



# Client Application Development Guidelines

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This chapter describes the following topics.

- [Configuring a Client Program on Unified CCX, page 1](#)
- [Debugging a Unified CCX Client Program, page 1](#)
- [Call-Event Message Flows as Seen in the Log Files, page 3](#)

## Configuring a Client Program on Unified CCX

The Unified CCX CTI server is part of the RmCm subsystem of the Unified CCX system. Therefore, before clients can connect to a Unified CCX CTI server, the RCMCM subsystem must be in service.

Unified CCX listens on port 42027 for incoming client connections. You can set this port number in the System Parameters window of the Unified CCX Administration web page. The parameter name for the port number is RmCm TCP Port.

## Debugging a Unified CCX Client Program

Unified CCX provides detailed Unified CCX CTI message-level traces in the MIVR log files. You can use these trace messages to help find the cause of a problem. For example, if a message from a client is ill-formed, you will most likely find an exception associated with processing the message in the trace log file.

You should be aware of the following concerning message-level traces:

- To enable a message-level trace, you must turn on the trace for the ICD\_CTI subfacility from the Unified CCX Administration Trace Configuration web page. It is also recommended to turn on trace for the RmCm, RM, and CM subsystems.
- To enable a detailed trace (low-level), in the Trace Configuration web page, for the Miscellaneous ICD\_CTI subfacility, you must also set all trace debugging levels.
- To access a MIVR log file, select **System > Engine > Trace Files** from the Unified CCX Administration web page.

See the Unified CCX Administration online help or the Cisco Unified Contact Centre Express Administration Guide for complete details on configuring, enabling, and accessing message-level trace log files.

You can use trace messages in Unified CCX for the following purposes:

- To examine message field values:

At a high-level trace, the message content is displayed in text format that includes field names and their values.



**Note** Trace messages are primarily intended to be used by Cisco engineers. Contact the Cisco support center for assistance if you need help.

Some field names used in a Unified CCX high-level trace log file are different from the ones used in this document. In addition, some fields listed with names in a high-level trace are listed as reserved in this document. Finally, some fields listed in a trace are used internally only and are therefore not documented in this guide. Because of these discrepancies, you should not use a high-level trace unless you are comfortable with the terminology used in the trace messages.

- To examine call events in detail:

Unified CCX can dump the incoming and outgoing messages in binary using hexadecimal format. That is the most detailed level of message content that you can examine.

- To trace a message as it appears multiple times at its different processing stages in the trace log.

## Example Trace Log-File Excerpts

The following are two example trace log-file excerpts for the same BEGIN\_CALL event: one at the high-level text trace and one at the low-level binary trace.

A high-level trace lists each message that is sent with its type, length, field names, and field values. Even though some field names used in the high-level trace log file are different from those documented in this guide (as explained in the previous section), you can still get a lot of information from a high-level trace.

A low-level trace lists the bytes used by each message and what is stored in each byte. To understand this information, you need to count the bytes and their order reserved for each field in a particular message definition.

### Example 1: High-Level (Text) Trace

```
7091923: Nov 20 10:43:59.435 EDT %MIVR-ICD_CTI-7-UNK:
CSOutboundMsgProcessor: got an event message:
{ length=-1 type=BEGIN_CALL_EVENT, monitorID: 0, peripheralID: 1,
peripheralType: 21, numCTIClients: 0, numNamedVars: 0,
numNamedArrays: 0, callType: 1, ConnectionDeviceType: 0,
connectionCallID: 16777488, calledPartyDisposition: 0,
connectionDeviceID: 9026, ani1: 2006, dnis: 7000, dialedNumber: null,
callerEnteredDigits: null, callVar1: null, callVar2: null,
callVar3: null, callVar4: null, callVar5: null, callVar6: null,
callVar7: null, callVar8: null, callVar9: null, callVar10: null,
wrapupData: null }
```

<sup>1</sup> If the ANI is empty use the CallingDeviceID instead of ANI.

**Example 2: Low-Level (Binary) Trace**

```

7091948: Nov 20 10:43:59.435 EDT %MIVR-ICD_CTI-7-UNK:writing...
MHDR:    0000: 00 00 00 36 00 00 00 17 ...6....
MDATA:   0000: 00 00 00 00 00 00 00 01  00 15 00 00 00 00 00 ....
0010: 00 01 00 00 01 00 01 10  00 00 08 05 32 30 30 36 .....2006
0020: 00 0B 05 37 30 30 30 00  19 05 39 30 32 36 00 0A ..7000...9026..
0030: 05 37 30 30 30 00                .7000.

```

It is not the intention of this document to give a full description of traces in the Unified CCX logs. For more detailed information on debugging and using trace files in Unified CCX, see the *Cisco Unified Contact Center Express Servicing and Troubleshooting Guide* and the *Cisco Unified Contact Center Express Administration Guide*.

## The System Impact of Client Programs

Any client program connected to Unified CCX generates additional demand of resources on the Unified CCX system. Client developers must inform their customers about this impact and a potential degradation of system performance when they enable a trace.

The system resource requirement of the client program should be measured and the corresponding Unified CCX supported agent count, CSQ count, call rate, and database size should be reduced.

## Handling Reserved Messages and Reserved Fields in Client Programs

A client program may receive reserved messages and messages with reserved fields. If a message is a reserved message, the client program should ignore the message by skipping body-length bytes after the message header:

- If a message contains reserved fixed fields, the client program should skip that number of bytes based on the field size.
- If a message contains a reserved floating field, the client program should skip the number of bytes identified in the FieldDataLength field plus two bytes.

## Call-Event Message Flows as Seen in the Log Files

One of the main functions of Unified CCX is to process and queue calls. Although there is no guarantee of call events, understanding typical call event message flows helps a developer to write client programs.

The following call-event message flows list in a call event the messages that are sent, to whom they are sent, and what they indicate.

**Note**

The message order can vary, depending on the situation. There is no guarantee of a particular message order, though, the message order in these examples are typical.

Since message order is not guaranteed, Unified CCX might send an agent selection message before a call queued message even though Unified CCX first queues the call and then selects the agent for the call.

This section describes the following common call-event message flows:

- [Example Message Flow for a Queued and Answered Call](#), on page 4
- [Example Message Flow for a Transferred Call](#), on page 11
- [Example Message Flow for a Conferenced Call](#), on page 18
- [Example Message Flows for an Outbound Option Call](#), on page 22

## Example Message Flow for a Queued and Answered Call

In this example message flow, Unified CCX is connected to the Cisco Unified Communications Manager. Unified CCX is configured with two agents: one agent is associated with extension 2005 and the other agent is associated with extension 2006.

The agent on extension 2005 is acting as a caller. One client program is connected for the agent on extension 2005. Another client program is connected for the agent 2006.

One client program is connected as a bridge mode client. The agent with extension 2006 is associated with a CSQ. The CSQ is associated with the trigger 7000.

The call flow starts when the agent on extension 2005 makes a call to the 7000 trigger. Calls are processed using the system icd.aef script.



### Note

For each of the tables in this section, the value in the **Caller 2005** column is Yes if extension 2005 is a logged in agent, No if extension 2005 is not a logged in agent.

- 1 The caller on extension 2005 makes the call to trigger 7000.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: BEGIN_CALL_EVENT NumCTIClients: 0 NumNamedVars: 0 NumNamedArrays: 0 CallType: 9 ConnectionDeviceType: 0 CallID: 16777507 CalledPartyDisposition: 0 ConnectionDeviceID: 2005 ANI<sup>2</sup>: 2005 ...</pre>	Yes	No	Yes	This message indicates the beginning of the call. Notice that the CallID is 16777507.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_SERVICE_INITIATED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: -1 CSQID: -1 CallingDeviceType: 76 LocalConnectionState: 1 EventCause: 65535 ConnectionDeviceID: 2005 CallingDeviceID: 2005</pre>	Yes	No	Yes	This message indicates the device 2005 is off-hook. This message is generated only if device 2005 is monitored.
<pre>MsgType: CALL_ORIGINATED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: -1 CSQID: -1 CallingDeviceType: 76 CalledDeviceType: 74 LocalConnectionState: 1 EventCause: 65535 ConnectionDeviceID: 2005 CallingDeviceID: 2005 CalledDeviceID: 7000</pre>	Yes	No	Yes	This message indicates the call has dialed a number 7000. Notice that the CalledDeviceID is 7000. This message is only generated if device 2005 is monitored.
<pre>MsgType: CALL_DELIVERED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: 2 CSQID: -1 AlertingDeviceType: 73 CallingDeviceType: 76 CalledDeviceType: 73 LastRedirectedDeviceType: 65535 LocalConnectionState: 2 EventCause: 22 NumNamedVars: 0 NumNamedArrays: 0 ConnectionDeviceID: 9019 AlertingDeviceID: 9019 CallingDeviceID: 2005 CalledDeviceID: 9019 LastRedirectedDeviceID: SecondaryCallID: 0 ANI: 2005 DNIS: 7000 DialedNumber: 7000 ...</pre>	Yes	No	Yes	<p>The Unified CCX trigger is alerted.</p> <p>The call from device 2005 is delivered to CTI port 9019 in a Call Control Group.</p> <p>If the ANI is empty use the CallingDeviceID instead of ANI.</p>

## Example Message Flow for a Queued and Answered Call

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_ESTABLISHED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: 2 CSQID: -1 AnsweringDeviceType: 73 CallingDeviceType: 76 CalledDeviceType: 73 LastRedirectedDeviceType: 65535 LocalConnectionState: 3 EventCause: 22 ConnectionDeviceID: 9019 AnsweringDeviceID: 9019 CallingDeviceID: 2005 CalledDeviceID: 9019 LastRedirectedDeviceID:</pre>	Yes	No	Yes	<p>The Unified CCX trigger accepts the call.</p> <p>CTI port 9019 accepts the call. This is the result of the Accept step in the icd.aef script.</p>

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## 2 The call is queued.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_QUEUED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: 2 QueueDeviceType: 77 CallingDeviceType: 76 CalledDeviceType: 74 LastRedirectedDeviceType: 65535 NumCSQs: 1 LocalConnectionState: 5 EventCause: 65535 ConnectionDeviceID: 9019 QueueDeviceID: 1 CallingDeviceID: 2005 CalledDeviceID: 7000 LastRedirectedDeviceID: CsqID[0]: 1</pre>	Yes	No	Yes	<p>This message indicates that the call is queued in a CSQ with the ID 1.</p>

3 The agent becomes Ready.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 3 StateDuration: 0 CSQID: -1 AgentState: 3 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2006 AgentID: agt2006 NextAgentState: 65535</pre>	Yes	No	Yes	The agent on extension 2006 changes state to Ready. Notice that the AgentState is 3.

4 Agent is reserved.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 3 StateDuration: 0 CSQID: -1 AgentState: 3 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2006 AgentID: agt2006 NextAgentState: 65535</pre>	Yes	Yes	Yes	The CSQ identifies the agent on extension 2006 and reserves that agent.

5 The agent phone on extension 2006 rings.

## Example Message Flow for a Queued and Answered Call

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre> MsgType: CALL_DELIVERED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: 2 CSQID: 1 AlertingDeviceType: 76 CallingDeviceType: 76 CalledDeviceType: 76 LastRedirectedDeviceType: 65535 LocalConnectionState: 2 EventCause: 22 NumNamedVars: 0 NumNamedArrays: 0 ConnectionDeviceID: 2006 AlertingDeviceID: 2006 CallingDeviceID: 2005 CalledDeviceID: 2006 LastRedirectedDeviceID: SecondaryCallID: 16777508 ... </pre>	Yes	Yes	Yes	The call is delivered to the agent device (Extension) 2006.

6 The agent at extension 2006 answers the call.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre> MsgType: AGENT_STATE_EVENT CSQState: 4 StateDuration: 0 CSQID: -1 AgentState: 4 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2006 AgentID: agt2006 NextAgentState: 3 </pre>	Yes	Yes	Yes	When the agent on extension 2006 answers the call, the agent state is changed to Talking.



Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVars: 0 NumNamedArrays: 0 CallType: 10 ConnectionDeviceType: 0 CallID: 16777507 CalledPartyDisposition: 0 ConnectionDeviceID: 2005 ...</pre>	Yes	Yes	Yes	Call data is sent to client programs.
<pre>MsgType: CALL_ESTABLISHED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ApplicationID: -1 CSQID: 1 AnsweringDeviceType: 76 CallingDeviceType: 76 CalledDeviceType: 76 LastRedirectedDeviceType: 73 LocalConnectionState: 3 EventCause: 22 ConnectionDeviceID: 2006 AnsweringDeviceID: 2006 CallingDeviceID: 2005 CalledDeviceID: 2006 LastRedirectedDeviceID: 9019</pre>	Yes	Yes	Yes	When the agent on extension 2006 answers the call, the call is connected.
<pre>MsgType: CallDequeuedEvent ConnectionDeviceType: 65535 CallID: 16777507 ApplicationID: -1 QueueDeviceType: 0 NumQueued: 0 NumCSQs: 0 LocalConnectionState: 3 EventCause: 65535 ConnectionDeviceID: QueueDeviceID:</pre>	Yes	Yes	Yes	Unified CCX removes the call from the CSQ.

7 The call is disconnected from the CTI port.

## Example Message Flow for a Queued and Answered Call

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ReleasingDeviceType: 73 LocalConnectionState: 65535 EventCause: 28 ConnectionDeviceID: 9019 ReleasingDeviceID: 9019</pre>	Yes	Yes	Yes	The call is disconnected from CTI port 9019.

## 8 The caller on extension 2005 hangs up.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ReleasingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2005 ReleasingDeviceID: 2005</pre>	Yes	Yes	Yes	The call is disconnected from the caller on extension 2005.
<pre>MsgType: AGENT_STATE_EVENT CSQState: 3 StateDuration: 0 CSQID: -1 AgentState: 3 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2006 AgentID: agt2006 NextAgentState: 65535</pre>	Yes	Yes	Yes	The state of Agent 2006 is changed back to Ready since the agent has the <i>Automatic Available</i> checkbox enabled.

Server sends the following message(s)	Message(s) received by			Notes
	Bridge mode clients	Agent mode 2006	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777507 ReleasingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2006 ReleasingDeviceID: 2006</pre>	Yes	Yes	Yes	The call is disconnected from device 2006.
<pre>MsgType: CALL_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777507 LocalConnectionState: 0 EventCause: 1014 ConnectionDeviceID: 2005</pre>	Yes	Yes	Yes	Since there are no more connections in the call, the call is deleted.
<pre>MsgType: END_CALL_EVENT ConnectionDeviceType: 0 ConnectionCallID: 16777507 ConnectionDeviceID:</pre>	Yes	Yes	Yes	This message indicates the call is terminated.

## Example Message Flow for a Transferred Call

This example message flow starts at step 8 of the preceding message flow. Then, the agent on extension 2006 transfers the call to another agent instead of hanging up the call.



### Note

For each of the tables in this section, the value in the **Caller 2005** column is Yes if extension 2005 is a logged in agent, No if extension 2005 is not a logged in agent.

- 1 Agent 2006 consults Agent 2007.

## Example Message Flow for a Transferred Call

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_HELD_EVENT ConnectionDeviceType: 0 CallID: 16777507 HoldingDeviceType: 76 LocalConnectionState: 4 EventCause: 65535 ConnectionDeviceID: 2006 HoldingDeviceID: 2006</pre>	Yes	Yes	No	No	The original call between 2005 and 2006 is on hold.
<pre>MsgType: BEGIN_CALL_EVENT NumCTIClients: 0 NumNamedVars: 0 NumNamedArrays: 0 CallType: 12 ConnectionDeviceType: 0 CallID: 16777535 CalledPartyDisposition: 0 ConnectionDeviceID: 2006 ANI: 2006...</pre>	Yes	Yes	No	No	<p>The agent on extension 2006 begins a new consult call to the agent on extension 2007.</p> <p>If the ANI is empty use the CallingDeviceID instead of ANI.</p>
<pre>MsgType: CALL_SERVICE_INITIATED_EVENT ConnectionDeviceType: 0 CallID: 16777535 ApplicationID: -1 CSQID: 1 CallingDeviceType: 76 LocalConnectionState: 1 EventCause: 65535 ConnectionDeviceID: 2006 CallingDeviceID: 2006</pre>	Yes	Yes	No	No	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 8 StateDuration: 0 CSQID: -1 AgentState: 8 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2007 AgentID: agt2007 NextAgentState: 65535</pre>	Yes	No	Yes	No	

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_ORIGINATED_EVENT ConnectionDeviceType: 0 CallID: 16777535 ApplicationID: -1 CSQID: 1 CallingDeviceType: 76 CalledDeviceType: 76 LocalConnectionState: 1 EventCause: 65535 ConnectionDeviceID: 2006 CallingDeviceID: 2006 CalledDeviceID: 2007</pre>	Yes	Yes	No	No	
<pre>MsgType: CALL_DELIVERED_EVENT ConnectionDeviceType: 0 CallID: 16777535 ApplicationID: -1 CSQID: 1 AlertingDeviceType: 76 CallingDeviceType: 76 CalledDeviceType: 76 LastRedirectedDeviceType: 65535 LocalConnectionState: 2 EventCause: 22 NumNamedVars: 0 NumNamedArrays: 0 ConnectionDeviceID: 2007 AlertingDeviceID: 2007 CallingDeviceID: 2006 CalledDeviceID: 2007 LastRedirectedDeviceID: SecondaryCallID: 0 ...</pre>	Yes	Yes	Yes	No	

2 Agent 2007 answers the consult call.

## Example Message Flow for a Transferred Call

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 4 StateDuration: 0 CSQID: -1 AgentState: 4 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2007 AgentID: agt2007 NextAgentState: 3</pre>	Yes	No	Yes	No	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 4 StateDuration: 0 CSQID: -1 AgentState: 4 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2007 AgentID: agt2007 NextAgentState: 2</pre>	Yes	No	Yes	No	
<pre>MsgType: CALL_ESTABLISHED_EVENT ConnectionDeviceType: 0 CallID: 16777535 ApplicationID: -1 CSQID: 1 AnsweringDeviceType: 76 CallingDeviceType: 76 CalledDeviceType: 76 LastRedirectedDeviceType: 65535 LocalConnectionState: 3 EventCause: 22 ConnectionDeviceID: 2007 AnsweringDeviceID: 2007 CallingDeviceID: 2006 CalledDeviceID: 2007 LastRedirectedDeviceID:</pre>	Yes	Yes	No	No	

3 Agent 2006 completes the transfer of Caller 2005 to Agent 2007.

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre> MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVars: 0 NumNamedArrays: 0 CallType: 4 ConnectionDeviceType: 0 CallID: 16777533 CalledPartyDisposition: 0 ConnectionDeviceID: 2005 ... </pre>	Yes	Yes	No	Yes	
<pre> MsgType: CALL_TRANSFERRED_EVENT PrimaryDeviceType: 0 PrimaryCallID: 16777533 NumParties: 2 SecondaryDeviceType: 0 SecondaryCallID: 16777535 TransferringDeviceType: 76 TransferredDeviceType: 76 LocalConnectionState: 3 EventCause: 32 PrimaryDeviceID: 2006 SecondaryDeviceID: 2007 TransferringDeviceID: 2006 TransferredDeviceID: 2007 ConnectedPartyDCallID[0]: 16777533 ConnectedPartyDeviceType[0]: 0 ConnectedPartyDeviceID[0]: 2005 ConnectedPartyDCallID[1]: 16777533 ConnectedPartyDeviceType[1]: 0 ConnectedPartyDeviceID[1]: 2007 </pre>	Yes	Yes	Yes	Yes	After the transfer, the consult call is merged with the original call.

## Example Message Flow for a Transferred Call

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_ESTABLISHED_EVENT ConnectionDeviceType: 0 CallID: 16777533 ApplicationID: -1 CSQID: 1 AnsweringDeviceType: 76 CallingDeviceType: 76 CalledDeviceType: 76 LastRedirectedDeviceType: 76 LocalConnectionState: 3 EventCause: 22 ConnectionDeviceID: 2005 AnsweringDeviceID: 2007 CallingDeviceID: 2005 CalledDeviceID: 2007 LastRedirectedDeviceID: 2006</pre>	Yes	No	Yes	Yes	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT  ConnectionDeviceType: 0 CallID: 16777535 ReleasingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2006 ReleasingDeviceID: 2006</pre>	Yes	Yes	Yes	No	Device 2006 is dropped off the call after the transfer.
<pre>MsgType: AGENT_STATE_EVENT CSQState: 3 StateDuration: 0 CSQID: -1 AgentState: 3 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2006 AgentID: agt2006 NextAgentState: 65535</pre>	Yes	Yes	No	No	The state of the agent on extension 2006 is changed back to Ready.



Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777535 ReleasingingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2007 ReleasingDeviceID: 2007</pre>	Yes	No	No	No	The agent on device 2007 hangs up the call.
<pre>MsgType: CALL_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777535 LocalConnectionState: 0 EventCause: 1014 ConnectionDeviceID: 2006</pre>	Yes	No	No	No	The consult call is deleted.
<pre>MsgType: END_CALL_EVENT ConnectionDeviceType: 0 ConnectionCallID: 16777535 ConnectionDeviceID:</pre>	Yes	No	No	No	The consult call is ended.

#### 4 Caller 2005 ends the call.

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777533 ReleasingingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2005 ReleasingDeviceID: 2005</pre>	Yes	No	Yes	Yes	The caller on extension 2005 hangs up.

## Example Message Flow for a Conferenced Call

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 2 StateDuration: 0 CSQID: -1 AgentState: 2 EventReasonCode: 32755 NumCSQs: 0 AgentExtension: 2007 AgentID: agt2007 NextAgentState: 65535</pre>	Yes	No	Yes	Yes	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT  ConnectionDeviceType: 0 CallID: 16777533 ReleasingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2007 ReleasingDeviceID: 2007</pre>	Yes	No	Yes	Yes	
<pre>MsgType: CALL_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777533 LocalConnectionState: 0 EventCause: 1014 ConnectionDeviceID: 2005</pre>	Yes	No	No	No	
<pre>MsgType: END_CALL_EVENT ConnectionDeviceType: 0 ConnectionCallID: 16777533 ConnectionDeviceID:</pre>	Yes	No	No	No	The call is terminated.

## Example Message Flow for a Conferenced Call

In this example message flow, an Agent 2006 consults Agent 2007 to make a conferenced call. The call events in this message flow are similar to those in a consult-transfer up to the point before agent 2006 initiates the conference.



**Note** For each of the tables in this section, the value in the **Caller 2005** column is Yes if extension 2005 is a logged in agent, No if extension 2005 is not a logged in agent.

1 Agent 2006 consults Agent 2007.

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVars: 0 NumNamedArrays: 0 CallType: 15 ConnectionDeviceType: 0 CallID: 16777539 CalledPartyDisposition: 0 ConnectionDeviceID: 2005 ...</pre>	Yes	No	Yes	Yes	
<pre>MsgType: CALL_CONFERENCED_EVENT PrimaryDeviceType: 0 PrimaryCallID: 16777507 NumParties: 3 SecondaryDeviceType: 0 SecondaryCallID: 16777541 ControllerDeviceType: 76 AddedPartyDeviceType: 76 LocalConnectionState: 3 EventCause: 17 PrimaryDeviceID: 2006 SecondaryDeviceID: 2007 ControllerDeviceID: 2006 AddedDeviceID: 2007 ConnectedPartyDCallID[0]: 16777539 ConnectedPartyDeviceType[0]: 0 ConnectedPartyDeviceID[0]: 2005 ConnectedPartyDCallID[1]: 16777539 ConnectedPartyDeviceType[1]: 0 ConnectedPartyDeviceID[1]: 2006 ConnectedPartyDCallID[2]: 16777539 ConnectedPartyDeviceType[2]: 0 ConnectedPartyDeviceID[2]: 2007</pre>	Yes	Yes	Yes	Yes	The original call and the consult call are merged. The original call ID is used to identify the conferenced call.

## Example Message Flow for a Conferenced Call

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT   ConnectionDeviceType: 0  CallID: 16777541   ReleasingDeviceType: 76   LocalConnectionState: 65535   EventCause: 65535   ConnectionDeviceID: 2006   ReleasingDeviceID: 2006</pre>	Yes	Yes	Yes	No	The consult call is cleared at extension 2006.
<pre>MsgType: CALL_ESTABLISHED_EVENT   ConnectionDeviceType: 0   CallID: 16777539   ApplicationID: -1   CSQID: 1   AnsweringDeviceType: 65535   CallingDeviceType: 76   CalledDeviceType: 65535   LastRedirectedDeviceType: 76   LocalConnectionState: 3   EventCause: 22   ConnectionDeviceID: 2005   AnsweringDeviceID: Unknown   CallingDeviceID: 2005   CalledDeviceID: Unknown   LastRedirectedDeviceID: 2006</pre>	Yes	Yes	Yes	Yes	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT   ConnectionDeviceType: 0   CallID: 16777541   ReleasingDeviceType: 76   LocalConnectionState: 65535   EventCause: 65535   ConnectionDeviceID: 2007   ReleasingDeviceID: 2007</pre>	Yes	No	Yes	No	
<pre>MsgType: CALL_CLEARED_EVENT   ConnectionDeviceType: 0   CallID: 16777541   LocalConnectionState: 0   EventCause: 1014   ConnectionDeviceID: 2006</pre>	YYeses	No	No	No	

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: END_CALL_EVENT ConnectionDeviceType: 0 ConnectionCallID: 16777541 ConnectionDeviceID:</pre>	Yes	No	No	No	Consult call is deleted.

2 Agent 2005 ends the call.

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT  ConnectionDeviceType: 0 CallID: 16777539 ReleasingingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2005 ReleasingDeviceID: 2005</pre>	Yes	Yes	Yes	Yes	

3 Agent 2006 ends the call.

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: AGENT_STATE_EVENT CSQState: 3 StateDuration: 0 CSQID: -1 AgentState: 3 EventReasonCode: 0 NumCSQs: 0 AgentExtension: 2006 AgentID: agt2006 NextAgentState: 65535</pre>	Yes	Yes	No	No	

Server sends the following message(s)	Message(s) received by				Notes
	Bridge mode clients	Agent mode 2006	Agent mode 2007	Caller 2005	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777539 ReleasingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2006 ReleasingDeviceID: 2006</pre>	Yes	Yes	Yes	No	
<pre>MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777539 ReleasingDeviceType: 76 LocalConnectionState: 65535 EventCause: 65535 ConnectionDeviceID: 2007 ReleasingDeviceID: 2007</pre>	Yes	No	Yes	No	
<pre>MsgType: CALL_CLEARED_EVENT ConnectionDeviceType: 0 CallID: 16777539 LocalConnectionState: 0 EventCause: 1014 ConnectionDeviceID: 2005</pre>	Yes	No	No	No	
<pre>MsgType: END_CALL_EVENT ConnectionDeviceType: 0 ConnectionCallID: 16777539 ConnectionDeviceID:</pre>	Yes	No	No	No	

## Example Message Flows for an Outbound Option Call

This section has the following three message flows:

- [The Outbound Subsystem Picks an Agent to Place a Call to a Customer Contact, on page 23](#)
- [The Agent Skips the Contact, on page 27](#)
- [The Agent Rejects the Reservation Call, on page 29](#)

## The Outbound Subsystem Picks an Agent to Place a Call to a Customer Contact

- 1 The agent is reserved.

Server sends the following message(s)	
<pre>MsgType: AGENT_STATE_EVENT CSQState: RESERVED StateDuration: 0 CSQID: N/A AgentState: RESERVED</pre>	<pre>EventReasonCode: 0 NumCSQs: 0 AgentID: chli4020 AgentExtension: 4020</pre>

- 2 Unified CCX creates a reservation call.

Server sends the following message(s)	
<pre>MsgType: BEGIN_CALL_EVENT NumCTIClients: 0 NumNamedVariables: 8 NumNamedArrays: 0 CallType: CALLTYPE_RESERVATION ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800097 CalledPartyDisposition: CD_INVALID ConnectionDeviceID: 420</pre>	<pre>ExpandedCallContxt: &lt;TotalBytes: 161&gt; BACampaign: LoadCamp BACampaignID: BAStatus: DO BAResponse: user.layout: OODefault BAAccountNumber: AC111 BADialedListID: 20779 BABuddyName: John,Doe</pre>
<pre>MsgType: CALL_DELIVERED_EVENT: CallID: 16800097 LocalConnectionState: LCS_ALERTIN AlertingDevice: 4020</pre>	<pre>ConnectionDeviceID: 4020 CalledDeviceID: 4020 EventCause: CEC_NEW_CALL</pre>

- 3 The agent accepts the customer contact through the SET\_CALL\_DATA\_REQ message with BAResponse = Accept.


**Note**

This message is not listed here since the outbound example call flows displayed here only show the server generated messages, and not the agent generated messages.

- 4 Unified CCX responds to the accept with a Call\_DATA\_UPDATE\_EVENT message indicating the agent accepts the reservation call.

**Server sends the following message(s)**

<pre> MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVariables: 1 NumNamedArrays: 0 CallType: CALLTYPE_RESERVATION ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800096 NewConnectionDeviceType: CONNECTION_ID_STATIC NewConnectionCallID: 16800096 </pre>	<pre> CalledPartyDisposition: CD_INVALID CampaignID: 0 QueryRuleID: 0 ConnectionDeviceID: 4020 NewConnectionDeviceID: 4020 ExpandedCallContxt: &lt;TotalBytes: 20&gt; BAResponse: Accept CustomerPhoneNumber: CustomerAccountNumber: </pre>
---	---

- 5 Unified CCX makes a call from the agent phone to the customer. Notice that this call ID is different from the reservation call ID.

**Server sends the following message(s)**

<pre> MsgType: BEGIN_CALL_EVENT NumCTIClients: 0 NumNamedVariables: 10 NumNamedArrays: 0 CallType: CALLTYPE_PREVIEW ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800096 CalledPartyDisposition: CD_INVALID ConnectionDeviceID: 4020 DialedNumber: 4022 ExpandedCallContxt: &lt;TotalBytes: 211&gt; </pre>	<pre> BACampaign: LoadCamp BACampaignID: 2 BATimeZone: -00360 BAResponse: Accept BAStatus: CO BACustomerNumber: 4022 user.layout: OODefault BAAccountNumber: AC111 BADialedListID: 20779 BABuddyName: John, Doe </pre>
---	--

- 6 The reservation call is terminated.

**Server sends the following message(s)**

<pre> MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800097 ReleasingDeviceType: DEVID_AGENT_DEVICE_IDENTIFIER </pre>	<pre> LocalConnectionState: LCS_NONE EventCause: CEC_NONE ConnectionDeviceID: 4020 ReleasingDeviceID: 4020 </pre>
<pre> MsgType: CALL_CLEARED_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 1680097 </pre>	<pre> LocalConnectionState: LCS_NULL EventCause: CEC_NONE ConnectionDeviceID: 4020 </pre>



**Server sends the following message(s)**

<pre>MsgType: END_CALL_EVENT   ConnectionDeviceType: CONNECTION_ID_STATIC</pre>	<pre>ConnectionCallID: 16800097 ConnectionDeviceID:</pre>
---	---

7 This message indicates that the preview call has started. Noticed the BAStatus is changed to CO and the CallType is changed to Preview.

**Server sends the following message(s)**

<pre>MsgType: CALL_DATA_UPDATE_EVENT   NumCTIClients: 0   NumNamedVariables: 10   NumNamedArrays: 0   CallType: CALLTYPE_PREVIEW   ConnectionDeviceType: CONNECTION_ID_STATIC   ConnectionCallID: 16800096   NewConnectionDeviceType: CONNECTION_ID_STATIC   NewConnectionCallID: 16800096   CalledPartyDisposition: CD_INVALID   CampaignID: 0   QueryRuleID: 0   ConnectionDeviceID: 4020   NewConnectionDeviceID: 4020</pre>	<pre>ExpandedCallContxt: &lt;TotalBytes: 211&gt; BACampaign: LoadCamp BACampaignID: 2 BATimeZone: -00360 BAResponse: Accept BAStatus: CO BACustomerNumber: 4022 user.layout: OODefault BAAccountNumber: AC111 BADialedListID: 20779 BABuddyName: John,Doe CustomerPhoneNumber: CustomerAccountNumber:</pre>
---	---

8 Call events as a result of call control activities.

**Server sends the following message(s)**

<pre>MsgType: CALL_DATA_UPDATE_EVENT   NumCTIClients: 0   NumNamedVariables: 1   NumNamedArrays: 0   CallType: CALLTYPE_PREVIEW   ConnectionDeviceType: CONNECTION_ID_STATIC   ConnectionCallID: 16800096   NewConnectionDeviceType: CONNECTION_ID_STATIC   NewConnectionCallID: 16800096</pre>	<pre>CalledPartyDisposition: CD_INVALID CampaignID: 0 QueryRuleID: 0 ConnectionDeviceID: 4020 NewConnectionDeviceID: 4020 ExpandedCallContxt: &lt;TotalBytes: 14&gt; BAStatus: CO CustomerPhoneNumber:</pre>
---	--

Server sends the following message(s)	
<pre>MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVariables: 1 NumNamedArrays: 0 CallType: CALLTYPE_PREVIEW ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800096 NewConnectionDeviceType: CONNECTION_ID_STATIC NewConnectionCallID: 16800096</pre>	<pre>CalledPartyDisposition: CD_INVALID CampaignID: 0 QueryRuleID: 0 ConnectionDeviceID: 4020 NewConnectionDeviceID: 4020 ExpandedCallContxt: &lt;TotalBytes: 20&gt; BATimeZone: -00360 CustomerPhoneNumber:</pre>
<pre>MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVariables: 1 NumNamedArrays: 0 CallType: CALLTYPE_PREVIEW ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800096 NewConnectionDeviceType: CONNECTION_ID_STATIC NewConnectionCallID: 16800096</pre>	<pre>CalledPartyDisposition: CD_INVALID CampaignID: 0 QueryRuleID: 0 ConnectionDeviceID: 4020 NewConnectionDeviceID: 4020 ExpandedCallContxt: &lt;TotalBytes: 24&gt; BACustomerNumber: 4022 CustomerPhoneNumber:</pre>
<pre>MsgType: CALL_SERVICE_INITIATED_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800096 ApplicationID: N/A CSQID: N/A</pre>	<pre>CallingDeviceType: DEVID_AGENT_DEVICE_IDENTIFIER LocalConnectionState: LCS_INITIATE EventCause: CEC_NONE ConnectionDeviceID: 4020 CallingDeviceID: 4020</pre>
<pre>MsgType: AGENT_STATE_EVENT CSQState: TALKING StateDuration: 0 CSQID: N/A AgentState: TALKING</pre>	<pre>EventReasonCode: 0 NumCSQs: 0 AgentID: chli4020 AgentExtension: 4020 NextAgentState: 5</pre>
<pre>MsgType: CALL_ORIGINATED_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800096 ApplicationID: N/A CSQID: N/A CallingDeviceType: DEVID_AGENT_DEVICE_IDENTIFIER</pre>	<pre>CalledDeviceType: DEVID_DEVICE_IDENTIFIER LocalConnectionState: LCS_INITIATE EventCause: CEC_NONE ConnectionDeviceID: 4020 CallingDeviceID: 4020 CalledDeviceID: 4022</pre>

**Server sends the following message(s)**

```

MsgType: CALL_ESTABLISHED_EVENT
  ConnectionDeviceType:
CONNECTION_ID_STATIC
  ConnectionCallID: 16800096
  ApplicationID: N/A
  CSQID: N/A
  AnsweringDeviceType: DEVID_NONE
  CallingDeviceType:
DEVID_AGENT_DEVICE_IDENTIFIER
  CalledDeviceType: DEVID_NONE

```

```

LastRedirectDeviceType: DEVID_NONE
LocalConnectionState: LCS_CONNECT
EventCause: CEC_NEW_CALL
ConnectionDeviceID: 4020
AnsweringDeviceID: Unknown
CallingDeviceID: 4020
CalledDeviceID: Unknown

```

**9** The outbound call is terminated.**Server sends the following message(s)**

```

MsgType: CALL_CONNECTION_CLEARED_EVENT
  ConnectionDeviceType:
CONNECTION_ID_STATIC
  ConnectionCallID: 16800096
  ReleasingDeviceType:
DEVID_AGENT_DEVICE_IDENTIFIER

```

```

LocalConnectionState: LCS_NONE
EventCause: CEC_NONE
ConnectionDeviceID: 4020
ReleasingDeviceID: 4020

```

```

MsgType: AGENT_STATE_EVENT
  CSQState: WORK_NOT_READY
  StateDuration: 0
  CSQID: N/A
  AgentState: WORK_NOT_READY

```

```

EventReasonCode: 0
NumCSQs: 0
AgentID: chli4020
AgentExtension: 4020

```

```

MsgType: CALL_CLEARED_EVENT
  ConnectionDeviceType:
CONNECTION_ID_STATIC
  ConnectionCallID: 16800096

```

```

LocalConnectionState: LCS_NULL
EventCause: CECX_DROP_HANDLED_OTHER
ConnectionDeviceID: 4020

```

**The Agent Skips the Contact**

- 1 The agent skips the contact. The agent sets BResponse = Skip, and the server replies as follows.

## Example Message Flows for an Outbound Option Call

Server sends the following message(s)	
MsgType: AGENT_STATE_EVENT CSQState: AVAILABLEState Duration: 0 CSQID: N/A AgentState: AVAILABLE	EventReasonCode: 0 NumCSQs: 0 AgentID: chli4020 AgentExtension: 4020
MsgType: END_CALL_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC	ConnectionCallID: 16800095 ConnectionDeviceID:

## 2 The agent becomes available.

Server sends the following message(s)	
MsgType: CALL_DATA_UPDATE_EVENT NumCTIClients: 0 NumNamedVariables: 1 NumNamedArrays: 0 CallType: CALLTYPE_RESERVATION ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800098 NewConnectionDeviceType: CONNECTION_ID_STATIC NewConnectionCallID: 16800098 CalledPartyDisposition: CD_INVALID	CampaignID: 0 QueryRuleID: 0 ConnectionDeviceID: 4020 NewConnectionDeviceID: 4020 ExpandedCallContxt: <TotalBytes: 18> BAResponse: Skip CustomerPhoneNumber: CustomerAccountNumber:
MsgType: AGENT_STATE_EVENT CSQState: AVAILABLE StateDuration: 0 CSQID: N/A AgentState: AVAILABLE	EventReasonCode: 0 NumCSQs: 0 AgentID: chli4020 AgentExtension: 4020

## 3 The reservation call is cleared.

Server sends the following message(s)	
MsgType: CALL_CONNECTION_CLEARED_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800099 ReleasingDeviceType: DEVID_AGENT_DEVICE_IDENTIFIER	LocalConnectionState: LCS_NONE EventCause: CEC_NONE ConnectionDeviceID: 4020 ReleasingDeviceID: 4020
MsgType: CALL_CLEARED_EVENT ConnectionDeviceType: CONNECTION_ID_STATIC ConnectionCallID: 16800099	LocalConnectionState: LCS_NULL EventCause: CEC_NONE ConnectionDeviceID: 4020

**Server sends the following message(s)**

```
MsgType: END_CALL_EVENT
ConnectionDeviceType: CONNECTION_ID_STATIC
```

```
ConnectionCallID: 16800099
ConnectionDeviceID:
```

## The Agent Rejects the Reservation Call

1 The agent sets BAResponse = *Reject* and the server responds as follows.

**Server sends the following message(s)**

```
MsgType: CALL_DATA_UPDATE_EVENT
NumCTIClients: 0
NumNamedVariables: 1
NumNamedArrays: 0
CallType: CALLTYPE_RESERVATION
ConnectionDeviceType: CONNECTION_ID_STATIC
ConnectionCallID: 16800100
NewConnectionDeviceType: CONNECTION_ID_STATIC
NewConnectionCallID: 16800100
```

```
CalledPartyDisposition: CD_INVALID
CampaignID: 0
QueryRuleID: 0
ConnectionDeviceID: 4020
NewConnectionDeviceID: 4020
ExpandedCallContxt: <TotalBytes: 20>
BAResponse: Reject
CustomerPhoneNumber:
CustomerAccountNumber:
```

```
MsgType: CALL_CONNECTION_CLEARED_EVENT
ConnectionDeviceType: CONNECTION_ID_STATIC
ConnectionCallID: 16800101
ReleasingDeviceType:
DEVID_AGENT_DEVICE_IDENTIFIER
```

```
LocalConnectionState: LCS_NONE
EventCause: CEC_NONE
ConnectionDeviceID: 4020
ReleasingDeviceID: 4020
```

2 The reservation call is cleared.

**Server sends the following message(s)**

```
MsgType: CALL_CLEARED_EVENT
ConnectionDeviceType: CONNECTION_ID_STATIC
ConnectionCallID: 16800101
```

```
LocalConnectionState: LCS_NULL
EventCause: CEC_NONE
ConnectionDeviceID: 4020
```

```
MsgType: END_CALL_EVENT
ConnectionDeviceType: CONNECTION_ID_STATIC
```

```
ConnectionCallID: 16800101
ConnectionDeviceID:
```

