

PoC Server A Interfaces (IMS PoC Client Invitation)						
Wireless Network A	IMS				Wireless Network B	EventStudio System Designer 4.0
User Equipment A	IMS Network A		IMS Network B		User Equipment B	
PoC Client A	PoC Server A	IMS Core A	IMS Core B	PoC Server B	PoC Client B	29-Jun-08 11:31 (Page 1)

Push-to-talk over Cellular (PoC) service allows cell phones to be used as walkie-talkies. A group of users in a PoC session can communicate by simply pressing a button and speaking when the phone indicates it is OK to do so. The user releases the button when he or she is done speaking.

When a user begins to speak, the PoC server allocates resources and notifies other users in the PoC session that the user is speaking. The PoC server then delivers the speech packets to all the users in the session.

PoC is resource efficient as it allocates resources only when a user is actually speaking. This makes it suitable for applications where there are long gaps between individual session participants speaking.

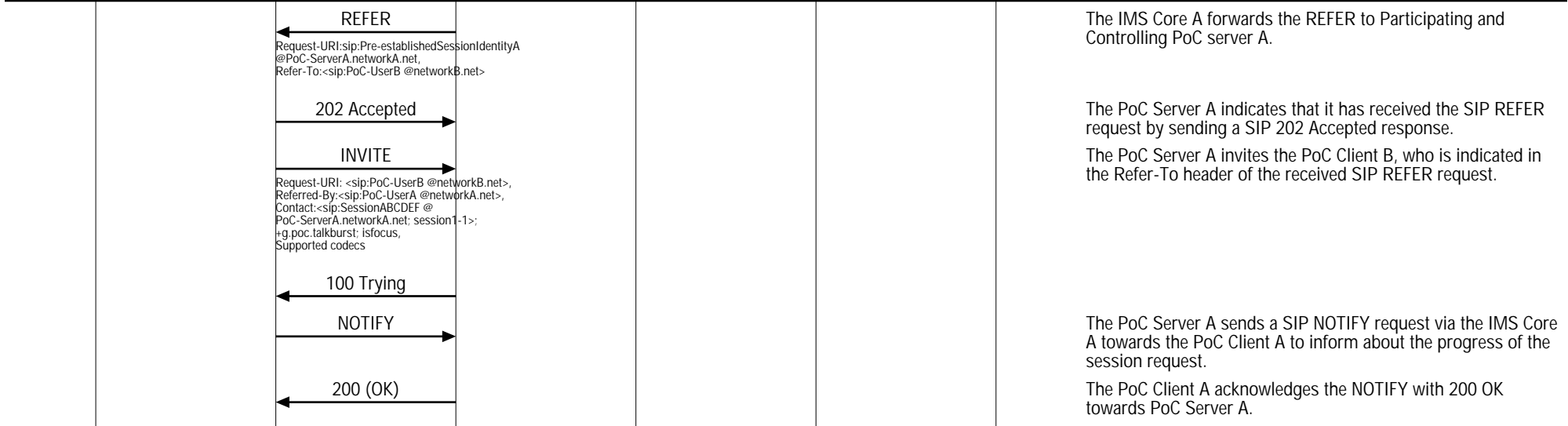
This flow covers the case where PoC Client A invites PoC Client B to a Pre-established Session by sending SIP REFER request to PoC Server A.

This sequence diagram was generated with EventStudio System Designer 4.0 (<http://www.EventHelix.com/EventStudio>). Copyright © 2008 EventHelix.com Inc. All Rights Reserved. The EventStudio source files for this document can be downloaded from <http://www.eventhelix.com/call-flow/ims-poc-pre-established.zip>.

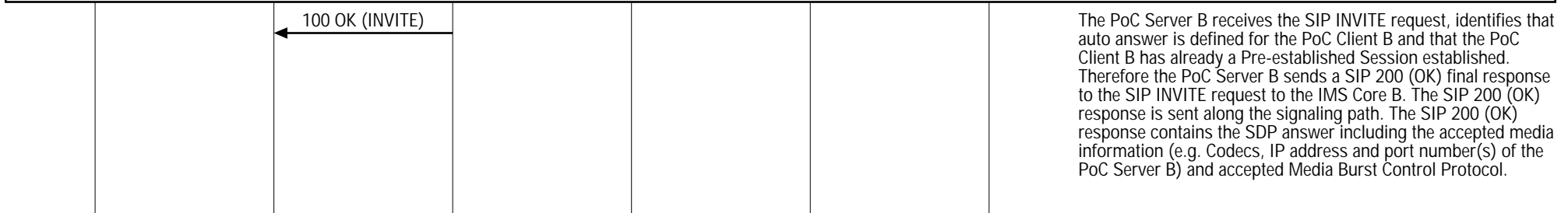
IMS Registration and PoC Session Pre-establishment

IMS Registration and PoC Session Pre-establishment (Click here for details)	PoC Client A registers and pre-establishes the PoC session. Click on the action box to see details.
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Invite Client B to a session with SIP REFER

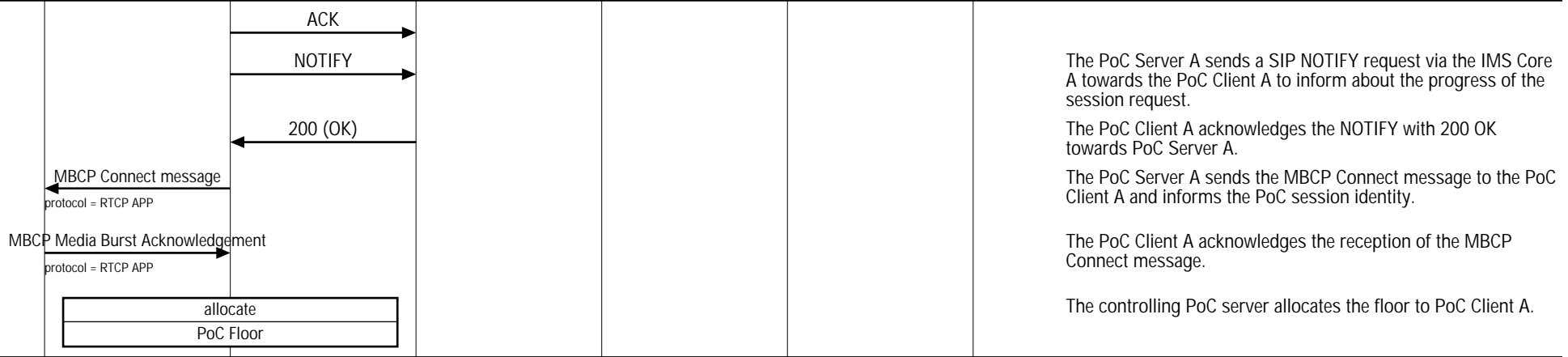


PoC Server A invites PoC Client B



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Media Burst Control Protocol (MBCP) Session Setup using RTCP Port



The PoC Server A sends a SIP NOTIFY request via the IMS Core A towards the PoC Client A to inform about the progress of the session request.

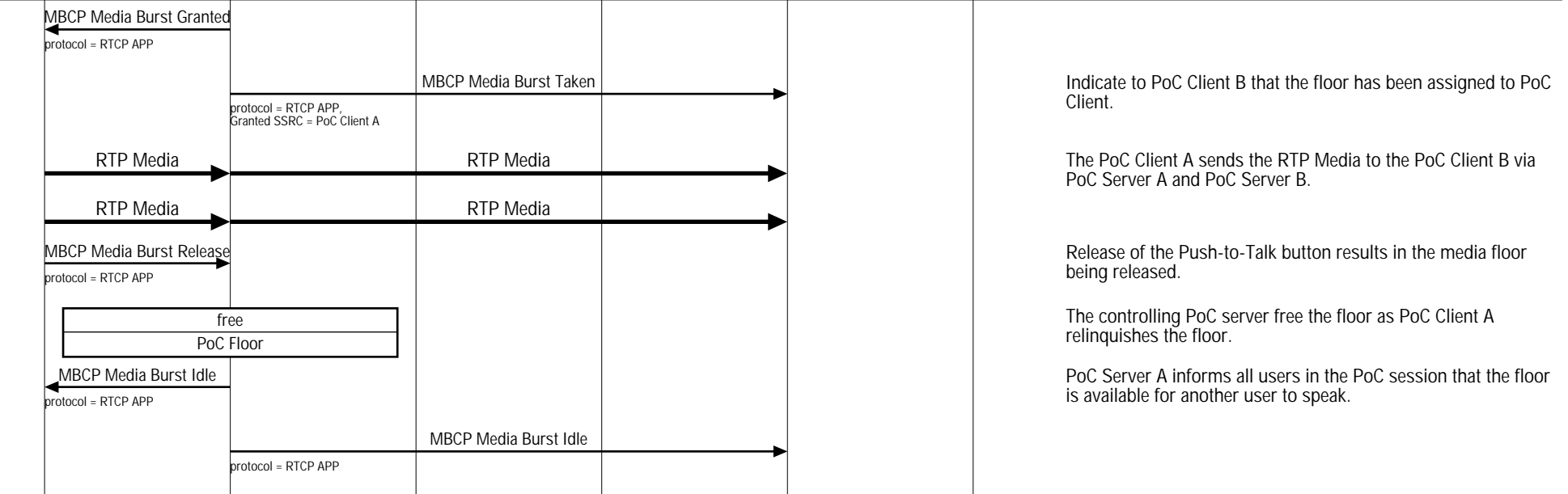
The PoC Client A acknowledges the NOTIFY with 200 OK towards PoC Server A.

The PoC Server A sends the MBCP Connect message to the PoC Client A and informs the PoC session identity.

The PoC Client A acknowledges the reception of the MBCP Connect message.

The controlling PoC server allocates the floor to PoC Client A.

Talk Burst from PoC Client A to B



Indicate to PoC Client B that the floor has been assigned to PoC Client.

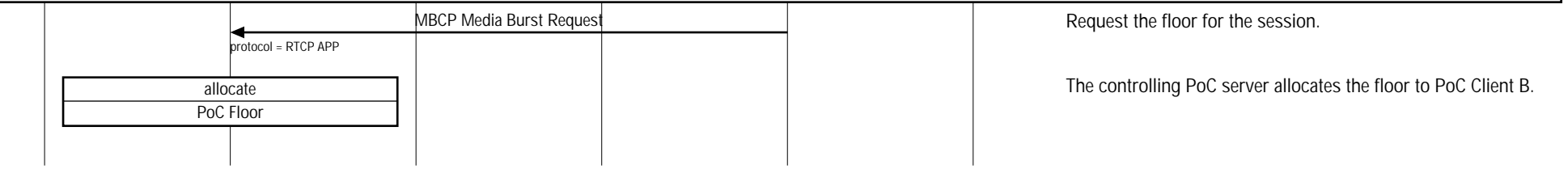
The PoC Client A sends the RTP Media to the PoC Client B via PoC Server A and PoC Server B.

Release of the Push-to-Talk button results in the media floor being released.

The controlling PoC server free the floor as PoC Client A relinquishes the floor.

PoC Server A informs all users in the PoC session that the floor is available for another user to speak.

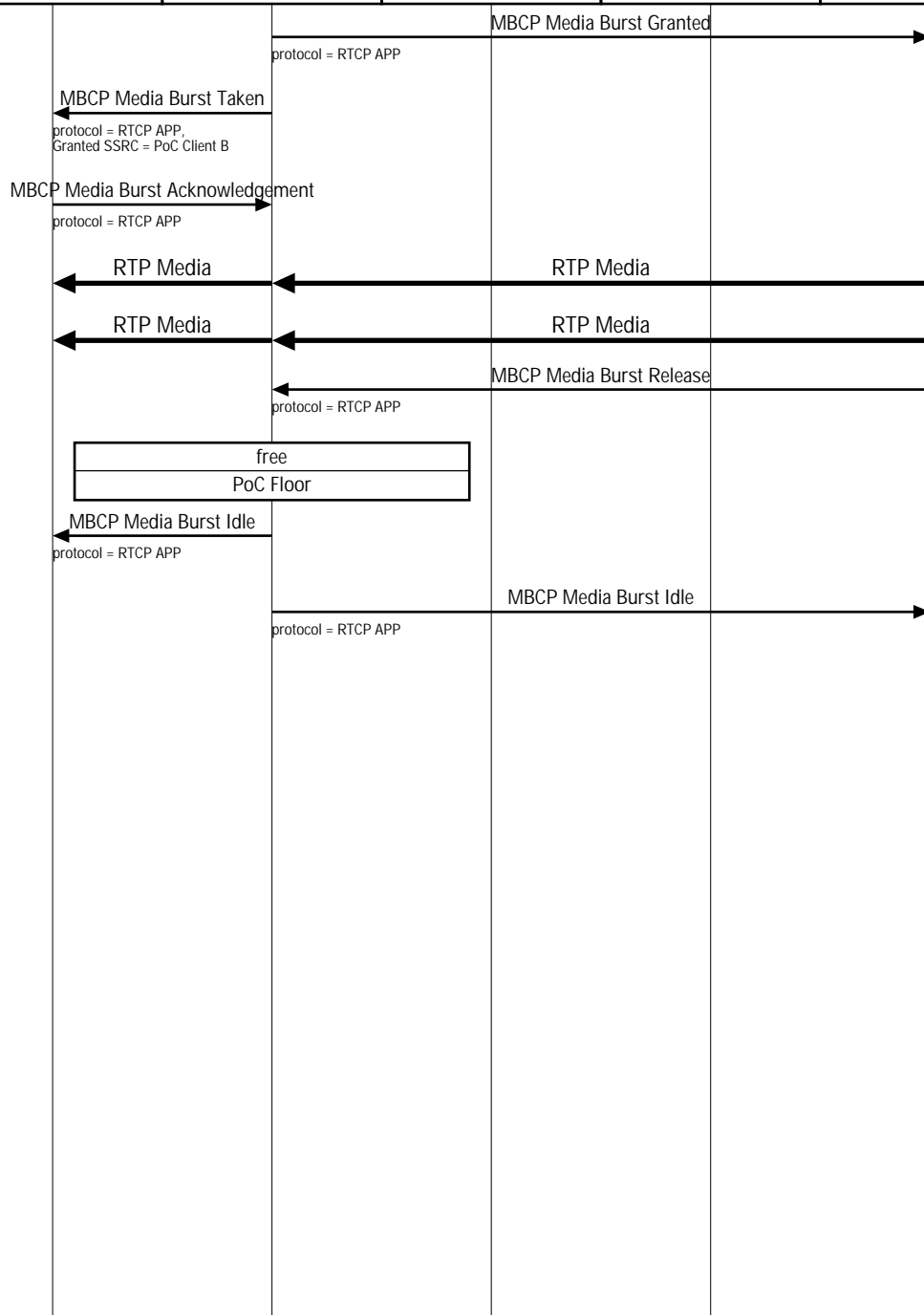
Talk Burst from PoC Client B to A



Request the floor for the session.

The controlling PoC server allocates the floor to PoC Client B.

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PoC Client A	PoC Server A	IMS Core A	IMS Core B	PoC Server B	PoC Client B	29-Jun-08 11:31 (Page 3)



The floor is granted.

The PoC Client B sends the RTP Media to the PoC Client A via PoC Server B and PoC Server A.

The burst release is passed to the controlling PoC Server (PoC Server A)

The controlling PoC server free the floor as PoC Client B relinquishes the floor.

PoC Server A informs all users in the PoC session that the floor is available for another user to speak.