



## Overview of the H.323 Gatekeeper

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This topic describes the H.323 gatekeeper in terms of its role in Cisco EGW 2200 applications and provides requirements that can help you select the right gatekeeper platform and deployment configuration.

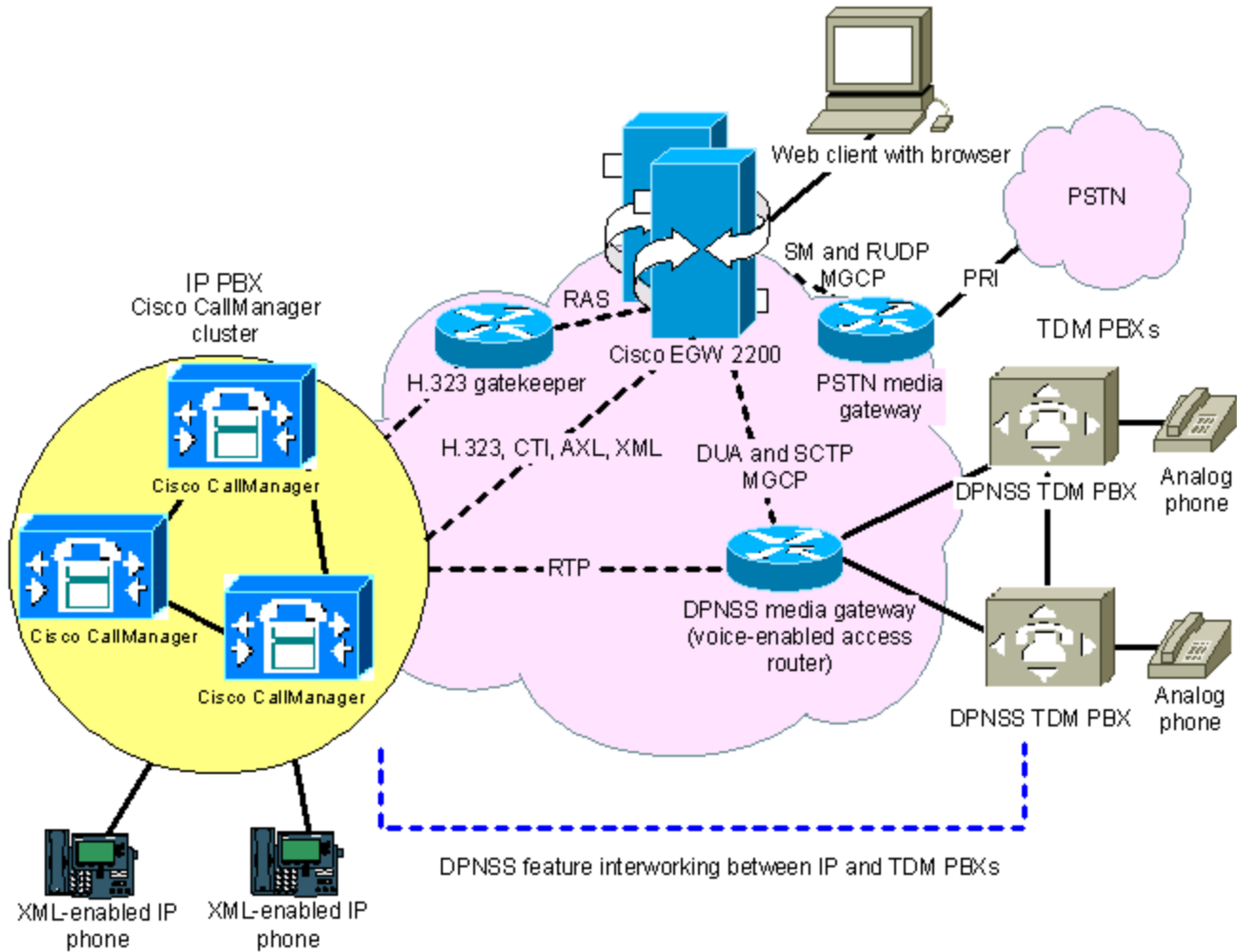
An H.323 gatekeeper is usable in any Cisco EGW 2200 application implementing a Cisco CallManager cluster as an IP PBX. A gatekeeper is not required in the Cisco EGW 2200 system, but is advisable if you want to be able to make effective use of network functions like admission and bandwidth control for large installations. You can set up your Cisco EGW network to operate in Gatekeeper Mode or Direct Mode, depending on whether or not you are employing a gatekeeper in your system.

### Gatekeeper Mode

The gatekeeper provides registration services and manages load balancing and redundancy for the H.323 gateway endpoints of the Cisco CallManager and Cisco EGW 2200. The Cisco CallManager and Cisco EGW 2200 H.323 signaling interface (HSI) register with the gatekeeper at startup. When a new call is set up from a Cisco CallManager, Cisco CallManager asks the gatekeeper for the IP address of an available Cisco EGW HSI. If a new call is initiated from the other direction, Cisco EGW HSI asks the gatekeeper for the IP address of an available Cisco CallManager. [Figure 1](#) shows an example of the H.323 gatekeeper in a Cisco EGW 2200 application. For definitions of acronyms in the figure, refer to “Common Acronyms Used in Cisco EGW 2200 Applications Documentation” at <http://www.cisco.com/iamew/reference/acronyms.htm>.

Typically, the gatekeeper is collocated with the Cisco CallManager cluster and Cisco EGW 2200.

Figure 1 H.323 Gatekeeper in Cisco EGW 2200 Application

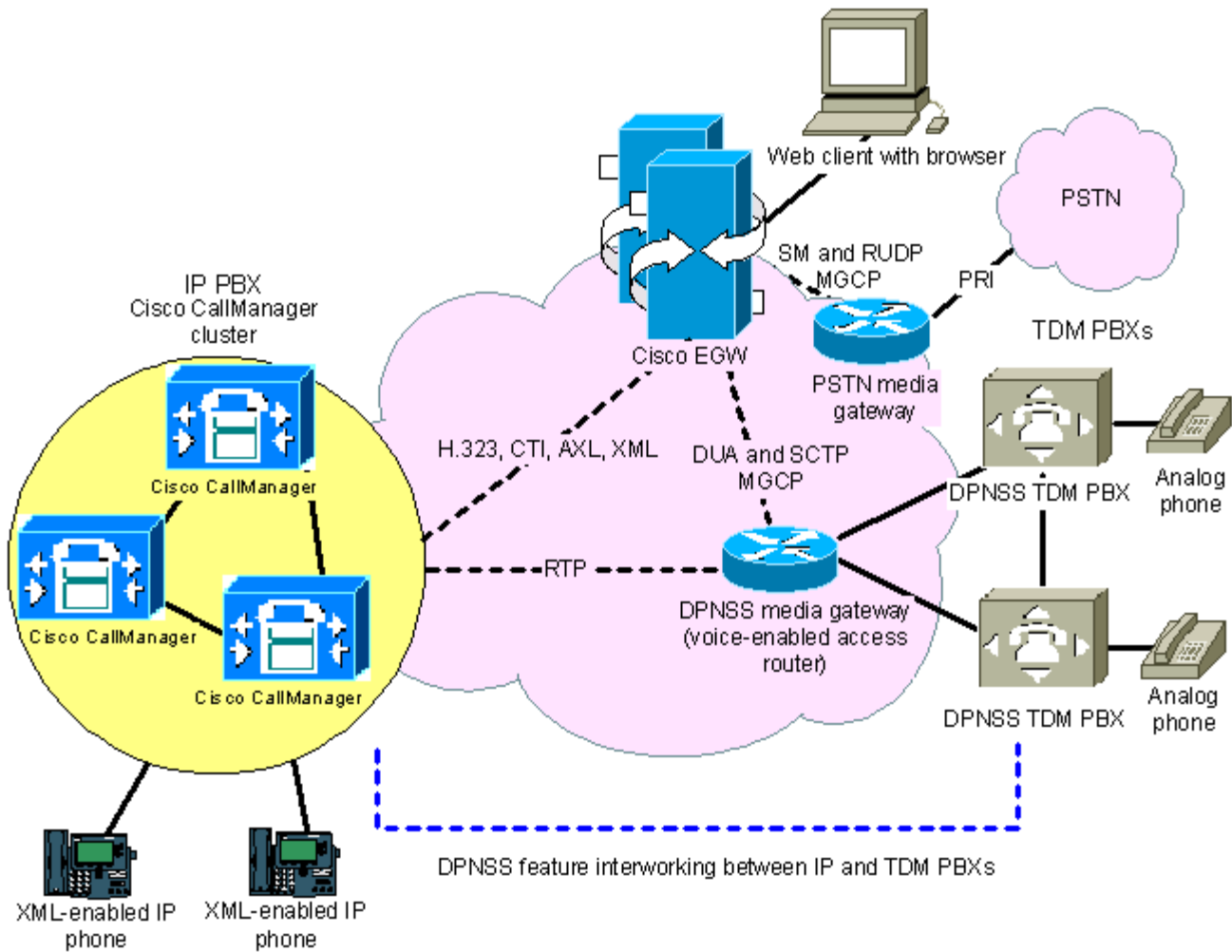


Both the Cisco EGW 2200 and Cisco CallManager must be configured to talk to the gatekeeper, the Cisco EGW 2200 through the H.323 gatekeeper interface and the Cisco CallManager cluster through an H.225 gatekeeper-controlled trunk. The gatekeeper uses the Registration, Admission and Status (RAS) protocol.

**Direct Mode**

A Cisco EGW 2200 network without a gatekeeper functions just the same as with the gatekeeper, but the interface to the Cisco CallManager cluster is handled directly through the H.323, CTI, AXL, or XML interfaces in the Cisco EGW system without any RAS protocol messaging. Figure 2 shows an example of the H.323 gatekeeper in a Cisco EGW 2200 application. For definitions of acronyms in the figure, refer to “Common Acronyms Used in Cisco EGW 2200 Applications Documentation” at <http://www.cisco.com/iamgw/reference/acronyms.htm>.

Figure 2 Cisco EGW 2200 Application with No Gatekeeper



When the gatekeeper has been left out of the Cisco EGW 2200 network, the H.323 component in the Cisco EGW system routes the call directly to the primary Cisco CallManager IP address and port specified with Cisco EGW Administration.



**Note**

There is a limitation when using the Cisco EGW 2200 without an accompanying gatekeeper. All traffic passed between Cisco EGW and the Cisco CallManager cluster will traverse the Cisco CallManager IP address and port you have specified and you will not be able to take advantage of multiple reception points in the network, as you can in a gatekeeper-enabled system.

**Related Topics**

Basic information about gatekeepers: “Cisco High-Performance Gatekeeper” at [http://www.cisco.com/en/US/products/sw/iosswrel/ps5013/products\\_feature\\_guide09186a0080080e92.html](http://www.cisco.com/en/US/products/sw/iosswrel/ps5013/products_feature_guide09186a0080080e92.html)

Information on configuring a gatekeeper to communicate with the Cisco EGW 2200: “Configuring an H.323 Gatekeeper to Communicate with the Cisco EGW 2200” at <http://www.cisco.com/univercd/cc/td/doc/product/access/sc/nirvdoc/provnirv/hwcgk.htm>

# About Detailed Requirements

**Number of gatekeepers:** The number of gatekeepers you need is determined by how many Cisco EGW 2200/Cisco CallManager clusters you are deploying. Multiple Cisco EGW 2200/Cisco CallManager clusters can share a gatekeeper or gatekeeper pair.

**Redundancy:** Because the gatekeeper plays a critical role in call setup, Cisco recommends redundant gatekeepers. The Cisco EGW 2200 HSI host and Cisco CallManager support unicast and multicast gatekeeper discovery. For more on gatekeeper redundancy and failover issues, refer to Planning for Redundancy at [http://www.cisco.com/iamewg/planning/planning\\_redundancy.htm](http://www.cisco.com/iamewg/planning/planning_redundancy.htm).

**Platforms:** A range of platforms can be used as gatekeepers. Refer to “Planning Components” at [http://www.cisco.com/iamewg/planning/planning\\_components.htm](http://www.cisco.com/iamewg/planning/planning_components.htm) for the supported platforms and IOS release.