

REMARKS/ARGUMENTS

After the foregoing Amendment, claims 1-6, 9-11, and 21-26 are currently pending in this application. Claims 7, 8 and 12-20 are canceled. Claims 1, 3, 5, 6, 9-11, 22 and 23 are amended.

Examiner Interview

Applicant thanks the Examiner for granting a telephonic interview with the Applicant's representatives on December 2, 2014. During the telephonic interview the Examiner indicated that the above amendments to independent claims 1 and 6 will overcome the prior art currently of record.

Claim Rejections - 35 U.S.C. § 103

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 U.S. Patent Publication No. 2005/0059353 A1 to Smith et al. (hereinafter Smith) in view of U.S. Patent Publication No. 2008/0298333 A1 to Seok (hereinafter Seok).

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

Claim 23 rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith, in view of Seok, and further in view of U.S. Patent Publication No. 2008/0247377 A1 to Van Horn et al. (hereinafter Van Horn).

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

Claim 24 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Smith, in view of Seok, and further in view of U.S. Patent Publication No. 2013/0176955 A1 to Chueh et al. (hereinafter Chueh). The Applicant respectfully traverses the above rejections.

The Examiner admits, and the Applicant agrees, that “Smith et al ... fails to mention explicitly probe requests include target identifier[s].” *Office Action* at page 4. Because Smith admittedly fails to teach target identifiers, *i.e.*, an indication of a scanning target, Smith also fails to teach or suggest: “the first probe request **includes an indication of the first scanning target** ... detecting, at the first STA, a second probe request transmitted from a second STA, wherein the second probe request includes an indication of a second scanning target; and **on a condition that the indication of the first scanning target of the first probe request is the same as the indication of the second scanning target of the second probe request, determining, by the first STA, to not transmit the first probe request to the first scanning target,**” as recited in independent claim 1.

Smith teaches a method of providing RF signal quality information to a group of stations by designating a single station as a “probe request generator” that may transmit one or more probe requests to the AP to provoke probe responses for each station of the group of stations. *Smith*, at Abstract and paras. [0021], [0022]. The “probe request generator” is described as being a specifically designated station or an adaptive probe request generator (APRG), which may be a separate standalone device or may be incorporated into the access point. *Smith* at [0021]-[0023], Fig 1 (110) and Fig. 3 (reproduced below).

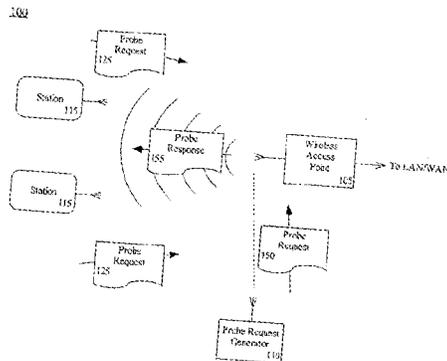


FIG. 1

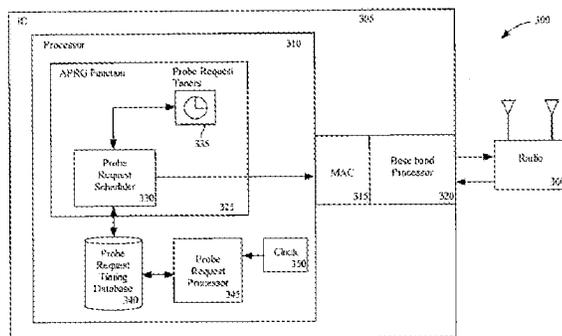


FIG. 3

Specifically, Smith provides that “...in a sense, [the probe request generator] can operate as a surrogate for the stations in transmitting probe requests and enables the stations to stop transmitting unnecessary probe requests while the [probe request generator] transmits probe requests.” *Smith* at para. [0031]. A station of Smith will only transmit a probe request if no probe response is provoked for that particular station, or if the particular station fails to synchronize with the provoked probe response. *Smith* at Fig. 2. The stations of Smith do not cancel probe requests based on the probe requests from other stations, let alone compare the

targets of the probe requests. Thus, Smith does not teach or suggest “detecting, at the first STA, a second probe request transmitted from a second STA, wherein the second probe request includes an indication of a second scanning target; and on a condition that the indication of the first scanning target of the first probe request is the same as the indication of the second scanning target of the second probe request, determining, by the first STA, to not transmit the first probe request to the first scanning target,” as claimed in claim 1.

The Examiner alleges that paragraph [0008] of Smith teaches “on a 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.” *Office Action* at page 4. However, paragraph [0008] provides a summarized statement taken out of context that “[t]he transmissions of probe requests from the probe request generator can be halted or continued based upon detection of additional probe requests transmitted from stations other than the probe request generator.” When considered in context, the designated probe request generator may “halt” the sending of probe requests in order to detect and monitor probe requests of additional stations to determine the time difference required for the designated probe request generator to begin generating probe requests to provoke probe responses to preempt the sending of probe requests by the additional stations. *Smith* at para. [0029] and [0030]. As such, after monitoring and parsing the detected probe requests, the designated probe request generator resumes sending probe requests for the stations. *Smith* at para. [0029] and [0030]. This is not the same as “**detecting, at the first STA, a second probe request**

transmitted from a second STA, wherein the second probe request includes an indication of a second scanning target; and **on a condition that the indication of the first scanning target of the first probe request is the same as the indication of the second scanning target of the second probe request, determining, by the first STA, to not transmit the first probe request to the first scanning target,**” as claimed in claim 1.

Seok fails to cure the deficiencies of Smith. Seok teaches a probe request frame format that includes a “[d]estination Address (DA) field for specifying the destination of the probe request frame”. *Seok* at para. 0020. Seok provides no detail regarding any use for the DA field, let alone “determining, by the first STA, to not transmit the first probe to the first scanning target” “on a condition that the indication of the first scanning target of the first probe request is the same as the indication of the second scanning target of the second probe request.” Aggarwal, Van Horn, Nakaso, and Chueh also fail to cure these deficiencies. As such, Applicants submit that claim 1 is patentable over the cited references of record.

With regard to independent claim 6, claim 6 recites similar, although not identical elements as claim 1. Additionally, as explained above, the stations of Smith will not transmit a probe request if the station can synchronize with the provoked probe response intended for that station. *Smith* at para. [0023], Fig. 2, step 235. This is not the same as “on a condition that the indication of the first

scanning target of the first probe request is the same as the indication of the second scanning target of the probe response, determining, by the first STA, to not transmit the first probe request to the first scanning target,” as claimed in claim 6. Seok, Aggarwal, Van Horn, Nakaso, and Chueh fail to cure these deficiencies. As such, Applicant submits that claim 6 is patentable over the cited references of record.

Claims 2-5, 9-11, and 21-26 are each directly or indirectly dependent upon claims 1 or 6, and the Applicant believes these claims are allowable over the cited references of record at least by virtue of their dependencies.

Based on the arguments presented above, withdrawal of the 35 U.S.C. § 103 rejection is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephonic interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

Applicants: InterDigital Patent Holdings Inc.
Application No.: 13/789,316

In view of the foregoing, Applicant respectfully submits that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

InterDigital Patent Holdings Inc.

By /Robert D. Leonard/
Robert D. Leonard
Registration No. 57,204

Volpe and Koenig, P.C.
United Plaza
30 South 17th Street
Philadelphia, PA 19103-4009
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

RDL/MSM/jrrs
Enclosure