

Cisco Unified Border Element and Gatekeeper Ordering Guide

1 Cisco IOS Software Images and Feature Sets

Different Cisco IOS software images are available for the various platforms that support Cisco Unified Border Element and Gatekeeper functionality. These Cisco IOS feature sets contain different levels of features. In addition to the software image, a feature license is required to turn on the desired functionality—licensing is discussed in the next section.

The Cisco 800, 2900 and 3900 Series platforms have a universal Cisco IOS software image. On these platforms all features are contained in the single software image, and what features are available for use is purely determined by the license(s) purchased.

The Cisco Unified Border Element has different groups of features that are broadly classified under four categories:

- A: Basic or common Cisco Unified Border Element features
- B: Voice security features
- C: Gatekeeper, Video and Advanced Cisco Unified Border Element Features
- D: Lawful intercept

1.1 Full Cisco Unified Border Element and Gatekeeper Functionality

Except for the platforms with a universal image, the Cisco IOS Software feature set to order depends on the features you require. Table 1 shows the mapping of different Cisco IOS Software feature sets and platforms for the four categories of Cisco Unified Border Element and Gatekeeper features.

Table 1. Cisco IOS Software Feature Sets for Full Cisco Unified Border Element and Gatekeeper Functionality

Platforms	Cisco IOS Software Feature Sets*	Feature Category
Cisco 2900 and 3900 Series Integrated Services Routers	Universal Image	ABCD
	Universal Image (No Payload Encryption)	AC
Cisco 2800 and 3800 Series Integrated Services Routers	IP VOICE	A
	IP VOICE W/O CRYPTO	A
	ENTERPRISE SERVICES	A
	ENTERPRISE SERVICES W/O CRYPTO	A
	SP SERVICES	A
	ADVANCED IP SERVICES	AB
	ADVANCED ENTERPRISE SERVICES	AB
	INT VOICE/VIDEO, IPIP GW, TDMIP GW	AC
	INT VOICE/VIDEO, IPIPGW, TDMIP GW AES	ABC
	INT VOICE/VIDEO GK, IPIPGW, TDMIP GW AES, LI	ABCD
Cisco AS5350XM Universal Gateway, and Cisco AS5400XM Universal Gateway	IP PLUS	A
	IP PLUS IPSEC 3DES	AB
	IP PLUS IPSEC 3DES LAWFUL INTERCEPT	ABD
	INT VOICE/VIDEO IPIPGW, TDMIP GW EPLUS	ABC
	INT VOICE/VIDEO IPIPGW, TDMIP GW LI	ABCD

Platforms	Cisco IOS Software Feature Sets*	Feature Category
Cisco 7200 Series and Cisco 7301 Routers**	ADVANCED ENTERPRISE SERVICES	ABC
	ADVANCED IP SERVICES W/LAWFUL INTERCEPT	ABCD

*The IP Base, Enterprise Base, and Advanced Security feature sets do not contain any unified communications features.

** The last software release on the Cisco 7000 Series platforms that contains Gatekeeper functionality is 12.4(15)T.

1.2 “Light” Cisco Unified Border Element Functionality

A number of lower end platforms support a subset of Cisco Unified Border Element feature functionality, sometimes referred to as the “CUBE Light” feature set. These platforms and their software images are given in Table 2. “CUBE Light” functionality generally includes the “A” and “B” feature categories, and specifically the following features:

- SIP-to-SIP connections (no H.323 interworking)
- SIP video (no H.323)
- No Telepresence support
- No Gatekeeper support
- No Tcl or VoiceXML capabilities

Table 2. Cisco IOS Software Feature Sets with Cisco Unified Border Element “Light” Functionality

Platforms	Cisco IOS Software Feature Sets	Feature Category
Cisco 880 Series Integrated Services Routers	UNIVERSAL VOICE	AB
Cisco IAD880 Integrated Access Devices	UNIVERSAL VOICE	AB
Cisco 1861 Integrated Services Router	IP VOICE W/O CRYPTO	A
	SP SERVICES	A
	ENTERPRISE SERVICES	A
	ADVANCED IP SERVICES	AB
	ADVANCED ENTERPRISE SERVICES	AB
Cisco IAD 2430 Business Class Integrated Access Device	IP SUBSET/VOICE	A
	IP SUBSET/IPSEC 64BIT/FW/VOICE	AB

2 Cisco IOS Software Feature Licenses

Purchasing the appropriate software image is in many cases sufficient to deploy Cisco router features. In other cases a feature license in addition to the software image is required. All features on platforms with a universal software image require a license. Both the Cisco Unified Border Element and Gatekeeper are licensed features.

On the Cisco 2900 and 3900 Series platforms, the Cisco Unified Border Element and Gatekeeper have distinct license SKUs. On all other platforms, where both features are supported, the same license SKUs are shared for both Cisco Unified Border Element and Gatekeeper capabilities.

Note: A feature license conveys the right to use a feature, but it cannot add a feature to a software release or software image that does not contain it. For example, purchasing a Gatekeeper feature license for the Cisco 3845 IP VOICE image will not upgrade the software to support Gatekeeper features – the IP VOICE image does not contain Gatekeeper code. First choose a software image that supports all required features, and then choose the appropriate feature licenses to allow the capability.

2.1 Cisco Unified Border Element and Gatekeeper License Types

Two types of Cisco Unified Border Element licenses are available.

- Pay-as-you-Grow, or session count, license
- Flat, or capacity, license

Cisco Unified Border Element licenses are available in both types on select platforms. Gatekeeper licenses are available in the flat license type only.

2.1.1 Pay-as-you-Grow License

This type of license covers the right to use the feature as well as the maximum session count allowed. An example is the FL-CUBE-25 license which allows up to 25 sessions.

This license is designed to allow a specific number of sessions (or calls) on a platform. Purchase only as many sessions as are required in your deployment. More licenses can be added later as needs expand, thus offering pay-as-you-grow benefits. These licenses are available on select platforms as given in Table 3, and are available on all software images. Examples include the FL-CUBE-4 and FL-CUBEE-100 licenses.

Pay-as-you-Grow licenses are transferable between platforms. For example, you may purchase an FL-CUBE-25 license and run it on a Cisco 2811 platform at a site. If that site should outgrow the Cisco 2811 and upgrade to a Cisco 2821 platform, the FL-CUBE-25 license can be used on the Cisco 2821 instead.

2.1.2 Flat License

This type of license covers the right to use the feature up to the maximum session count supported on the chosen platform as given in Table 6. An example is the FL-INTVSRV-2811 license which allows the maximum number of sessions the Cisco 2811 platform supports (Table 6).

These licenses are available on select platforms as given in Table 3. These licenses require a software image with “C” or “D” feature capability as given in Table 1. Examples include the FL-INTVSRV-2801 and FL-GK-3945 licenses.

Flat licenses are tied to the platform it was purchased for (and is contained in the SKU) and is not transferable between platforms. For example, if you purchased a FL-INTVSRV-2811 license, it is valid only if used on a Cisco 2811 platform.

2.2 Cisco Unified Border Element Licenses

The Cisco Unified Border Element licenses, available per platform, are given in Table 3.

Table 3. Cisco Unified Border Element License Choices per Platform

Platform	License SKU Choices	License Type
Cisco 2900 Series Integrated Services Routers	FL-CUBEE-5	Pay-as-you-Grow
	FL-CUBEE-25	Pay-as-you-Grow
	FL-CUBEE-100	Pay-as-you-Grow
	FL-CUBEE-500	Pay-as-you-Grow
Cisco 3900 Series Integrated Services Routers	FL-CUBEE-5	Pay-as-you-Grow
	FL-CUBEE-25	Pay-as-you-Grow
	FL-CUBEE-100	Pay-as-you-Grow
	FL-CUBEE-500	Pay-as-you-Grow
	FL-CUBEE-1000	Pay-as-you-Grow
Cisco 2800 Series Integrated Services Routers	FL-CUBE-4	Pay-as-you-Grow
	FL-CUBE-25	Pay-as-you-Grow
	FL-CUBE-100	Pay-as-you-Grow
	FL-INTVSRV-2801	Flat
	FL-INTVSRV-2811	Flat

Platform	License SKU Choices	License Type
	FL-INTVSRV-2821 FL-INTVSRV-2851	Flat Flat
Cisco 3800 Series Integrated Services Routers	FL-CUBE-4 FL-CUBE-25 FL-CUBE-100 FL-INTVSRV-3825 FL-INTVSRV-3845	Pay-as-you-Grow Pay-as-you-Grow Pay-as-you-Grow Flat Flat
Cisco AS5350XM Universal Gateway and Cisco AS5400XM Universal Gateway	FL-INTVSRV-5X	Flat
Cisco 880 Series Integrated Services Routers	FL-CUBE-4	Pay-as-you-Grow
Cisco IAD880 Integrated Access Devices	FL-CUBE-4	Pay-as-you-Grow
Cisco 1861 Integrated Services Router	FL-CUBE-4	Pay-as-you-Grow
Cisco IAD 2430 Business Class Integrated Access Device	FL-CUBE-4 FL-CUBE-25	Pay-as-you-Grow Pay-as-you-Grow

2.3 Gatekeeper Licenses

Gatekeeper licenses, available per platform, are given in Table 4. As of Cisco IOS software release 12.4(20)T or later, Gatekeeper licensing is enforced. After ordering, you can obtain a Gatekeeper license file to install on your router here. A 60-day grace period, or temporary license, is automatically enabled for evaluation purposes or while you wait to receive your license order.

Gatekeeper functionality requires a "C" image (as given in Table 1) on the Cisco 2800 and 3800 Series platforms. On the Cisco 2900 and 3900 Series platforms, it is included in the universal software image.

Table 4. Gatekeeper License Choices per Platform

Platform	License SKU Choices	License Type
Cisco 2900 Series Integrated Services Routers	FL-GK-2901 FL-GK-2911 FL-GK-2921 FL-GK-2951	Flat Flat Flat Flat
Cisco 3900 Series Integrated Services Routers	FL-GK-3925 FL-GK-3945	Flat Flat
Cisco 2800 Series Integrated Services Routers	FL-CUBE-4 FL-CUBE-25 FL-CUBE-100 FL-INTVSRV-2801 FL-INTVSRV-2811 FL-INTVSRV-2821 FL-INTVSRV-2851	Pay-as-you-Grow Pay-as-you-Grow Pay-as-you-Grow Flat Flat Flat Flat
Cisco 3800 Series Integrated Services Routers	FL-CUBE-4 FL-CUBE-25 FL-CUBE-100 FL-INTVSRV-3825 FL-INTVSRV-3845	Pay-as-you-Grow Pay-as-you-Grow Pay-as-you-Grow Flat Flat
Cisco AS5350XM Universal Gateway and Cisco AS5400XM Universal Gateway	FL-INTVSRV-5X	Flat

2.4 Platform Packages

The Cisco 2900 and 3900 Series platforms have universal software images. To enable general software capabilities such as Security or Unified Communications requires the ordering of a specific software package. This is comparable to the tiered feature functionality previously offered in different software images (such as IP Voice or Advanced IP Services) on the Cisco 2800 and 3800 Series platforms.

Cisco Unified Border Element and Gatekeeper functionality requires the Unified Communications package to be purchased. If security features are desired, then the Security package must also be added. Table 5 lists the Cisco 2900 and 3900 Software Packages.

Table 5. Platform Packages

Platform	Description	Package SKU	Required
Cisco 2900 Series Integrated Services Routers	Unified Communications License for Cisco 2901-2951	SL-29-UC-K9	Yes
	Security License for Cisco 2901-2951	SL-29-SEC-K9	Optional
Cisco 3900 Series Integrated Services Routers	Unified Communications License for Cisco 3925/3945	SL-39-UC-K9	Yes
	Security License for Cisco 3925/3945	SL-39-SEC-K9	Optional

3 Cisco Unified Border Element Maximum Session Count Support

The maximum number of Pay-as-you-Grow sessions that can be licensed on a particular platform is determined by the maximum session support for the platform. The maximum performance supported by a system with a Flat license is also determined by the maximum session support of the platform.

Maximum sessions supported by Cisco Unified Border Element platforms are given in Table 6.

Table 6. Maximum Session Counts per Platforms

Platform Category	Platform	Maximum Sessions
Cisco 2900 Series Integrated Services Routers	2901	100
	2911	200
	2921	400
	2951	600
Cisco 3900 Series Integrated Services Routers	3925	800
	3945	1000
Cisco 2800 Series Integrated Services Routers	2801	55
	2811	110
	2821	200
	2851	225
Cisco 3800 Series Integrated Services Routers	3825	400
	3845	500
Cisco 7200 Series, Cisco 7201 and Cisco 7301 Routers	NPE-G1	600
	NPE-G2	800
Cisco AS5350XM Universal Gateway and Cisco AS5400XM Universal Gateway	All	800
Cisco 880 Series Integrated Services Routers	All	12
Cisco IAD880 Integrated Access Devices	All	12
Cisco 1861 Integrated Services Router	All	2x Number of Phones
Cisco IAD 2430 Business Class Integrated Access Device	All	25

4 Ordering A Cisco Unified Border Element

The Cisco Unified Border Element can be ordered in two ways:

- Start with a base router and add the software and licenses individually to the order.
- Start with a bundle that includes some (or all) of what is necessary for the order, and offers optional upgrade options. There are bundles defined specifically for Cisco Unified Border Element deployments, or you can add SIP trunk capability (requiring Cisco Unified Border Element functionality) to Cisco Unified Communications Manager Express (CME) or Cisco Survivable Remote Site Telephony (SRST) deployments and start with the bundles optimized for those configurations.

4.1 Starting with a Router Platform

To order Cisco Unified Border Element starting with a platform, do the following:

Step 1. Select a platform from Table 1 or 2

Step 2. Select a software image or package

a) If you are ordering a Cisco 2900 or 3900 Series platform, select one or more software packages from Table 5. The Unified Communications package is required, the Security package is optional.

b) If you are ordering any other platform, select a software image from Table 1 or 2 that has the feature complement you require

Step 3. Select a license from Table 3

If the Cisco Unified Border Element license option is not shown as a choice as part of the system order, order the license separately as a spare

4.2 Starting with a Cisco Unified Border Element Bundle

A select number of Cisco Unified Border Element preconfigured bundles are available with the Cisco 2800 and 3800 Series platforms. These are aggregate SKUs that include the base router, an upgraded Cisco IOS software image, memory, some DSP resources and a certain level of licenses. You can choose from bundles listed in Table 7.

To order starting with a Cisco Unified Border Element bundle, do the following:

Step 1. Select a platform bundle from Table 7

Step 2. Check the license level included in the bundle (Table 7), and add additional licenses from Table 3 if required (not to exceed the maximum session count support for the platform as given in Table 6).

Table 7. Cisco 2800 and 3800 Series Platform Cisco Unified Border Element Bundles

Product Number	Descriptions
C2801-VSEC-CUBE/K9	Platform: Cisco 2801 platform with 64 MB flash/256 MB DRAM Software Image: INT VOICE/VIDEO, IPIP GW, TDMIP GW AES DSPs: PVDM2-8 Licenses: One FL-CUBE-25 (25 sessions)
C2811-VSEC-CUBE/K9	Platform: Cisco 2811 platform with 64 MB flash/256 MB DRAM Software Image: INT VOICE/VIDEO, IPIP GW, TDMIP GW AES DSP: PVDM2-16 Licenses: Three FL-CUBE-25 (75 sessions)
C2821-VSEC-CUBE/K9	Platform: Cisco 2821 platform with 64 MB flash/256 MB DRAM Software Image: INT VOICE/VIDEO, IPIP GW, TDMIP GW AES DSPs: PVDM2-32 Licenses: One FL-CUBE-100 (100 sessions)
C2851-VSEC-CUBE/K9	Cisco 2851 platform with 64 MB flash/256 MB DRAM Software Image: INT VOICE/VIDEO, IPIP GW, TDMIP GW AES DSPs: PVDM2-32 Licenses: One FL-CUBE-100 and one FL-CUBE-25 (125 sessions)
C3825-VSEC-CUBE/K9	Cisco 3825 platform with 128 MB flash/512 MB DRAM Software Image: INT VOICE/VIDEO, IPIP GW, TDMIP GW AES DSPs: PVDM2-64 Licenses: Three FL-CUBE-100 (300 sessions)
C3845-VSEC-CUBE/K9	Cisco 3845 platform with 128 MB flash/512 MB DRAM Software Image: INT VOICE/VIDEO, IPIP GW, TDMIP GW AES DSPs: PVDM2-64 Licenses: Four FL-CUBE-100 (400 sessions)

4.3 Starting with a Unified Communications Bundle

To order Cisco Unified Border Element functionality starting with a non-Cisco Unified Border Element bundle, do the following:

- Step 1. Select a platform bundle from Tables 8, 9 or 10
- Step 2. Check the software image included in the bundle (for the Cisco 2800 and 3800-based bundles), and select an upgrade if it does not contain the feature complement you require (see Table 1)
- Step 3. Select a license from Table 3 (not to exceed the maximum session capacity given in Table 6)

Table 8. Cisco 2900 and 3900 Series Platform Unified Communications Bundles

Product Number for—V Bundles	Product Number for—VSEC Bundles	Product Number for—CCME-SRST Bundles
CISCO2901-V/K9	CISCO2901-VSEC/K9	C2901-CCME-SRST/K9
CISCO2911-V/K9	CISCO2911-VSEC/K9	C2911-CCME-SRST/K9
CISCO2921-V/K9	CISCO2921-VSEC/K9	C2921-CCME-SRST/K9
CISCO2951-V/K9	CISCO2951-VSEC/K9	C2951-CCME-SRST/K9
CISCO3925-V/K9	CISCO3925-VSEC/K9	C3925-CCME-SRST/K9
CISCO3945-V/K9	CISCO3945-VSEC/K9	C3945-CCME-SRST/K9

Table 9. Cisco 2800 and 3800 Series Platform Unified Communications Bundles

Product Number for—V Bundles	Product Number for—CCME Bundles	Product Number for—SRST Bundles	Product Number for—UC Bundles
CISCO2801-V/K9	CISCO2801-CCME/K9	CISCO2801-SRST/K9	C2801-10UC/K9
CISCO2811-V/K9	CISCO2811-CCME/K9	CISCO2811-SRST/K9	C2811-15UC/K9
CISCO2821-V/K9	CISCO2821-CCME/K9	CISCO2821-SRST/K9	C2821-25UC/K9
CISCO2851-V/K9	CISCO2851-CCME/K9	CISCO2851-SRST/K9	C2851-35UC/K9
CISCO3825-V/K9	CISCO3825-CCME/K9	CISCO3825-SRST/K9	C3825-35UC/K9
CISCO3845-V/K9	CISCO3845-CCME/K9	CISCO3845-SRST/K9	C3845-35UC/K9

Table 10. Cisco 2800 and 3800 Series Platform Unified Communications Bundles with Security

Product Number for—VSEC Bundles	Product Number for—H-VSEC Bundles	Product Number for—CCME Bundles	Product Number for—SRST Bundles	Product Number for—UC Bundles
CISCO2801-VSEC/K9	CISCO2801-H-VSEC/K9	C2801-VSEC-CCME/K9	C2801-VSEC-SRST/K9	C2801-10UC-VSEC/K9
CISCO2811-VSEC/K9	CISCO2811-H-VSEC/K9	C2811-VSEC-CCME/K9	C2811-VSEC-SRST/K9	C2811-15UC-VSEC/K9
CISCO2821-VSEC/K9	CISCO2821-H-VSEC/K9	C2821-VSEC-CCME/K9	C2821-VSEC-SRST/K9	C2821-25UC-VSEC/K9
CISCO2851-VSEC/K9	CISCO2851-H-VSEC/K9	C2851-VSEC-CCME/K9	C2851-VSEC-SRST/K9	C2851-35UC-VSEC/K9
CISCO3825-VSEC/K9	CISCO3825-H-VSEC/K9	C3825-VSEC-CCME/K9	C3825-VSEC-SRST/K9	C3825-35UC-VSEC/K9
CISCO3845-VSEC/K9	CISCO3845-H-VSEC/K9	C3845-VSEC-CCME/K9	C3845-VSEC-SRST/K9	C3845-35UC-VSEC/K9

5 Ordering A Cisco Gatekeeper

The Cisco Gatekeeper can be ordered in two ways:

- Start with a base router and add the software and licenses individually to the order
- Start with a Cisco Unified Border Element bundle

5.1 Starting with a Router Platform

To order a Gatekeeper starting with a platform chassis, do the following:

- Step 1. Select a platform from Table 1

Step 2. Select a software image or package

- a) If you are ordering a Cisco 2900 or 3900 Series platform, select one or more software packages from Table 5. The Unified Communications package is required, the Security package is optional.
- b) If you are ordering any other platform, select a software image with the “C” feature capability from Table 1.

Step 3. Select a license from Table 4**5.2 Starting with a Cisco Unified Border Element Bundle**

A select number of preconfigured Cisco Unified Border Element bundles are available with the Cisco 2800 and 3800 Series platforms. For these platforms the Gatekeeper share licenses with the Cisco Unified Border Element, so these bundles can be used for Gatekeeper configurations also.

To order starting with a Cisco Unified Border Element bundle, do the following:

- Step 1: Select a platform bundle from Table 7
- Step 2: Check the license level included in the bundle (Table 7), and add additional licenses from Table 4 if you are using a pay-as-you-grow license.

6 For More Information

To obtain current information about prices for individual product numbers, refer to the Cisco price list.

More information about the [Cisco Unified Border Element](#).

For more information about the [Cisco IOS Software Activation and Licensing](#).

7 Marketing Contacts

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