



Cisco Unified Border Element Enterprise SIP Support

This Cisco Unified Border Element (Enterprise) is a special Cisco IOS XE software image that runs on Cisco ASR1000. It provides a network-to-network interface point for billing, security, call admission control, quality of service, and signaling interworking. This chapter describes basic gateway functionality, software images, topology, and summarizes supported features.



Note

Cisco Product Authorization Key (PAK)--A Product Authorization Key (PAK) is required to configure some of the features described in this guide. Before you start the configuration process, please register your products and activate your PAK at the following URL <http://www.cisco.com/go/license>.

- [Finding Feature Information, on page 1](#)
- [Cisco Unified Border Element Enterprise SIP Support Features, on page 1](#)

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <https://cfng.cisco.com/>. An account on Cisco.com is not required.

Cisco Unified Border Element Enterprise SIP Support Features

This chapter contains the following configuration topics:

Cisco UBE (Enterprise) Prerequisites and Restrictions

- Prerequisites for Cisco Unified Border Element (Enterprise)
- Restrictions for Cisco Unified Border Element (Enterprise)

Basic SIP Set-up

- SIP—Core SIP Technology Enhancements
- Reporting End-of-Call Statistics in SIP BYE Message

SIP Parameter Settings

- SIP—Configurable Hostname in Locally Generated SIP Headers
- SIP Parameter Modification
- Conditional Header Manipulation of SIP Headers
- SIP—Session Timer Support
- Adjustable Timers for REGISTRATION Refresh and Retries

SIP Protocol Handling and Supplementary Services

- SIP-to-SIP Basic Feature Functionality for Session Border Controller
- SIP-to-SIP Extended Feature Functionality for Session Border Controllers
- SIP-to-SIP Supplementary Services for Session Border Controller
- SIP—DNS SRV RFC2782 Compliance
- Mid-call Re-INVITE/UPDATE consumption
- Out-of-dialog SIP OPTIONS Ping
- Cisco Unified Border Element Support for Configuring an Error Response Code upon an Out-of-Dialog OPTIONS Ping Failure
- SIP—INFO Method for DTMF Tone Generation
- SIP—Enhanced 180 Provisional Response Handling
- Configuring Support for SIP 181 Call is Being Forwarded Message
- Support for Expires Timer Reset on Receiving or Sending SIP 183 Message
- Configuring Selective Filtering of Outgoing Provisional Response on the Cisco Unified Border Element, [page](#)
- RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls
- Support for PAID, PPID, Privacy, PCPID, and PAURI Headers on the Cisco Unified Border Element
- Cisco Unified Border Element Support for Configurable Pass-through of SIP INVITE Parameters
- Transparent Tunneling of QSIG and Q.931 over SIP TDM Gateway and SIP-to-SIP Cisco Unified Border Element
- SIP Diversion Header Enhancements
- History INFO to Diversion Header
- Hiding the Internal Topology Information Embedded Within the History-info Header at the Cisco UBE

- Call Routing logic on Cisco UBE using the History-info Header
- Reporting End-of-Call Statistics in SIP BYE Message

SIP Registration and Authentication

- Configuring SIP Message, Timer, and Response Features —
http://www.cisco.com/en/US/docs/ios/voice/sip/configuration/guide/sip_cg-msg_tmr_rspns.html
- SIP—Ability to Send a SIP Registration Message on a Border Element
- SIP Digest Authentication —
http://www.cisco.com/en/US/docs/ios/voice/sip/configuration/guide/sip_cg-msg_tmr_rspns.html
- Configurable SIP Parameters via DHCP
- Support for Multiple Registrars on SIP Trunks

SIP normalization

- SIP Parameter Modification
- Session Refresh with Reinvites

