

REMARKS/ARGUMENTS

After the foregoing Amendment, claims 21-34 are currently pending in this application. Claims 5-8 and 14-20 are canceled without prejudice. New claims 21-34 are added. In the specification, paragraphs [0063] and [0065] are amended.

Claim Rejections - 35 USC § 103

Claims 5-8 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE: "IEEE P802.16m/D6 May 2010 Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access System (hereinafter "IEEE") in view of U.S. Patent Publication No. 2011/0194420 A1 to Park et al. (hereinafter "Park").

Claims 5-8 and 14-20 are canceled and as a result, the rejection is now moot. However, in the interest of advancing prosecution of the newly added claims, the Applicants make the following remarks.

Newly added claim 21 provides:

A method for detecting coverage loss at a base station (BS), the method comprising:
starting a coverage loss detection (CLD) timer for a subscriber station (SS);
on a condition that the CLD timer for the SS expires:
 allocating an uplink (UL) grant to the SS to enable identification of the status of the SS;
 receiving an UL data burst from the SS via the allocated UL grant ;
 resetting the CLD timer for the SS based on the received UL data burst from the SS; and
 sending a unicast ranging acknowledgement (RNG-

ACK) to the SS based on the received UL data burst from the SS, wherein the unicast RNG-ACK enables the SS to reset a periodic ranging timer of the SS.

Neither IEEE or Park disclose, “sending a unicast ranging acknowledgement (RNG-ACK) to the SS based on the received UL data burst from the SS, wherein the unicast RNG-ACK enables the SS to reset a periodic ranging timer of the SS.”

The Office Action states, and the Applicant’s agree, that “IEEE fails to explicitly teach a periodic timer for periodic ranging is reset using an AAI-RNG-ACK signal on a condition that the BS confirms that the SS is still connected to the BS during coverage loss detection.” *Office Action, page 5*. Park is cited in the Office Action as allegedly teaching this deficiency. The Applicants respectfully disagree.

Park does not teach or suggest “sending a unicast ranging acknowledgement (RNG-ACK) to the SS **based on the received UL data burst from the SS**, wherein the unicast RNG-ACK enables the SS to reset a periodic ranging timer of the SS.” In Park, if the active base station timer expires, the base station allocates uplink (UL) grant bursts to the corresponding mobile station. *Park, Para. 0087*. If the base station receives a response from the corresponding mobile station, the base station resets its active base station timer. *Park, Para. 0088*. Park does not teach or suggest “sending a unicast ranging acknowledgement (RNG-ACK) to the SS **based on the received UL data burst from the SS** wherein the unicast RNG-ACK causes the SS to reset a periodic ranging timer of the SS.” In fact, Park does not

teach or suggest any message being sent to the corresponding mobile station when the UL grant bursts are received by the base station.

In Park, when the base station does not receives a response from the corresponding mobile station, “the base station transmits an unsolicited **ranging response (AAI_RNG_RSP) message** to the mobile station so that the mobile station performs periodic ranging based on a periodic ranging code.” *Park, Para. 0090.* (Emphasis added). In response to a received periodic ranging code from the corresponding mobile station, the base station may *then* transmit a ranging acknowledgement (AAI_RNG_ACK) message to the mobile station.

The mobile station transmits the periodic ranging code to the base station in accordance with a ranging request of the base station (S206).

The base station transmits a ranging acknowledgement (AAI_RNG-ACK) message to the mobile station **in response to the ranging code (S207)**. At this time, the ranging acknowledgement message may include information (ranging status) indicating ranging success or failure and the ranging code transmitted from the mobile station.

Park, Para. 0092-0093 (Emphasis added). In Park, the ranging acknowledgement is only sent in response to a received periodic ranging code, whereas claim 21 clearly recites “sending a unicast ranging acknowledgement (RNG-ACK) to the SS based on the received UL data burst from the SS, wherein the unicast RNG-ACK enables the SS to reset a periodic ranging timer of the SS.”

Accordingly, IEEE and Park either alone or in combination fail to disclose every feature recited in claim 21.

Claim 28 contains similar elements as claim 21 and the Applicants assert that the claim is allowable for the same reasons provided above.

Claims 22-27 and 29-34 are dependent upon either claim 21 or claim 28, and the Applicants believe these claims are allowable over the cited references of record at least by virtue of their dependencies.

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.

Applicant: Wang et al.
Application No: 13/173,858

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

Respectfully submitted,

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