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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/789,316	03/07/2013	Guodong Zhang	IDC-11373US02	7932
24374	7590	08/22/2014	EXAMINER	
VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			ANWAR, MOHAMMAD S	
			ART UNIT	PAPER NUMBER
			2463	
			NOTIFICATION DATE	DELIVERY MODE
			08/22/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eoffice@volpe-koenig.com

Office Action Summary	Application No. 13/789,316	Applicant(s) ZHANG ET AL.	
	Examiner MOHAMMAD ANWAR	Art Unit 2463	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 3/7/13.
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) Claim(s) 1-6, 9-11 and 21-26 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) Claim(s) _____ is/are allowed.
- 7) Claim(s) 1-6, 9-11, 21-26 is/are rejected.
- 8) Claim(s) _____ is/are objected to.
- 9) Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) The specification is objected to by the Examiner.
- 11) The drawing(s) filed on 3/7/13 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some** c) None of the:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____.
- 3) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 4) Other: _____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Claim Rejections - 35 USC § 103

2. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

3. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

6. Claims 1, 3-6, 9-11, 22, 25 and 26 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. PGPub. No. 2005/0059353 A1) in view of Seok (U.S. PGPub. No. 2008/0298333 A1).

For claim 1, Smith et al. disclose a method for active scanning of a scanning target for use in a first station (STA), the method comprising:
generating a first probe request by the first STA, wherein the first probe request includes an indication of the scanning target (see Figure 1, para. 19, one or more stations 115 can generate probe requests to same AP 105);
while waiting to access a wireless medium to transmit the first probe request, detecting at the first STA a second probe request from a second STA, wherein the second probe request includes an indication of a same scanning target (see para.8, a probe request generator can detect if another request is transmitted from another station) ; and on a

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condition that the second transmitter detects the first probe request indicates the same scanning target, determining to not transmit the first probe request by the first STA to the scanning target (see para. 8, probe requests from the probe request generator can be halted). Smith et al. disclose multiple stations can generate probe requests to same AP or target AP but fails to mention explicitly probe requests include target identifier. However, Seok from a similar field of endeavor discloses probe requests include target identifier (see para. 20). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Seok probe request scheme into Smith et al. scanning scheme.

For claim 3, Smith et al. disclose the scanning target comprises an access point (see Figure 1, para. 19).

For claim 4, Smith et al. disclose further comprising stopping active scanning of current channel, on a condition that the second probe request is detected by the first STA (see para. 8-10).

For claim 5, Smith et al. disclose further comprising: transmitting the first probe request to the scanning target from the first STA on a condition that the first STA does not detect the second probe request with the same scanning target (see para. 30).

For claim 6, Smith et al. disclose a method of a scanning target for use in a first station (STA), the method comprising: generating a first probe request by the first STA, wherein the first probe request includes an indication of the scanning target (see Figure 1, para. 19, one or more station can generate probe requests to same AP105); while waiting to access a wireless medium to transmit the first probe request, receiving

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a probe response, wherein the probe response is responsive to a second probe request associated with a second STA (see para. 22); and
on a condition that the probe response includes an indication of a same scanning target, not transmitting the first probe request by the first STA to the scanning target (see para. 22-23). Smith et al. disclose multiple stations can generate probe requests to same AP or target AP but fails to mention explicitly probe requests include target identifier. However, Seok from a similar field of endeavor discloses probe requests include target identifier (see para. 20). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Seok probe request scheme into Smith et al. scanning scheme.

For claim 9, Smith et al. disclose all the subject matter but fails to mention the scanning target comprises an access point (see Figure 1, para. 19).

For claim 10, Smith et al. disclose further comprising stopping active scanning of the scanning target, on a condition that the probe response is received by the first STA (see para, 8-9).

For claim 11, Smith et al. disclose further comprising: transmitting the first probe request to the scanning target on a condition that the first STA does not receive the probe response with same scanning target (see para. 30).

For claim 22, Smith et al. disclose further comprising:
receiving, at the first STA, a probe response in response to the second probe request (see para.10); and stopping active scanning of the scanning target (see para. 10).

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For claim 25, Smith et al. disclose wherein the probe response includes information of other channels (see para. 18).

For claim 26, Smith et al. disclose wherein the probe response includes information of other channels (see para. 18).

7. Claim 2 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of Seok as applied to claim 1 above, and further in view of Aggarwal et al. (U.S. Patent No. 8,457,657 B2).

For claim 2, Smith et al. and Seok disclose all the subject matter but fails to mention wherein the detecting requires that a relative received signal strength indicator (RSSI) of the second probe request above a pre-defined threshold. However, Aggarwal et al. from a similar field of endeavor disclose wherein the detecting requires that a relative received signal strength indicator (RSSI) of the second probe request above a pre-defined threshold (see column 8 lines 8-21). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Aggarwal et al. probe request scheme into Smith et al. and Seok scan scheme. The method can be implemented in a mobile device. The motivation of doing this is to increase efficiency of scanning the base station.

8. Claim 23 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of Seok as applied to claims 6 and 10 above, and further in view of Van Horn et al. (U.S. PGPub. No. 2008/0247377 A1).

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For claim 23, Smith et al. and Seok disclose all the subject matter but fails to mention wherein stopping active scanning of the scanning target, includes: generating a MLME-SCAN.confirm primitive, wherein the MLME-SCAN.confirm primitive includes a BSSDescriptionSet containing information of the scanning target. However, Van Horn et al. from a similar field of endeavor disclose wherein stopping active scanning of the scanning target, includes: generating a MLME-SCAN.confirm primitive, wherein the MLME-SCAN.confirm primitive includes a BSSDescriptionSet containing information of the scanning target (see para. 53). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Van Horn et al. scan scheme into Smith et al. and Seok scan scheme. The method can be implemented in a mobile device. The motivation of doing this is to save bandwidth and battery life of a mobile device because of overhead traffic generated due to probe requests.

9. Claim 21 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of Seok as applied to claim 1 above, and further in view of Nakaso et al. (U.S. PGPub. No. 2007/0263578 A1).

For claim 21, Smith et al. and Seok disclose all the subject matter but fails to mention further comprising: on a condition that it is determined to not transmit the first probe request, performing the method for active scanning on a next channel for a predetermined time period. However, Nakaso et al. from a similar field of endeavor disclose further comprising: on a condition that it is determined to not transmit the first

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probe request, performing the method for active scanning on a next channel for a predetermined time period (see para. 17). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Nakaso et al. scanning scheme into Smith et al. and Seok scan scheme. The method can be implemented in a mobile device. The motivation of doing this is to discover AP in an efficient manner.

10. Claim 24 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith et al. in view of Seok as applied to claim 1 above, and further in view of Chueh et al. (U.S. PGPub. No. 2013/0176955 A1).

For claim 24, Smith et al. and Seok disclose all the subject matter but fails to mention wherein the first probe request includes information of other channels. However, Chueh et al. from a similar field of endeavor disclose wherein the first probe request includes information of other channels (see para. 46). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Chueh et al. scan scheme into Smith et al. and Seok scan scheme. The method can be implemented in a mobile device. The motivation of doing this is to scan proper channels for connecting to an AP.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD ANWAR whose telephone number is

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(571)270-5641. The examiner can normally be reached on Monday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MOHAMMAD ANWAR
Examiner
Art Unit 2463

/MOHAMMAD ANWAR/
Examiner, Art Unit 2463