Caller Interfaces (C	aller and Called are	IMS Subscribers)					
Calling UE		Called UE	EventStudio System Designer 4.0				
Caller User Equipment	Caller User Visited IMS 1 Home IMS 1   Equipment Orig P-CSCF Orig S-CSCF			Home IMS 2		Called User Equipment	15-Dec-07 08:19 (Page 1)
Caller			Term I-CSCF	Term S-CSCF	Term P-CSCF	Called	
IMS Routing of Initia	I SIP INVITE						
Initiate Call							The user initiates a call to called@hims2.net.
called@hims2.net							
Prepare a list of support and video codec	s						The calling includes all supported codecs. This information is included as the first SDP offer in the initial invite.
INVITE call P-Preferred <caller@him Via: <callin Route: <s-c: Route: <s-c: Contact: <c: SDP: <calle:< td=""><td>ATE ad@hims2.net I.net&gt;, ag UE IP&gt; :Port, SCF address&gt;, SCF address&gt;, alling UE IP&gt; :Port, r Supported Codec List&gt;</td><td></td><td></td><td></td><td></td><td></td><td>The SIP phone sends the invite to called@hims2.net. The message contains Route entries for the terminal and the S-CSCF address that was extracted from the Service-Route header in the registration "200 OK" message. Security ports setup for IPSec SA establishment are used. "To" and "From" headers are also included in the message. These headers do not play a role in call processing.</td></calle:<></c: </s-c: </s-c: </callin </caller@him 	ATE ad@hims2.net I.net>, ag UE IP> :Port, SCF address>, SCF address>, alling UE IP> :Port, r Supported Codec List>						The SIP phone sends the invite to called@hims2.net. The message contains Route entries for the terminal and the S-CSCF address that was extracted from the Service-Route header in the registration "200 OK" message. Security ports setup for IPSec SA establishment are used. "To" and "From" headers are also included in the message. These headers do not play a role in call processing.
<b>-</b> <u>100</u> 1	rying						The P-CSCF just acknowledges the INVITE to the UE. The "100 Trying" message indicates that the call setup is in progress.
IMS Routing of First	Response to the SIP I	nvite	1			1	
Via: <callin Record-Rout <orig s-csci<br="">SDP: <codec; and Called&gt; P-Media-AutJ</codec; </orig></callin 	n Progress ng-UE>, : <term s-cscf="">;port F&gt; <orig p-cscf="">, supported by Caller norization</orig></term>						Just like other nodes, the Orig P-CSCF removes its own entry from the Via header. The P-CSCF also updates the Record-Route header to include the protected port number in its entry. This forces the terminal to send all responses using the protected IPSec SA. The message also includes the media authorization token. This token will have to be passed to the GGSN in the PDP context activation request.
PDP Context Activati	on and Audio/Video Pa	ath Setup					
Select one Codec from the codec list	e common						The Caller examines the received common codec list and selects the codec to activate.
PR/ SDP: <selec: <local-qos:< td=""><td>ACK ted Codec&gt;, none&gt;</td><td></td><td></td><td></td><td></td><td></td><td>The Caller now sends a PRACK to inform the called subscriber about the selected Codec. The message also indicates that currently the resources needed for meeting the quality of service requiements of the session are not available.</td></local-qos:<></selec: 	ACK ted Codec>, none>						The Caller now sends a PRACK to inform the called subscriber about the selected Codec. The message also indicates that currently the resources needed for meeting the quality of service requiements of the session are not available.
Caller PDP Context Act	tivation						Now that the codec to be used has been selected, the PDP context activation is initiated for allocating resources for meeting the Quality of Service (QoS) requirements for the codec.
SDP: <select <local-qos:< td=""><td>OK ted Codec&gt;, none&gt;</td><td></td><td></td><td></td><td></td><td></td><td>The called subscriber acknowledges the PRACK. The message also indicates that quality of service for the session is not met for the called subscriber.</td></local-qos:<></select 	OK ted Codec>, none>						The called subscriber acknowledges the PRACK. The message also indicates that quality of service for the session is not met for the called subscriber.

Caller Interfaces (Caller and Called are IMS Subscribers)													
Calling	g UE IMS Network Called U						Called UE	EventStudio System Designer 4.0					
Caller User Visited Equipment Caller Orig P		isited IMS 1 Home IMS 1		IMS 1	Home IMS 2						Called User		
		Orig P	-CSCF	Orig S	-CSCF	Term I-CSCF		Term S-CSCF		Term P-CSCF		Called	15-Dec-07 08:19 (Page 2)
Caller PDP (	end Context Activa	ation											The caller PDP context activation has been completed.
SD se	UPDA DP: <local-qc endrecv&gt;</local-qc 	TE ►											Since the caller PDP context has been activated, notify the called end that the caller can now meet the quality of service in the send and receive direction.
<b>↓</b> SD	200 C	OK DS: none>											The caller replies back to the called user. Note that the Local QoS is still set to none as the called PDP context activation has not been completed.
•	180 Rin	ging											Inform the caller that the called subscriber is being rung. This serves as an implicit indication to the caller that the QoS at the called side has also been met.
	PRAC	:К											The caller acknowledges the ringing message.
-	200 0	)К											The called subscriber acknowledges the PRACK.
-	200 C	Ж											Notify the caller that that the call has been answered
	ACK												The caller acknowledges the "200 OK" message. The call is now ready to enter conversation mode.
			Conversatio	on on a direct	t RTP/RTCP c	connection be	ween the ca	ller and called	subscriber SI	P phones.			
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