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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FRANCESCA SERRAVALLE, ROBERT PATERSON, and
ROBERT TIETZ

Appeal 2020-000307
Application 15/384,619
Technology Center 3600

Before JOHN C. KERINS, DANIEL S. SONG, and
STEFAN STAICOVICI, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner’s decision in the Final Office Action (dated July 31, 2018, hereinafter “Final Act.”) rejecting claims 25–28.² We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. NEC Corporation is identified as the real party in interest in Appellant’s Appeal Brief (filed June 17, 2019, hereinafter “Appeal Br.”). Appeal Br. 2.

² Claims 1–24 are canceled. *See* Appeal Br. 11 (Claims App.).

SUMMARY OF DECISION

We REVERSE.

INVENTION

Appellant's invention relates to a communication system and method "for providing relay services to mobile or fixed communication devices."

Spec. 1, ll. 6–7.

Claims 25–28 are independent. Claim 25 is illustrative of the claimed invention and reads as follows:

25. A donor base station for a communication system, the donor base station comprising:
a receiver configured to receive, from a mobility management entity (MME), an S1 MME overload message; and
a transmitter configured to transmit, to a relay node, the MME overload message, including in the MME overload message an identity of an affected core network node in the overload message.

REJECTION

The Examiner rejects claims 25–28 under 35 U.S.C. § 103(a) as being unpatentable over Lee³ and Meirosu.⁴

ANALYSIS

The Examiner finds Lee discloses, *inter alia*, a donor base station (DeNB, eNB),⁵ a receiver 21 (receiving module) for receiving from a

³ Lee et al., US 8,451,769 B2, issued May 28, 2013.

⁴ Meirosu et al., US 2011/0122779 A1, published May 26, 2011.

⁵ Parenthetical nomenclature refers to Lee.

mobility management entity (MME), an overload message (OVERLOAD START message), and a transmitter 23 (transmitting module) for transmitting to relay nodes (RN1, RN2) the overload message that includes identification information (G-RNID). Final Act. 4 (citing Lee, col. 4, ll. 50–51, col. 10, ll. 49–67, col. 11, ll. 51–54, Figs. 1, 2, 8, 9). However, the Examiner finds that “Lee does not specifically disclose [that] the identity in the overload message is an identity of an affected core network node.” *Id.* Nonetheless, the Examiner further finds that Meirosu discloses a method for transmitting an overload message “including an identity of an affected core network node in the overload.” *Id.* (citing Meirosu, paras. 80, 106). Thus, the Examiner concludes that it would have been obvious for a person of ordinary skill in the art “to combine the teaching of Meirosu with Lee by including the MME identifier in the overload message transmitted from the MME to DeNB and the from the DeNB to the RN, for the benefit of identifying the MME that has a load imbalance.” *Id.*

Appellant argues that the Examiner’s reasoning to combine the teachings of Lee and Meirosu, namely, to “provide the benefit of identifying the MME that has a load imbalance,” is circular because a skilled artisan “would not send more data from a base station to a relay node just for the sake of sending more data.” Appeal Br. 9. Accordingly, Appellant contends that “the reasoning applied by the Examiner . . . is based on improper hindsight reasoning,” and, thus, “appears to be gleaned solely from the

Appellant’s disclosure.” Reply Brief (filed Oct. 15, 2019, hereinafter “Reply Br.”) 3⁶ (citing Spec. 2, ll. 10–23, Spec. 12, ll. 11–15).⁷

The Examiner is correct that Lee discloses transmitting an overload message OVERLOAD START including identification information G-RNID from mobility management entity MME to donor base station DeNB and then to relay nodes RN1, RN2. Examiner’s Answer (dated Aug. 15, 2019, hereinafter “Ans.”) 5. We also agree with the Examiner’s finding that “Meirosu discloses transmitting an overload message from one MME to another MME, wherein the overload message comprises an MME identifier of the MME experiencing the overload.” *Id.* (emphasis omitted).

However, Meirosu does not provide information regarding an MME experiencing an overload to a relay node. As such, we find the Examiner’s rejection insufficient to explain what would have prompted a person having ordinary skill in the art to include Meirosu’s MME identifier of the MME experiencing the overload into Lee’s overload message OVERLOAD START transmitted to relay nodes RN1, RN2 from donor base station DeNB. The reason proffered by the Examiner, i.e., “for the benefit of identifying the MME that has a load imbalance” (*see* Final Act. 4), appears to be performed by Meirosu’s overload message transmitted from one MME to another MME. *See, e.g.*, Meirosu, paras. 80, 106.

We, thus, agree with Appellant that the Examiner’s rejection does not sufficiently explain why the relay nodes RN1, RN2 in Lee should be sent

⁶ Appellant provides page numbers only on the first page of the Reply Brief. However, for ease of referring to Appellant’s arguments, we have assigned page numbers 2 through 4 to the Reply Brief.

⁷ Appellant refers to paragraphs 7, 8, and 76 of US 2017/0105159 A1, published Apr. 13, 2017.

information identifying the MME with a load imbalance. *See* Appeal Br. 9. The Examiner has not provided any findings that Meirosu recognized a problem with transmitting an overload message from one MME to another MME identifying the MME that has a load imbalance. Thus, it is not clear from the Examiner's rejection why a skilled artisan would modify Lee's overload message to send information identifying the MME with a load imbalance to a relay node rather than from one MME to another MME, as per Meirosu. Appellant is correct that only Appellant's own Specification provides such a reason, namely, to "provide the benefit of identifying which MME of multiple MMEs serving a relay node through a Donor eNB for which to start an overload procedure." Appeal Br. 9; Reply Br. 3.

In conclusion, the Examiner fails to articulate an adequate reason, with rational underpinnings, why, in the absence of hindsight gleaned improperly from Appellant's underlying disclosure, a person having ordinary skill in the art would have modified Lee, according to Meirosu, to arrive at the subject matter of independent claims 25–28. *See St. Jude Med., Inc. v. Access Closure, Inc.*, 729 F.3d 1369, 1381 (Fed. Cir. 2013) (reminding us that "we must guard against 'hindsight bias' and 'ex post reasoning'" in making obviousness determinations (quoting *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007))). Therefore, for the foregoing reasons, we do not sustain the rejection under 35 U.S.C. § 103(a) of claims 25–28 as unpatentable over Lee and Meirosu.

Appeal 2020-000307
Application 15/384,619

CONCLUSION

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
25-28	103(a)	Lee, Meirosu		25-28

REVERSED