

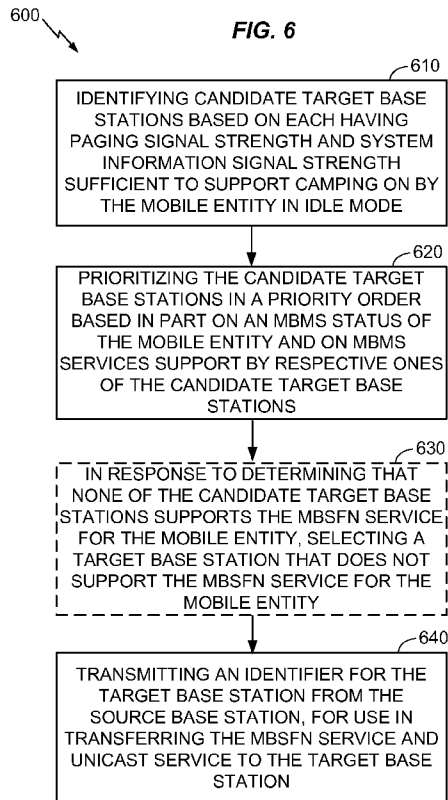


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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,

[Continued on next page]

(54) Title: TARGET CELL SELECTION FOR MULTIMEDIA BROADCAST MULTICAST SERVICE CONTINUITY



(57) Abstract: Transfer of Multimedia Broadcast/Multicast Services (MBMS) over a Single Frequency Network (MBSFN) service and idle mode unicast service for a mobile entity from a source base station to a target base station may be managed by a base station or mobile entity of a cellular wireless communications system (WCS). Operations related to the transfer may include obtaining an MBMS status of the mobile entity, and/or obtaining MBMS support information for the base station. A network entity may facilitate MBMS discovery by a mobile entity, by transmitting a data element to the mobile entity including service identifiers mapped to corresponding cell identifiers to indicate respective MBMS services to be broadcast in a WCS area on adjacent cells identified by respective ones of the cell identifiers. The MBMS services may be broadcast within the WCS area using the adjacent cells previously indicated in the data element.

WO 2012/125976 A3

MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

27 December 2012

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. H04W72/00
ADD.
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)
H04W
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2008/137354 A1 (INTERDIGITAL TECH CORP [US]; SOMASUNDARAM SHANKAR [US]; SAMMOUR MOHAMM) 13 November 2008 (2008-11-13) paragraph [0025] - paragraph [0035] figure 1A	1-79
X	WO 2005/101886 A2 (NOKIA CORP [FI]; NIELSEN SARI [FI]; BARRETO LUIS [GB]; TAT QUAN [GB];) 27 October 2005 (2005-10-27) page 6, line 13 - page 10, line 17	1-79
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"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</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 11 October 2012	Date of mailing of the international search report 19/10/2012
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Roberti, Vincenzo
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/029540

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	EP 2 200 366 A1 (KOREA ELECTRONICS TELECOMM [KR]) 23 June 2010 (2010-06-23) paragraph [0023] - paragraph [0039] tables 1-3 -----	31-79
X	EP 1 933 584 A2 (NOKIA CORP [FI]) 18 June 2008 (2008-06-18) paragraph [0009] - paragraph [0024] claims 1-3 -----	31-79
A	ORANGE: "Text proposal for MBMS Service continuity when moving between SFN and non-SFN zones", 3GPP DRAFT; R3-070712 MBMS SERVICE CONTINUITY TEXT PROPOSAL, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE, vol. RAN WG3, no. St. Julian, Malta; 20070402, 2 April 2007 (2007-04-02), XP050161609, [retrieved on 2007-04-02] the whole document -----	1-79
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/029540

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-20

The first claimed invention deals with the problem of prioritizing target base stations that can provide MBMS services over the ones not providing it, when the mobile entity is currently receiving such service.

2. claims: 21-30

The second claimed invention deals with the problem making the serving base station aware ongoing MBMS reception at mobile entity, in order to assist network controlled cell changes.

3. claims: 31-40

The third claimed invention deals with the problem of informing a mobile entity about MBMS capabilities of neighbour base stations, in order to assist mobile controlled cell changes.

4. claims: 41-79

The fourth claimed invention deals with the problem of informing a mobile entity in idle state about MBMS capabilities of neighbour base stations.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/029540

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INTERNATIONAL SEARCH REPORT

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