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- (81) **Designated States** (*unless otherwise indicated, for every
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AO, AT, AU, AZ, BA, BB, BG, BH, BN, 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, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC,
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EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,

[Continued on next page]

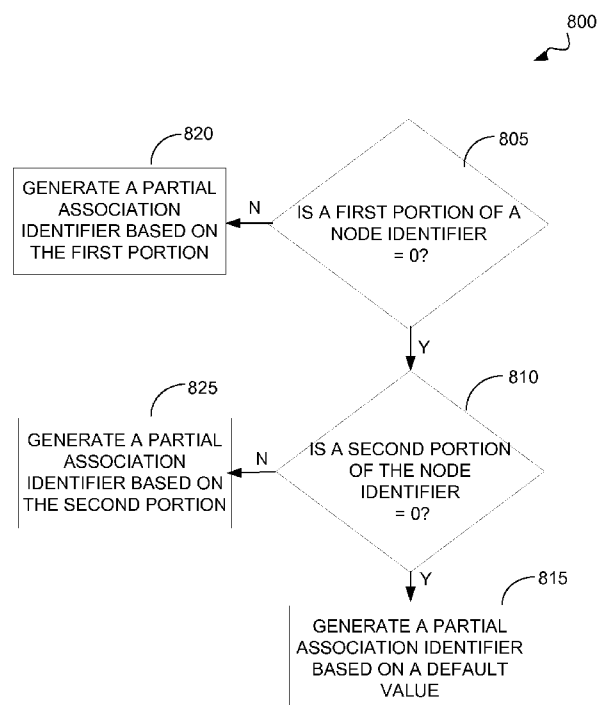
(54) **Title:** METHODS AND APPARATUSES FOR GENERATING A PARTIAL ASSOCIATION IDENTIFIER

FIG.8A

(57) **Abstract:** Systems, methods, and devices for communicating in a wireless network are provided. In one aspect, a non-zero portion of a node identifier may be used to generate a partial association identifier. If no portion of the node identifier can be determined to be non-zero, then a default value may be used for the partial association identifier. In some other aspects, the partial association identifier may be based on a random number. In some other aspects, a portion of a node identifier is evaluated to determine if it is zero. If the portion is non-zero, a partial association identifier is generated based on the portion. If the portion is zero, a partial association identifier is generated based on the portion.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/049482

A. CLASSIFICATION OF SUBJECT MATTER

INV. H04W8/26 H04W52/02 H04W72/04 H04W84/04
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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2012/068384 A2 (QUALCOMM INC [US]; WENTINK MAARTEN MENZO [NL]) 24 May 2012 (2012-05-24)	1-8
A	abstract paragraphs [0071], [0073], [0076], [0086], [0087] figure 4B	9-48
X	US 2012/063335 A1 (CHO JAMES S [US] ET AL) 15 March 2012 (2012-03-15)	1-8
A	abstract paragraphs [0017], [0019], [0022], [0034], [0067] - [0069] claim 1 figures 1,3,4	9-48
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"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)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"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

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Prepared By The 802.11 Working Group Of The 802 Committee: "IEEE P802.11ac / DO.1; Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specification", 28 January 2011 (2011-01-28), pages 1-176, XP055029327, Three Park Avenue New York, New York 10016-5997, USA Retrieved from the Internet: URL: http://www.ieee.org [retrieved on 2012-06-08]	1-8
A	par. 9.7e table 22-1	9-48
A	----- US 2011/317630 A1 (ZHU CHUNHUI [US] ET AL) 29 December 2011 (2011-12-29) abstract paragraphs [0034] - [0078] figures 3,5,6,8 -----	1-48

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/049482

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.:

1-48

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: 1-48

Determining if a portion of a node identifier is zero; and generating a partial association identifier based on the determining, wherein the partial association identifier is generated based on a random number if the portion of the node identifier is zero.

2. claims: 49-68

Generating a partial association identifier based on a first portion of a node identifier if the first portion is not zero; and generating the partial association identifier based on a second portion of the node identifier if the second portion is not zero and the first portion is zero.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2013/049482

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2012068384 A2	24-05-2012	CA 2816758 A1	24-05-2012
		CN 103222316 A	24-07-2013
		EP 2641433 A2	25-09-2013
		JP 5752799 B2	22-07-2015
		JP 2013544472 A	12-12-2013
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		US 2014010102 A1	09-01-2014
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US 2011317630 A1	29-12-2011	NONE	