



Cisco Unified Border Element Enterprise Configuration Guide Roadmap

- [Cisco Unified Border Element Enterprise Configuration Guide Roadmap, page 1](#)

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This roadmap lists the features documented in the *Cisco Unified Border Element (Enterprise) Configuration Guide* and maps them to the software versions in which they first appear.



Note

Before you can configure the software features described in this guide, you will need a Product Authorization Key (PAK). Before you start the configuration process, please register your products and activate your PAK at the following URL <http://www.cisco.com/go/license>.

For the latest feature information and caveats, see 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 Cisco Unified Border Element (Enterprise) Configuration Guide Feature Support table.

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

The table below lists the Cisco IOS XE software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS XE software release train also support that feature.

Table 1: Cisco Unified Border Element (Enterprise) Configuration Guide Feature Support

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Variable length Checkpointing Enhancements for enhanced HA in CUBE	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-high-availability.html	Cisco IOS XE Release 3.17S	11.5.0
Survivability TCL concurrent operation with Cisco UC GW Services API based Media Forking	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-uc-gateway-services.html	Cisco IOS XE Release 3.17S	11.5.0
SIP-REC standard based call/media recording support on CUBE	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-sip-recording.html	Cisco IOS XE Release 3.17S	11.5.0
TLS 1.2 support, 256_GCM Cipher suits support and HTTPS for Cisco UC GW Services API interface support on CUBE	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-sip-tls.html	Cisco IOS XE Release 3.17S	11.5.0
Additional features for multiple-m-line support on CUBE	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-sip-param-mod.html	Cisco IOS XE Release 3.17S	11.5.0
Support for Early Dialog Update Block	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-edupdate-block.html	Cisco IOS XE Release 3.16S	11.1.0
Support for Midcall Signaling Block	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-midcall-reinvite.html	Cisco IOS XE Release 3.16S	11.1.0
Support header passthrough for additional SIP message types	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-sip-info-messages.html http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-sip-privacy-headers.html	Cisco IOS XE Release 3.16S	11.1.0

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
CUBE in CSR platform	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-virtual-cube.html	Cisco IOS XE Release 3.15S	11
ICE infrastructure and ICE-lite support	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-ice-lite.html	Cisco IOS XE Release 3.15S	11
Support for tagging rules in a SIP Profile Configuration	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-sip-param-mod.html	Cisco IOS XE Release 3.15S	11
Support to include inbound call ID, outbound call ID, and Call Session Identification to ENUM DNS query	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-enum-enhance-kaplan.html	Cisco IOS XE Release 3.15S	11
Support for additional call flows in Call Progress Analysis	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-cpa.html	Cisco IOS XE Release 3.15S	11
Support for REFER and BYE/Also after Software Switch-Over	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-stateful-switchover.html	Cisco IOS XE Release 3.15S	11
DSP HA Support on CUBE	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-cube-dsp.html	Cisco IOS XE Release 3.15S	11
Support for Non-Standard SIP Headers	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/configuration/cube-book/voi-sip-param-mod.html	Cisco IOS XE Release 3.15S	11
Ability to sort dial-peers in running-configuration	http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/vcr4/vcr4-cr-book/vcr-s7.html	Cisco IOS XE Release 3.15S	11
Call Escalation from Voice to Video	Configuration of SIP Trunking for PSTN Access (SIP-to-SIP)	Cisco IOS XE Release 3.8S	9.0
Cisco UBE Serviceability	Cisco Unified Border Element (Enterprise) Management	Cisco IOS XE Release 3.8S	9.0

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Domain Based Routing Support on the Cisco UBE	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.8S	9.0
Multicast Music-on-Hold support on Cisco UBE	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.8S	9.0
Network-Based Recording using Cisco UBE	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.8S	9.0
Limiting the Rate of Incoming SIP Calls Processing	Cisco IOS Voice Command Reference	Cisco IOS XE Release 3.8S	9.0
Negotiation of an Audio Codec from a List of Codecs	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.8S Cisco IOS XE Release 3.7S	1.4 9.0
Bandwidth-based Call Admission Control	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.7S	1.4
Dynamic REFER Handling on the Cisco UBE	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.7S	1.4
Multiple Destination pattern support on Voice Dialpeer	Cisco Unified Border Element (Enterprise) Fundamentals and Basic Setup	Cisco IOS XE Release 3.7S	1.4
SIP Registration Proxy on Cisco UBE	Configuration of SIP Trunking for PSTN Access (SIP-to-SIP)	Cisco IOS XE Release 3.7S	1.4
SRTP-RTP Interworking	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.7S	1.4
SIP Trunk Registration	Configuration of SIP Trunking for PSTN Access (SIP-to-SIP)	Cisco IOS XE Release 3.7S	1.4

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Conditional Header Manipulation of SIP Headers	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.6S	1.4
Inbound Dial-peer to Match the URI on SIP Calls	Cisco Unified Border Element (Enterprise) Fundamentals and Basic Setup	Cisco IOS XE Release 3.6S Cisco IOS XE Release 3.1S	1.2 1.4
Noise Reduction (NR)	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.6S	1.4
PCM Capture for ASP and NR	Cisco Unified Border Element (Enterprise) Management	Cisco IOS XE Release 3.6S	1.4
SIP UPDATE Message per RFC 3311	Configuration of SIP Trunking for PSTN Access (SIP-to-SIP)	Cisco IOS XE Release 3.6S	1.4
Voice Media Quality MIB	Cisco Unified Border Element (Enterprise) Management	Cisco IOS XE Release 3.6S	1.4
Cisco Unified Communications Trusted Firewall Control - Version 3	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.6S	1.4
Acoustic Shock Protection (ASP)	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.6S	1.4
Mid-call Re-INVITE/UPDATE consumption	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.6S	1.4
Call Routing logic on Cisco UBE using the History-info Header	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.3S	1.4
Cisco Resource Reservation Protocol Agent	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
Cisco Unified Border Element Videoconferencing	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Cisco Unified Communication Trusted Firewall Control	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
Cisco Unified Communication Trusted Firewall Control-Version 2	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
H.323-to-H.323 Video Support with High Availability (HA)	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
Hiding the Internal Topology Information Embedded Within the History-info Header at the Cisco UBE	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.3S	1.4
Reporting End-of-Call Statistics in SIP BYE Message	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.3S	1.4
RTP Media Loopback for SIP Calls	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
Show Commands to display Cisco UBE related information	"Show Commands to display Cisco UBE related information"	Cisco IOS XE Release 3.3S	1.4
SIP-to-SIP Basic Functionality for Session Border Controller	Cisco Unified Border Element (Enterprise) Fundamentals and Basic Setup	Cisco IOS XE Release 3.3S	1.2 1.4
VoIP for IPv6	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
VRF aware H.323 and SIP	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4
Cisco Resource Reservation Protocol Agent	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.3S	1.4

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Stateful Switchover Between Redundancy Paired Devices	Cisco Unified Border Element (Enterprise) Management	Cisco IOS XE Release 3.2S	1.4
DSP Based Functionality on the Cisco UBE (Enterprise) Including Transcoding and Transrating	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.2S	1.4
Configurable Pass-through of SIP INVITE Parameters	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
Configuring an Error Response Code upon an Out-of-Dialog OPTIONS Ping Failure	Cisco Unified Border Element (Enterprise) Management Configuration of SIP Trunking for PSTN Access (SIP-to-SIP) Cisco Unified Border Element (Enterprise) Configuring SIP Message, Timer, and Response Features) Management	Cisco IOS XE Release 3.1S	1.2
Configuring SIP Message, Timer, and Response Features	Cisco Unified Border Element (Enterprise) Fundamentals and Basic Setup	Cisco IOS XE Release 3.1S	1.2
Dynamic Payload Type Interworking for DTMF and Codec Packets for SIP-to-SIP Calls	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2
Expire Timer Reset on Receiving or Sending SIP 183 Message	Cisco Unified Border Element (Enterprise) SIP Support Enterprise Application Interoperability for H.323-to-SIP and SIP-to-SIP	Cisco IOS XE Release 3.1S	1.2
Interworking Between RSVP Capable and RSVP Incapable Networks	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2
Interworking of Secure RTP calls for SIP and H.323	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Modem Passthrough	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2
Multiple Registrars on SIP Trunks	Configuration of SIP Trunking for PSTN Access (SIP-to-SIP)	Cisco IOS XE Release 3.1S	1.2
Out-of-dialog OPTIONS Ping for Specified SIP Servers or Endpoints	Cisco Unified Border Element (Enterprise) SIP Support Configuration of SIP Trunking for PSTN Access (SIP-to-SIP) Cisco Unified Border Element (Enterprise) Management	Cisco IOS XE Release 3.1S	1.2
PAI, PPI, Privacy, P-Called-Party-ID and P-Associated-URI headers on Cisco Unified Border Element	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
Selective Filtering of Outgoing Provisional Response on the Cisco Unified Border Elements	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
Session Border Controller Enhancements for H.323-to-SIP and SIP-to-SIP Supplementary Services, Transcoding Optimization and Firewall Integration	"Cisco Unified Border Element (Enterprise) H.323-to-SIP Interworking Features"	Cisco IOS XE Release 3.1S	1.2
SIP 181 Call is Being Forwarded Message	"Configuring Support for SIP 181 Call is Being Forwarded Message"	Cisco IOS XE Release 3.1S	1.2
SIP Diversion Header Enhancements	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
SIP History-info Header	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
SIP SRTP Fallback to Nonsecure RTP	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
SIP Video Calls with Flow Around Media	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2
SIP Video Support for Telepresence Calls	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2 1.4
SIP-to-SIP Extended Feature Functionality for Session Border Controllers	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2 1.4
SIP-to-SIP Supplementary Services for Session Border Controller	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
Transparent Tunneling of QSIG and Q.931 over SIP TDM Gateway and SIP-SIP Cisco Unified Border Element	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 3.1S	1.2
Transport Layer Security (TLS)	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 3.1S	1.2
Software Media Termination Point	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 2.6S	1.2
Ability to Send a SIP Registration Message on a Border Element	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2
Clearable SIP-UA Statistics	Cisco Unified Border Element (Enterprise) Management No commands or configurations were introduced or modified in this release.	Cisco IOS XE Release 2.5	1.2
Configurable Hostname in Locally Generated SIP Header	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2

Feature Name	Book(s) Where Documented	IOS XE Release	CUBE Software Version
Core SIP Technology Enhancements	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2
DTMF Events Through SIP Signaling	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 2.5	1.2
H.323-to-SIP Supplementary Feature Interworking for Session Border Controller	Cisco Unified Border Element (Enterprise) H.323-SIP Interworking	Cisco IOS XE Release 2.5	1.2
iLBC Support for SIP and H.323	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 2.5	1.2
INFO Method for DTMF Tone Generation	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2
RFC 2782 Compliance with DNS SRV Queries	Cisco Unified Border Element (Enterprise) SIP Support § Cisco Unified Border Element (Enterprise) Standards Compliance	Cisco IOS XE Release 2.5	1.2
Session Timer Support	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2
SIP - Enhanced 180 Provisional Response Handling	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2
SIP Parameter Modification	Cisco Unified Border Element (Enterprise) SIP Support	Cisco IOS XE Release 2.5	1.2
SIP Stack Portability	Cisco Unified Border Element (Enterprise) Protocol-Independent Features and Setup	Cisco IOS XE Release 2.5	1.2
SIP--Gateway Support for the Bind Command	Cisco Unified Border Element (Enterprise) Fundamentals and Basic Setup	Cisco IOS XE Release 2.5	1.2