

Cisco Switching and the Empowered Branch

Dee Dee: Hi, and welcome to the switching and empowered branch podcast. I'm Dee Dee Pare with the Empowered Branch product marketing group, and with me today is Ramesh Bijor, product marketing manager for the Catalyst 2960 Series switches. The Catalyst 2960 series was introduced in November of 2005 and has since shipped over 1 million units. And in September Cisco announced the new Catalyst 2960 LAN Lite series with three new models.

Just to explain a bit about the empowered branch, it is a concept that Cisco first introduced the typical needs of a branch office. In many offices, the branch is usually an afterthought, with branches being a patchwork of equipment. Not only is that difficult to strategize and roll out services, but it limits the branch employees who are customer facing, and just as critical to the business.

Cisco developed the empowered branch as a framework to show the routing/switching, integrated security, application intelligence, unified network services, and mobility features Cisco is developing for the branch. We began the empowered branch in December and recently introduced 10 products in September. One of those 10 products was the Cisco Catalyst 2960 LAN Lite Series.

Dee Dee: Ramesh, how about a brief introduction to the Catalyst 2960 LAN Lite Series?

Ramesh: These new Catalyst 2960 LAN Lite switches offer entry-level Layer 2 switching with simplified configuration and troubleshooting. They are ideal for the branch offices and wiring closet use. These new models extend the 2960 portfolio for entry-level customers. They are ideal for customers who want to move from unmanaged switches to a managed platform. These customers are looking for basic connectivity and Cisco brand, quality, and support. Three new models are being launched:

- 24 10/100 ports
- 24 10/100 ports with 2 dual-purpose Gigabit uplinks and
- 48 10/100 ports with 2 dual-purpose uplinks

Dee Dee: Where does Cat 2960 LAN Lite fit in the entry-level switch portfolio?

Ramesh: We have been shipping Cisco Catalyst 2960 with LAN Base switches for a while and have sold over 1 million units since its introduction. The LAN Base switches support enterprise-class features such as Gigabit connectivity and enhanced QoS, security, and availability services for converged applications. They are ideal for midsize businesses and enterprise branches in the wiring closet.

This new models—the Cisco Catalyst 2960 with LAN Lite—support Fast Ethernet connectivity with basic QoS, security, and availability features ideal for entry-level customers. These switches offer ease of use and simplified configuration.

All of these 2960 switches can be centrally managed.

Dee Dee: What QoS and security features are available in the 2960 LAN Base that aren't in the LAN Lite?

Ramesh: Cisco Catalyst 2960 LAN Base switches have several incremental features over LAN Lite, such as:

- Enhanced security through Layer 2 through 4 access control lists (ACLs), DHCP Snooping, and more extensive Network Admission Control capabilities such as Web authentication and 802.1x enhancements
- More granular QoS capabilities such as policing, class and policy maps, differentiated services code point (DSCP), AutoQoS, and configurable queue weights, buffers, and thresholds
- Increased number of VLANs (256) and other enhancements such as IPv6

Dee Dee: What about the Catalyst CE-500? How does this compare with the 2960 LAN Lite?

Ramesh:

The Cisco Catalyst 2960 Series Switches are entry-level enterprise switches, whereas Cisco Catalyst Express 500 Series Switches are targeted at businesses with 20 to 250 employees.

The Cisco Catalyst 2960 Series Switches are entry-level enterprise switches providing higher scalability, Enterprise branch offices should be deploying Cisco Catalyst 2960 Series Switches because of the need to actively manage, upgrade, and configure a large number of devices.

The other differences are Catalyst 2960 switches have a console port, support Telnet, and can be managed using command-line interface. Catalyst 500 switches do not support these features.

Dee Dee: So, Ramesh, according to a Nemertes Branch office study, only 18 percent of branch offices surveyed had local IT support, so there is a lack of branch IT support staff. How does the Catalyst 2960 help this problem?

Ramesh: I agree, the lack of branch IT support staff in the branch offices is a common issue. So, we need to ensure that the switches are simple to configure and easy to use. Here the Cisco Network Assistant software can be a big help. It is included with the switches at no charge. CNA simplifies switch configuration, Cisco IOS Software updates, and troubleshooting. Cisco Network Assistant is a PC-based network-management application optimized for LANs with support for up to 40 devices. Cisco Network Assistant offers centralized management of Cisco switches, routers, and WLAN access points. Through a user-friendly GUI, users can configure and manage a wide array of switch functions and start the device manager of Cisco routers and Cisco wireless access points.

Dee Dee: Do these switches have any special features that help with the ease of use and configuration?

Ramesh: Sure, Dee Dee. First, the Express Setup feature simplifies the initial configuration of a switch using a Web browser. Express Setup reduces the cost of deployment by helping less-skilled personnel quickly and easily set up switches.

Secondly, Cisco Network Assistant uses Cisco Smartports technology to simplify both initial deployment and ongoing maintenance. Smartports is really a set of CLI commands that can be applied to an interface with just one command. Not really a new command, just a predetermined set of commands. These macros are a set of commands that can be applied to a port. You can choose from 10 preset Smartports roles—i.e., desktop, IP phone plus desktop, router, or an access point—which contain Cisco CCIE best practices. The optimal security and QoS settings are applied with each Smartports role. You don't need to learn the command-line interface. Smartports also allow autoconfiguration, save time for network administrators, and reduce human errors.

Dee Dee: What about a corporation that has a large number of branches?

Ramesh: For larger networks, CiscoWorks LAN management may be used that can scale up to thousands of devices.

This centralized management offers great total cost of ownership benefits by applying a policy once and replicating it to many branches. Centralized management helps minimize errors as proven configuration and management can be provided to each office. Other features include DHCP autoconfiguration of multiple switches through a boot server, which eases switch deployment.

Ramesh: Were there other branch issues?

Dee Dee: This same study says that branches are growing so that for every one person hired at headquarters, 10 are being hired for branches. This is largely due to globalization and the need to have a presence in more locations in a global economy. Also, many times companies acquire other companies. That fuels expansion. And finally, companies need to cast a wider net to attract the top talent worldwide. While this growth is promising for the companies, it's also starting to strain budgets. Branch IT support represented 25 percent of the total needed support for any organization. With so few offices having dedicated local staff, how is the 2960 helping these problems?

Ramesh: As for the "growing number of branches is straining budgets"—even these entry-level switches like the 2960s offer enterprise-level services, which means that even the smallest branch offices offer enterprise-class features such as sophisticated access control lists (ACLs), enhanced security, network control, and bandwidth optimization using advanced QoS, granular rate limiting, and multicast services.

Dee Dee: Wow, that's a lot of enterprise-class features. Also, when you think about the branch, it has to be a "mini" headquarters, so it needs to be able to connect diverse device types. It also still needs to help the company meet regulatory compliance and provide 24/7 network uptime. The empowered branch can't just have any switch, What about the 2960 in these scenarios?

Ramesh: Cisco helps meet regulatory compliance for PCI (payment card industry), HIPAA, and Sarbanes-Oxley, with comprehensive network security enabled through a wide range of authentication methods, data encryption technologies, baseline Network Admission Control based on users, ports, and MAC addresses.

Cisco 2960 switches provide 24/7 network uptime with 802.1S/W-enabled, standards-based fault tolerance, load balancing, and rapid recovery on redundant links. Its easy troubleshooting and maintenance mean less human errors. And finally, access to the information on these switches is secure, so external factors are less likely to bring down the network.

Dee Dee: Ramesh, could you summarize the Cisco Catalyst 2960 LAN Lite in the context of the empowered branch? A few closing words and a URL where customers can find more information would be really nice.

Ramesh: Ok, Dee Dee. In summary, the Catalyst 2960 LAN Lite is a new extension of the Catalyst 2960 product line that provides an entry-level option for those customers that wish to have centralized management, scalability, and ease of use as a way of enabling their empowered branch. For more information, please visit www.cisco.com/go/empoweredbranch. Thank you for listening to the Catalyst 2960 LAN Lite as part of the empowered branch podcast.



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