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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WEI ZHAO and YING SUN

Appeal 2018-005807
Application 14/766,598
Technology Center 2400

Before ALLEN R. MacDONALD, CARL W. WHITEHEAD JR., and
DAVID J. CUTITTA, II, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ Appellants indicate the real party in interest is Telefonaktiebolaget L M Ericsson. App. Br. 2.

STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134(a) from a Final rejection of claims 63–85. Appellants have canceled claims 1–62. App. Br. 8. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Illustrative Claim

Illustrative claim 63 under appeal reads as follows (emphasis, formatting, and bracketed material added):

63. A method of controlling access to a cell of a mobile network, the method comprising:

[A.] determining a transmission delay of *a backhaul connection* of a radio station serving the cell, the radio station being connected via the backhaul connection to a cell controller of the cell;

[B.] depending on the transmission delay, determining at least one time window defining a maximum allowed time between two messages of a random access procedure; and

[C.] indicating, via the radio station, the at least one time window to one or more user equipments in the cell.

References²

Kim et al.	US 2013/0201960 A1	Aug. 8, 2013
Weng et al.	WO 2013/020209 A1	Feb. 14, 2013

² All citations herein to these references are by reference to the first named inventor only.

*Rejections*³

A.

The Examiner rejected claims 63, 64, 66–73, 75–78, 80, 81, 83, and 85 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kim and Weng. Final Act. 5–16.

Appellants argue separate patentability for claim 63. Appellants do not argue separate patentability for claims 64, 66–73, 75–78, 80, 81, 83, and 85. We select claim 63 as the representative claim for this rejection. Except for our ultimate decision, we do not address claims 64, 66–73, 75–78, 80, 81, 83, and 85 further herein.

B.

The Examiner rejects claims 65, 74, 79, 82, and 84 under 35 U.S.C. § 103(a) as being unpatentable over Kim and Weng in various combinations with additional references. Final Act. 16–18.

Appellants do not present arguments for claims 65, 74, 79, 82, and 84. Thus, the rejections of these claims turn on our decision as to claim 63. Except for our ultimate decision, we do not address the § 103(a) rejections of claims 65, 74, 79, 82, and 84 further herein.

Issues on Appeal

Did the Examiner err in rejecting claim 1 as being obvious?

³ All citations herein to the “Final Action” are to a Final Action mailed on August 7, 2017.

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments (Appeal Brief and Reply Brief) that the Examiner has erred. We disagree with Appellants. Except as noted below, we adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken; and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellants' Appeal Brief. We concur with the conclusions reached by the Examiner. We highlight the following points.

The Examiner present the following response to Appellants' Appeal Brief arguments:

[A]lthough FIG. 1 [of Weng] does not explicitly show the *direct backhaul connection* between the macro-cell and pico-cell, the communication such as the PRACH detection report is being communicated between the pico cell and macro cell using the backhaul implementation (par [0097][0102]). Although Appellant argues that the link is not used for accessing the pico-cell, but rather for accessing the macro-cell, the measured link for delay in PRACH detection report being communicated from the pico-cell to the macro-cell can be read as the backhaul connection of the pico-cell eNB regardless of whether the link is for accessing the macro-cell. Further, as shown in FIG. 1, an *indirect backhaul is established* between the pico-cell and the macro-cell through the core network. Because the network's backhaul implementation includes the backhaul connection between the pico-cell and the core network, Weng teaches determining the transmission delay of a backhaul connection of a pico-cell eNB serving a pico-cell.

Appellant further argues that "the Office action takes concurrent position that a) the backhaul is between the pico-cell eNB and the macro-cell eNB . . . AND that (b) the backhaul is between the pico-cell eNB and a core network entity." Appellants' Brief at p6.

As noted above, the backhaul connection between the pico-cell eNB and the core network is the part of the backhaul implementation (par [0097]). . . . [T]he ***indirect backhaul connection*** that includes the backhaul connection from the pico-cell eNB to the core network and to the macro-cell eNB is used to convey information from the pico-cell eNB to macro-cell eNB.

Ans. 18–19.

In response, Appellants raise the following argument:

[T]he Examiner’s Answer cites the generic heterogeneous network shown in Fig. 1 [of Weng], which includes a first backhaul link 114 connecting the macro cell 110 to the core network 150 and a completely different second backhaul link 124 connecting the pico-cell 120 with the core network 150. Additionally, cited Paragraph [0097] considers a scenario “where a network’s backhaul implementation cannot guarantee that **the macro cell** can receive the PRACH detection report **from a pico cell within a specified time period.**” In other words, Paragraph [0097] of Weng does not speak to the claimed “determining a transmission delay of a backhaul connection,” whatsoever. Instead, if such a transmission delay is indeed determined in Weng, the delay associated with **TWO** backhails: first backhaul link 114 AND second backhaul link 124 because the PRACH detection report would be required to travel up from the pico-cell 120 via backhaul 124 to the core network 150 and then back down from the core network 150 the macro cell 110. Accordingly, contrary to the position taken in the Examiner’s Answer, Weng does **not** disclose or suggest determining a transmission delay of **a single** backhaul connection, as claimed, and instead mandates that a transmission delay of **two** separate backhaul links 114 and 124 be considered.

Reply Br. 2.

We agree with the Examiner’s reasoning that the claimed backhaul connection is disclosed by Weng’s two-link backhaul connection. Further, contrary to Appellants’ argument, Appellants overlook that the disclosure in support of claim 63 includes such two-link backhaul connections.

For example, in the cell as illustrated in Fig. 1 such different transmission delays of *the backhaul connection* may occur between the macro station 200-1 and the pico stations 200-2, 200-3, 200-4, but also between the different pico stations 200-2, 200-3, 200-4, e.g., due to different configurations of the backhaul connections B2, B3, B4.

Spec. 9:19–23 (emphasis added). In this sentence, all of the backhaul connections between stations are shown as two-link backhaul connections in Appellants' Figure 1.

CONCLUSIONS

(1) The Examiner has not erred in rejecting claims 63–85 as being unpatentable under 35 U.S.C. § 103(a).

(2) Claims 63–85 are not patentable.

DECISION

The Examiner's rejections of claims 63–85 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED