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(54) **COMMUNICATION METHOD USING PLURALITY OF NETWORKS AND DEVICE SUPPORTING THE SAME**

(56) **References Cited**

U.S. PATENT DOCUMENTS

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9,872,186 B2 1/2018 Wu
2010/0329243 A1* 12/2010 Buckley H04W 48/18
370/352
2011/0188451 A1* 8/2011 Song H04W 36/0033
370/328
2012/0069823 A1* 3/2012 Low H04W 4/00
370/335
2013/0083777 A1* 4/2013 Rydnell H04W 36/0022
370/331
2013/0150052 A1* 6/2013 Zisimopoulos H04W 48/18
455/437
2013/0188601 A1* 7/2013 Sun H04W 36/14
370/331
2013/0272194 A1 10/2013 Keller et al.
2013/0336127 A1 12/2013 Wu

(Continued)

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CPC ... **H04W 36/0022** (2013.01); **H04W 36/0083**
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(58) **Field of Classification Search**

None

See application file for complete search history.

FOREIGN PATENT DOCUMENTS

CN 103874239 A 6/2014
EP 2 696 623 A1 2/2014

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(57)

ABSTRACT

A communication method of an electronic device is provided. The method includes receiving, by a first communication module supporting a first network, a measurement message for a second network, providing the received measurement message to a second communication module supporting the second network, providing, by the second communication module, information on the second network to the first communication module in response to the measurement message, and reporting, by the first communication module, the information to the first network in order for a handover to the second network.

21 Claims, 10 Drawing Sheets

