



# Early Dialog UPDATE Block

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## Overview

This feature enables Cisco Unified Border Element (CUBE) to consume UPDATE requests with SDP, received during an early dialog. UPDATE requests are blocked at CUBE and are not passed through from one leg to the other leg.

If the UPDATE request contains changes in caller-ID, transcoder insertion or deletion, or video escalation or de-escalation, then, CUBE can renegotiate the capabilities by sending a DO re-invite after the call is established.

UPDATE request with SDP received during an early dialog is consumed by CUBE and hence is not passed from one leg to the other leg. This feature can be configured only for the UPDATE requests with SDP.

To pass through the information in UPDATE requests containing changes in caller-ID, transcoder insertion or deletion, or video escalation or de-escalation, CUBE can renegotiate the capabilities by sending a DO re-invite after the call is established. Thus both the user agents are synchronized and this helps in effective utilization of resources.

Renegotiation can be configured only for the UPDATE requests containing the following changes:

- Caller ID
- Transcoder insertion or deletion
- Video escalation or de-escalation

## Feature Information

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 [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

**Table 1: Feature Information for Mid-call Signaling**

Feature Name	Releases	Feature Information
Early Dialog UPDATE Block	Cisco IOS XE 3.16S	This feature allows CUBE to consume the UPDATE requests with SDP received during an early dialog.  The following command is introduced: <b>early-media update block</b> .

## Important Characteristics of Early Dialog UPDATE Block

The following are a few important characteristics of Early Dialog UPDATE block:

- If multiple codec's is offered by the user agent through an UPDATE, first codec common between received and configured in in-leg at dial-peer is sent in 200OK.
- UPDATE request is consumed, if an UPDATE request with SDP is received after CUBE sends out 200 OK for an INVITE and before ACK is received.
- A 200 Ok is sent for an UPDATE even if there is no transcoder available ONLY for DTMF (rtp-nte to inband). CUBE falls back to inband.
- If Transcoder is unavailable, only the first codec received in the UPDATE request is sent in 200OK.
- CUBE sends 488 message if transcoder is required but unavailable for codec changes.
- When a video escalation is received via UPDATE, CUBE sends 200 OK with video port as ZERO. No Video data plane sessions are created.
- When a video de-escalation is received via UPDATE, CUBE sends 200 ok with video port as ZERO. Data plane sessions for video are made as INACTIVE instead of deleting. So, effectively there will be four 2 DP connections present with remote video port as ZERO.
- Early-media UPDATE renegotiation takes precedence over DO-EO renegotiation.
- If an early dialog UPDATE is received from one leg to change the caller-ID and the other leg supports UPDATE method, CUBE sends across the caller-id UPDATE to other side and there wont be any renegotiation.
- If Re-Invite is received before triggering DO invite, then DO is not triggered.
- If **no update-callerid** command is enabled and UPDATE request contains only caller-ID changes, then re-negotiation does not happen for any early dialog caller-ID changes. If UPDATE request contains transcoder changes or video escalation or de-escalation, re-negotiation happens even if **no update-callerid** command is enabled.
- If mid-call signaling block is configured, DO invite is not triggered.

- If 18x block is enabled, CUBE fails to add rel1xx related fields in the header. 100rel is dependent on 181 sdp block.

## Prerequisites

**rel1xx require "100rel"** command needs to be configured in global voice service voip sip configuration mode.

## Restrictions

- Switch over to fax calls are not supported.
- Session Description Protocol (SDP) passthrough is not supported.
- Alternative Network Address Types (ANAT) is not supported.

## Configure Early Dialog UPDATE Block

Configuring early dialog UPDATE Block enables CUBE to block all early dialog UPDATE requests from passing through to the user agents.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. Enter one of the following commands to block early dialog UPDATE requests:
  - In the dial-peer configuration mode  
**voice-class sip early-media update block**
  - In the global VoIP SIP configuration mode  
**early media update block**
4. **end**

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
Step 2	<b>configure terminal</b>	Enters global configuration mode.
Step 3	Enter one of the following commands to block early dialog UPDATE requests:	

	Command or Action	Purpose
	<ul style="list-style-type: none"> <li>• In the dial-peer configuration mode <b>voice-class sip early-media update block</b></li> <li>• In the global VoIP SIP configuration mode <b>early media update block</b></li> </ul> <p><b>Example:</b> In dial-peer configuration mode</p> <pre>!Applying Early Dialog UPDATE block to one dial peer only Device (config)# dial-peer voice 10 voip Device (config-dial-peer)# Voice-class sip early-media update block Device (config-dial-peer)# end</pre> <p><b>Example:</b> In global VoIP SIP configuration mode</p> <pre>! Applying Early Dialog UPDATE block globally Device(config)# voice service voip Device (config-voi-serv)# sip Device (config-voi-sip)# early media update block Device (config-voi-sip)# end</pre>	
<b>Step 4</b>	<b>end</b>	Exits VoIP SIP configuration mode and enters privileged EXEC mode.

## Configure Early Dialog UPDATE Block Renegotiate

Configuring Early Dialog UPDATE Block Renegotiate enables CUBE to renegotiate the call if UPDATE request with SDP contains changes caller-ID, transcoder insertion or deletion, or video escalation or deletion. CUBE renegotiates by sending a DO re-invite after the call is established.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. Enter one of the following commands:
  - In the dial-peer configuration mode  
**voice-class sip early-media update block re-negotiate**
  - In the global VoIP configuration mode  
**early media update block re-negotiate**
4. **end**

## DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
Step 2	<b>configure terminal</b>	Enters global configuration mode.
Step 3	<p>Enter one of the following commands:</p> <ul style="list-style-type: none"> <li>• In the dial-peer configuration mode <b>voice-class sip early-media update block re-negotiate</b></li> <li>• In the global VoIP configuration mode <b>early media update block re-negotiate</b></li> </ul> <p><b>Example:</b> In dial-peer configuration mode</p> <pre>!Applying Early Dialog UPDATE block re-negotiate to one dial peer only Device (config)# dial-peer voice 10 voip Device (config-dial-peer)# voice-class sip early-media update block re-negotiate Device (config-dial-peer)# end</pre> <p><b>Example:</b> In global VoIP SIP configuration mode</p> <pre>! Applying Early Dialog UPDATE block re-negotiate globally Device(config)# voice service voip Device (config-voi-serv)# sip Device (config-voi-sip)# early media update block re-negotiate Device (config-voi-sip)# end</pre>	Renegotiates the call if the UPDATE request contains changes in caller ID, transcoder addition or deletion, or video escalation or de-escalation.
Step 4	<b>end</b>	Exits VoIP SIP configuration mode and enters privileged EXEC mode.

## Tips to Troubleshoot

Use the following command for debugging information:

- **debug ccsip all**
- **debug voip ccapi inout**
- **show voip rtp connections**

