

Cisco IOS Software Release 15.1 Feature Sets and Memory Recommendations for Cisco 2010 Connected Grid Router

PB 566278

This product bulletin specifies the software feature sets available for the Cisco® 2010 Connected Grid Router (CGR 2010) in Cisco IOS® Software Release 15.1. It also issues recommendations for flash and DRAM memory configuration.

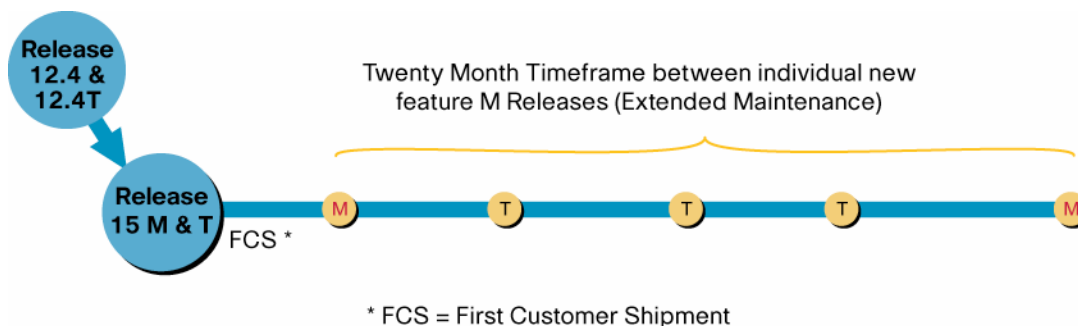
Note: This product bulletin has information about the new Cisco IOS Software Release 15.1 for the Cisco 2010 Connected Grid Router. It does not cover individual new features. For information about new features in Cisco IOS Software Release 15.1, refer to the Cisco IOS Software pages at Cisco.com.

Overview

Cisco IOS Software Release 15.1 is the next Cisco IOS Software release following the Cisco IOS Software Release 15.0. It was created for wide deployment in the world's most demanding enterprise, utility, and service provider networks. Cisco IOS Software Release 15.1 provides a comprehensive portfolio of Cisco technologies, functions, and hardware support from Releases 15.0 and 12.4, anchored by an intensive stability and testing program. Important innovations span multiple technology areas, including security, high availability, IP Routing, quality of service (QoS), IP Mobility, Multiprotocol Label Switching (MPLS), VPNs, Smart Grid, and embedded management.

Cisco IOS Software Release 15.1 provides new feature and hardware support more quickly than in previous Mainline (M) and Technology (T) releases, broadened feature consistency with other major Cisco IOS Software releases, more predictable new feature release and rebuild schedules, proactive individual release support policies, enhanced release numbering, and clearer software deployment and migration guidelines. Figure 1 details Cisco IOS Release 15.1.

Figure 1. Release 15.1 Train Map



Unlike the traditional Cisco IOS Software M and T model, Cisco IOS Software Release 15.1 does not diverge into separate M and T software release trains. With the 15.1 train, new releases will be available two to three times per year, delivered sequentially from a single software train. Extended Maintenance (EM) releases will be available approximately every 20 months. Standard maintenance T releases enable faster Cisco feature delivery before the next EM release becomes available.

Important highlights of Releases 15.1 M and T (illustrated in Figure 1) include the following:

- Feature inheritance from Cisco IOS Software Releases 15.0 and 12.4 releases
- New feature releases three times a year delivered sequentially from a single train
- Extended maintenance new feature 15 M releases every 20 months
- Standard maintenance new feature 15 T releases for the latest features and hardware support before the next 15 M release becomes available on Cisco.com

Maintenance rebuilds of 15 M and 15 T releases contain bug fixes only.

15 M Release Numbering (Extended Maintenance)

- Ideal for long-term maintenance, enabling customers to qualify, deploy, and remain on the release for an extended period
- Provides 44 months of support
- Incorporates features delivered in previous releases plus incremental new feature enhancements and hardware support

Figure 2 defines the release numbering convention for individual 15 M (extended maintenance) releases.

Figure 2. Release Numbering Convention for Cisco IOS Software Release 15 M



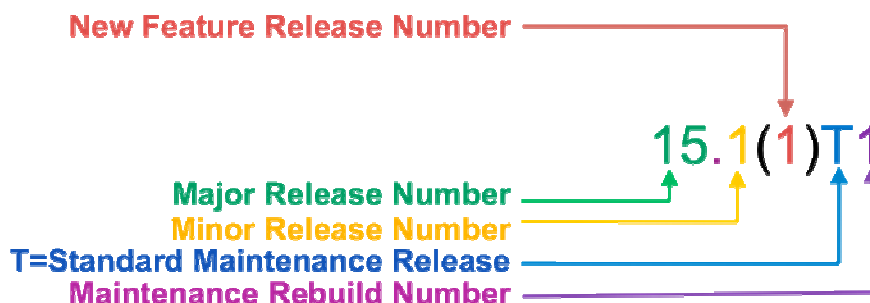
The first maintenance rebuild (for bug fixes only, not new features or new hardware support) of Release 15.1(1)M will be numbered **15.1(1)M1**. Subsequent maintenance releases are defined by an increment of the maintenance rebuild number (for example, M2, M3, etc.).

Numbering for Release 15 T Releases (Standard Maintenance)

- Short deployment releases ideal for latest new features and hardware support before the next M release becomes available
- Provides regular bug fix maintenance rebuilds for 12 months, plus 6 additional months of critical fix support for network-affecting bugs such as Product Security Incident Report Team (PSIRT) problems (standard Cisco PSIRT policy will take precedence; refer to <http://www.cisco.com/go/psirt>)
- Incorporates features and hardware support delivered in previous releases

Figure 3 describes the release numbering convention planned for individual 15 T (standard maintenance) releases.

Figure 3. Release Numbering Convention for Cisco IOS Software Release 15 T



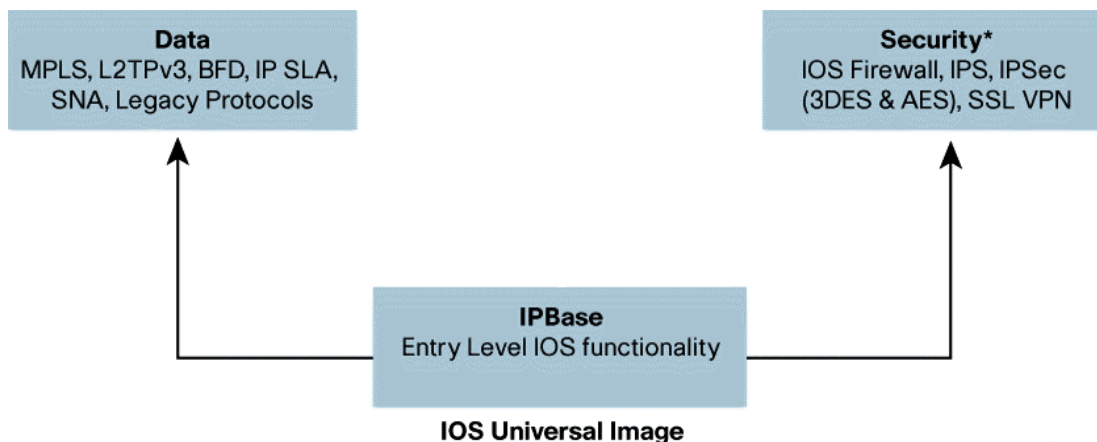
For example, the first planned 15 T new feature release will be numbered **Release 15.1(1)T**. The first maintenance rebuild (for bug fixes only, not new features or new hardware support) of Release 15.1(1)T will be numbered **15.1(1)T1**. Subsequent maintenance releases are defined by an increment of the maintenance rebuild number (for example, T2, etc.).

The remainder of this product bulletin provides details about Cisco IOS Software Release 15.1 availability for the Cisco 2010 Connected Grid Router (CGR 2010) and the associated flash and DRAM memory requirements.

Cisco IOS Software Release 15.1 Feature Sets and Universal Cisco IOS Software Images

The Cisco 2010 Connected Grid Router ships with a Cisco IOS Universal image that contains all the features available for use on the routers. The specific feature set is activated by using technology package licenses such as Security and Data.

Figure 4. Cisco IOS Software Packaging Model for Cisco 2010 Connected Grid Router



*Security license is also offered in NPE version that maps to the universal image with No Payload Encryption

Two types of universal images are supported on Cisco 2010 Connected Grid Routers:

1. Universal images with the "universalk9" designation in the image name: This universal image offers all the Cisco IOS Software features, including strong payload cryptography features such as IP Security (IPsec) VPN and Secure Sockets Layer (SSL) VPN.
2. Universal images with the universalk9_npe" designation in the image name: The strong enforcement of encryption capabilities provided by Cisco Software Activation satisfies requirements for the export of encryption capabilities. However, some countries have import requirements that the platform not support any strong

cryptography functions such as payload cryptography. To satisfy the import requirements of those countries, the “npe” universal image does not support any strong payload encryption. This image supports security features such as Cisco IOS Zone-Based Firewall, intrusion prevention through a SECNPE-K9 license.

Cisco IOS Software Release 15.1 Image Sets

Each 2010 Cisco Connected Grid Router ships with a Cisco IOS Universal image. IP Base, DATA, and SEC (Security) technology packages are enabled in the universal image through Cisco Software Activation licensing keys. Each licensing key is unique to a particular device; you can obtain it from Cisco by providing the product ID and serial number of the router and a Product Activation Key (PAK), which Cisco provides when you purchase the software.

Cisco IOS Image Set and Memory Recommendations for Cisco 2010 Connected Grid Router

Table 1 lists the Cisco IOS Software Release 15.1 feature sets that are available for the Cisco 2010 Connected Grid Router. Note that the table lists the default flash memory and DRAM. For more feature details, refer to the product data sheet at:

http://www.cisco.com/en/US/prod/collateral/routers/ps10967/ps10977/data_sheet_c78_593509.html

Table 1. Cisco 2010 Connected Grid Router: Cisco IOS Software Release 15.1 Image Set and Licensing Compatibility Matrix

Product Family	Product ID	Product Description	Compatible with	Default Compact Flash 15.1	Default DRAM 15.1
CGR-2010/K9	SG20UK9-15101T (=)	Cisco 2010 IOS Universal 15.1(1)T Image for CGR 2010	(L-)SL-20-SEC-K9 (=) or (L-)SL-20-DATA-K9 (=)	256 MB	1 GB
CGR-2010/K9	SG20NPEK9-15101T (=)	Cisco IOS Universal – No Payload encryption 15.1(1)T Image for CGR 2010	(L-)SL-20-SECNPE-K9 (=) or (L-)SL-20-DATA-K9 (=)	256 MB	1 GB
CGR-2010/K9	SL-20-IPB-K9 (=)	IP Base License (Paper) for Cisco CGR2010	SG20UK9-15101T or SG20NPEK9-15101T	256 MB	1 GB
CGR-2010/K9	SL-20-DATA-K9 (=)	Data License (Paper) for Cisco CGR2010 (Both system & spare)	SG20UK9-15101T or SG20NPEK9-15101T	256 MB	1 GB
CGR-2010/K9	L-SL-20-DATA-K9=	Data License (E-Delivery) for Cisco CGR2010 (only as spare)	SG20UK9-15101T or SG20NPEK9-15101T	256 MB	1 GB
CGR-2010/K9	SL-20-SEC-K9 (=)	Security License (Paper) for Cisco CGR2010 (Both system & spare)	SG20UK9-15101T	256 MB	1 GB
CGR-2010/K9	L-SL-20-SEC-K9=	Security License (E-Delivery) for Cisco CGR2010 (only as spare)	SG20UK9-15101T	256 MB	1 GB
CGR-2010/K9	SL-20-SECNPE-K9 (=)	SEC No Payload Encryption Paper License for Cisco CGR2010 (System & spare).	SG20NPEK9-15101T	256 MB	1 GB
CGR-2010/K9	L-SL-20-SECNPE-K9=	SEC No Payload Encryption E License for Cisco CGR2010 (only as spare)	SG20NPEK9-15101T	256 MB	1 GB
CGR-2010/K9	FL-CG-SSLVPN10-K9 (=)	SSLVPN Feature license PAK (Paper) for CGR2010 - 10 users (System & spare)	SG20UK9-15101T and SL-20-SEC-K9	256 MB	1 GB
CGR-2010/K9	FL-CG-SSLVPN25-K9 (=)	SSLVPN Feature license PAK (Paper) for CGR2010 – 25 users (System & spare)	SG20UK9-15101T and SL-20-SEC-K9	256 MB	1 GB
CGR-2010/K9	L-FLCG-SSLVPN10K9=	SSLVPN 10-user Feature license PAK (E-Delivery) for CGR2010 (Spare only)	SG20UK9-15101T and SL-20-SEC-K9	256 MB	1 GB
CGR-2010/K9	L-FLCG-SSLVPN10K9=	SSLVPN 25-user Feature license PAK (E-Delivery) for CGR2010 (Spare only)	SG20UK9-15101T and SL-20-SEC-K9	256 MB	1 GB
CGR-2010/K9	FL-CG20-CNFIL-1Y (=)	Content Filtering 1YR Subscription PAK (Paper) for CGR2010 (System & spare)	SG20UK9-15101T or SG20NPEK9-15101T and SL-20-SEC-K9 or SL-20-SECNPE-K9	256 MB	1 GB

Product Family	Product ID	Product Description	Compatible with	Default Compact Flash 15.1	Default DRAM 15.1
CGR-2010/K9	L-FL-CG20CNFIL-1Y=	Content Filter 1YR Subscription PAK (E-Delivery) for CGR2010 (Spare only)	SG20UK9-15101T or SG20NPEK9-15101T and SL-20-SEC-K9 or SL-20-SECNPE-K9	256 MB	1 GB

For More Information

For more information about Cisco IOS Software Release 15.1 or for a list of new features or software release notes, visit http://www.cisco.com/en/US/products/ps10592/tsd_products_support_series_home.html or contact your local Cisco account representative.

The Cisco 2010 Connected Grid Router data sheet is available at:

http://www.cisco.com/en/US/prod/collateral/routers/ps10967/ps10977/data_sheet_c78_593509.html.



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