

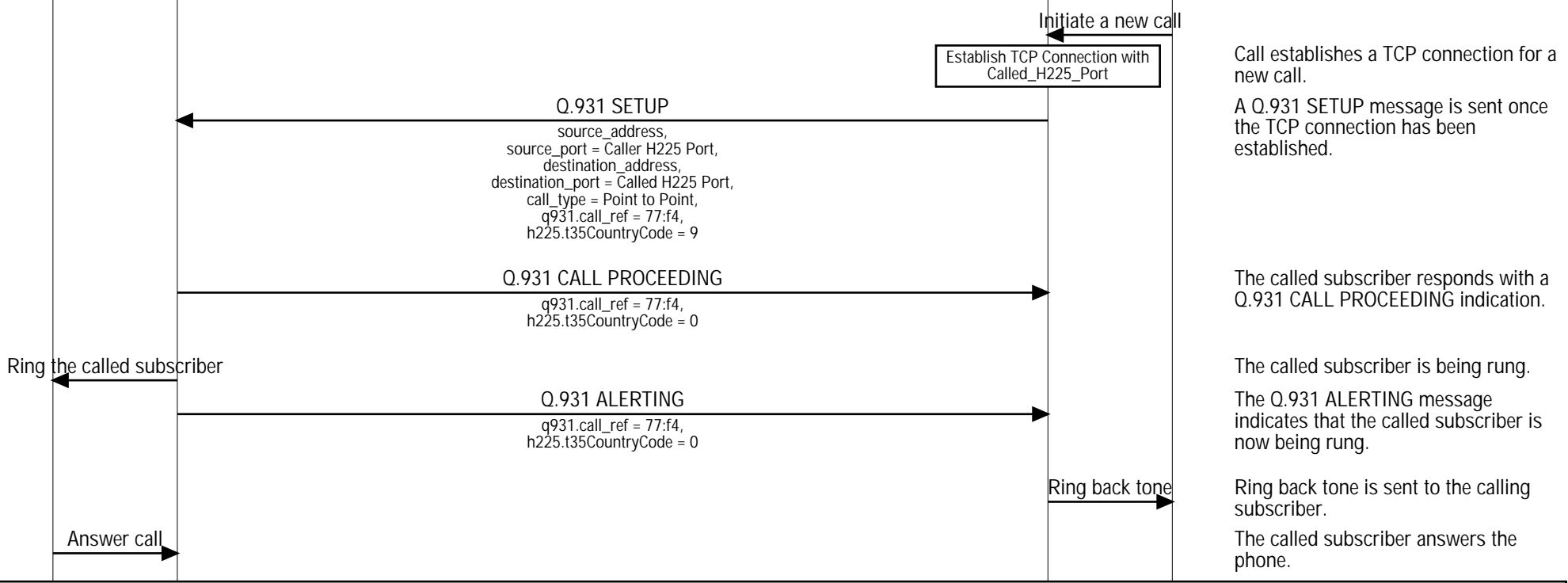
H.323 Call Setup (H.323 Call Setup Involving H.224, Q.931, H.245, RTP and RTCP Protocols)										
Called PC	Internet							Caller PC	EventHelix.com/EventStudio 2.5	
Called	Called Segment				Caller Segment				Caller	
Called	Called H225 Port	Called H245 Port	Called RTP Port	Called RTCP Port	Caller RTCP Port	Caller RTP Port	Caller H245 Port	Caller H225 Port	Caller	18-Dec-05 08:29 (Page 1)

This call flow diagram was generated with EventStudio System Designer 2.5 (<http://www.EventHelix.com/EventStudio>).

The call flow diagram presents the flow of an H.323 call. The following steps are covered:
 - H.225/Q.931 Call Setup
 - H.245 Negotiation and Voice Path Setup
 - RTP/RTCP Based Voice Communication

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H.225/Q.931 Call Setup



Call establishes a TCP connection for a new call.

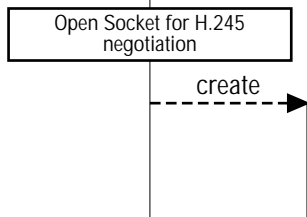
A Q.931 SETUP message is sent once the TCP connection has been established.

The called subscriber responds with a Q.931 CALL PROCEEDING indication.

The called subscriber is being rung.
 The Q.931 ALERTING message indicates that the called subscriber is now being rung.

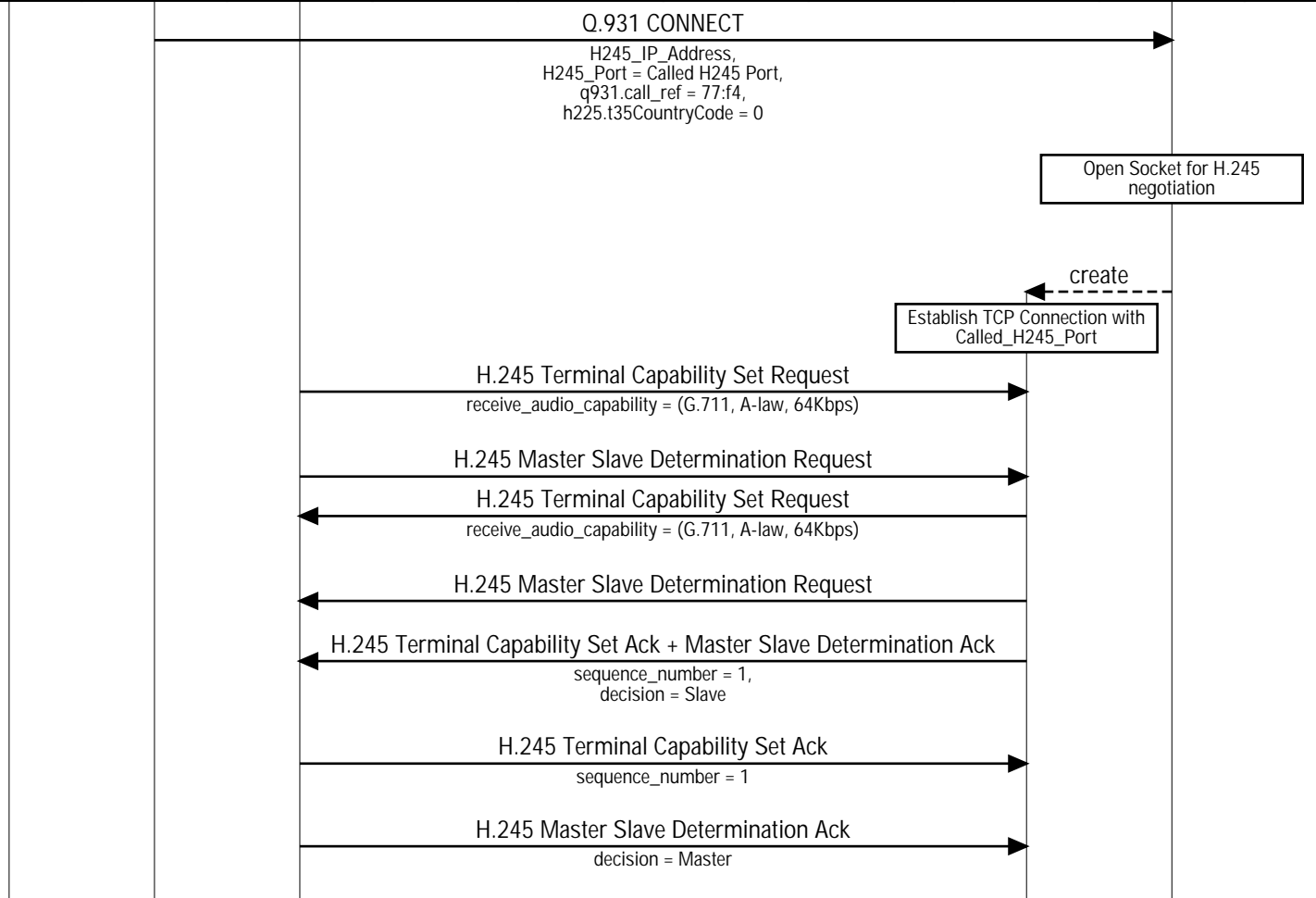
Ring back tone is sent to the calling subscriber.
 The called subscriber answers the phone.

H.245 Negotiation and Voice Path Setup



An H.245 session will now be established for negotiation.

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The Q.931 connect is sent to the caller. The message contains information about the H.245 negotiation port.

The caller opens the socket for H.245 negotiation. The calling H.245 port information is extracted from the connect message.

Now establish a TCP connection for H.245 negotiation.

Called party negotiates terminal capability. G.711 A-law 64Kbps codec is requested.

Called party negotiates master-slave.

Calling party also negotiates terminal capability. G.711 A-law 64Kbps codec is requested.

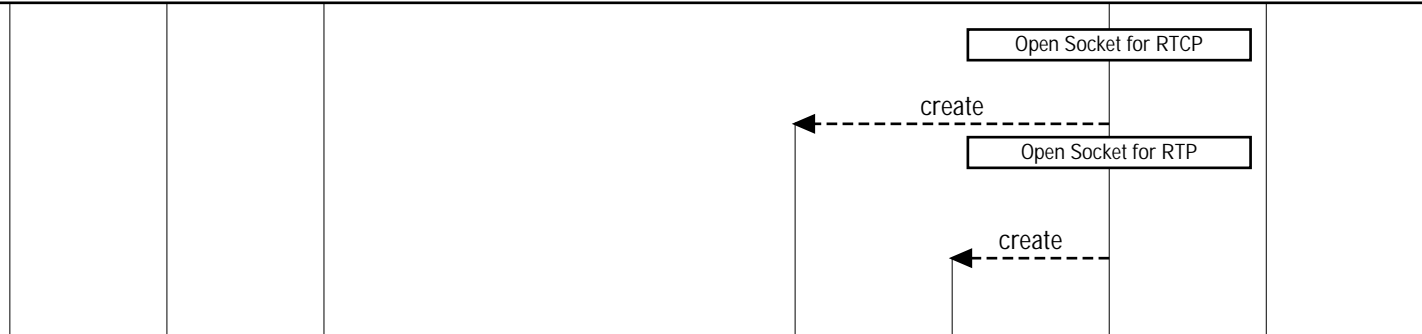
Caller also initiates a Master Slave determination request.

Caller replies with a combined "terminal capability" and "master-slave" ack.

Called party responds with terminal capability ack.

Called party becomes the master.

Voice Path Setup

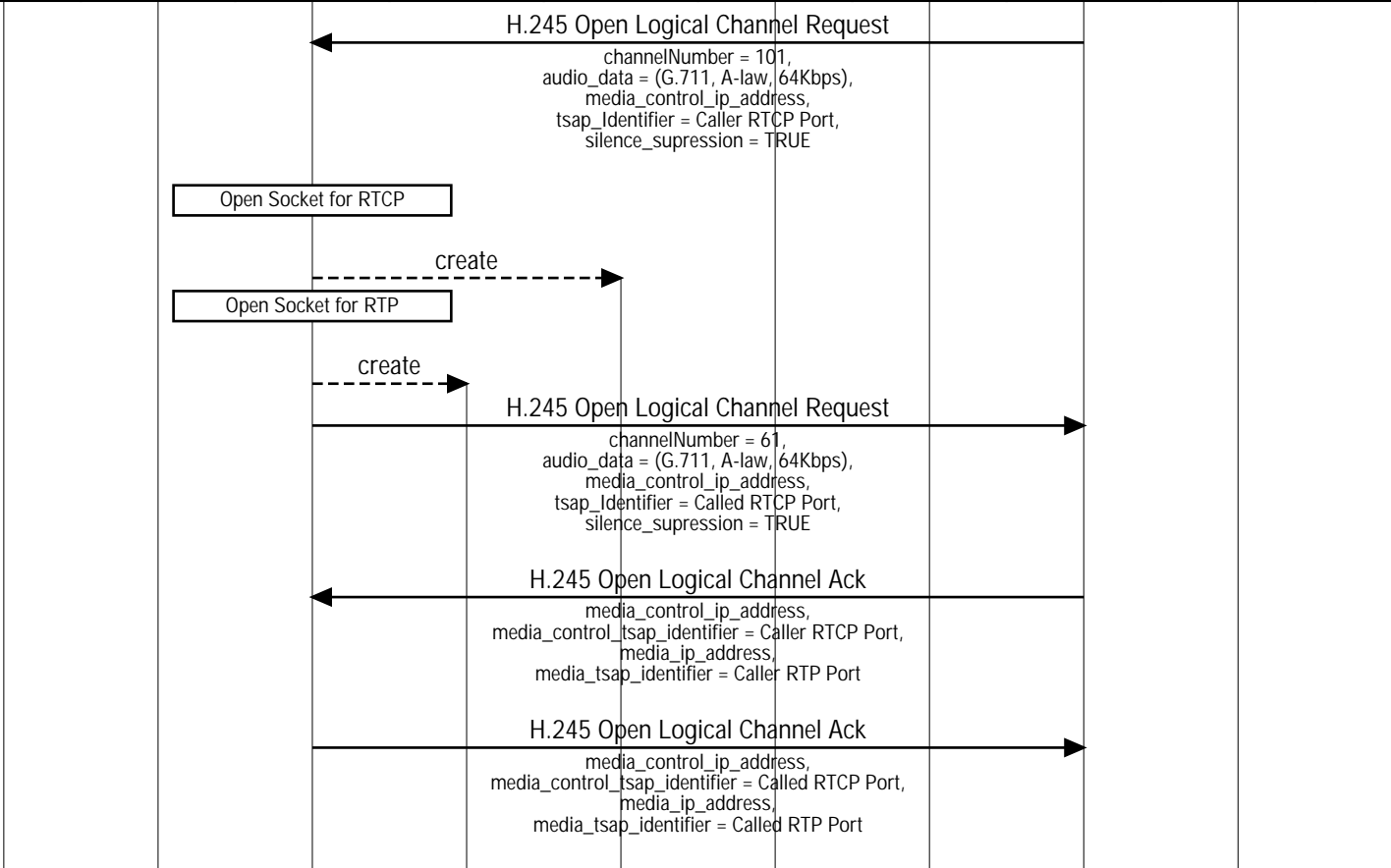


The calling party opens a RTCP socket for controlling the RTP stream.

The calling party opens a RTP socket for voice communication over the Internet.

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Called	Called Segment				Caller Segment				Caller	
Called	Called H225 Port	Called H245 Port	Called RTP Port	Called RTCP Port	Caller RTCP Port	Caller RTP Port	Caller H245 Port	Caller H225 Port	Caller	18-Dec-05 08:29 (Page 3)



Send channel open request to the called party. RTCP port number is included in the message. The G.711 A-law 64Kbps will be used on the audio path.

The called party opens a RTCP socket for controlling the RTP stream.

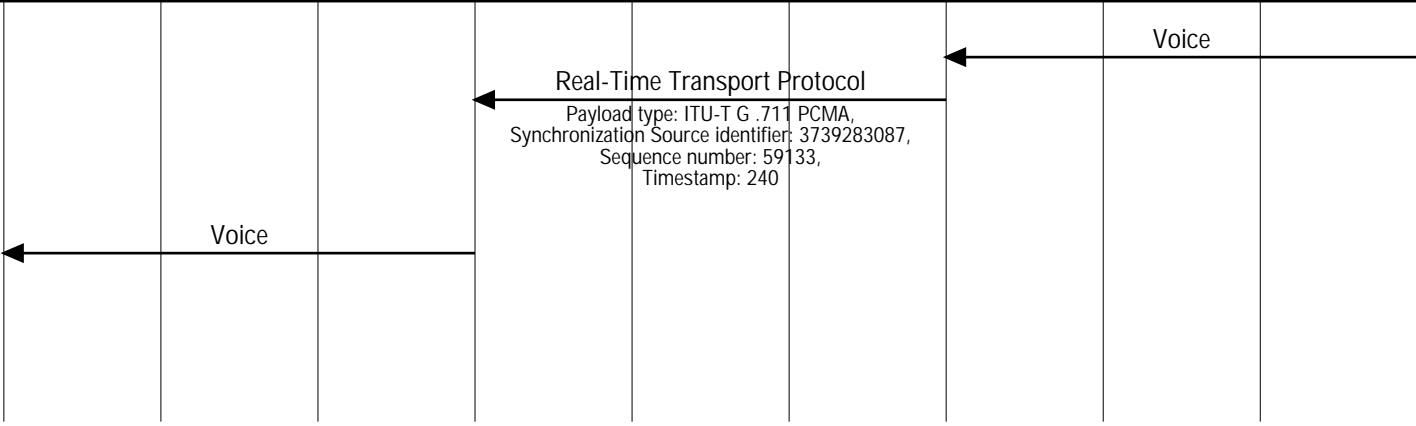
The called party opens a RTP socket for voice communication over the Internet.

Send channel open request to the calling party. RTCP port number is included in the message. The G.711 A-law 64Kbps will be used on the audio path.

Caller acknowledges the message. The RTP and RTCP port numbers are included in the message.

Called party acknowledges the message. The RTP and RTCP port numbers are included in the message.

RTP/RTCP Based Voice Communication



The voice is compressed and packed into RTP packets and transported to the called party.

The called party decompresses the voice.

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