Title: PUSH TO TALK OVER CELLULAR (HALF-DUPLEX) TO FULL-DUPLEX VOICE CONFERENCING

Abstract: Methods of enabling non-Push-To-Talk (PTT) enabled devices, configured for full-duplex communication, to participate in a PTT-over-Cellular (PoC) session that includes a PTT enabled device, are presented including: detecting start of speech from the non-PTT enabled device; generating a floor control request on behalf of the at least one non-PTT enabled device; negotiating the floor control request based on a device priority; generating a floor control response for the at least one non-PTT enabled device; and generating a first floor control state for the PoC session. In some embodiments, methods further include: buffering RTP packets in a media buffer, the RTP packets corresponding to speech received from the non-PTT enabled device; if the floor control request is granted, sending the RTP packets to the PoC session; and if the floor control request is denied, discarding the RTP packets.
# INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER

<table>
<thead>
<tr>
<th>IPC(B)</th>
<th>USPC</th>
<th>(2007.01)</th>
<th>455/518</th>
</tr>
</thead>
</table>

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

USPC: 455/518

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC: 455/518; 455/516; 455/519;

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

Electronic Databases Searched: PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar & Patent, DialogPro

Search Terms: floor control, full duplex, poc, push to talk over cellular, ptt, push to talk, sip, rtp

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Smith, B., 'PTT's New Flavor: Instant Group Calling', WirelessWeek. 1 May 2004 (01.05.2004) entire article, especially paragraph 10, 12.</td>
<td>1-24</td>
</tr>
<tr>
<td>Y</td>
<td>OMA RoC Architecture Overview, OMA-RoC-2003-0043R1, Open Mobile Alliance, Ltd, 20 October 2003 (20.10.2003) entire article, especially slices #5,6,7,9</td>
<td>1-24</td>
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<td>Y</td>
<td>US 2003/0223381 A1 (SCHRODERUS) 04 December 2003 (04.12.2003) para. [0033], [0032], [0044], [0051], [0052],[0053], [0068]</td>
<td>4, 8-10, 14-23</td>
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<td>Y</td>
<td>US 6,865,398 B2 (MANGAL et al.) 08 March 2005 (08.03.2005) column 4, lines 56-64, Figs.4,5,6</td>
<td>2-3, 9-24</td>
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<td>Y</td>
<td>US 4,672,669 A (DESBLACHE et al.) 09 June 1987 (09.06.1987) column 6, lines 22-27</td>
<td>10</td>
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<td>Y</td>
<td>US 2004/0223489 A1 (ROTSTEN et al.) 11 November 2004 (11.11.2004) para. [0005], Figs. 1,2,3</td>
<td>18,20,21</td>
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</table>

* Special categories of cited documents:
**A** document defining the general state of the art which is not considered to be of particular relevance
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**Y** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

**&** document member of the same patent family

### Date of the actual completion of the international search
15 April 2007 (15.04.2007)

### Date of mailing of the international search report
12 OCT 2007

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PCT OSP: 571-272-1774

Form PCT/ISA/210 (second sheet) (April 2005)