

RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls

The RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls feature globally enables RFC 4040-based clear-channel codec negotiation [CLEARMODE/8000] for SIP calls on a Cisco IOS voice gateway or Cisco UBE. RFC 4040-based clear-channel codec negotiation allows Cisco IOS voice gateways and Cisco UBEs to successfully interoperate with third-party SIP gateways that do not support legacy Cisco IOS clear-channel codec encapsulation [X-CCD/8000].

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Feature Information for RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

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

Table 1: Feature Information for RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls

Feature Name	Releases	Feature Information
RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls	Baseline Functionality	This feature adds support for RFC 4040-based clear channel codec Negotiation for SIP calls. The following commands were modified: **encap clear-channel standard**, and **voice-class sip encap clear-channel**

Restrictions for RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls

- This feature is supported on Cisco IOS SIP time division multiplexing (TDM) gateways and Cisco Unified Border Elements (Cisco UBEs).

Information about RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls

When the **encap clear-channel standard** command is enabled on a Cisco IOS voice gateway or Cisco UBE, calls using the Cisco IOS clear channel codec are translated into calls that use CLEARMODE/8000 so that the calls do not get rejected when they reach third-party SIP gateways.

To enable RFC 4040-based clear-channel codec negotiation for SIP calls on an individual dial peer, overriding the global configuration for the Cisco IOS voice gateway or Cisco UBE, use the **voice-class sip encap clear-channel standard** command in dial peer voice configuration mode. To globally disable RFC 4040-based clear-channel codec negotiation on a Cisco IOS voice gateway or Cisco UBE, use the **no encap clear-channel standard** command in voice service SIP configuration mode.

How to Configure RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls

This feature can be enabled globally for all dial peers or on an individual dial peer (which overrides the global configuration, if one is in effect). Depending on your requirements, complete one of the following tasks:

Configure RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls Globally for All Dial Peers

To configure RFC 4040-based clear-channel code negotiation globally for all dial peers on a Cisco IOS voice gateway or Cisco UBE, complete this task:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **voice service voip**
4. **sip**
5. **encap clear-channel standard**

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**voice service voip** **Example:** `Router(config)# voice service voip`	Enters voice service configuration mode.
Step 4	**sip** **Example:** `Router(conf-voi-serv)# sip`	Enters voice service SIP configuration mode.
Step 5	**encap clear-channel standard** **Example:** `Router(conf-serv-sip)# encap clear-channel standard`	Globally enables RFC 4040-based clear-channel codec negotiation [CLEARMODE/8000] for SIP calls on a Cisco IOS voice gateway or Cisco UBE.

Configure RFC 4040-Based Clear Channel Codec Negotiation for SIP Calls for a Single Dial Peer

To configure RFC 4040-based clear-channel code negotiation for one dial peer on a Cisco IOS voice gateway or Cisco UBE, complete this task:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **dial-peer voice 1 voip**
4. **voice-class sip encap clear-channel standard**

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**dial-peer voice 1 voip** **Example:** `Router(config)# dial-peer voice 1 voip`	Enters dial peer voice configuration mode.
Step 4	**voice-class sip encap clear-channel standard** **Example:** `Router(config-dial-peer)# voice-class sip encap clear-channel standard`	Enables RFC 4040-based clear-channel codec negotiation for SIP calls on an individual dial peer, overriding the global setting on a Cisco IOS voice gateway or Cisco UBE. **Note** You can also configure a specific dial peer t negotiation.To enable this capability, substit in this step of the configuration.