



## CISCO IOS SOFTWARE RELEASES 12.4 MAINLINE AND 12.4T FEATURE SETS FOR THE CISCO 2800 SERIES ROUTERS

This product bulletin details changes to the Cisco IOS® Software packaging for Cisco® 2800 Series routers. It introduces four new cross-platform feature sets in Cisco IOS Software releases 12.4 Mainline and 12.4T.

**Note:** This product bulletin covers the packaging of functions into feature sets. It does not cover individual new features. For information about new features in Cisco IOS Software releases 12.4 Mainline and 12.4T, refer to the Cisco IOS Software pages at Cisco.com.

### OVERVIEW

The Cisco 2800 and 3800 series integrated services routers are introduced exclusively on eight cross-platform feature sets. Similar to 12.3T, Cisco IOS Software releases 12.4 Mainline and 12.4T consist exclusively of the cross-platform feature sets.

**Table 1.** Type of Feature Sets by Release Train

Cisco IOS Software Release 12.3 Mainline	Cisco IOS Software Release 12.3T	Cisco IOS Software Releases 12.4 Mainline and 12.4T
Classic Feature Sets		
Cross-Platform Feature Sets	Cross-Platform Feature Sets	Cross-Platform Feature Sets
Special-Purpose Feature Sets	Special-Purpose Feature Sets	Special-Purpose Feature Sets

In addition to the eight cross-platform feature sets that were released with Cisco IOS Software releases 12.3T and 12.3 Mainline, four additional cross-platform feature sets will be added starting with 12.4 Mainline and 12.4T. Derivatives of the existing eight feature sets, these four new feature sets were created to address router management capabilities. The new feature sets are described in Table 2.

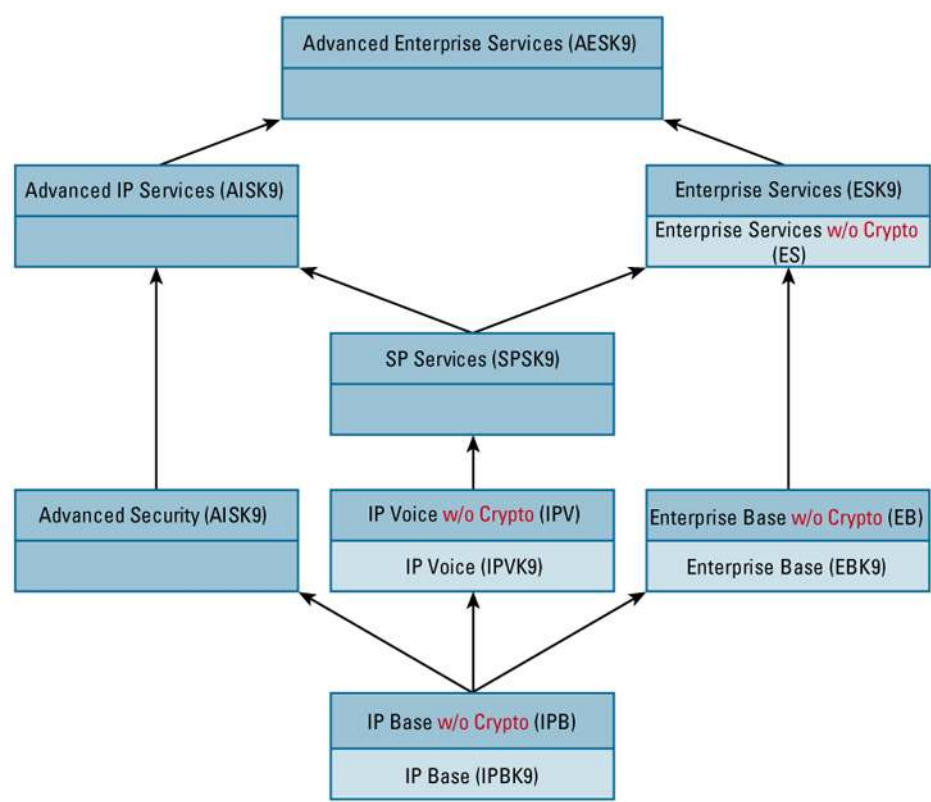
**Table 2.** New Feature Sets for Cisco IOS Software Releases 12.4 and 12.4T

Image Name	Cisco IOS Software Release 12.3 and Prior	Image Name	Cisco IOS Software Release 12.4 and Forward
		IP Base	New
IP Base	X	IP Base without Crypto	Renamed
		Enterprise Base	New
Enterprise Base	X	Enterprise Base without Crypto	Renamed
		IP Voice	New
IP Voice	X	IP Voice without Crypto	Renamed
Advanced Security	X	Advanced Security	X
SP Services	X	SP Services	X
Advanced IP Services	X	Advanced IP Services	X
		Enterprise Services without Crypto	New
Enterprise Services	X	Enterprise Services	X
Advanced Enterprise Services	X	Advanced Enterprise Services	X



Note that there is a name change for the feature sets that previously had no cryptography technology, and this fact is now noted in their titles. Going forward, the new feature sets that have cryptography technology will have the basic title without any cryptography designator.

**Figure 1.** Reformation Feature Map



The remainder of this product bulletin provides details of feature set availability in Cisco IOS Software releases 12.4 Mainline and 12.4T.

**CISCO IOS SOFTWARE RELEASE 12.4 MAINLINE**

**Overview of Available Feature Sets in Cisco IOS Software Release 12.4 Mainline**

Table 3 lists the Cisco IOS Software Release 12.4 Mainline feature sets that are available for the Cisco 2800 Series routers.

Note that the flash memory recommendations given in the table are calculated without added management tools such as Cisco Security Device Manager (SDM).

**Table 3.** Cisco 2801—12.4M Feature Set Memory Recommendations

Software Product Description Product ID Product Description Image Filename	Recommended Flash 12.4M	Recommended DRAM 12.4M
S280AESC9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES c2801-adventerprisek9-mz	64	128
S280AISK9 Cisco 2800 IOS ADVANCED IP SERVICES c2801-advipservicesk9-mz	64	128
S280ASK9 Cisco 2800 IOS ADVANCED SECURITY c2801-advsecurityk9-mz	64	128
S280EB Cisco 2800 IOS ENTERPRISE BASE WITHOUT CRYPTO c2801-entbase-mz	64	128
S280EBK9 Cisco 2800 IOS ENTERPRISE BASE c2801-entbasek9-mz	64	128
S280ES Cisco 2800 IOS ENTERPRISE SERVICES WITHOUT CRYPTO c2801-entservices-mz	64	128
S280ESK9 Cisco 2800 IOS ENTERPRISE SERVICES c2801-entservicesk9-mz	64	128
S280IPB Cisco 2800 IOS IP BASE WITHOUT CRYPTO c2801-ipbase-mz	64	128
S280IPBK9 Cisco 2800 IOS IP BASE c2801-ipbasek9-mz	64	128
S280IPV Cisco 2800 IOS IP VOICE WITHOUT CRYPTO c2801-ipvoice-mz	64	128
S280IPVK9 Cisco 2800 IOS IP VOICE c2801-ipvoicek9-mz	64	128
S280SPSK9 Cisco 2800 IOS SP SERVICES c2801-spservicesk9-mz	64	128

**Table 4.** Cisco 2811–2851—12.4M Feature Set Memory Recommendations

Software Product Description Product ID Product Description Image Filename	Recommended Flash 12.4M	Recommended DRAM 12.4M
S28NAESK9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES c2800nm-adventerprisek9-mz	64	256
S28NAVSK9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES WITH INTEGRATED VOICE/VIDEO GATEKEEPER, IP-IP GATEWAY, TDM-IP GATEWAY c2800nm-adventerprisek9_ivs-mz	64	256
S28NSNAK9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES WITH SNA SWITCHING c2800nm-adventerprisek9_sna-mz	64	256
S28NAISK9 Cisco 2800 IOS ADVANCED IP SERVICES c2800nm-advipservicesk9-mz	64	256
S28NASK9 Cisco 2800 IOS ADVANCED SECURITY c2800nm-advsecurityk9-mz	64	256
S28NEB Cisco 2800 IOS ENTERPRISE BASE WITHOUT CRYPTO c2800nm-entbase-mz	64	256
S28NEBK9 Cisco 2800 IOS ENTERPRISE BASE c2800nm-entbasek9-mz	64	256
S28NES Cisco 2800 IOS ENTERPRISE SERVICES WITHOUT CRYPTO c2800nm-entservices-mz	64	256
S28NESK9 Cisco 2800 IOS ENTERPRISE SERVICES c2800nm-entservicesk9-mz	64	256
S28NIPB Cisco 2800 IOS IP BASE WITHOUT CRYPTO c2800nm-ipbase-mz	64	256
S28NIPBK9 Cisco 2800 IOS IP BASE c2800nm-ipbasek9-mz	64	256
S28NIPV Cisco 2800 IOS IP VOICE WITHOUT CRYPTO c2800nm-ipvoice-mz	64	256

**Software Product Description****Product ID****Product Description****Image Filename****Recommended Flash****12.4M****Recommended DRAM****12.4M**

S28NIVS

Cisco 2800 IOS IP VOICE WITH INTEGRATED VOICE/VIDEO GATEKEEPER, IP-IP GATEWAY, TDM-IP GATEWAY

c2800nm-ipvoice\_ivs-mz

64

256

S28NIPVK9

Cisco 2800 IOS IP VOICE

c2800nm-ipvoicek9-mz

64

256

S28NSPSK9

Cisco 2800 IOS SP SERVICES

c2800nm-spservicesk9-mz

64

256

**CISCO IOS SOFTWARE RELEASE 12.4T****Overview of Available Feature Sets in Cisco IOS Software Release 12.4T**

Table 5 lists the Cisco IOS Software Release 12.3T feature sets that are available for the Cisco 2800 Series routers.

Note that the flash memory recommendations in the table are calculated without added management tools such as Cisco SDM.

**Table 5.** Cisco 2801—12.4T Feature Set Memory Recommendations**Software Product Description****Product ID****Product Description****Image Filename****Recommended Flash****12.4T****Recommended DRAM****12.4T**

S280AESC9

Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES

c2801-adventerprisek9-mz

64

128

S280AISK9

Cisco 2800 IOS ADVANCED IP SERVICES

c2801-advipservicesk9-mz

64

128

S280ASK9

Cisco 2800 IOS ADVANCED SECURITY

c2801-advsecurityk9-mz

64

128

S280EB

Cisco 2800 IOS ENTERPRISE BASE WITHOUT CRYPTO

c2801-entbase-mz

64

128

S280EBK9

Cisco 2800 IOS ENTERPRISE BASE

c2801-entbasek9-mz

64

128

S280ES

Cisco 2800 IOS ENTERPRISE SERVICES WITHOUT CRYPTO

c2801-entservices-mz

64

128

Software Product Description		
Product ID		
Product Description	Recommended Flash	Recommended DRAM
Image Filename	12.4T	12.4T
S280ESK9 Cisco 2800 IOS ENTERPRISE SERVICES c2801-entservicesk9-mz	64	128
S280IPB Cisco 2800 IOS IP BASE WITHOUT CRYPTO c2801-ipbase-mz	64	128
S280IPBK9 Cisco 2800 IOS IP BASE c2801-ipbasek9-mz	64	128
S280IPV Cisco 2800 IOS IP VOICE WITHOUT CRYPTO c2801-ipvoice-mz	64	128
S280IPVK9 Cisco 2800 IOS IP VOICE c2801-ipvoicek9-mz	64	128
S280SPSK9 Cisco 2800 IOS SP SERVICES c2801-spservicesk9-mz	64	128

**Table 6.** Cisco 2811-2851—12.4T Feature Set Memory Recommendations

Software Product Description		
Product ID		
Product Description	Recommended Flash	Recommended DRAM
Image Filename	12.4T	12.4T
S28NAESK9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES c2800nm-adventerprisek9-mz	64	256
S28NAVSK9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES WITH INTEGRATED VOICE/VIDEO GATEKEEPER, IP-IP GATEWAY, TDM-IP GATEWAY c2800nm-adventerprisek9_ivs-mz	64	256
S28NSNAK9 Cisco 2800 IOS ADVANCED ENTERPRISE SERVICES WITH SNA SWITCHING c2800nm-adventerprisek9_sna-mz	64	256
S28NAISK9 Cisco 2800 IOS ADVANCED IP SERVICES c2800nm-advipservicesk9-mz	64	256

**Software Product Description****Product ID****Product Description****Image Filename****Recommended Flash****12.4T****Recommended DRAM****12.4T**

S28NASK9 Cisco 2800 IOS ADVANCED SECURITY c2800nm-advsecurityk9-mz	64	256
S28NEB Cisco 2800 IOS ENTERPRISE BASE WITHOUT CRYPTO c2800nm-entbase-mz	64	256
S28NEBK9 Cisco 2800 IOS ENTERPRISE BASE c2800nm-entbasek9-mz	64	256
S28NES Cisco 2800 IOS ENTERPRISE SERVICES WITHOUT CRYPTO c2800nm-entservices-mz	64	256
S28NESK9 Cisco 2800 IOS ENTERPRISE SERVICES c2800nm-entservicesk9-mz	64	256
S28NIPB Cisco 2800 IOS IP BASE WITHOUT CRYPTO c2800nm-ipbase-mz	64	256
S28NIPBK9 Cisco 2800 IOS IP BASE c2800nm-ipbasek9-mz	64	256
S28NIPV Cisco 2800 IOS IP VOICE WITHOUT CRYPTO c2800nm-ipvoice-mz	64	256
S28NIVS Cisco 2800 IOS IP VOICE WITH INTEGRATED VOICE/VIDEO GATEKEEPER, IP-IP GATEWAY, TDM-IP GATEWAY c2800nm-ipvoice_ivs-mz	64	256
S28NIPVK9 Cisco 2800 IOS IP VOICE c2800nm-ipvoicek9-mz	64	256
S28NSPSK9 Cisco 2800 IOS SP SERVICES c2800nm-spservicesk9-mz	64	256

**Feature Area Map for Cisco IOS Software Release 12.4 Cross-Platform Feature Sets**

The cross-platform feature sets are tailored to ease the choice of feature sets in a multiplatform environment. They were initially available for Cisco 1700 Series and Cisco 2600XM, 2691, 3725, and 3745 routers and are now also available for the Cisco 1800, 2800, and 3800 series routers. The cross-platform feature sets simplify the image selection process by providing similar functions across platform boundaries.

**Table 7.** Feature Area Map

	Basic IP Connectivity for Data	Voice over IP, Voice over Frame Relay	ATM, Voice over ATM, MPLS	AppleTalk, IPX, IBM protocols	Firewall Intrusion Detection Sensor, VPN	SSH, HTTPS SNMPv3
IP Base	X					X
IP Base without Crypto	X					
Enterprise Base	X			X		X
Enterprise Base without Crypto	X			X		
IP Voice	X	X				X
IP Voice without Crypto	X	X				
Advanced Security	X				X	X
SP Services	X	X	X			X
Advanced IP Services	X	X	X		X	X
Enterprise Services without Crypto	X	X	X	X		
Enterprise Services	X	X	X	X		X
Advanced Enterprise Services	X	X	X	X	X	X



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