

IMS Push-to-talk over Cellular (PoC) - Registration and Pre-establishment (Push to Talk Over Cellular - Registration and Pre-establishment)		
Wireless Network	IMS Network	EventStudio System Designer 4.0
User Equipment	Home IMS	
PoC Client	IMS Core	PoC Server
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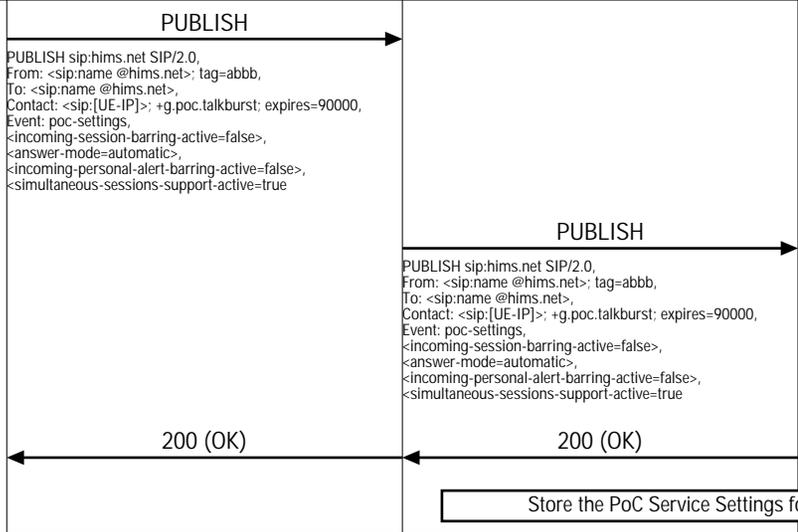
This sequence diagram describes the registration and session pre-establishment for a Push-to-talk over Cellular (PoC) terminal.

This sequence diagram was generated with EventStudio System Designer 4.0 (<http://www.EventHelix.com/EventStudio>). Copyright © 2008 EventHelix.com Inc. All Rights Reserved.

[Perform GPRS Attach, PDP Context Activation and IMS Registration \(Click here for details\)](#)

Poc terminal comes up and performs a GPRS Attach, PDP context activation and an IMS registration. Click on the action box to open the detailed IMS registration scenario.

### Activating PoC service settings for PoC Client

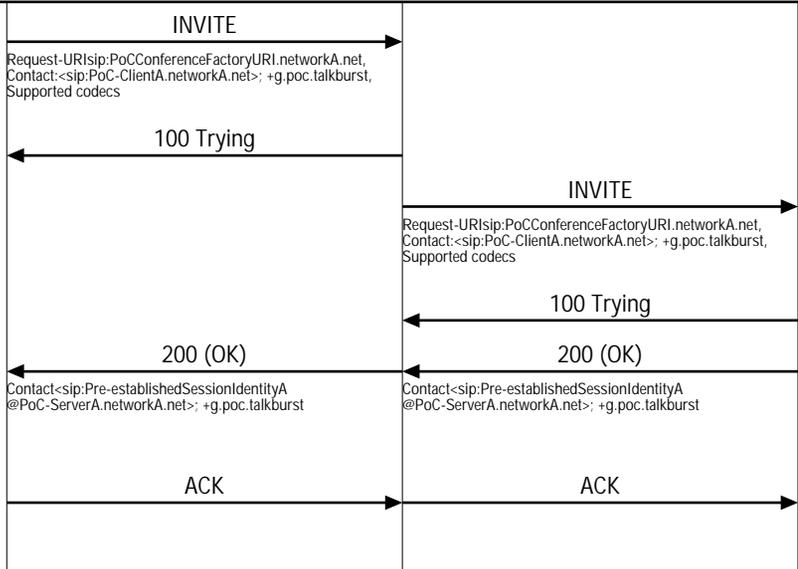


The PoC Client publishes the current PoC Service Settings of PoC Client by sending a SIP PUBLISH request. PoC specific attributes like "incoming session permission", "answer mode", "incoming alert permission" and "simultaneous session support" are included in the message.

The IMS Core forwards the PUBLISH message to PoC Server.

The PoC Server acknowledges the PUBLISH message with 200 (OK) message towards IMS Core.

### Pre-established Session



The PoC Client sends a SIP INVITE request with the Conference-factory-URI for the PoC service as the Request-URI to the SIP/IP Core A. The SIP INVITE request contains an SDP offer including necessary media parameters and the Talk Burst Control Protocol.

The P-CSCF acknowledges with 100 Trying message.

The PoC Server responds with 100 Trying message.

The PoC Server sends a SIP 200 (OK) as the final response to the SIP INVITE request via the IMS Core towards the PoC Client A, including the accepted media parameters e.g. supported codecs and the accepted Talk Burst Control Protocol. The content of the Contact header is set to the PoC Session Identity. The PoC Client A stores the PoC session identity.

The PoC Client A acknowledges with ACK message towards PoC Server.