

CISCO IOS SOFTWARE RELEASE 12.3(8)YI

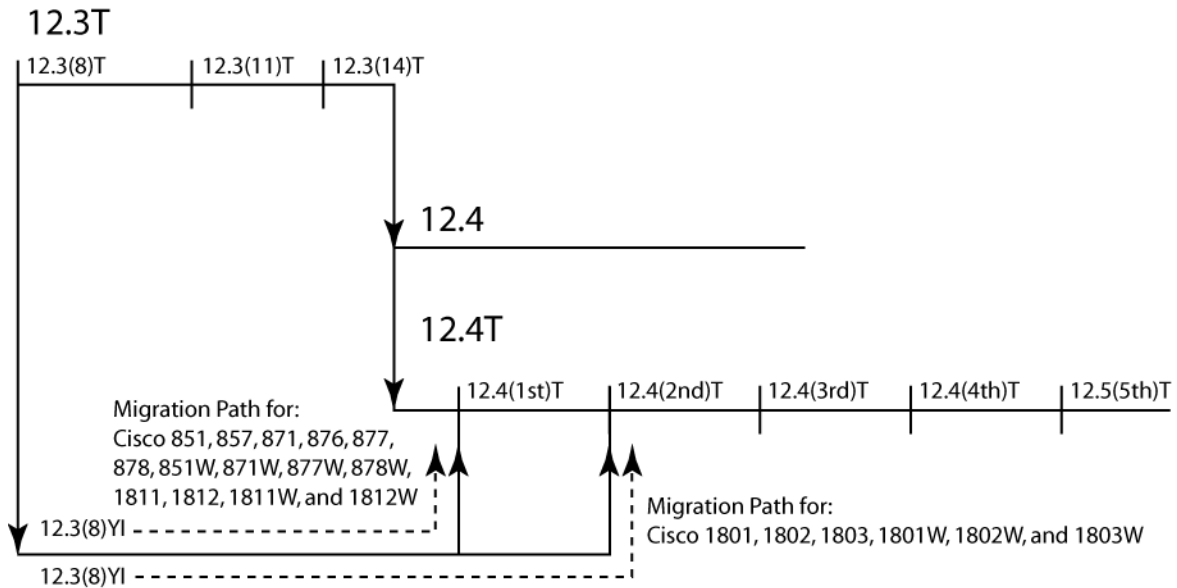
This product bulletin describes the content and delivery information for Cisco IOS® Software Release 12.3(8)YI. It should be used in conjunction with the Cisco IOS Software Release 12.3T product bulletin. Cisco IOS Software Release 12.3(8)YI is a short-lived, early deployment release that will be supported in the first release of Cisco IOS Software Release 12.4T. It supports the Cisco® 850, 870, and 1800 series fixed-configuration routers.

In addition to the supported features described in this product bulletin, more information is available in the release notes for Cisco IOS Software Release 12.3(8)YI.

Note: This product bulletin lists only features that are new to the respective routers.

Customers should be prepared to upgrade using the migration path described in Figure 1.

Figure 1. Cisco IOS Software Release 12.3(8)YI Release Train and Migration Guide



DETAILED INFORMATION---NEW HARDWARE

Cisco 850 and 870 Integrated Services Routers

The Cisco 870 Series of integrated services routers are fixed-configuration routers that support multiple types of DSL technologies, broadband cable, and Metropolitan (Metro) Ethernet connections in small offices. They provide the performance needed to run concurrent services, including firewall, intrusion prevention, and encryption for VPNs; optional 802.11b/g for wireless LAN (WLAN) networking; and quality-of-service (QoS) features for optimizing voice and video applications. In addition, the Cisco Router and Security Device Manager (SDM) Web-based configuration tool simplifies setup and deployment, and centralized management capabilities give network managers visibility and control of the network configurations at the remote site.

Cisco 870 Series integrated services routers offer:

- High performance for broadband access in small offices
- Advanced security, including:
 - Stateful inspection firewall
 - IP Security (IPSec) VPNs (Triple Data Encryption Standard [3DES] or Advanced Encryption Standard [AES])
 - Intrusion prevention system (IPS)
 - Antivirus support through Network Admission Control (NAC) and enforcement of secure access policies
- Four-port 10/100 managed switch with VLAN support
- Secure WLAN 802.11b/g option with use of multiple antennas
- Easy setup, deployment, and remote-management capabilities through Web-based tools and Cisco IOS Software

Table 1 depicts interfaces for the Cisco 870 Series integrated services routers.

Table 1. Interfaces for Cisco 870 Series

Cisco 870 Series				
Router	WAN Interface	LAN Interfaces	802.11b/g Option	Integrated ISDN Dial Backup
Cisco 871	10-/100-Mbps Fast Ethernet	4-port 10-/100-Mbps managed switch	Yes (Cisco 871W)	–
Cisco 876	Asymmetric DSL (ADSL) over ISDN	4-port 10-/100-Mbps managed switch	Yes (Cisco 876W)	Yes
Cisco 877	ADSL	4-port 10-/100-Mbps managed switch	Yes (Cisco 877W)	–
Cisco 878	Symmetrical high-data-rate DSL (G.SHDSL)	4-port 10-/100-Mbps managed switch	Yes (Cisco 878W)	–

Cisco 850 Series integrated services routers are fixed-configuration routers that support broadband cable and ADSL over analog telephone line connections in small offices. They provide the performance needed to run concurrent services, including firewall and encryption for VPNs and optional 802.11b/g for wireless networking. The Cisco SDM Web-based configuration tool simplifies setup and deployment, and centralized management capabilities give network managers visibility and control of router configurations at the remote site.

Cisco 850 Series integrated services routers offer:

- Secure connectivity with stateful inspection firewall and IPSec VPN support for small offices
- Four-port 10/100 switch
- Secure WLAN 802.11b/g option with a single, fixed antenna
- Easy setup, deployment, and remote-management capabilities through Web-based tools and Cisco IOS Software

Table 2 depicts interfaces for the Cisco 850 Series integrated services routers.

Table 2. Interfaces for Cisco 850 Series

Cisco 850 Series			
Router	WAN Interface	LAN Interfaces	802.11b/g
Cisco 851	10-/100-Mbps Fast Ethernet	4-port 10-/100-Mbps switch	No
Cisco 851W	10-/100-Mbps Fast Ethernet	4-port 10-/100-Mbps Switch	Yes
Cisco 857	ADSL	4-port 10-/100-Mbps switch	No
Cisco 857W	ADSL	4-port 10-/100-Mbps switch	Yes

Cisco 1801, 1802, 1803, 1811, and 1812 Integrated Services Routers

The Cisco 1801, 1802, 1803, 1811, and 1812 integrated services routers are fixed-configuration routers designed for secure broadband, Metro Ethernet, and wireless connectivity. They provide significant performance improvements, feature capability, versatility, and additional value compared to prior generations of the Cisco 1700 Series. The Cisco 1800 Series fixed-configuration routers provide:

- Secure broadband access at wire-speed performance for branch and small offices
- Integrated ISDN Basic Rate Interface (BRI), analog modem, or Ethernet backup port for redundant WAN links and load balancing
- Secure WLAN option for simultaneous 802.11a and 802.11b/g with use of multiple antennas
- Advanced security, including:
 - Stateful inspection firewall
 - IPSec VPNs (3DES or AES)
 - IPS
 - Antivirus support through NAC and enforcement of secure access policies
- Eight-port 10/100 managed switch with VLAN support and optional Power over Ethernet (PoE)
- Easy deployment and remote-management capabilities through Web-based tools and Cisco IOS Software

Cisco 1801, 1802, and 1803 routers provide high-speed DSL broadband access through ADSL over basic telephone service (Cisco 1801), ADSL over ISDN (Cisco 1802), or G.SHDSL (Cisco 1803) while helping ensure reliable networking with integrated ISDN S/T BRI backup. The Cisco 1811 and 1812 provide high-speed broadband or Ethernet access through two 10/100BASE-T Fast Ethernet WAN ports, and they also provide integrated WAN backup through a V.92 analog modem (Cisco 1811) or ISDN S/T BRI interface (Cisco 1812). (Refer to Table 3.)

Table 3 depicts interfaces for the Cisco 1800 Series integrated services routers.

Table 3. Interfaces for Cisco 1800 Series

Cisco 1800 Series Integrated Services Routers					
Interfaces	Cisco 1801	Cisco 1802	Cisco 1803	Cisco 1811	Cisco 1812
8-port 10/100BASE-T switch	Yes	Yes	Yes	Yes	Yes
10/100BASE-T WAN ports	1	1	1	2	2
USB 2.0 ports	0	0	0	2	2
DSL port	ADSL or basic telephone service	ADSL or ISDN	G.SHDSL	No	No
ISDN S/T port	Yes	Yes	Yes	No	Yes
V.90 modem	No	No	No	Yes	No
802.11a/b/g wireless routers	ETSI	ETSI	ETSI, FCC	FCC	ETSI

Image product numbers and descriptions for the Cisco 1812 Router are listed in the following section.

DETAILED INFORMATION---NEW SOFTWARE FEATURES

The Cisco 871, 1811, and 1812 integrated services routers support two USB 2.0 ports for additional data storage and eToken support.

Cisco IOS Software Release 12.3(8) YI supports wireless features associated with the integrated 802.11b/g access point in the Cisco 850 and 870 series routers and 802.11a/b/g radios in the Cisco 1800 Series routers.

The Cisco 850 and 870 series and Cisco 1800 Series fixed-configuration routers support the following new features:

- *IEEE 802.11a support (Cisco 1800 Series fixed-configuration routers only)*---This support helps enable interoperability under 802.11a specifications for wireless network architecture, wireless association, and radio management. Support for 802.11 standards allows settings for the access-point mode of operation (root or repeater), Service Set Identifier (SSID), authentication type, channel selection, transmission rates, power-save mode, and security based on Wired Equivalent Privacy (WEP), and other configurable fields.
- *IEEE 802.11b support*---This feature provides support for the IEEE 802.11g standard for wireless networking through 802.11g access-point radio modules.
- *IEEE 802.11g support*---This feature provides support for the IEEE 802.11g standard for wireless networking through 802.11g access-point radio modules.
- *Broadcast key rotation*---This feature allows customers to set a timeout for the shared broadcast key, causing generation of a new broadcast key. Part of the Cisco Wireless Security Suite, broadcast key rotation mitigates passive attacks that attempt to determine the broadcast key from weak initialization vectors.
- *Cisco Compatible Extensions Information Element*---This information element allows a Cisco access point to inform Cisco Compatible Extensions client devices about the Cisco Compatible release version that it supports.
- *Configurable radio transmit power*---This feature allows the customer to set the transmit power of the access point at 1, 5, 20, 30, 50, or 100 mW, scaling the coverage area as needed. Note: The settings allowed in your regulatory domain might differ from the settings named here.
- *IEEE 802.11d World Mode support*---The 802.11d standard for World Mode enables the access point to inform an 802.11d client device which radio setting the device should use to conform to local regulations.
- *MAC address local authentication*---This authentication allows configuration of the local authenticator of the Cisco access point to allow MAC authentication of users on the Cisco access point.

- **Multiple SSIDs (wireless VLAN)**---With this feature, the access point provides support for up to eight SSIDs, helping enable flexible service deployment. Each SSID is configurable for several parameters, creating up to eight unique sets of services. Configurable parameters include mode for guest clients (enabling a broadcast SSID), client authentication method, maximum number of client associations, VLAN identifier, and RADIUS accounting list identifier.
- **RADIUS server per SSID**---This feature allows the administrator to specify a different RADIUS server per SSID.
- **Transmit power control (TPC)**---TPC is used by Cisco access points to relay transmit power information to Cisco and Cisco Compatible wireless client devices. Client devices use the TPC information in conjunction with the signal strength of the access point to calculate path loss and the transmit power necessary for the client to reach the access point. This feature extends client-device battery life.
- **Wi-Fi Protected Access (WPA)**---WPA is the Wi-Fi Alliance specification for interoperable WLAN security that supports IEEE 802.1X authentication and Temporal Key Integrity Protocol (TKIP) encryption.

Tables 4 and 5 list the Cisco IOS Software feature sets supported in Cisco 800 and 1800 series routers, respectively.

Table 4. Cisco IOS Software Feature Sets Supported for Cisco 800 Series Routers

Features	Advanced Security	Advanced IP Services	Advanced Enterprise Services
USB ports	Yes	Yes	Yes
IEEE 802.11b support	Yes	Yes	Yes
IEEE 802.11g support	Yes	Yes	Yes
Broadcast key rotation	Yes	Yes	Yes
Cisco Compatible Extensions Information Element	Yes	Yes	Yes
Configurable radio transmit power	Yes	Yes	Yes
IEEE 802.11d World Mode support	Yes	Yes	Yes
MAC address local authentication	Yes	Yes	Yes
Multiple SSIDs (wireless VLAN)	Yes	Yes	Yes
RADIUS server per SSID	Yes	Yes	Yes
TPC	Yes	Yes	Yes
WPA	Yes	Yes	Yes

Table 5. Cisco IOS Software Feature Sets Supported for Cisco 1800 Series Routers

Features	IP Broadband	Advanced IP Services	Advanced Enterprise Services
USB ports	No	Yes	Yes
IEEE 802.11a support	No	Yes	Yes
IEEE 802.11b support	No	Yes	Yes
IEEE 802.11g support	No	Yes	Yes
Broadcast key rotation	No	Yes	Yes
Cisco Compatible Extensions Information Element	No	Yes	Yes
Configurable radio transmit power	No	Yes	Yes
IEEE 802.11d World Mode support	No	Yes	Yes
MAC address local authentication	No	Yes	Yes
Multiple SSIDs (wireless VLAN)	No	Yes	Yes

Features	IP Broadband	Advanced IP Services	Advanced Enterprise Services
RADIUS server per SSID	No	Yes	Yes
TPC	No	Yes	Yes
WPA	No	Yes	Yes

Tables 6 and 7 list the features supported in Cisco 800 and 1800 series routers, respectively.

Table 6. Feature Support for Cisco 800 Series Routers

Features	Cisco 851	Cisco 857	Cisco 871	Cisco 876	Cisco 877	Cisco 878	Cisco 851W	Cisco 857W	Cisco 871W	Cisco 876W	Cisco 877W	Cisco 878W
USB ports	No	No	Yes	No	No	No	No	No	Yes	No	No	No
IEEE 802.11a support	No	No	No	No	No	No	No	No	No	No	No	No
IEEE 802.11b support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.11g support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Broadcast key rotation	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco Compatible Extensions Information Element	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Configurable radio transmit power	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.11d World Mode support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MAC address local authentication	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Multiple SSIDs (wireless VLAN)	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RADIUS server per SSID	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TPC	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WPA	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 7. Feature Support for Cisco 1800 Series Routers

Features	Cisco 1801	Cisco 1802	Cisco 1803	Cisco 1811	Cisco 1812	Cisco 1801W	Cisco 1802W	Cisco 1803W	Cisco 1811W	Cisco 1812W
USB ports	No	No	No	Yes	Yes	No	No	No	Yes	Yes
IEEE 802.11a support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
IEEE 802.11b support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
IEEE 802.11g support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Broadcast key rotation	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Cisco Compatible Extensions Information Element	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Configurable radio transmit power	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
IEEE 802.11d World Mode support	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
MAC address local authentication	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Multiple SSIDs (wireless VLAN)	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
RADIUS server per SSID	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
TPC	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
WPA	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

Cisco IOS Software Feature Sets and Memory Requirements

Tables 8 and 9 give ordering information for the Cisco IOS Software Release 12.3(8)YI feature sets for the Cisco 800 and 1800 series, respectively.

Table 8. Cisco IOS Software Release 12.3(8)YI Feature Sets and Ordering Information for Cisco 800 Series

Cisco 870 and 850 Series Images				Recommended	
Platform	Software Product Description	Image File Name	Part Number	Memory	
				Flash Memory	DRAM
Cisco 871, 876, 877, and 878	Cisco IOS Software Advanced Security Services for Cisco 870	c87x-advsecurityk9-mz	S870ASK9-12308YI	24 MB	128 MB
			S870ASK9-12308YI=	24 MB	128 MB
Cisco 871, 876, 877, and 878	Cisco IOS Software Advanced IP Services	c87x-advipservicesk9-mz	S870AISK9-12308YI	28 MB	128 MB
			S870AISK9-12308YI=	28 MB	128 MB
Cisco 876	Cisco IOS Software Advanced Enterprise Services for Cisco 870	C87x-adventerprisek9-mz	S870AESK9-12308YI	28 MB	128 MB
			S870AESK9-12308YI=	28 MB	128 MB
Cisco 851 and 857	Cisco IOS Software Advanced Security Services for Cisco 850	C85x-advsecurityk9-mz	S850ASK9-12308YI	20 MB	64 MB
			S850ASK9-12308YI=	20 MB	64 MB

Table 9. Table 9. Cisco IOS Software Release 12.3(8)YI Features Sets and Ordering Information for Cisco 1800 Series

Cisco 1800 Series Images				Recommended	
Platform	Software Product Description	Image File Name	Part Number	Memory	
				Flash Memory	DRAM
Cisco 1801	Cisco 1800 IP broadband	c180x-broadband-mz	S180BB-12314T	32 MB	128 MB
			S180BB-12314T=	32 MB	128 MB
Cisco 1801, 1802, and 1803	Cisco IOS Software Advanced IP Services for Cisco 1800	C180x-advipservicesk9-mz	S180AISK9-12308YI	32 MB	128 MB
			S180AISK9-12308YI=	32 MB	128 MB
Cisco 1801, 1802, and 1803	Cisco IOS Software Advanced Enterprise Services for Cisco 1800	c180x-adventerprisek9-mz	S180AESK9-12308YI	32 MB	128 MB
			S180AESK9-12308YI=	32 MB	128 MB
Cisco 1811 and 1812	Cisco IOS Software Advanced IP Services for Cisco 1810	C181x-advipservicesk9-mz	S181AISK9-12308YI	32 MB	128 MB
			S181AISK9-12308YI=	32 MB	128 MB
Cisco 1811 and 1812	Cisco IOS Software Advanced Enterprise Services for Cisco 1810	c181x-adventerprisek9-mz	S181AESK9-12308YI	32 MB	128 MB
			S181AESK9-12308YI=	32 MB	128 MB

DOWNLOAD INFORMATION

Customers can download Cisco IOS Software Release 12.3(8)YI from the <http://www.cisco.com> software image library.

FOR MORE INFORMATION

For more information about the Cisco 1800 Series, go to <http://www.cisco.com/go/1800> or contact your local Cisco account representative.



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