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(56) Documents Cited:
US 20110128911 A1
LeiZhou,etal., "Proposed Textfor network access entry
for a large number of M2M devices", IEEE 802.16
Broadband Wireless Access Working Group, THU
0802.16p-11/0008r1, 2011.03.06. See section 10.
Giwon Park, et al., "ProTx)secl textfor network reentry
procedure of fi mid M2M device" IEEE 802.16
Broadband Wireless Access Work ing Group, IEEE
C802. 16p-11/0018, 2011.03.06 Sox: sections 3I and
Table 700.
Hongwing Li , et al., "Groupbased M2M
solutions", IEEE 802.16 Broadband Wireless Access
Working Group, IEEE C802 . 16p-11/0013 , 2011.03 .03.
Sec al idcs 6-9.
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(54) Title of the Invention: **One method of delegate-based group channel access**
Abstract Title: **One method of delegate-based group channel access**

(57) A delegate-based group channel access method is disclosed for machine-to-machine (M2M) communication. The delegate-based group channel access method groups M2M devices having common characteristics together, assigns a single delegate or multiple delegates from the group according to some criteria, and uses the assigned delegate to perform channel access. This method avoids unnecessary peer-to-peer communication between M2M devices, reduces the probability of collision on the channel during initial channel access, and reduces the control signaling overhead. The delegate-based group channel access method also coordinates the number of slots to backoff so that all M2M devices in the group keep pace with the delegate.

