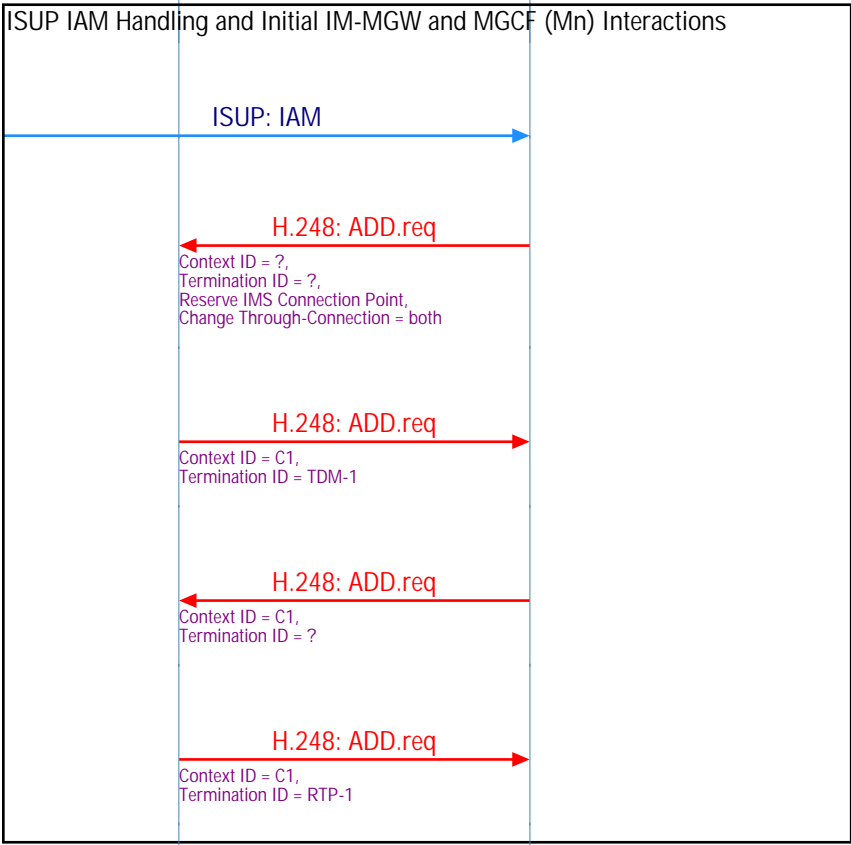


This call flow covers the handling of a CS network originated call with ISUP. In the diagram the MGCF requests seizure of the IM CN subsystem side termination and CS network side bearer termination. When the MGCF receives an answer indication, it requests the IM-MGW to both-way through-connect the terminations.

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



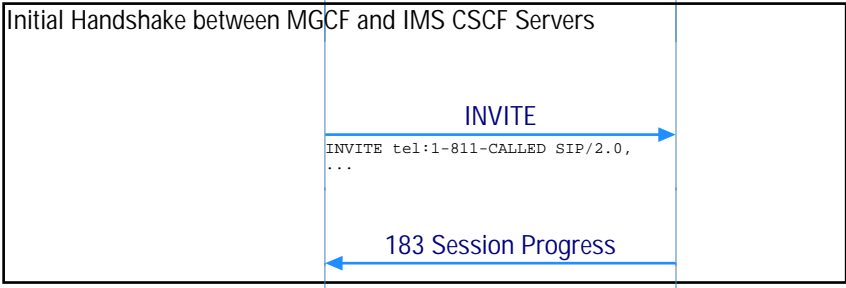
The CS Network establishes a bearer path to the IM-MGW, and signals to the MGCF with a IAM message, giving the trunk identity, destination information and optionally the continuity indication. The message is routed to MGCF via the Signaling Gateway (SGW).

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.

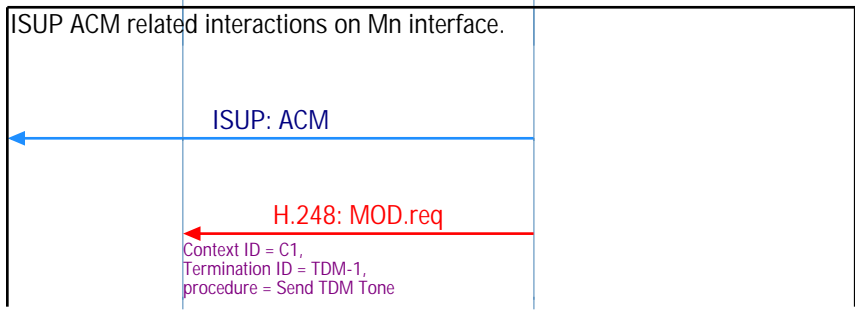
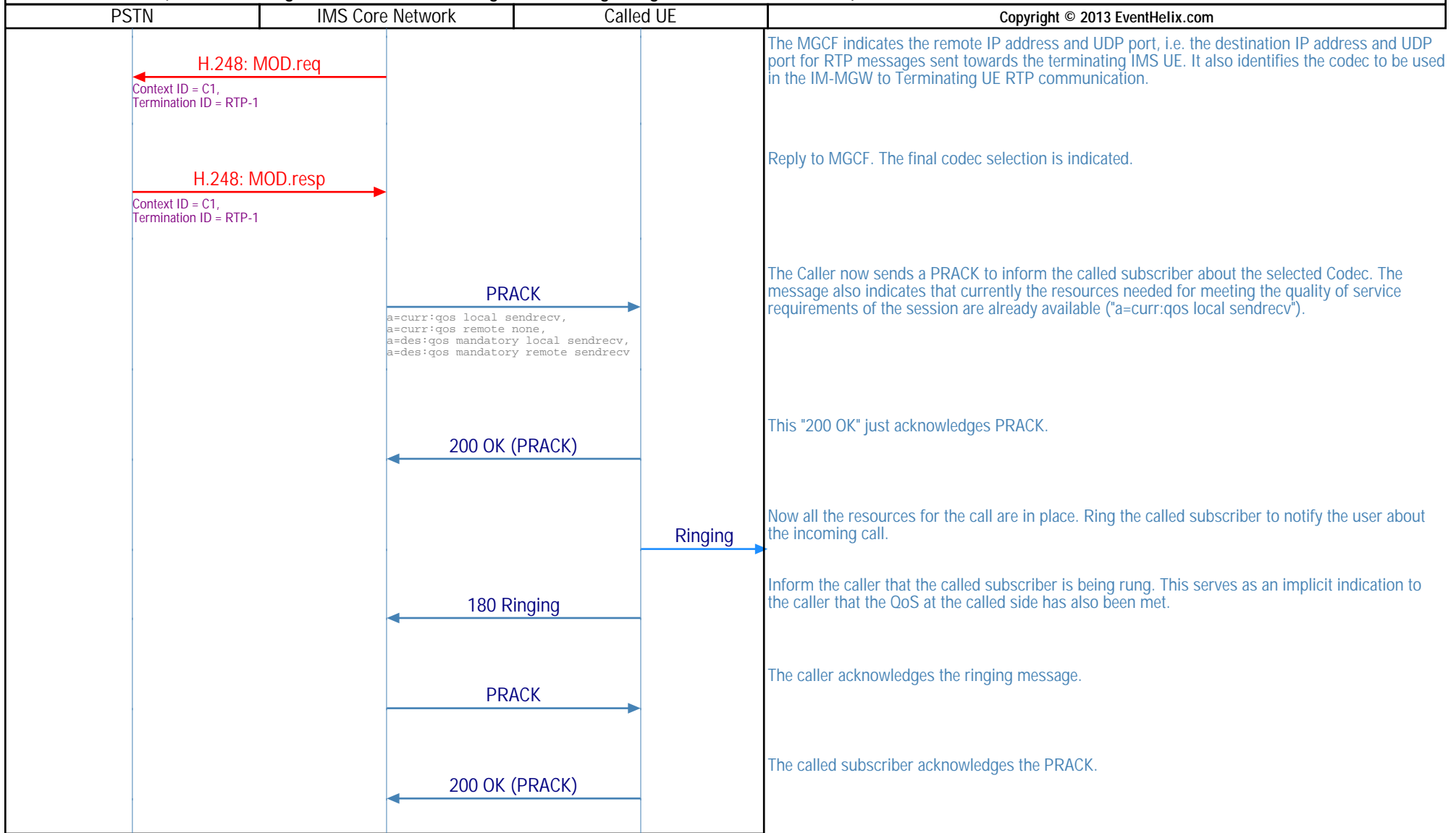


The P-CSCF updates the Via and Route-Record headers and forwards the request to the Called UE. Note that the secure port is included in the Via address specification.

The UE replies indicating that the session is in progress. The contact address is set its own IP address. The Via and the Record-Route headers are copied from the received INVITE.



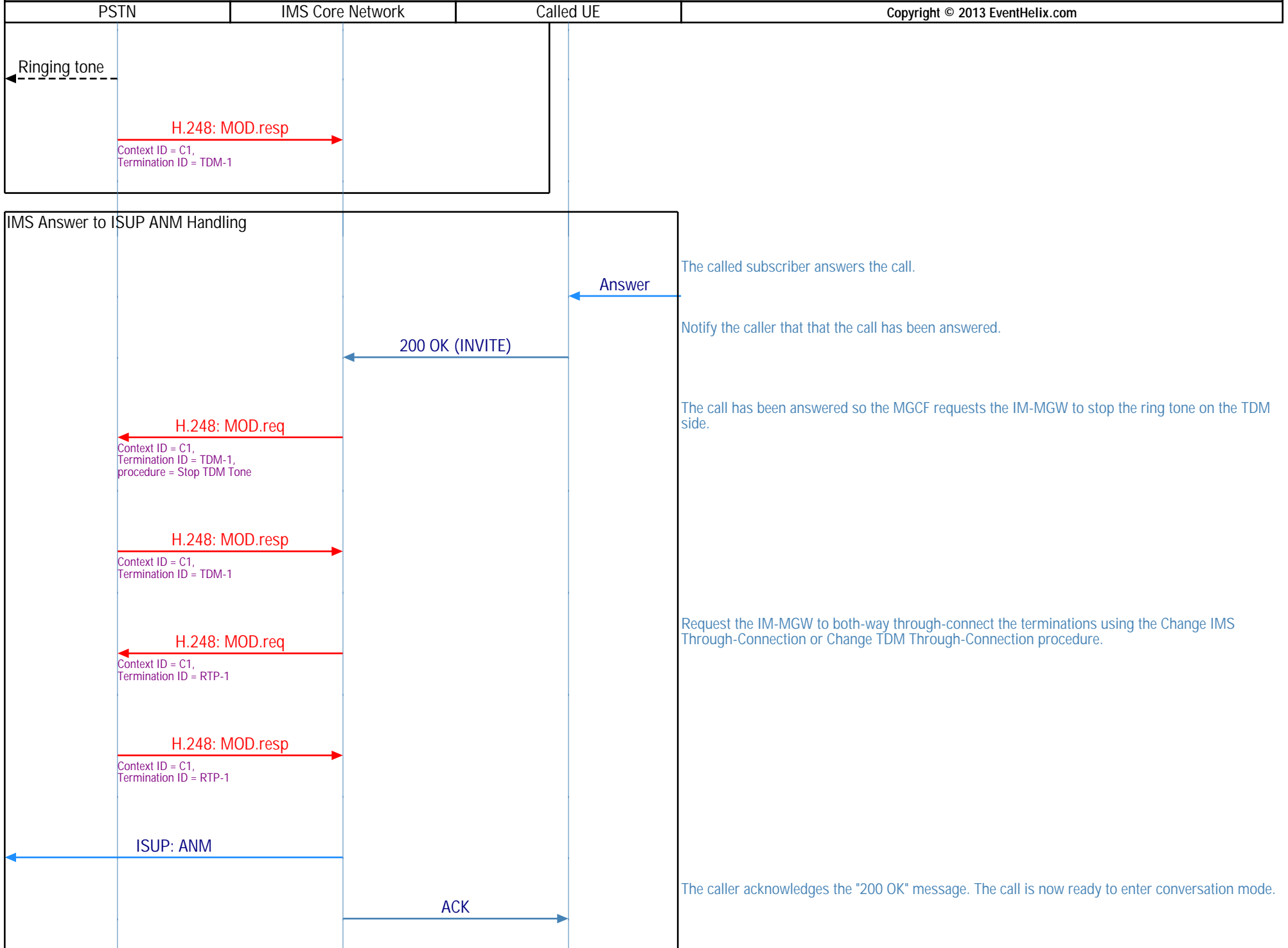
Module Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)



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

Module Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)

Copyright © 2013 EventHelix.com



Module Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)

PSTN

IMS Core Network

Called UE

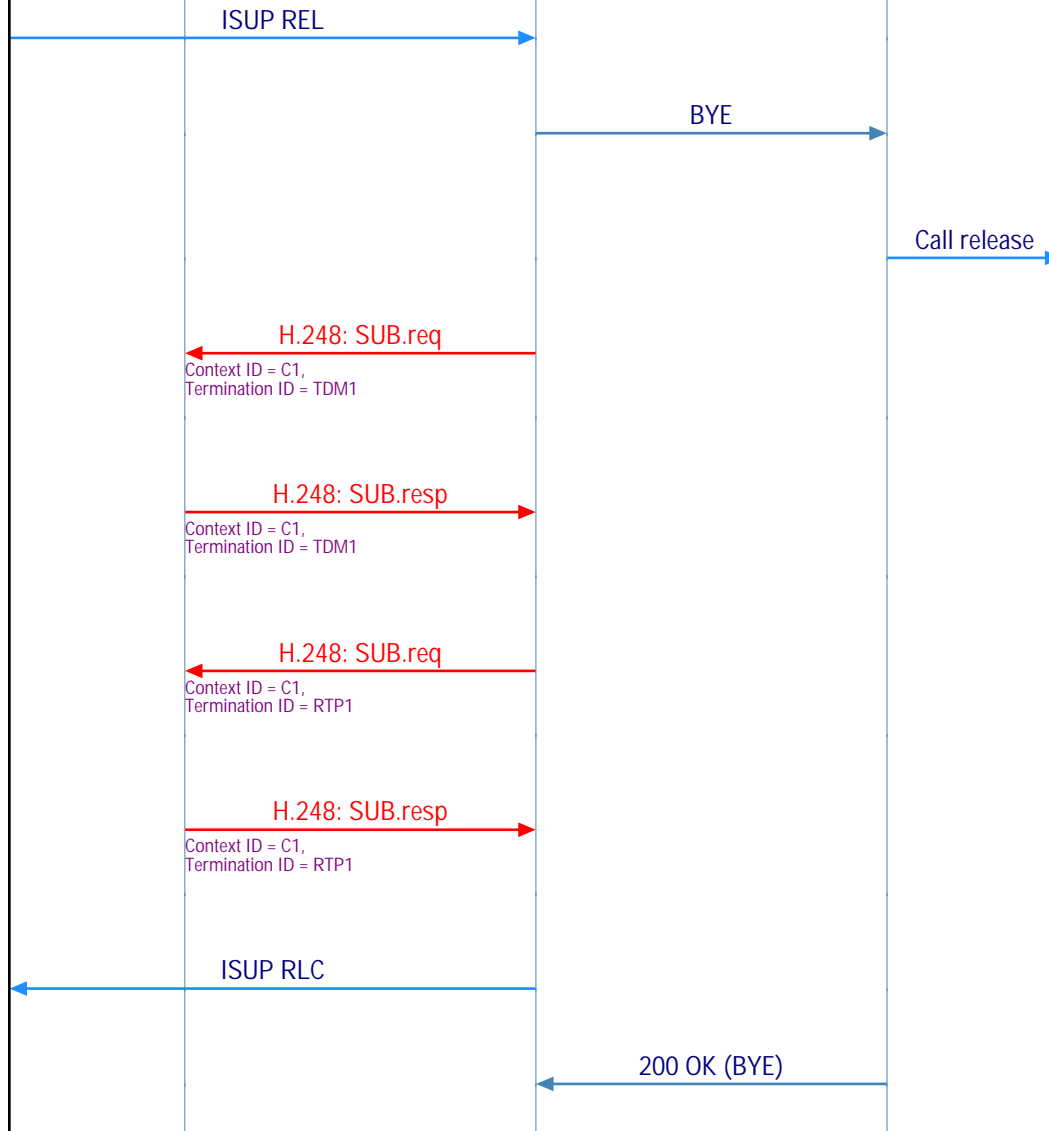
Copyright © 2013 EventHelix.com

Conversation Mode



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.

PSTN Initiated Call Release



A call release has been received from the PSTN side.

MGCF initiates IMS side call release by sending BYE.

The called subscriber is notified that the call has been released.

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.

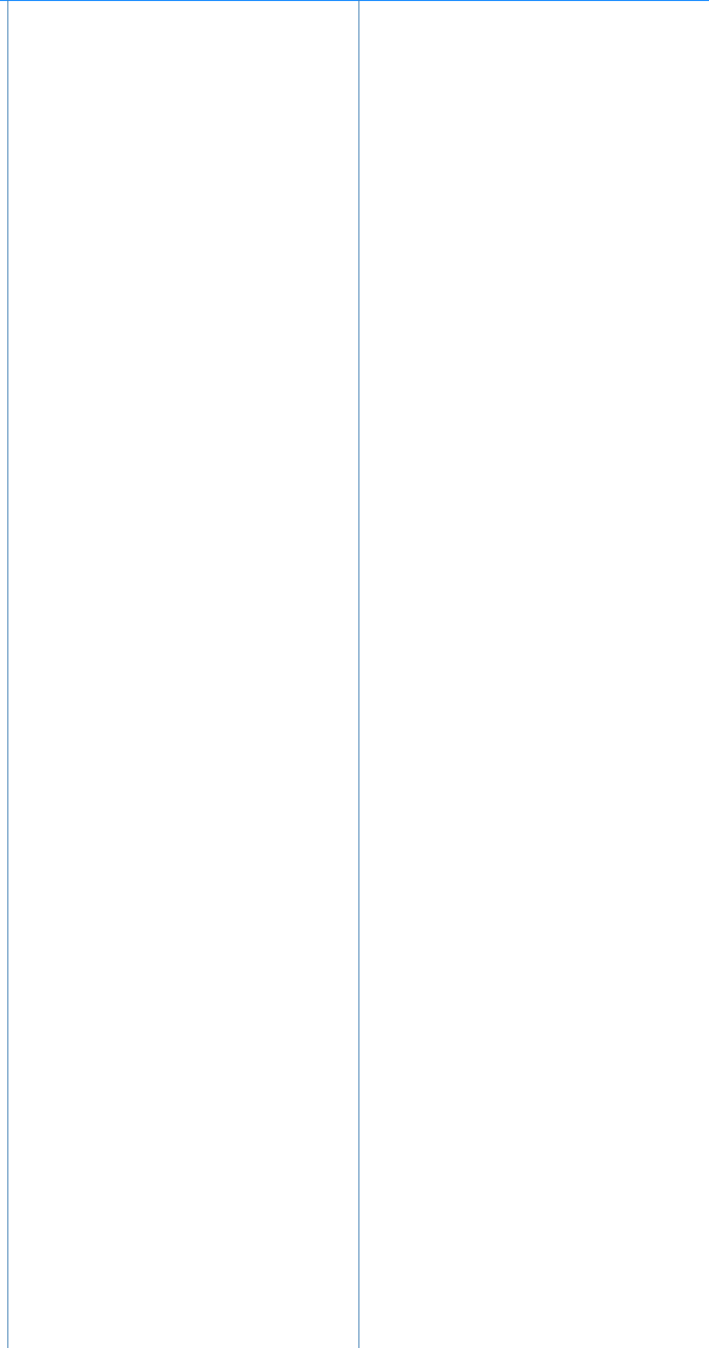
IM-MGW acknowledges.

MGCF signals ISUP Release Complete to the PSTN network.

Acknowledge the BYE that was received from the IMS network.

Module Interfaces (PSTN-ISUP Originated Call; IM-MGW Megaco/H.248 Signaling; PSTN Initiated Release)			
PSTN	IMS Core Network	Called UE	Copyright © 2013 EventHelix.com

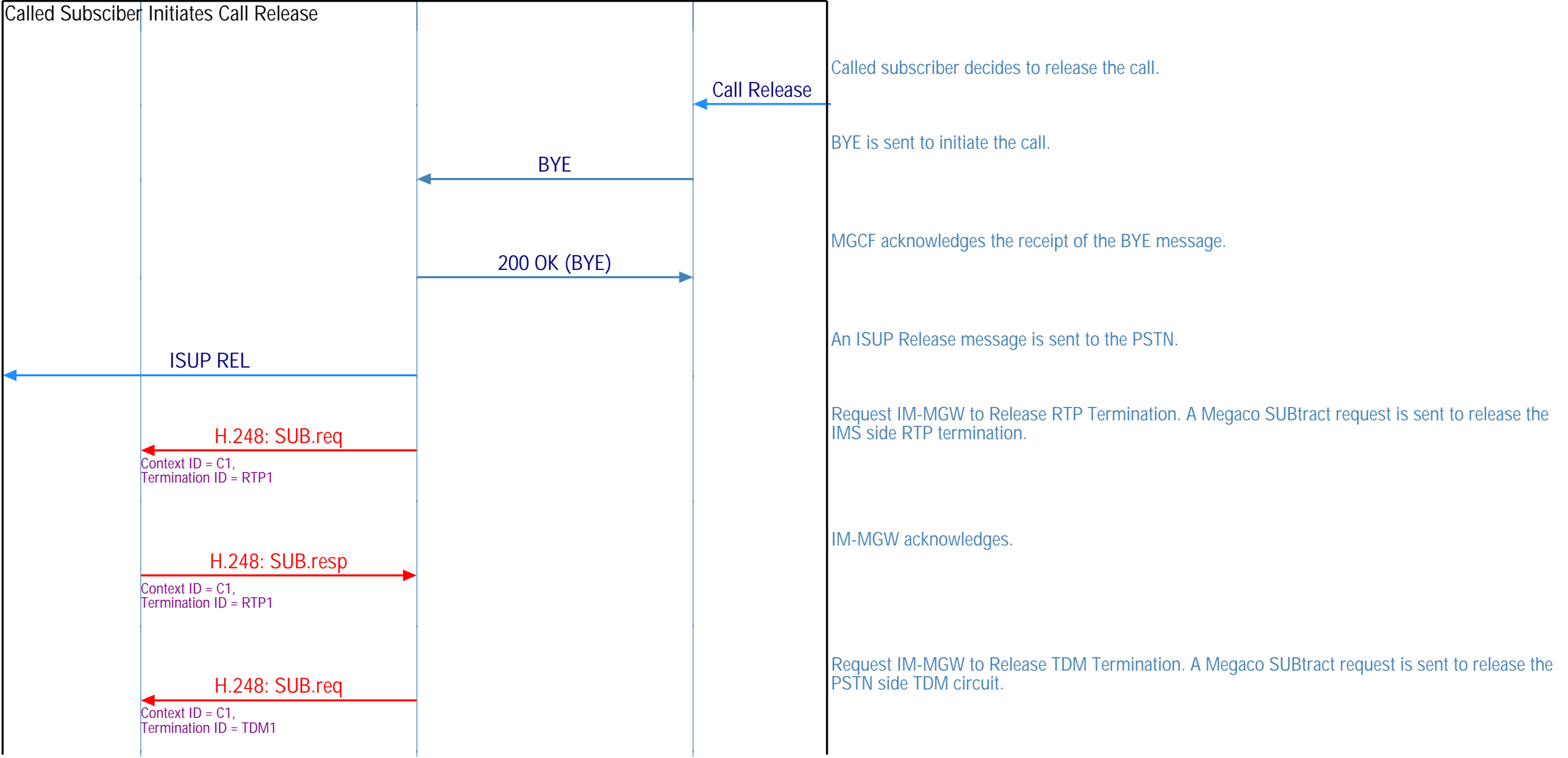
This sequence diagram was generated with EventStudio System Designer (<http://www.EventHelix.com/EventStudio>).

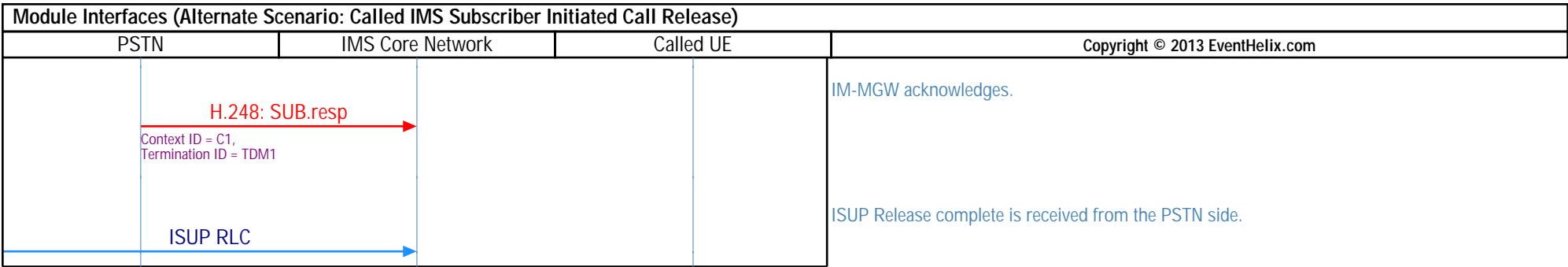


This call flow covers the handling of a CS network originated call with ISUP. In the diagram the MGCF requests seizure of the IM CN subsystem side termination and CS network side bearer termination. When the MGCF receives an answer indication, it requests the IM-MGW to both-way through-connect the terminations.

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
- Initial Handshake between MGCF and IMS CSCF Servers
- Mn Interactions for Codec selection
- ISUP ACM related interactions on Mn interface.
- IMS Answer to ISUP ANM Handling
- Conversation Mode





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