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rausch@ptslaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICHARD MACKENZIE, ANVAR TUKMANOV,
ANDREW GARRETT, COLIN HARROLD, and MICHAEL FITCH

Appeal 2020-001780
Application 15/123,802
Technology Center 2400

Before ST. JOHN COURTENAY III, ELENI MANTIS MERCADER, and
JUSTIN BUSCH, *Administrative Patent Judges*.

MANTIS MERCADER, *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 1–4, 6–9, and 11–16. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was conducted on September 17, 2020.

We AFFIRM.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as the assignee, British Telecommunications Public Limited Company. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claimed invention is directed to user equipment (UE) configured to send battery status data to a basestation and, in response, the basestation is adapted to improve the Quality of Service for the UE. Abstract. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for controlling a User Equipment (UE) in a mobile telecommunications network, the network including a basestation, the method comprising:

a basestation receiving battery status data from a UE, wherein the battery status data indicates a user-inputted preference for the UE's battery consumption;

and, in response the basestation improving the Quality of Service (QoS) for the UE by adjusting connectivity parameters for the UE and sacrificing battery consumption.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Ganton	US 2003/0190938 A1	Oct. 9, 2003
Imamura	US 2010/0323753 A1	Dec. 23, 2010
Anderson	US 2011/0294456 A1	Dec. 1, 2011

REJECTIONS

Claims 1–4, 6–9, 11, and 13–16 are rejected under 35 U.S.C. § 103 as being unpatentable over Imamura in view of Anderson . Final Act. 3.

Claim 12 is rejected under 35 U.S.C. § 103 as being unpatentable over Imamura in view of Anderson as applied to claim 6 above, and further in view of Ganton. Final Act. 12.

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis
1–4, 6–9, 11, 13–16	103	Imamura, Anderson
12	103	Imamura, Anderson and Ganton

OPINION

We adopt the Examiner’s findings and conclusions in the Final and Answer except as otherwise clarified in the Opinion.

Appellant argues that neither Imamura nor Anderson nor their combination teaches or suggests the limitation of “the basestation improving the Quality of Service (QoS) for the UE by adjusting connectivity parameters for the UE and sacrificing battery consumption” as recited in claim 1. App. Br. 7. Appellant argues that the Examiner failed to establish a prima facie case of obviousness because the Examiner relied on Anderson for teaching adjustment of QoS at the user equipment instead of at the basestation as required by claim 1. *See* App. Br. 11. Furthermore, Appellant argues that the Examiner’s further reliance on simple substitution of the adjustment at the basestation instead of at the UE also fails as the Examiner failed to show the substitution. *See* App. Br. 11–12.

We do not agree with Appellant’s argument. The Examiner finds that Imamura teaches a method for controlling User Equipment (UE) in a mobile telecommunications network. Final Act. 3 (citing para. 34, ll. 1–2, describing a method of reducing power consumption in a UE). The Examiner further finds that the network includes *a base station eNB 904 receives battery status data* from UE 902. Final Act. 3–4 (citing para. 48, ll. 1–5, and FIG. 9). In particular, the Examiner finds that Imamura teaches the *UE 902 sends a preference signal 114 to eNB 904 via MAC control*

signaling 962. *Id.* The UE 902 *may send the battery status* (i.e., battery voltage, remaining battery charge, current flow given battery type, etc.) *as a preference signal 114* via MAC control signaling 962). *Id.* The Examiner finds that Imamura teaches *the battery status data indicating a user inputted preference* for the UE's battery consumption. *Id.* The Examiner further finds that Imamura teaches a preference signal 1414 may also include a *user's command 1499, such as whether the user has requested a longer battery mode (i.e., through a user interface)*. Final Act. 4 (citing para. 56, ll. 12–14). The Examiner also finds that Imamura teaches in response the base station improves the Quality of Service (QoS) for the UE wherein the *eNB scheduler 110 may choose the appropriate UL transmission mode 318, taking into account the traffic load and channel state information as well as the UE type and battery status received from the UE 1102*. *Id.* (citing para. 50, ll. 8–11).

Thus, based on the above findings, a preponderance of the evidence supports the Examiner's finding that Imamura teaches a basestation receiving battery status data from a UE, wherein the battery status data indicates a user-inputted preference for the UE's battery consumption. Final Act. 3–4 (citing para. 48, ll. 1–5, and FIG. 9). We further agree with the Examiner that in response the basestation improves the Quality of Service (QoS) for the UE by adjusting connectivity parameters for the UE wherein the basestation chooses the appropriate UL transmission mode (i.e., QoS parameters) taking into account the traffic load and channel state information as well as the UE type and battery status received from the UE. Final Act. 4 (citing para. 50, ll. 8–11).

Therefore, we agree with the Examiner's finding "[t]his means that in *Imamura*, the eNB receives battery status from the UE and the eNB adjust[s] some QoS parameter of the UE, in this case the UL transmission mode."

Ans. 17 (citing para. 50).

We note that the claim does not specify whether the battery status is low, normal or high and neither does the claim require specific QoS parameters be adjusted.

The Examiner relies on Anderson for expressly teaching improving QoS for the UE by adjusting connectivity parameters for the UE *and sacrificing battery consumption*. Ans. 18.

In particular, the Examiner finds that Anderson teaches, in Figure 6, box 630, to "**Adjust one or more QoS parameters** related to the emergency alert mode of operation including increasing signal transmission power and/or **invoking one or more enhanced demodulation techniques at the expense of battery life** to help ensure successful completion of an emergency alert call." Ans. 18 (citing Fig. 6, box 630). In other words, the express teaching relied on by the Examiner is that adjusting QoS parameters occurs at the expense of battery life.

It is well settled that "a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements." *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012) (citations omitted). Nor is the test for obviousness whether a secondary reference's features can be bodily incorporated into the structure of the primary reference. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *Id.*

Here the combined teachings suggest *the eNB receives battery status from the UE and the eNB adjusts some QoS parameter of the UE as taught by Imamura* (i.e., UL transmission mode taking into account the traffic load and channel state) and the adjustment of the QoS parameter occurs at the expense of battery life as expressly taught by Anderson. Although we do not agree with the Examiner's additional finding of simple substitution of one known element for another, this is a cumulative finding that does not distract from the already established prima facie Case.

Thus, we are also unpersuaded by Appellant's arguments regarding the substitution or importation of limitations from the Specification to justify the substitution (Appeal Br. 11–15) because, as we stated above, Imamura teaches the disputed limitation of “the basestation improving the Quality of Service (QoS) for the UE by adjusting connectivity parameters for the UE” and the Examiner relies on Anderson for the *express* teaching of sacrificing battery consumption when improving the QoS for the UE when adjusting connectivity parameters. Because Imamura teaches that the basestation improves the quality of service, there is no requirement that Anderson also needs to teach this feature. A determination of obviousness does not require the claimed invention to be expressly suggested by any one or all of the references. *See Keller*, 642 F.2d at 425.

Nor do we agree with Appellant's argument regarding the Examiner's proposed motivation to combine the cited references being counter to the primary reference's (Imamura's) express goal: to “extend the life of the UE's battery.” Appeal Br. 17 (citing Imamura para. 21, 1. 8). According to Appellant, a person skilled in the art would not have begun to look at Imamura and then looked to Anderson, because Imamura is not concerned

with “balanc[ing the] *seemingly opposing goals* of improving call performance and increasing standby time to improve battery life.” *Id.* (citing Final Act. 5, 11. 15–16). Appellant argues that Imamura is focused *only* on “reduc[ing] the amount of power that is consumed by the UE, and therefore extend[ing] the life of the UE’s battery,” and makes *no mention* of other QoS parameters or their management. *Id.* (citing Imamura, para. 21, 11. 5–8).

We do not agree with Appellant’s argument. Both Imamura and Anderson are concerned with extending the UE’s battery life. *See* Imamura para. 21 and Anderson para. 22. Furthermore, contrary to Appellant’s argument, Imamura teaches an *eNB adjusting some QoS parameter of the UE* (i.e., UL transmission mode taking into account the traffic load and channel state). Thus, we agree with the Examiner that one skilled in the art would further have looked to Anderson to balance seemingly opposing goals of improving call performance and increasing standby time to improve battery life. *See* Anderson para. 22. The modification would further improve battery life.

Accordingly, we affirm the Examiner’s rejection of claims 1–4, 6–9, and 11–16.

CONCLUSION

The Examiner’s rejections are affirmed.

The Examiner’s decision to reject claims 1–4, 6–9, and 11–16 is affirmed.

DECISION SUMMARY

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-4, 6-9, 11, 13-16	103	Imamura, Anderson	1-4, 6-9, 11, 13-16	
12	103	Imamura, Anderson, Ganton	12	
Overall Outcome	103		1-4, 6-9, 11-16	

TIME PERIOD FOR RESPONSE

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