

# Portable Product Sheet - IOS Naming



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This reference is intended to assist engineers in ascertaining the feature sets included with an image. In most cases, the image name should correspond with the image name as downloaded from CCO. Assuming this to be the case, the image will have many numbers and letters in it, which indicate the feature functionality included in the image. The list below, while not "comprehensive," is a list of the most popular codes in a IOS naming convention.

"Legacy naming" - Letters at the beginning	
IOS Code Letter	Feature
a	APPN
a2	ATM
a3	SNASW
b	Appletalk Routing
c	Remote Access Server
d	Desktop routing
dsc	Dial Shelf Controller
g5	Enterprise Wireless (7200)
g6	GPRS Gateway Support Node (7200)
i	IP routing
i5	IP routing, no ISDN (mc3810)
in	Base IP (8500CSR)
j	Enterprise (kitchen sink routing)
n	IPX Routing (low-end routers)
p	Service Provider (or DOCSIS for uBR)
r(x)	IBM
telco	Telco
w3	Distributed Director
wp	IP/ATM Base Image (8500MSR,LS1010)
y/y5	IP Routing (low-end routers) (missing some IP routing/features like BGP)
y7	IP/ADSL

# Portable Product Sheet - IOS Naming



"Legacy Naming" - Letters in the middle	
56i	Encryption(DES)
ent	Plus (only when used with 'telco')
k1	BPI
k2/k8/k9	Encryption(DES=k8, 3DES=k9)
o	Firewall
o3	Firewall/IDS
s	Plus, or "LAN Only" on Cat6K/7600
s2	Voice IP to IP Voice Gateway (26xx/36xx/37xx only)
s3	"Basic" (limited IP routing, for limited-memory 26xx, 36xx)
s4	"Basic" without switching
s5	"Basic" without HD analog/AIM/Voice
t	Telco Return
v	VIP Support
v3,v8	Voice (17xx) - v3=VOICE, v8=VOX
w6	Wireless
x(or x2)	MCM
"Legacy Naming" - Letters at the end	
l	Runs from Flash
m	Runs from RAM
z	Compressed image

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## Notes - "Legacy Naming" Conventions

7200 and 7500 images for "IP Only" are always "IP Plus." Therefore, Base IP supports IP Gateway cards like the PA-VXC's, whereas in the 17/26/36/37xx's you need IP Plus.

In the 1700, the "s" for PLUS feature sets sometimes is the first letter, as opposed in the middle, and the "y" for IP is sometimes at the end, instead of the beginning.

Some sample decodes:

**c1700-bk2no3r2sv3y7-mz.121-5.YB5.bin** - 12.1(5)YB2, AT/3DES/IPX/FW/IDS/IBM/Plus/Voice/IP/ADSL, runs from RAM and is a compressed image

**c7200-is-mz.121-11.bin** - 12.1(11) mainline, IP Only (note: this is a 7200, so IP Plus = IP), runs from RAM and is a compressed image

## "Legacy Naming" - Feature Sets - Common Features Needed

**Plus** - Needed for modems, ATM, voice (non-17xx), DLSw+. Also adds "back in" IP features not in low-end router "y" images, like BGP.

**VIP Support** - Needed for VIP2/4/6 (75xx), FlexWAN (C6K)

**Desktop** - Has IP, IPX, and usually AT. Some older IOS revs have DEC/LAT in there, too.

**Enterprise** - "Kitchen Sink" - has every protocol possible, except those that require their own letter code.

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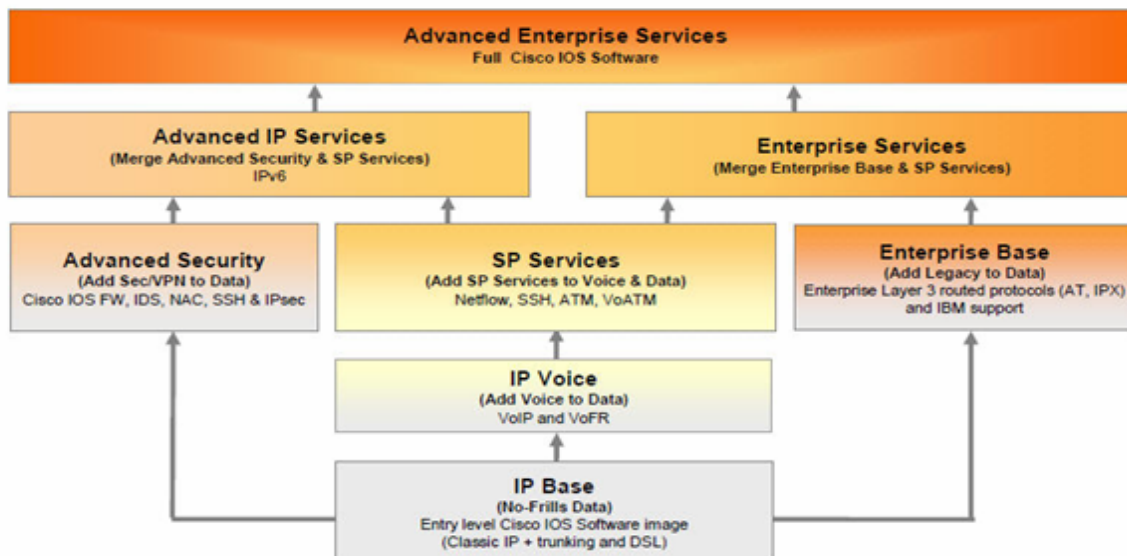
## New IOS Naming - Eight Feature Sets

In early 2003, the IOS teams in Cisco redid the IOS feature sets to "pull in the reigns," so to speak, and get the whole granular list "boiled down" to just a few feature sets. This will (hopefully) make choosing a feature set easier as time moves on. Certain IOS feature sets that are "specials" - for instance, H.323/MCM, will always be separate.

These sets were introduced first on the 1700, 2600XM, 2691, and 3700 series routers in 12.3 mainline. 12.3T will have *only* the new feature sets for these platforms and new ones. Later on, 12.2S and 12.3 special releases for the 7200, 10000, 12000, and other routers are planned to follow the same example.

## Cisco IOS Packaging 12.3 and beyond

Cisco.com



The key concept is "inheritance" - when you "move up" the diagram above, you "inherit" all the features from the feature sets below. For instance, Advanced IP Services combines the features in Advanced Security, Service Provider Services, IP Voice, and IP Base. Feature sets are easier to see their names, as well (substitute "2600" or "3700" or any other router model in place of "xxx"):

Image Name	Feature Set
cxxx-ipbase-mz	IP Base
cxxx-ipvoice-mz	IP Voice
cxxx-advsecurityk9-mz	Advanced Security (note k9=strong encryption)
cxxx-spservicesk9-mz	Service Provider Services (note: also known as SP Services)
cxxx-entbase-mz	Enterprise Base
cxxx-advipservicesk9-mz	Advanced IP Services
cxxx-entservicesk9-mz	Enterprise Services
cxxx-adventerprisek9-mz	Advanced Enterprise Services

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## Notes - New IOS Naming

With the transition to new feature sets, no doubt many end users will want to know what feature is in which feature set. For any installation, it is always recommended to first use the lookup tool known as Feature Navigator, located at <http://tools.cisco.com/ITDIT/CFN/jsp/index.jsp>

However, in a quick reference, please consult the following to figure out which feature set you need:

**IP Base** - Entry-level image, rolls up into all other images. Provides core routing functionality, including static routes, RIP, OSPF, EIGRP, for IPv4 only. Includes modems (both analog and digital) trunking (802.1q and ISL) and DSL, which were previously premium services only obtainable in the "IP Plus" feature set. Also includes NAT.

**IP Voice** - Adds VoIP and VoFR.

**Advanced Security** - Adds IOS/Firewall, IDS, SSH, NAC, and IPSec (DES, 3DES, and AES).

**Service Provider Services** - Adds Netflow, SSH, BGP, ATM, and VoATM.

**Enterprise Base** - Adds support for "legacy" L3 protocols such as IPX and Appletalk. Also adds IBM features such as DLSw+, STUN/BSTUN, and RSRB.

The remaining feature sets mostly "add" lower sets together, and do little to no feature addition. A special note on Advanced IP Services:

**Advanced IP Services** - Beyond merging Advanced Security and SP Services, it adds IPv6.