

Amendments to Drawings:

The attached sheets of drawings include formal drawing sheets. These sheets, which include Figs. 1-33, replace the original sheets, including Figs. 1-33. Further, the replacement drawing sheets includes changes to Figs. 9, 12-16, 22, 24, 26-28 and 30-33.

FIG. 9 has been replaced with formal FIGs. 9A and 9B. In replacement FIG. 9A, element numbering 947, 949, 954, 952, 957 and 959 has been added. Further, in Replacement FIG. 9A, the first instance of "DATABASE INQUIRY RESPONSE" in element 952 has been amended to read "DATABASE INQUIRY REQUEST".

In FIG. 12, the numbering 1., 2., 3., 4., 5. and 6. has been deleted, and element 420 has been amended to read "TERMINALS (WTRU_S) ASSOCIATED TO BS1".

In FIG. 13, the numbering 1., 2., 3., 4., 5., 6., 7., 8., 9., 10., 11., 12. and 13. has been deleted, and the second instance of "RRC Connection Request" (originally corresponding to number 10.) has been amended to read "RRC CONNECTION RESPONSE".

In FIG. 14, element numbering 1400, 1410, 1420, 1430 and 1440 has been added.

In FIG. 15, element numbering 1510 and 1520 has been added. Further, element 1510 has been amended to read "BS1' OPERATING IN LICENSED BAND ONLY".

In FIG. 16, element numbering 1605, 1610 and 1620 has been added. Further, element 1610 has been amended to read "US1' CONNECTED MODE LICENSED BAND ONLY".

In FIG. 22, the two instances of the number "2" enclosed in dashed circles have been removed, and element numbering 2202 has been added.

In FIG. 24, the text “Figure 24: Exemplary CE Registration Procedure” has been deleted.

In FIG. 26, element numbering 1940 and 1945 has been added.

In FIG. 27, element numbering 1940 and 1945 has been added. Further, element numbering 2640, 2645 and 2650 has been changed to 2740, 2745 and 2750, respectively.

In FIG. 28, element numbering 1940, 1945, 2645 and 2650 has been added. Further, element numbering 2655 and 2660 has been changed to 2855 and 2860, respectively.

In FIG. 30, element numbering 1920 has been added. Further, element numbering 1945, 1920 and 1935 has been changed to 1935, 1975 and 1945, respectively.

In FIG. 31, a box labeled “CHECK NEIGHBOR CM” and corresponding element numbering 2180 has been added. Further, element 2175 has been amended to read “CHECK CDIS FOR NEIGHBOR INFORMATION”. Further, the arrow that extended from element 2120 to element 2130 in the original drawings has been amended to extend from element 2120 to the arrow that extends from element 2125 to element 2130.

In FIG. 32, element numbering 1940 has been added. Further, element numbering 2620, 3305, 3310 and 2625 has been changed to 3220, 2645, 2650 and 3225, respectively.

In FIG. 33, element numbering 1940 and 2415 has been added. Further, element numbering 2640, 2620, 2625, 3305 and 3310 has been changed to 3340, 3220, 3225, 3345 and 3350, respectively.

REMARKS/ARGUMENTS

After the foregoing, claims 28-54 are currently pending in this application. Claims 1-27 are canceled without prejudice. New claims 28-54 are added. A replacement specification is attached hereto and replaces the originally filed specification. In the drawings, formal drawing sheets are filed herewith and replace the originally filed informal drawings. In addition, changes to the originally filed drawings are reflected in the formal drawings, which include changes to Figures 9, 12-16, 22, 24, 26-28 and 30-33.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

Claim 22 stands rejected under 35 U.S.C. § 112, second paragraph, because “the available channels” allegedly lacks antecedent basis. Claim 22 has been canceled, obviating this rejection.

Claim Rejections - 35 U.S.C. §§ 102(e) and 103(a)

Claims 22-26 stand rejected under 35 U.S.C. § 102(e) as anticipated by Junell et al. (U.S. Patent Pub. No. 2011/0305206), and claim 27 stands rejected under 35 U.S.C. § 103(a) as obvious over Junell, “Choi” and Chaudhri et al. (U.S. Patent Pub. No. 2010/0081449).

Claims 22-26 have been canceled, obviating their rejections under 35 U.S.C. §§ 102(e) and 103(a).

Chaudhri describes a base station ranking algorithm. A “secondary mobile subscriber starts the routine at step 402 by obtaining a list of candidate channels from local geo-location database or by sensing the entire spectrum of operation if geo-location data is not available locally.” The secondary mobile subscriber ranks the channels “based on channel usability (comprising maximum allowed transmit power, link budget), the required power for channel access, and channel separation from active incumbent.” The secondary mobile subscriber then selects “the highest ranked BS and its channel.” (Chaudhri, paragraphs [0044]-[0046]).

New claim 28 recites in relevant part:

...receiving sensing information from a plurality of wireless networks;
and

providing a ranked list of available channels to one of the plurality of wireless networks based at least on the sensing information received from the plurality of wireless networks.

As described above, Chaudhri discloses that a secondary subscriber senses the spectrum itself. Accordingly, Chaudhri does not disclose “receiving sensing information from a plurality of wireless networks,” as recited in claim 28. Further, in Chaudhri, the secondary subscriber ranks the channels “based on channel usability (comprising maximum allowed transmit power, link budget), the required power for

channel access, and channel separation from active incumbent,” and not “based at least on the sensing information received from the plurality of wireless networks,” as recited in Applicants’ claim 28. Further, in Chaudhri, the secondary subscriber selects “the highest ranked BS and its channel” for its own use rather than “providing a ranked list of available channels to one of the plurality of wireless networks,” as recited in Applicants’ claim 28. Junell does not make up for these deficiencies of Chaudhri. Accordingly, claim 28 is patentable over Junell, Chaudhri, and any combination thereof.

Claims 29-35 include all features of claim 28 from which they depend. Accordingly, these claims are also patentable over Junell, Chaudhri, and any combination thereof.

Claim 36 recites in relevant part:

...receiving a request from a requesting wireless network, wherein the requesting wireless network is from among a plurality of wireless networks;

...providing, to the requesting wireless network, a ranked list of the channels that are available for the requesting wireless network based at least on the obtained information about the channels that are available for the requesting wireless network.

As described above, the secondary subscriber ranks the channels “based on channel usability (comprising maximum allowed transmit power, link budget), the required power for channel access, and channel separation from active incumbent”

and selects “the highest ranked BS and its channel” for its own use. At least because, in Chaudhri, the secondary subscriber uses the rankings for its own use, Chaudhri does not disclose or suggest “receiving a request from a requesting network, wherein the requesting network is from among a plurality of wireless networks” or “providing, to the requesting network, a ranked list of the channels that are available for the requesting wireless network,” as recited in Applicants’ claim 36. Junell does not make up for these deficiencies of Chaudhri. Accordingly, claim 36 is patentable over Junell, Chaudhri, and any combination thereof.

Claims 37-46 include all features of claim 36 from which they depend. Accordingly, these claims are also patentable over Junell, Chaudhri, and any combination thereof.

Claim 47 recites in relevant part:

...receiving spectrum usage data from a plurality of wireless networks;
...providing a ranked list of the available channels to one of the plurality of wireless networks based at least on the spectrum usage data received from the plurality of wireless networks and the information about the available channels obtained from the database.

As described above, Chaudhri discloses that a secondary subscriber senses the spectrum itself. Accordingly, Chaudhri does not disclose “receiving spectrum usage data from a plurality of wireless networks,” as recited in claim 47. Further, in Chaudhri, the secondary subscriber ranks the channels “based on channel usability

(comprising maximum allowed transmit power, link budget), the required power for channel access, and channel separation from active incumbent,” and not “based at least on the spectrum usage data received from the plurality of wireless networks and the information about the available channels obtained from the database,” as recited in Applicants’ claim 47. Further, in Chaudhri, the secondary subscriber selects “the highest ranked BS and its channel” for its own use rather than “providing a ranked list of the available channels to one of the plurality of wireless networks,” as recited in Applicants’ claim 47. Junell does not make up for these deficiencies of Chaudhri. Accordingly, claim 47 is patentable over Junell, Chaudhri, and any combination thereof.

Claims 48-54 include all features of claim 47 from which they depend. Accordingly, these claims are also patentable over Junell, Chaudhri, and any combination thereof.

Based at least on the arguments presented above, withdrawal of the 35 U.S.C. §§ 102(e) and 103(a) rejections of claims 22-27, and allowance of new claims 28-54, is respectfully requested.

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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.

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

Respectfully submitted,

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