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Kela et al.

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(56) **References Cited**

U.S. PATENT DOCUMENTS

2009/0116434 A1 5/2009 Lohr et al.
2009/0201868 A1* 8/2009 Chun H04W 72/1278
370/329

(Continued)

FOREIGN PATENT DOCUMENTS

JP 2011041159 A 2/2011
JP 2011155336 A 8/2011

(Continued)

OTHER PUBLICATIONS

“3rd Generation Partnership Project; Technical Specification Group
Core Network; Support of Localised Service Area (SoLSA); Stage
2 (Release 1999),” 3GPP TS 23.073, V4.0.0, pp. 1-25, 3rd Genera-
tion Partnership Project, Valbonne, France (Mar. 2001).

(Continued)

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ABSTRACT

The present invention relates to a user device and a network
node. Furthermore, the present invention also relates to
corresponding methods, a computer program, and a com-
puter program product. A Radio Network Temporary Iden-
tifier (RNTI) is assigned to a User Device from a radio
communication network, wherein the assigned RNTI is
valid for a plurality of network nodes of the radio commu-
nication network and associated with a common data chan-
nel of the radio communication network.

19 Claims, 4 Drawing Sheets

201

Receiving an assigned RNTI from a radio communication network,
wherein the assigned RNTI is valid for a plurality of network nodes of
the radio communication network and associated with a common
data channel of the radio communication network

203: 205

Transmitting data to or receiving data from the radio communication
network, on the common data channel using the assigned RNTI