



Managing Emergency Calls

With the excessive use of VoIP, it is important to understand the various situations that might need prioritized attention. One of the most important situations that must be handled immediately is emergency service numbers, for example, using VoIP to dial a 911 number, which requires immediate attention. It is imperative to provide dedicated and immediate high-priority access for emergency numbers and calls with the specified SIP resource priority header. To analyze and examine the number of emergency calls, the Emergency Call feature has been implemented on the Cisco ASR 1000 Series Router.

Feature History for Managing Emergency Calls

Release	Modification
Cisco IOS XE Release 2.5	H.323-to-SIP support for emergency calls was introduced on the Cisco ASR1000 Series Aggregation Services Routers.
Cisco IOS XE Release 3.2S	The Emergency Call Statistics feature was introduced on the Cisco ASR 1000 Series Routers.

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H.323 to SIP Support for Emergency Calls

Cisco Unified Border Element (SP Edition) supports H.323 to SIP call routing for emergency calls. Cisco Unified Border Element (SP Edition) routes voice and video calls according to the configured session routing policy. A call is categorized as “emergency” based on the dialed number or on the Resource-Priority header if it is originated on the SIP side. Based on the emergency categorization, special routing and Call Admission Control (CAC) logic is applied.

Overview: Emergency Call Statistics

Certain emergency numbers, such as 911, 999, and so on, need more priority than normal calls. Using the Session Border Controller (SBC), you can configure and define a category and assign a priority for emergency numbers. It is important to know how many such emergency calls are currently in progress, and under which category the calls have been classified.

The Emergency Call feature has been introduced to analyze the number of emergency calls that are assigned to a particular category or a specific priority. The scope of displaying the emergency call statistics varies. The emergency call statistics can either be displayed globally for the SBC system or for a specific adjacency. To display category-wise and priority-wise emergency calls globally for the SBC system, use the **show sbc sbcname sbe call-stats global emergency** command. To display category and priority-wise calls for a specific adjacency, use the **show sbc sbc sbe call-stats adjacency word emergency** command. The per-adjacency statistic calls displays both received and sent calls separately on that adjacency.

The emergency call identification can be performed with the help of different mechanisms:

- Dedicated call setup priority information, such as the SIP resource priority header.
- Analysis of dialled number for known emergency numbers, such as 911, 999, and so on.
- Configuration based on the CAC policy.

**Note**

The Billing Manager must be enabled and in active state for displaying the emergency call statistics.

Restrictions for Emergency Calls

The following restriction is applicable to the Emergency feature:

- The display of emergency call statistics is always disabled if Billing Manager is not active.

Performance Impact

The Emergency Call feature requires the Billing Manager to be configured and in active state. The performance cost of running the emergency calls feature is 2%. When emergency call statistics are not requested, there is no performance cost, and only the Billing Manager needs to be configured and active. The base occupancy of this feature is less than 0.1%, and the per-call occupancy cost of this feature is less than 0.25%. When emergency call statistics are requested (global or per adjacency), the requested statistics are displayed within half a second.