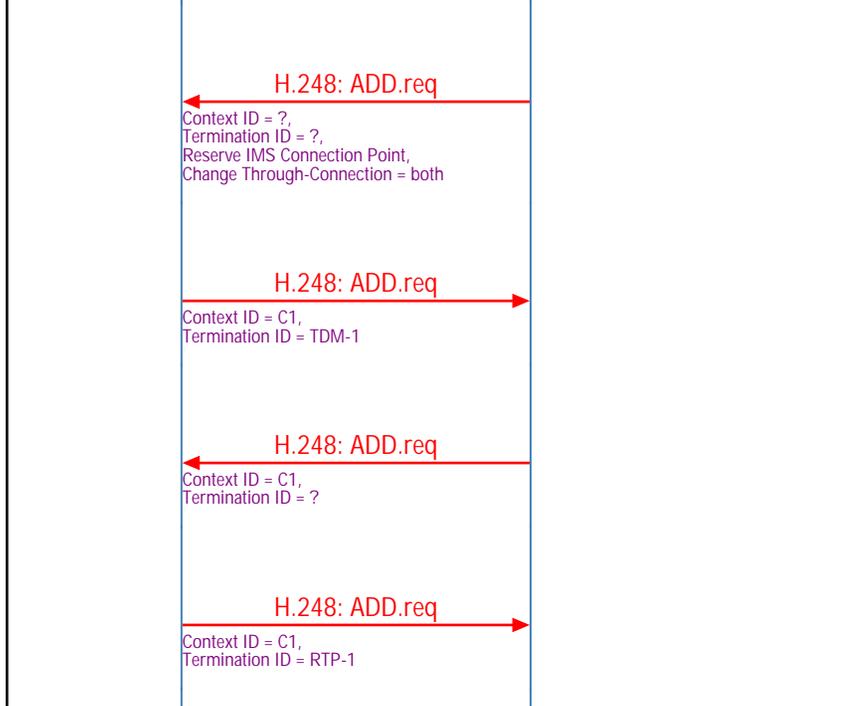


IM-MGW Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)			
PSTN	IMS Core Network	Called UE	Copyright © 2013 EventHelix.com
PSTN Equipment	PSTN Interface	Called User Equipment	
IM-MGW	MGCF	Called	10-Jan-13 16:26 (Page 1)

This call flow covers the handling of a CS network originated call with ISUP. In the diagram the MGCF requests seizure of the IM CN subsystem side termination and CS network side bearer termination. When the MGCF receives an answer indication, it requests the IM-MGW to both-way through-connect the terminations.

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

ISUP IAM Handling and Initial IM-MGW and MGCF (Mn) Interactions



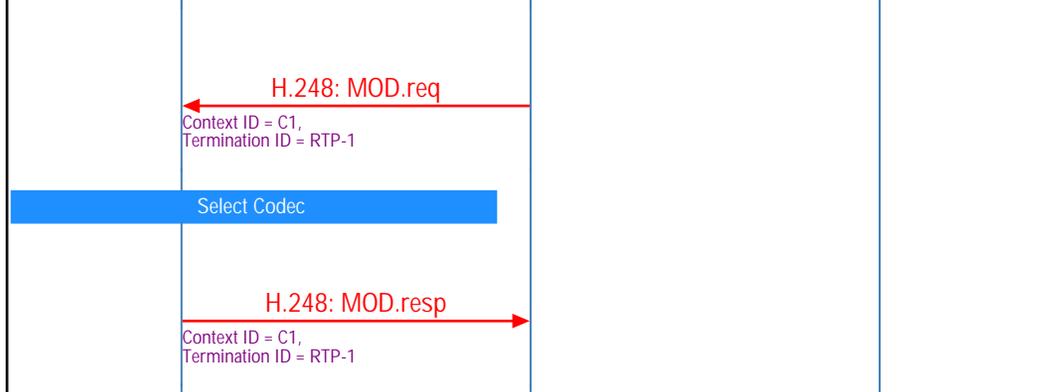
Request addition of a new context and termination. The MGCF uses the Reserve IMS Connection Point procedure. Within this procedure, the MGCF indicates the local codecs and requests a local IP address and UDP port from the IM-MGW. The local IP address and UDP port are used by the IM-MGW to receive user plane data from the IM CN subsystem.

The IM-CN responds back with Context "C1" and a TDM side termination "TDM-1".

Request addition of an RTP termination to the "C1" context. Change IMS Through Connection = backward.

The IM-MGW adds the "RTP-1" termination to the "C1" context. At this point "TDM-1" is a circuit switched termination and "RTP-1" is a RTP based IP termination for communicating with the terminating IMS subscriber.

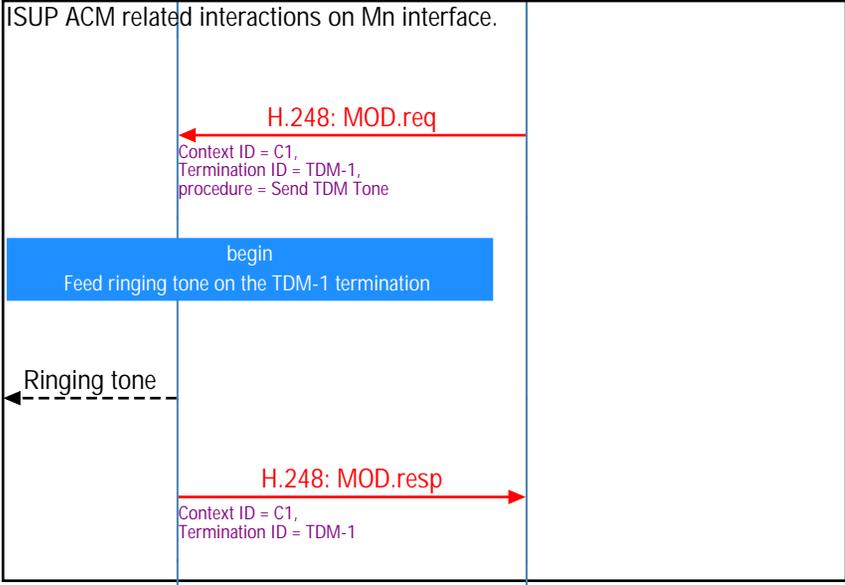
Mn Interactions for Codec selection



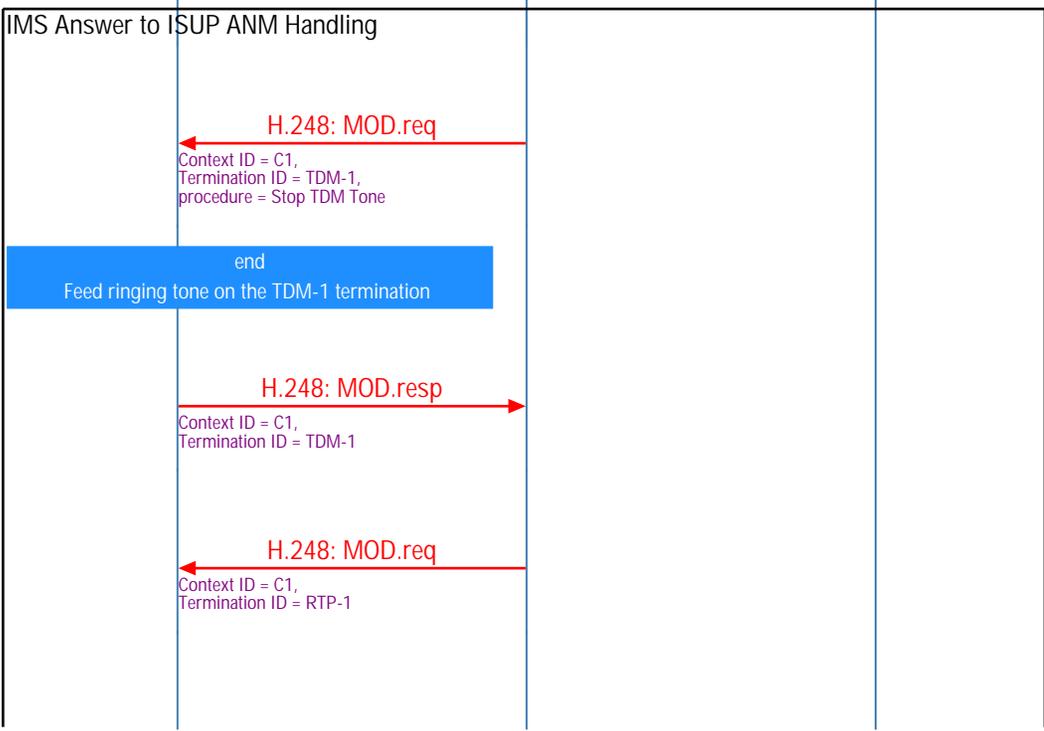
The MGCF indicates the remote IP address and UDP port, i.e. the destination IP address and UDP port for RTP messages sent towards the terminating IMS UE. It also identifies the codec to be used in the IM-MGW to Terminating UE RTP communication.

Reply to MGCF. The final codec selection is indicated.

IM-MGW Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)			
PSTN	IMS Core Network	Called UE	Copyright © 2013 EventHelix.com 10-Jan-13 16:26 (Page 2)
PSTN Equipment	PSTN Interface	Called User Equipment	
IM-MGW	MGCF	Called	



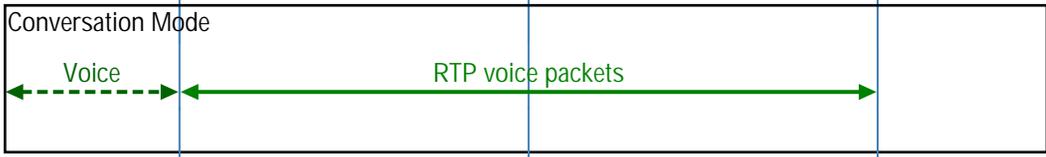
The MGCF requests the IM-MGW to provide a ringing tone to the calling party using the Send TDM Tone procedure.



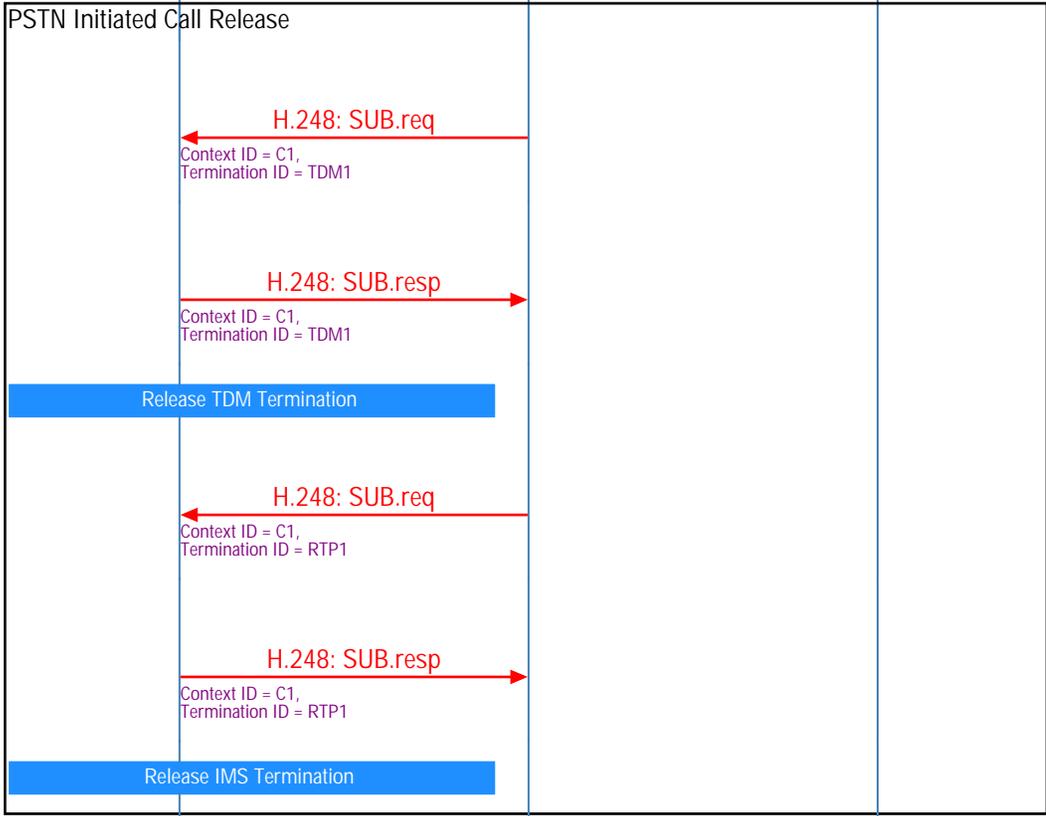
The call has been answered so the MGCF requests the IM-MGW to stop the ring tone on the TDM side.

Request the IM-MGW to both-way through-connect the terminations using the Change IMS Through-Connection or Change TDM Through-Connection procedure.

IM-MGW Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)			
PSTN	IMS Core Network	Called UE	Copyright © 2013 EventHelix.com 10-Jan-13 16:26 (Page 3)
PSTN Equipment	PSTN Interface	Called User Equipment	
IM-MGW	MGC	Called	



Conversation is now in progress. The voice is carried as PCM between the PSTN and IM-MGW. The IM-MGW converts the speech into RTP packets and back. The RTP communication takes place directly between the IM-MGW and Called IMS subscriber.



Request IM-MGW to Release TDM Termination. A Megaco SUBtract request is sent to release the PSTN side TDM circuit.

IM-MGW acknowledges.

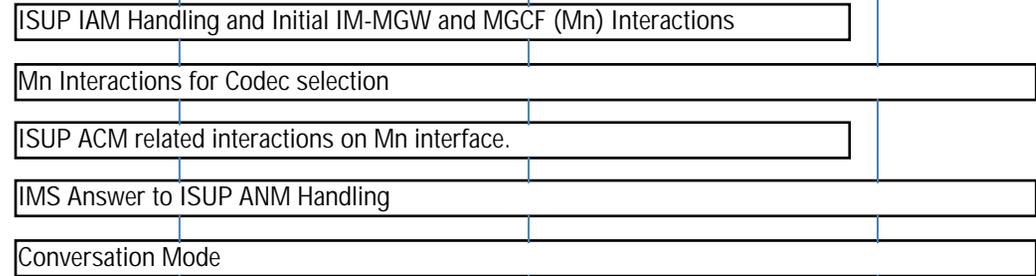
Request IM-MGW to Release RTP Termination. A Megaco SUBtract request is sent to release the IMS side RTP termination.

IM-MGW acknowledges.

IM-MGW Interfaces (Alternate Scenario: Called IMS Subscriber Initiated Call Release)			
PSTN	IMS Core Network	Called UE	Copyright © 2013 EventHelix.com
PSTN Equipment	PSTN Interface	Called User Equipment	
IM-MGW	MGCF	Called	10-Jan-13 16:26 (Page 4)

This call flow covers the handling of a CS network originated call with ISUP. In the diagram the MGCF requests seizure of the IM CN subsystem side termination and CS network side bearer termination. When the MGCF receives an answer indication, it requests the IM-MGW to both-way through-connect the terminations.

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



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