

Cisco IOS H323 Gatekeeper

Cisco® Unified Communications is a comprehensive IP communications system of voice, video, data, and mobility products and applications. It enables more effective, secure, and personalized communications that directly affect both sales and profitability. It brings people together by enabling a new way of communicating, where your business moves with you, security is everywhere, and information is always available whenever and wherever it is needed. Cisco Unified Communications is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, and third-party communications applications.

Product Overview

The Cisco IOS H323 Gatekeeper is an intelligent unified communications network component. Formerly included as part of the Cisco Unified Border Element, the Cisco IOS H323 Gatekeeper helps enable an end to end IP based architecture by providing an essential capability for H323 networks. The Cisco IOS Gatekeeper has been a component of IOS for several years and has an extensive set of capabilities for interconnecting H323 endpoints.

The Cisco IOS H323 Gatekeeper is licensed separately in the ISR G2 as a standalone capability distinct from the Border Element functionality. The Gatekeeper is H323v4 compatible and allows for both video and voice H323 calls to be connected across H323 networks.

The Cisco IOS H323 Gatekeeper is integrated Cisco IOS Software application that runs on the Cisco 2900 and 3900 Series Integrated Services Routers. On the 2800 and 3800 Series router and the Cisco 7200 Series and Cisco 7301 Series Router, and the Cisco AS5350XM and AS5400XM Universal Gateways. This functionality is included as part of the Cisco Unified Border Element. Previous versions of the software also ran on the Cisco 2600 Series Multiservice Platforms and Cisco 3700 Series Multiservice Access Routers.

Cisco IOS Software allows for simultaneous operation of the following features:

- Cisco IOS Software H.323 Gatekeeper: An application that acts as the point of control for a variety of voice and video components that can be attached to an IP network such as IP telephony devices, IP-PSTN gateways, H.323 videoconferencing endpoints, and H.323 multipoint control units while facilitating buildout of large-scale multimedia service networks
- Cisco Unified Border Element: An application that terminates and re-originates both signaling (H.323 and SIP) and media streams (Real-Time Transport Protocol [RTP] and RTP Control Protocol [RTCP]) while performing border interconnection services between IP networks
- Cisco TDM Gateway: An application that allows time-division multiplexing (TDM) switching between TDM interfaces or TDM-to-IP interfaces

Table 1. Cisco IOS H323 Gatekeeper Features

Feature	Support Details
H323v4 compliant Gatekeeper functionality for standards based	Voice and Video Endpoints.
Protocol Variants	H.323v2 to H323v4
Transport mode	<ul style="list-style-type: none"> • TCP • User Datagram Protocol (UDP)
Call Admission Control (CAC)	<ul style="list-style-type: none"> • Bandwidth based Call Admission Control • Zone Based Call Admission Control

Feature	Support Details
Authentication, authorization, and accounting (AAA)	<ul style="list-style-type: none"> • AAA Radius Start and Stop Records
Routing capabilities	<ul style="list-style-type: none"> • E164 based routing capabilities
External Interfaces	<ul style="list-style-type: none"> • Support for GKTMP External interfaces
QoS	DSCP markings to prioritize Gatekeeper signaling traffic
QoS	DSCP markings to prioritize video streams as they traverse the network

Primary Features and Benefits

The Cisco IOS H323 Gatekeeper subsystem functions as a point of control for a variety of H323 video and voice components that can be attached to an IP network including;

- H.323 videoconferencing endpoints
- H.323 multipoint control units
- H.320-H.323 gateways
- H323 TDM Gateways
- H323 Voice Endpoints
- H323 Video Endpoints.

The subsystem's features include

- H.323 administrative zone establishment
- User authorization and authentication via a RADIUS or TACACS database
- Endpoint registration via the H.323 registration, admission, and status protocol
- Call establishment within a zone and between zones with admission control
- Bandwidth and session management within a zone and between zones
- Management of the amount of H.323 voice or video calls allowed over specific zones
- Address lookup, resolution, and translation between E.164 aliases and IP addresses
- Generation of call records for accounting and billing

Feature Availability

The Cisco IOS H323 Gatekeeper is built on Cisco IOS Software and runs on the following platforms:

- Cisco 3900 Series platforms (Cisco 3925 and 3945 platforms)
- Cisco 2900 Series Integrated Services Routers (Cisco 2901, 2911, 2921, and 2951 platforms)

Older versions of the functionality are also available on the following routers;

- Cisco 3800 Series Integrated Services Routers (Cisco 3825 and 3845 Integrated Services Routers)
- Cisco 2800 Series Integrated Services Routers (Cisco 2801, 2811, 2821, and 2851 Integrated Services Routers)
- Cisco AS5400XM and AS5350XM Universal Gateways
- Cisco 7301 Router
- Cisco 7200VXR Series Routers
- Cisco 2600 Series Multiservice Platforms (Cisco 2610XM , 2611XM, 2620XM, 2621XM, 2650XM, and 2651XM Multiservice Routers and the Cisco 2691 Multiservice Platform)
- Cisco 3700 Series Multiservice Access Routers (Cisco 3725 and 3745 Multiservice Access Routers)

A minimum of 64-MB flash memory and 256-MB DRAM is required, and a minimum of one Fast Ethernet port for an external interface is required.

Product Specifications

Table 2 shows platform memory specifications to support the Cisco IOS H323 Gatekeeper.

Table 2. Platform Support and Product Specifications

Platform	Flash Memory	DRAM
Cisco 2951 Integrated Services Router Cisco 2921 Integrated Services Router Cisco 2911 Integrated Services Router Cisco 2901 Integrated Services Router	256 MB	512 MB
Cisco 3925 Integrated Services Router	256 MB	1 GB
Cisco 3945 Integrated Services Router	256 MB	1 GB

Ordering Information

This product is orderable in three simple steps:

1. Select a Cisco router based on performance requirements. (either Cisco 2900 Series to 3900 Series)
2. Select a Cisco IOS Software image that supports Unified Communications.
3. Add the appropriate Gatekeeper Feature License

To order software only, follow steps 2 and 3 and refer to Table 3 when selecting feature license part numbers.

To place an order, visit the Cisco Ordering homepage and refer to Table 3.

Table 3. Ordering Information for Feature Licenses

Part Number	Description
FL-GK-2901(=)	Cisco 2901 platform Gatekeeper license
FL-GK-2911(=)	Cisco 2911 platform Gatekeeper license
FL-GK-2921(=)	Cisco 2921 platform Gatekeeper license
FL-GK-2951(=)	Cisco 2951 platform Gatekeeper license
FL-GK-3925(=)	Cisco 3925 platform Gatekeeper license
FL-GK-3945(=)	Cisco 3945 platform Gatekeeper license

To Download the Software

After ordering a feature license, visit the Cisco Software Center to download Cisco IOS Software. Table 4 provides the software image name and software feature set available with each platform.

Table 4. Cisco IOS H323 Gatekeeper Software Feature Set and Software File

Platform	Software Image Name	Software Feature Set
Cisco 2901, 2911 and 2921 platforms	c2900-universalk9-mz	Universal Image
Cisco 2951 platform	c2951-universalk9-mz	Universal Image
Cisco 3925 and 3945 platforms	c3900-universalk9-mz Universal Image	Universal Image

Cisco Unified Communications Services and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners offer a broad portfolio of end-to-end services to support the Cisco Unified Communications System. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. Initial planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operational services reduce the risk of communications downtime with expert technical support, and optimize services enhance solution performance for operational excellence. Cisco and its partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.

For More Information

For more information about the Cisco IOS H323 Gatekeeper, visit <http://www.cisco.com/go/cube> or contact your local Cisco account representative.



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