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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PER LINDELL, HÅKAN PALM, and
PETER HEDMAN

Appeal 2019-000877
Application 15/160,154
Technology Center 2600

Before J. JOHN LEE, DANIEL J. GALLIGAN, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

LEE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–24. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Telefonaktiebolaget LM Ericsson. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The present invention relates generally to authorizing enhanced coverage features for wireless devices. Abstract. Independent claim 1 is illustrative of the claims on appeal and recites:

1. A method for authorizing utilization of enhanced coverage, the method comprising:

receiving a first message indicating that a first wireless device supports one or more enhanced coverage features;

obtaining an identification of the first wireless device; and

obtaining, based on the identification of the first wireless device, an indication of whether the first wireless device is authorized to access the one or more enhanced coverage features or the first wireless device is not authorized to access the one or more enhanced coverage features.

REJECTIONS ON APPEAL

Claims 1–3, 5–7, 9–11, 13–15, 17–19, and 21–23 stand rejected under 35 U.S.C. § 102(a)(2) as being anticipated by Lim.² Final Act. 3–6.

Claims 4, 8, 12, 16, 20, and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Lim. *Id.* at 7–10.

Our review in this appeal is limited only to the above rejections and the issues raised by Appellant. Arguments not made are waived. *See* MPEP § 1205.02; 37 C.F.R. §§ 41.37(c)(1)(iv), 41.39(a)(1).

² Lim, US 2016/0338005 A1, published Nov. 17, 2016.

OPINION

Appellant’s arguments focus on the anticipation rejection of independent claims 1, 9, and 17. Appellant contends the Examiner erred in finding Lim discloses “an indication of whether the first wireless device is authorized to access the one or more enhanced coverage features or the first wireless device is not authorized to access the one or more enhanced coverage features,” as recited in claim 1 and similarly recited in claims 9 and 17. Appeal Br. 7–10; Reply Br. 2–4. Specifically, Appellant argues that, although Lim describes “the ability of the [user equipment (UE)] to support enhanced coverage,” “an indication as to whether or not the wireless device supports one or more enhanced coverage features” is not an “indication of whether or not the wireless device is authorized to access the one or more enhanced coverage features.” Appeal Br. 9–10. Appellant further argues the claims require “two separate indications,” i.e., a support indication and an authorization indication, but Lim only describes one indication, i.e., “the indicator that the UE has enhanced coverage capability.” Reply Br. 3. According to Appellant, “[t]he Examiner’s position is premised on the same piece of information satisfying both indications.” *Id.* Still further, Appellant argues “[b]ecause Lim does not explicitly discuss a UE not being authorized to use enhanced coverage, the only indication that a UE would not use coverage enhanced features is if the UE does not support them.” *Id.* at 4.

We are not persuaded the Examiner erred. The Examiner finds (Ans. 3–4), and we agree, that the completion of Lim’s “connection procedure” (Lim ¶¶ 55, 60) discloses “an indication of whether the first wireless device is authorized to access the one or more enhanced coverage features or the first wireless device is not authorized to access the one or

more enhanced coverage features” (i.e., the authorization indication). As the Examiner points out, Lim details a connection procedure in Figure 2 and the corresponding disclosure. Final Act. 4. Initially, the UE transmits an indication that it supports enhanced coverage mode features, e.g., a “CE mode indicator.” Lim, Fig. 2; *see id.* ¶ 60. That indication of enhanced coverage mode support is then stored by a mobility managed entity (“MME”). *Id.* Later, when completing the connection procedure, the MME transmits to base station eNB a *different* “enhanced coverage indicator” that “will indicate if the user equipment has enhanced coverage capability,” together with “a UE identifier [and] a low complexity capability indicator.” *Id.* ¶ 60, Fig. 2. Completing this connection procedure allows base station eNB to communicate with user equipment “using the appropriate signalling; that is, . . . using repeated transmissions if it requires coverage enhanced mode.” *Id.* ¶ 60, Fig. 2.

Appellant’s argument that “whether or not a UE supports coverage enhanced mode does not disclose whether or not the UE is authorized to use coverage enhanced mode” (Appeal Br. 9) ignores the Examiner’s finding that Lim’s user equipment is “authorized to access” enhanced coverage mode “[o]nce [Lim’s] connection procedure between the UE and [base station] has been performed and a dedication channel [is] established.” Ans. 4. That is, Appellant’s arguments address Lim’s indication of capability or support for enhanced coverage mode, i.e., Lim’s CE mode indicator, but the Examiner relies on the later completion of the connection procedure to disclose the authorization indication. *Id.* In particular, the Examiner points out (*id.*) that the UE in Lim may enter “an area that requires the enhanced coverage mode,” and, after completion of a connection

procedure, the UE “will then be able” to communicate in the “require[d] coverage enhanced mode” (Lim ¶¶ 53, 60). Because the completion of the connection procedure allows access to the enhanced coverage area, we agree with the Examiner that such completion discloses “an indication of whether the first wireless device is authorized to access the one or more enhanced coverage features.”

Further, Appellant’s argument that the claims require “two separate indications” (Reply Br. 3) is not persuasive because the Examiner found that Lim discloses separate indications. According to the Examiner, the UE’s “signal to the network when it is operating in coverage enhanced mode,” i.e., the “CE mode indicator,” discloses the first indication. Final Act. 3–4 (citing Lim ¶ 28); *see* Lim, Fig. 2 (showing a first arrow showing a “CE mode indicator” transmitted from UE to MME), ¶ 60. In addition, as discussed above, the Examiner relies (Ans. 4) on Lim’s connection procedure, which transmits a different “enhanced coverage indicator” with “a UE identifier [and] a low complexity capability indicator” in order to establish an enhanced coverage connection, to disclose the second (authorization) indication—that the user equipment is “authorized to access . . . enhanced coverage features” (Lim ¶ 60).

Appellant also argues that, when the device is not authorized, the claims require the authorization indication to be an affirmative indication of a lack of authorization. *See* Reply Br. 4. Thus, Appellant contends that Lim does not disclose the recited authorization indication because “Lim does not explicitly discuss a UE not being authorized to use enhanced coverage” and, instead, discloses that no indication is provided when unauthorized. *See id.* This argument, however, is not commensurate with the scope of the claims.

First, the claims recite an indication of whether the device is authorized “or” is not authorized. Thus, Lim’s disclosure of an indication that the UE is authorized meets this limitation. Additionally, neither the claims nor the Specification define or limit how the authorization indication is provided. Thus, an affirmative indication is not required, and an implicit indication is sufficient. Lim’s connection procedure includes “an enhanced coverage indicator, which will indicate if the user equipment has enhanced coverage capability.” Lim ¶ 60. Thus, if the user equipment does not have enhanced coverage capability, there is no enhanced coverage indicator, which indicates that the user equipment “is not authorized to access” enhanced coverage features. Moreover, Lim describes that its connection procedure provides communication “using the appropriate signalling; that is, with a reduced transport size block if the device is a low complexity device, or using repeated transmissions if it requires coverage enhanced mode” (*id.*), which indicates whether the user equipment will operate in enhanced coverage mode (and, thus, is authorized) or whether it must operate in a different mode (i.e., is unauthorized).

Accordingly, we are not persuaded the Examiner erred in finding Lim discloses “an indication of whether the first wireless device is authorized to access the one or more enhanced coverage features or the first wireless device is not authorized to access the one or more enhanced coverage features,” as recited in claim 1 and similarly recited in claims 9 and 17. Appellant does not present separate arguments for dependent claims 2–8, 10–16, and 18–24, and, thus, we also sustain the rejections of those claims. *See* Appeal Br. 5–10.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-3, 5-7, 9-11, 13-15, 17-19, 21-23	102(a)(2)	Lim	1-3, 5-7, 9-11, 13-15, 17-19, 21-23	
4, 8, 12, 16, 20, 24	103	Lim	4, 8, 12, 16, 20, 24	
Overall Outcome			1-24	

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

AFFIRMED