

Cisco 890 Series Integrated Services Routers

Product Overview and Positioning

Q. What are the Cisco® 890 Series Integrated Services Routers?

A. Cisco® 890 Series Integrated Services Routers combine Internet access, comprehensive security, and wireless services onto a single, secure device that is easy to deploy and manage. The best-in-class Cisco 890 Series Integrated Services Router architecture has been specifically designed to deliver high performance with concurrent services, business continuity, and investment protection for enterprise small branch offices and service provider managed services applications.

Q. Why did Cisco introduce the Cisco 890 Series?

A. Cisco 890 Series Integrated Services Routers are fixed-configuration routers that are designed for secure broadband, Metro Ethernet, and wireless deployments. They offer comprehensive security and threat defense, advanced Cisco IOS® routing, Metro Ethernet and network management. The routers provide business connectivity and high availability with integrated ISDN and v.92 WAN backup.

Q. What are the differences between the fixed-configuration Cisco 890 Series Integrated Services Routers and the fixed-configuration Cisco 1811/1812 Integrated Services Routers?

A. Cisco 890 Series Integrated Services Routers deliver high performance with concurrent services. The routers complement the Cisco 1811/1812 Integrated Services Routers by adding support for 802.11a/g/n wireless LAN, dual radios at 2.4 and 5 GHz, centralized WLAN management, and a Metro Ethernet Gigabit WAN port.

Q. Can I continue to order Cisco 1811 and 1812 Integrated Services Routers?

A. Yes. There are no planned end-of-sale dates for the Cisco 1811 and 1812 Integrated Services Routers.

Q. What are the Cisco 890 Series fixed-configuration router models?

There are two Cisco 890 Series models; each provides a single Gigabit Ethernet WAN connection.

Model	WAN Port	LAN Port	Data Backup		
	GE	FE	FE	V.92	ISDN
CISCO891 and CISCO891W-	Yes	8 10/100	Yes	Yes	–
CISCO892 and CISCO892W-	Yes	8 10/100	Yes	–	Yes

Hardware Features

Q. What are the hardware options for the Cisco 890 Series?

A. The 4-port PoE, 802.11n wireless access point, and memory are factory-orderable options. You must decide the hardware configuration of the router by selecting the desirable product SKU at the time of ordering.

Q. Do Cisco 890 Series routers support 3G and voice ports?

A. No. Cisco 890 Series routers do not support 3G and voice ports.

Q. Can voice support be added to a Cisco 890 Series data model?

A. No. With the Cisco 890 Series, IP phones can be connected to the integrated switchports to register with a centrally located Cisco Unified Communications Manager.

Q. What is the Cisco 890 Series power specification?

A. The Cisco 890 Series supports an external AC power supply. Refer to the [Cisco 890 Series data sheet](#) for the product power specification.

Q. Is memory upgradable?

A. An appropriate amount of router flash memory (256 MB) has been integrated for the Cisco 890 Series models, and it is not upgradable. DRAM is upgradable on the Cisco 890 Series. The default DRAM is 512 MB; it can be upgraded to 768 MB.

Q. What is the Universal Serial Bus (USB) port being used for?

A. Two USB 2.0 ports are available on the Cisco 890 Series. These ports enable important security and provisioning capabilities, including secure device authentication, storage of removable credentials for establishing secure VPN connections, secure distribution of configuration files, bulk flash storage for files and configuration, and booting from the USB. The Cisco 890 Series supports two types of USB devices: USB flash and USB eToken. For a list of supported USB flash and eToken devices, refer to http://www.cisco.com/en/US/prod/collateral/modules/ps6247/product_data_sheet0900aecdb0232473.html.

Q. What is the purpose of the reset button?

A. The reset button is used to restore the router to the default factory settings if pressed within five seconds of router bootup. Here is how it works:

- The router will not react to the reset button if the button is pressed after the five seconds of bootup.
- When the reset button is pressed within five seconds of bootup and there is no valid xxx.cfg file in the flash memory, the router boots up with the factory defaults stored in NVRAM.
- When the reset button is pressed within five seconds of bootup and there is a valid xxx.cfg file in the flash, the router boots up with the xxx.cfg file and avoids the startup-config file in NVRAM.

Q. What is the auxiliary port function?

A. On the Cisco 890 Series, an external modem can be connected to the auxiliary port for any asynchronous dialup connection. This interface can be used for out-of-band remote management of the router or as a backup WAN interface. An optional RJ-45 to DB-25 male straight-through cable is available as an orderable option to connect modems to this port. A limited set of modems and terminal adapters has been tested, but any Hayes-compatible modem or terminal adapter can be used to connect to this port.

Software Features

Q. Which Cisco IOS Software releases does the Cisco 890 Series support?

A. The Cisco 890 Series is supported by Cisco IOS Software Release 12.4(22)YB BU Special.

Q. What Cisco IOS Software image and feature sets are offered for the Cisco 890 Series?

A. The Cisco 890 Series supports universal images and one feature set. A universal image includes all features supported by a given platform. The active feature set is enabled using the Cisco software activation feature.

The c890-universalk9-mz universal images is supported by the Cisco 890 Series:

- The **Advanced IP Services** feature set is supported by the Cisco 890 Series using the Cisco software activation feature.

Q. What is the Cisco software activation feature?

A. Software activation authorizes and enables the usage of a Cisco software feature or feature sets. A special file contained in the device, called a license file, is examined by Cisco software when the device is powered on. Based on the license file installed, Cisco software enables the appropriate feature set(s).

Q. What features require a software license and activation on the Cisco 890 Series?

A. The default and only feature set for the Cisco 890 Series is **Advanced IP Services**. The appropriate license file is installed on the platform by Cisco manufacturing to support the default feature set. In addition, the subscription-based content filtering feature requires a calendar-based subscription.

Q. Can I boot a Cisco IOS Software image and Cisco IOS Software configuration file from the USB flash installed on a Cisco 890 Series router?

A. During the router reload process, the Cisco 890 Series router will automatically search for a bootable Cisco IOS Software image on the USB flash if no bootable image is available on the onboard flash. A Cisco IOS Software configuration file can be booted from the USB flash only if the Cisco IOS Software command "boot config usbflash0:" is part of the router startup configuration stored in NVRAM.

Q. Will the Cisco 890 Series be supported by Cisco Configuration Professional?

A. Yes. The Cisco 890 Series platforms will be supported by Cisco Configuration Professional Version 1.3 .

Q. How are factory default configuration restored on the Cisco 890 Series?

A. Cisco 890 Series factory default configurations can be restored using the Cisco Configuration Professional application or by using the reset button on the platform. Refer to the question "What is the purpose of the reset button?" in the Hardware Features section to learn more about restoring factory default configurations using the reset button.

Q. Does the Cisco 890 Series support any out-of-band management capabilities?

A. The Cisco 890 Series supports out-of-band management capabilities using the auxiliary port with an external modem connected to it.

Q. Can the ISDN or V.92 interfaces on the Cisco 890 Series be used as a primary interface?

A. Yes. The ISDN or V.92 interface on the Cisco 890 Series can be used as a primary interface.

Security Features

Q. Is hardware-based encryption available on the Cisco 890 Series?

A. Yes. Hardware-assisted IP Security (IPsec) Triple Data Encryption Standard (3DES) and Advanced Encryption Standard (AES) encryption is available on both Cisco 890 Series models; 128-bit, 192-bit, and 256-bit keys are supported for AES.

Q. Is hardware-based SSL VPN available on the Cisco 890 Series?

A. No. Only software-based SSL VPN is supported on the Cisco 890 Series.

Q. How many IPsec tunnels are supported by the Cisco 890 Series?

A. The Cisco 890 Series supports 50 IPsec tunnels.

Q. What advanced security features are supported by the Cisco 890 Series?

A. Cisco 890 Series routers support advanced security features such as DMVPN, GETVPN, SSL VPN, IPS, and subscription-based content filtering.

Q. What is the subscription-based content filtering feature?

A. Cisco IOS Content Filtering on Cisco integrated services routers offers category-based URL blocking, keyword blocking, and protection against adware, malware, and spyware by restricting access to websites based on their reputation rating. This is a subscription-based hosted solution that integrates closely with Cisco IOS Software for a better user experience.

For more information about this feature, refer to the Cisco IOS Content Filtering data sheet and Q&A at <http://www.cisco.com/go/ioscontentfiltering>.

Wireless LAN Features

Q. Which wireless LAN standard and integrated access points does the Cisco 890 Series support?

A. The Cisco 890 Series supports 2.4-GHz and 5-GHz 802.11a/g/n. The integrated access point on the Cisco 890 Series is Wi-Fi 802.11n Draft 2.0 certified. The Cisco 890 Series offers both the autonomous and unified options, so it can be deployed as a standalone access point or as part of a Cisco Unified Wireless Network. The access point software on the Cisco 890 Series is independent of the platform software and offers feature parity with the software supporting Cisco Aironet® 1250 Series Access Points.

Q. Can the integrated access point on the Cisco 890 Series be managed by a wireless LAN controller?

A. The Cisco 890 Series can be managed by a wireless LAN controller when running in the unified mode. For more information on Cisco 890 Series integrated access points, refer to the [Cisco 860 and 880 Series integrated access point Q&A](#).

Metro Ethernet Features

Q. What are the supported Metro Ethernet features?

A. Cisco 890 Series routers are focused on Ethernet access and are designed to be offered as customer premises equipment (CPE) in Metro Ethernet deployments. The Cisco 890 Series supports the following features.

- Metro Ethernet operations, administration, and maintenance (OAM):
 - Debugging hierarchy of Ethernet networks
 - Layer 2 service performance monitoring

- 802.11 a/g: Connectivity fault management:
 - Uses domains to contain OAM flows and bound OAM responsibilities
 - Provides per-Ethernet virtual circuit (EVC) connectivity management and fault isolation
- E-LMI: Automated configuration of customer edge based on EVCs and bandwidth profiles:
 - Layer 2 connectivity management
 - Ethernet LMI customer edge
- 802.3ah: Ethernet in the first mile (EFM)
 - Three types of packets: Continuity Check, Layer 2 Ping, and Layer 2 trace route
- 802.3ah to Connectivity Fault Management (CFM) interworking
- CFM to E-LMI interworking
- IP SLA for Metro Ethernet

Q. Are 2Base-TL or 10Pass-TS are supported on the Cisco 890 Series?

A. No. EFM support is primarily for Ethernet OAM features; the 2Base-TL and 10Pass-TS are not supported on the Cisco 890 Series.

Q. How many on-board Ethernet WAN interfaces are supported?

A. The Cisco 890 Series supports one GE and one FE WAN port. The routers can support the high-bandwidth demands of Metro Ethernet and can provide failover protection and load balancing if desired.

Switch Features

Q. What are the differences between the Cisco 880 and 890 Series with regards to integrated switches?

A. The Cisco 890 Series offers feature parity with the Cisco 880 Series except that the Cisco 890 Series supports 14 VLANs Refer to the [Cisco 890 Series data sheet](#) for the list of supported features.

Q. Is Power over Ethernet (PoE) supported on the switchports?

A. Yes. 802.3af and Cisco compliant optional 4-port PoE is available on the Cisco 890 Series. With this option, PoE will be available on Fast Ethernet 1 through Fast Ethernet 4 interfaces. The Cisco 890 Series does not support PoE on all the 8-port switches.

Q. Does the Cisco 890 Series support Cisco Enhanced PoE?

A. No. Cisco Enhanced PoE is an extension of the 802.3af standard, delivering between 15.4W and 20W per port. The Cisco 890 Series does not support Cisco Enhanced PoE, which is required by Cisco Aironet 1250 Series access points and similar devices.

Q. What 802.1x features are supported by the Cisco 890 Series integrated switchports?

A. 802.1x support for the integrated switchports is available on the Cisco 890 Series. For the complete list of supported features, please refer to the Cisco 880 Q&A documentation at http://www.cisco.com/en/US/prod/collateral/routers/ps380/qa_c67_458826.html.



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