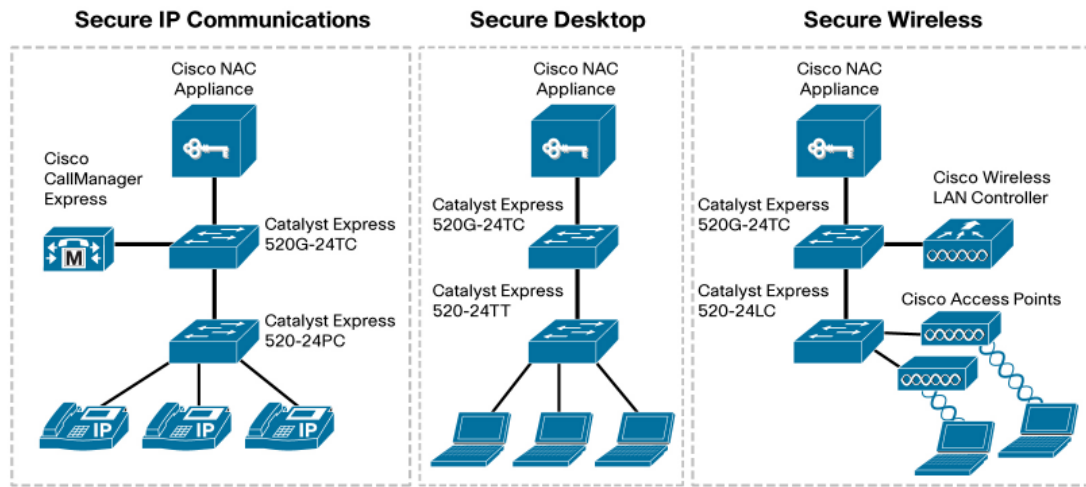 – Simplified troubleshooting through an Events Notification Advisor and a Link Diagnostic Report
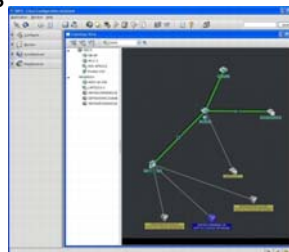
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- The Cisco Configuration Assistant discovers all devices in the network and can configure all supported routers, switches, and wireless access points and controllers as well as Cisco Unified Communications call-routing and voice-mail systems.
- After the network is deployed, you also can use Cisco Configuration Assistant to generate status reports, to synchronize passwords, and to upgrade software across all of your Cisco network devices.
- Some general Cisco Configuration Assistant features include:
  - Centralized, common services—such as software upgrades, configuration management, inventory reports, network events, alerts, and password and configuration synchronization—for Cisco switches, routers, access points, and voice appliances in the network.
  - Centralized network monitoring using two views of all connected devices in the network: a physical view (Front Panel image) and a logical view (network Topology image) of different network devices.
  - Drag-and-drop software upgrade for multiple devices, including backup and restoration of device configuration files.
  - Security configuration for all the Cisco access points in the network.
  - Authenticated and encrypted communications between the Cisco Configuration Assistant client and each connected network device.
  - Simplified troubleshooting through an Events Notification Advisor (which identifies problems and suggests resolutions related to misconfiguration such as Smartports or duplex-mode mismatch) and through a Link Diagnostic Report (which identifies problems and suggests resolutions related to connectivity such as port-speed mismatch and faulty cabling).

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Deployment Scenarios

Secure IP Communications

Cisco NAC Appliance

Cisco CallManager Express

Catalyst Express 520G-24TC

Catalyst Express 520-24PC

Secure Desktop

Cisco NAC Appliance

Catalyst Express 520G-24TC

Catalyst Express 520-24TT

Secure Wireless

Cisco NAC Appliance

Cisco Wireless LAN Controller

Catalyst Experss 520G-24TC

Catalyst Express 520-24LC

Cisco Access Points

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• This slide shows typical Cisco Catalyst Express 520 Series Switch deployment scenarios.

Smart Business Communications System

- Unified communications solution for small businesses
- Provides voice, data, video, security, and wireless capabilities
- Integrates with existing desktop applications such as calendar, e-mail, and Customer Relationship Management (CRM)
- Catalyst Express 520 switches are the recommended companion switches to the Cisco Unified Communications 500 Series
- Catalyst Express 520 and Unified Communications 500 are part of the Cisco Smart Business Communications System solution
- Solution includes:
  - Unified Communications 500 Series
  - Catalyst Express 520 for LAN connectivity
  - Cisco Mobility Express Solution for wireless
  - system configuration and management
    - Cisco Configuration Assistant
   - Cisco Monitor Manager and Monitor Director

Cisco Smart Business Communications System

- The Cisco Smart Business Communications System is a unified communications solution for small businesses that provides voice, data, video, security, and wireless capabilities while integrating with existing desktop applications such as calendar, e-mail, and Customer Relationship Management (CRM).
- The Catalyst Express 520 switches are the recommended companion switches to the Cisco Unified Communications 500 Series.
- These devices are part of the Cisco Smart Business Communications System solution.
- Cisco Smart Business Communications System components include:
- Cisco Unified Communications 500 Series for Small Business
  - Telephony, voice messaging, Automated Attendant, security, VPN, and video
- Cisco Catalyst Express 520 Series Switches (LAN connectivity)
- Cisco Mobility Express Solution (for wireless connectivity)
  - Cisco 521 Wireless Express Access Point
  - Cisco 526 Wireless Express Mobility Controller
- System configuration and management
  - Cisco Configuration Assistant
  - Cisco Monitor Manager and Cisco Monitor Director

Cisco SBCS Solutions Network Example
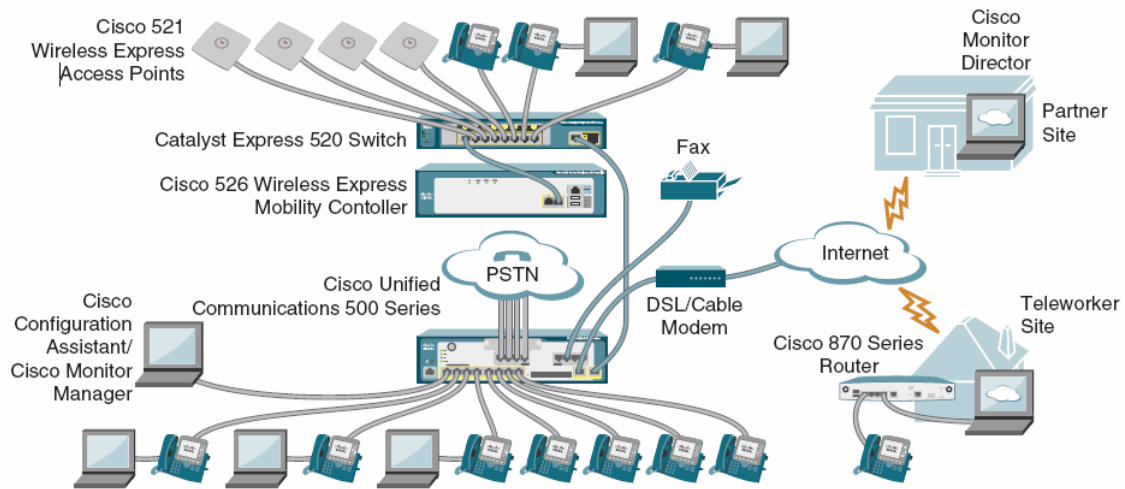
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- This slide shows an example of how to use the different Catalyst Express switches to enable communication between network users and to provide them access to network resources..

Cisco Catalyst Express 520 References

- Cisco Catalyst Express 520 Series Switches Overview
- Cisco Smart Business Communications System
- Cisco Smart Business Communications System Setup
- User Guide for the Catalyst Express 520 Switches
- Cisco Catalyst Express 520 Series Switches Q&A
- Cisco Catalyst Express 520 Series Switches Data Sheet

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- You can find many Cisco Catalyst Express 520 series switches reference documents on Cisco Connection web site at www.cisco.com. Please click the link in this slide to access the documents.

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- Thank you for taking Cisco Catalyst Express 520 series switches E-Learning.

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