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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* RAINER LIEBHART and DEVAKI CHANDRAMOULI

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Appeal 2019-003736  
Application 14/371,881  
Technology Center 2400

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Before JAMES R. HUGHES, LINZY T. McCARTNEY, and  
JOYCE CRAIG, *Administrative Patent Judges*.

HUGHES, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Claims 22–24 and 27–35 are pending, stand rejected, are appealed by Appellant,<sup>1</sup> and are the subject of our decision under 35 U.S.C. § 134(a). *See* Non-Final Act. 1–2; Appeal Br. 1.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> 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 Nokia Solutions and Networks Oy. *See* Appeal Br. 2.

<sup>2</sup> We refer to Appellant’s Specification (“Spec.”), filed July 11, 2014 (claiming benefit of PCT/US12/21294 (filed Jan. 13, 2012)); Appeal Brief (“Appeal Br.”), filed Dec. 20, 2018; and Reply Brief (“Reply Br.”), filed

CLAIMED SUBJECT MATTER

The invention “relate[s] to wireless communications networks” (Spec. ¶ 1) utilizing apparatuses, computer programs embodied in computer readable media, and methods “for routing messages in a machine-type communication (MTC) architecture” (Spec. ¶ 6). More specifically, the method for routing messages in a MTC architecture includes “receiving a request at a MTC-proxy residing at an egress of a network,” where the “request includes an international mobile subscriber identity (IMSI)” for a destination (user equipment or mobile device) outside the network. The MTC-proxy replaces the IMSI in the request with an external identifier before routing the request outside the network, where the external identifier is different than the Mobile Station International Subscriber Directory Number (MSISDN), and the MTC-proxy stores a mapping of the IMSI to the external identifier. *See* Spec. ¶¶ 6–9; Abstract. Claims 22, 30, and 33 are independent. Claim 22, reproduced below, is illustrative of the claimed subject matter:

22. A method, comprising:

receiving a request at a machine-type communication proxy residing at an egress of a network, the request comprising an international mobile subscriber identity for which a destination is outside the network;

*before routing the request outside the network, replacing, by the machine-type communication proxy, the international mobile subscriber identity in the request with an external identifier, wherein the external identifier is different from a*

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Apr. 8, 2019. We also refer to the Examiner’s Final Office Action (“Final Act.”), mailed Mar. 2, 2018; and Answer (“Ans.”) mailed Feb. 8, 2019.

*Mobile Station International Subscriber Directory Number (MSISDN);*

querying a home subscriber server with the international mobile subscriber identity to retrieve the corresponding external identifier; and

*storing, in a memory of the machine-type communication proxy, a mapping of the international mobile subscriber identity to the corresponding external identifier.*

Appeal Br. 24 (Claims App.) (emphasis added).

## REFERENCES

The prior art relied upon by the Examiner is:

<b>Name</b>	<b>Reference</b>	<b>Date</b>
Jain et al. ("Jain '372")	US 2013/0279372 A1	Oct. 24, 2013 <sup>3</sup>
Jain et al. ("Jain '894")	US 2013/0084894 A1	Apr. 4, 2013 <sup>4</sup>
Ronneke	US 2012/0302229 A1	Nov. 29, 2012 <sup>5</sup>

## REJECTIONS<sup>6</sup>

1. The Examiner rejects claims 22–24 and 27–35 under 35 U.S.C. § 103(a) as being unpatentable over Jain '372 and Jain '894. *See* Final Act. 3–11.

2. The Examiner rejects claims 22, 30, and 33 under 35 U.S.C. § 102(e) as being anticipated by Ronneke. *See* Final Act. 12–16.

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<sup>3</sup> Jain '372 claims benefit of US 61/556,109, filed Nov. 4, 2011.

<sup>4</sup> Jain '894 claims benefit of US 61/542,726, filed Oct. 3, 2011.

<sup>5</sup> Ronneke claims benefit of PCT/EP2010/051867, filed Feb. 15, 2010.

<sup>6</sup> The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112–29, 125 Stat. 284 (2011), amended 35 U.S.C. §§ 102 and 103. Because the present application has an effective filing date (Jan. 13, 2012) prior to the AIA's effective date, this decision refers 35 U.S.C. §§ 102(e) and 103(a).

## ANALYSIS

### *Obviousness Rejection of Claims 22–24 and 27–35*

The Examiner rejects independent claim 22 (as well as independent claims 30 and 33, and dependent claims 23, 24, 27–29, 31, 32, 34, and 35) as being obvious over Jain '372 and Jain '894. *See* Final Act. 3–5; Ans. 16–24; *see also* Final Act. 5–11; Ans. 24–35. Appellant contends that Jain '372 and Jain '894 do not teach the disputed limitations of claim 22. *See* Appeal Br. 5–11; Reply Br. 2–4. Specifically, Appellant contends, *inter alia*, that neither Jain '372, nor Jain '894 teaches or suggests that the “MTC-IWF replaces the international mobile subscriber identity (IMSI) in the request with an external identifier that is not a MSISDN before routing the request outside the network” as required by claim 22. Appeal Br. 8–9; *see* Appeal Br. 7–11; Reply Br. 2–4. Appellant contends that Jain '372, instead, teaches sending “a trigger request to the MTC-IWF” that includes “an MTC device identification (ID) . . . to indicate a target UE” (Appeal Br. 9 (citing Jain '372 ¶ 42)), “the MTC-IWF . . . send[s] [a] trigger report to the MTC server” (Appeal Br. 9 (citing Jain '372 ¶¶ 47–48)), and “the trigger report includes an external identifier [(IE)] which is of type IMSI” (Appeal Br. 9 (citing Jain '372 ¶ 88(Table 6))). Thus, according to Appellant, Jain '372 does not “disclose or suggest that its MTC-IWF replaces the IMSI in the trigger report with an external identifier that is not a MSISDN” and “also fails to disclose or suggest that the MTC-IWF makes any type of replacement of identifiers.”

With respect to Jain '894, Appellant contends the reference describes “an identifier used by the MTC [device] in the triggering request to the MTC server can be different from the identifier used by the MTC server in the

triggering request sent to the public land mobile network (PLMN)” (Appeal Br. 10 (citing Jain ’894 ¶ 26)). Thus, according to Appellant, Jain ’894 “fails to disclose or suggest that a MTC proxy replaces the international mobile subscriber identity (IMSI) in the request with an external identifier that is not a MSISDN before routing the request outside the network.”

We agree with Appellant that the Examiner-cited portions of Jain ’372 and Jain ’894 (*see* Jain ’372 ¶¶ 35–39, 42, 44, 46–49, 70–71 (Table 2), 73, 77, 85 (Table 4), 88 (Table 6), 92–94, 106; Figs. 2, 3; and Jain ’894 ¶¶ 21, 26, 36, 38, 39, 61, 62; Figs 2a, 2b) do not teach or MTC proxy replacing an IMSI with an IE or storing a map of the IDs as required by Appellant’s claim 22. *See* Appeal Br. 5–11; Reply Br. 2–4. As cited by the Examiner, Jain ’372 describes three different messages (Trigger Report 312, Trigger Report 314, and Trigger Delivery Request 302 involving the MTC-IFW 54 (the MTC proxy recited in claim 22)). *See* FIGS. 2, 3; Jain ’372 ¶¶ 42, 47, 48, 71, 84, 85, 88. In the case of Trigger Reports 312 and 314 (FIG. 3), the MTC-IFW forwards Trigger Report 312 to the MTC server (Trigger Report 314). The MTC-IFW does not substitute an external identifier (IE) with an IMSI or store the information. Even if a substitution of an identifier takes place at the MTC-IFW, Jain ’372 (¶¶ 70–71 (Table 2), 88 (Table 6)) indicates the identifiers are IMSI identifiers. In the case of Trigger Delivery Request 302, which may include an external identifier (IE) that is not an IMSI (Jain ’372 ¶¶ 70–71 (Table 2); FIG. 3), this request is sent from the server to the MTC-IFW and there is no indication that the MTC-IFW substitutes the external identifier with an IMSI or stores the information. At best, Jain ’372 describes the Home Subscriber Server (HSS) mapping the User Equipment (UE) MTC Device ID to an IMSI, not the MTC-IFW.

Similarly, the Examiner-cited portions of Jain '894 (*see* Jain '894 ¶¶ 21, 26, 36, 38, 39, 61, 62; FIGS. 2a, 2b) do not describe the required identifier substitution. Although Jain '894 describes the MTC device identifier in the trigger requests being different (*see* Jain '894 ¶ 26) and that the external identifier is not an IMSI or MSISDN (*see* Jain '894 ¶ 36) it is the HSS that substitutes or maps the external device identifier and an IMSI. *See* Jain '894 ¶¶ 38, 61.

It is unclear from the Examiner's rejection if (and how) Jain '372 and Jain '894 describe a proxy (MTC–IFW) that substitutes an external ID with an IMSI that is not a MSISDN and stores a mapping of the identifiers as required by claim 22. The Examiner does not explain sufficiently how the cited portions of Jain '372 in combination with Jain '894 at least suggest the disputed features of “replacing, by the machine-type communication proxy, the international mobile subscriber identity in the request with an external identifier” as recited in claim 22.

Consequently, we are constrained by the record before us to find that the Examiner erred in concluding that the combination of Jain '372 and Jain '894 renders obvious Appellant's claim 22. Independent claims 30 and 33 include limitations of commensurate scope. Claims 23, 24, 27–29, 31, 32, 34, and 35 depend from and stand with their respective base claims. Accordingly, we reverse the Examiner's rejection of claims 22–24 and 27–35.

*Anticipation Rejection of Claims 22, 30, and 33*

The Examiner rejects claims 22, 30, and 33 under 35 U.S.C. § 102(e) as being anticipated by Ronneke. *See* Final Act. 12–16.

Appellant contends Ronneke does not anticipate claim 22. *See* Appeal Br. 17–22; Reply Br. 5–7. Specifically, Appellant contends “Ronneke . . . merely describes that a translator translates the device specific identifier into a translated identifier associated with a second network domain, and sends a status defined by the translated identifier.” Therefore, “Ronneke fails to disclose or suggest any information that its proxy replaces, before routing the request outside the network.” Appeal Br. 20–21; *see* Appeal Br. 19–21; Reply Br. 5–7.

We agree with Appellant that the Examiner-cited portions of Ronneke do not disclose the disputed features of claim 22—“before routing the request outside the network, replacing, by the machine-type communication proxy, the international mobile subscriber identity in the request with an external identifier” (Appeal Br. 24 (Claims App.)). As pointed out by Appellant (*see* App. Br. 20–21; Reply Br. 5–6), Ronneke does not explicitly disclose substituting an identifier or sending a message (request) including a substituted identifier to an external network. At best Ronneke discloses translating an identifier between network domains and sending the message including the translated identifier to a server within the network including the proxy. *See* Ronneke ¶¶ 28–29.

It is unclear from the Examiner’s rejection if (and how) Ronneke discloses a proxy substituting an external ID with an IMSI that is not a MSISDN as required by claim 22. The Examiner does not explain sufficiently how the cited portions of Ronneke disclose the disputed features of claim 22.

Consequently, we are constrained by the record before us to find that the Examiner erred in finding that Ronneke anticipates Appellant’s claim 22.



Independent claims 30 and 33 include limitations of commensurate scope. Accordingly, Appellant's contentions persuade us of error in the Examiner's anticipation rejection of representative independent claim 22, and we reverse the Examiner's rejection of claims 22, 30, and 33.

### CONCLUSION

Appellant has shown that the Examiner erred in rejecting claims 22–24 and 27–35 under 35 U.S.C. § 103(a). Appellant has also shown that the Examiner erred in rejecting claims 22, 30, and 33 under 35 U.S.C. § 102(e). We, therefore, do not sustain the Examiner's rejections of claims 22–24 and 27–35.

### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/ Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
22–24, 27–35	103(a)	Jain '372, Jain '894		22–24, 27–35
22, 30, 33	102(e)	Ronneke		22, 30, 33
<b>Overall Outcome</b>				22–24, 27–35

REVERSED