UNITED STATES PATENT AND TRADEMARK OFFICE

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15/513,888	03/23/2017	Angelo Centonza	P44691 US2	4346

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte ANGELO CENTONZA and LARS-BERTIL OLSSON

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Appeal 2020-000194
Application 15/513,888
Technology Center 2400

_____

Before CARL W. WHITEHEAD JR., DAVID M. KOHUT and
IRVIN E. BRANCH, *Administrative Patent Judges*.

PUR CURIAM

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claims 59–81.[2] We have jurisdiction under
35 U.S.C. § 6(b).

We REVERSE.

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[1] We use "Appellant" to reference the applicant as defined in
37 C.F.R. § 1.42. Appellant identifies the real party in interest as
"Telefonaktiebolaget LM Ericsson." Appeal Br. 2.

[2] Claims 1–58 were previously cancelled. Appeal Br. 2.

STATEMENT OF THE CASE

Appellant's Invention

Appellant's invention "relate[s] generally to a wireless device[and] a shared radio network node." Spec. 1, ll. 5–7. Claim 59, reproduced below with emphasis, is illustrative of argued subject matter.

> 59.   A method performed by a shared Radio Network Node (RNN) for managing overload in at least one core network, wherein the shared RNN is configured to serve a wireless device, wherein the wireless device and the shared RNN are configured to operate in a wireless communications network connected to the at least one core network, and wherein the method comprises:
>
> > receiving a connection request from the wireless device, wherein the connection request comprises a mapping parameter configured to map to a Mobility Management Entity (MME) comprised in the at least one core network and connected to the shared RNN, wherein the MME is logically partitioned into several MMEs and configured to support multiple MME Codes (MMECs), each of which MMECs is pointing at a ***sharing operator***, and wherein the mapping parameter comprises an MMEC configured to map to one of the MMECs supported by the MME; and
> >
> > rejecting or redirecting the connection request when the MMEC configured to map to one of the MMECs supported by the MME is associated with an overload action.

Appeal Br. 16 (Claims Appendix).

Rejections

Claims 59–72 and 74–81 stand rejected under 35 U.S.C. § 103 as unpatentable over Punz (US 2014/0022996 A1; Jan. 23, 2014) and "Delay Tolerant Scheme for Extending Wait-timer," Institute for Information

Industry, Coiler Corporation, 3GPP TSG-RAN WG2 #72bis, R2-110104, Dublin, Ireland, 17-21 January 2010, 1–7 (herein "Coiler"). Final Act. 8–16.

Claims 73 stands rejected under 35 U.S.C. § 103 as unpatentable over Punz, Coiler, and Vikberg (WO 2010/080056 A1; July 15, 2010). Final Act. 16–17.

OPINION

For the following reasons, we are persuaded of error in the Examiner's reliance on Punz. We accordingly do not sustain the rejections of claims 59–81.

All independent claims recite an argued "sharing operator." Appeal Br. 9 (identifying the argued limitation), 16 (claim 59), 17–18 (claim 65), 19–20 (claim 74), 20–21 (claim 77). The Examiner reads the claimed sharing operator on Punz's MME off/loading states (offloading and loading states). Ans. 4 (citing Punz's Fig. 2). Appellant contends the claimed sharing operator cannot be read on Punz's MME off/loading states because the Specification discloses the term *sharing operator* "is meant [as] an operator that share resources of equipment comprised in the communications system 100,110, e.g. the EPS in LTE, and/or resources handled by the equipment by one or more other operators." Appeal Br. 9 (citing Specification 6–7).

We are persuaded of error because the claimed sharing operator cannot be reasonably understood as an operating state (and the Examiner, therefore, cannot read the claimed sharing operator on Punz's MME off/loading states).

All independent claims recite the sharing operator within the following limitations (emphasis added):

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> receiving a connection request from the wireless device[and]
> . . . map[ping] to a [MME] . . . connected to the shared RNN,
> wherein the MME is . . . support[ing] multiple [MMECs], each
> of which MMECs is pointing at a ***sharing operator***, and
> wherein the mapping . . . [is] to one of the MMECs supported
> by the MME;

Appeal Br. 16 (claim 59), 17–18 (claim 65), 19–20 (claim 74), 20–21 (claim 77). The above features are: MMECs that each point at a sharing operator; a MME connected to a shared RNN and supporting the MMECs; and a wireless device's connection request that maps to the MME and, more specifically, to one of the MMECs.

Our understanding of these features is aided by their disclosed purpose. *See Bell & Howell Document Mgmt. Prod. Co. v. Altek Sys.*, 132 F.3d 701, 706–07 (Fed. Cir. 1997) (Disclosed background and object of an invention can aid construction of disputed claim language.); *but see Phillips v. AWH Corp.*, 415 F.3d 1303, 1327 (Fed. Cir. 2005) ("[A]ssert[ion] that an invention achieves several objectives does not require that each of the claims be construed as . . . achieving all of the objectives."). The Specification describes the features as permitting an RNN: (1) to predict the particular Public Land Mobile Network (PLMN) that will be sought by a wireless device if/after the device's request to connect with the RNN is granted; and (2) to determine so (a) solely from the request (i.e., before a consequent connection) and (b) despite that (i) the request does not state the particular PLMN and (ii) multiple PLMNs share the RNN (i.e., the particular PLMN is not 'by-default' evident from the requested RNN). Spec. 4, ll. 19–25; 6, ll. 18–23; 26, l. 20–27, l. 3. The Specification also describes the above PLMNs as a "sharing operator" of a RNN. *Id.* at 6, ll. 11–12, 18–23; 7, ll. 10–12; 26, ll. 30–35; 29, ll. 6–8; 30, ll. 4–6, 16–18, 32–33; 31, l. 2; 31, ll. 27–28; 32, ll.

15–17; *see also* Fig. 7 (illustrating operators that share an RNN (directly or indirectly via a CN)). In view of these disclosures, an ordinarily skilled artisan would understand the claimed "sharing operator" and "shared RNN" as conveying an entity (e.g., PLMN) that shares the RNN with another entity (e.g., another PLMN).

The argued definition of "sharing operator" further supports the above understanding. The corresponding Specification statements are (emphases and bracketed numerals added):

> [1] By ***the term 'sharing operator' when used herein is meant*** an operator that share[s] resources of equipment comprised in the communications system ***100, 110*** . . . and/or resources handled by the equipment by one or more other operators.

> [2] ***Further, a sharing operator of*** the core network ***110*** . . . ***is*** indicated by the MME Code value.

> [3] ***Furthermore, a sharing operator of*** the wireless communications network ***100*** . . . ***is*** accessing and using the same time frequency resources associated to a cell served by an core network node[.]

Spec. 6, ll. 29–7, l. 3. We agree, with Appellant, that these statements define "sharing operator." The first statement introduces the definition—by instructing "the term 'sharing operator' when used herein is meant an operator that . . ."—and then provides the principle part of the definition. The second and third statements continue the definition by immediately following the first statement and respectively beginning with "further" and "furthermore." The three statements express that all uses of "sharing operator" adhere to its absolute description by the first statement and its

conditional descriptions by the second and third statements.[3] The three

statements also plainly concern a PLMN-type "operator" of the invention

because the invention's above-discussed PLMN and objective (*see supra* 5)

are described by the immediately preceding paragraph. Spec. 6, ll. 18–28.

     In light of all the above, we construe the claimed "sharing operator"

as an entity (i.e., a thing itself) that shares communication resources. We

disagree with the Examiner's finding that the "sharing operator" is a "state"

(i.e., a condition of a thing) of sharing. Final Act. 4;[4] *see also* STATE,

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[3] That is, all uses of "sharing operator" must: comply with the first statement
by sharing resources of the system 100, 110; comply with the second
statement if the operator is part of the disclosed core network 110; and/or
comply with the third statement if the operator is part of the disclosed
communications system 100. *See* Spec. 10, ll. 1–6, 14–17 (describing the
communications system 100 and core network 110 (which "may be
comprised in" the system 100)). [4] The record confirms the Examiner reads
the claimed sharing operator on an off/loading state of Punz's MMEs—not
on one such MME itself. Final Act. 3–4, 10. The record also confirms the
Examiner has not considered whether the above definition of "sharing
operator," i.e., the Specification's above three statements, would patentably
distinguish the invention over the applied prior art. Advisory Act. (Jan. 10,
2019), cont'n sheet (addressing a pre-appeal argument that the statements
define "sharing operator" and responding that such a definition, if required
(as it is now), would "necessitat[e] a further search and/or consideration" of
the prior art); *see also* Response to [Final] Office Action (Dec. 28, 2018)
12–14.
[4] The record confirms the Examiner reads the claimed sharing operator on an
off/loading state of Punz's MMEs—not on one such MME itself. Final
Act. 3–4, 10. The record also confirms the Examiner has not considered
whether the above definition of "sharing operator," i.e., the Specification's
above three statements, would patentably distinguish the invention over the
applied prior art. Advisory Act. (Jan. 10, 2019), cont'n sheet (addressing a
pre-appeal argument that the statements define "sharing operator" and
responding that such a definition, if required (as it is now), would

Dictionary.com, https://www.dictionary.com/browse/state# ("the condition of a . . . thing"). Coiler fails to address the deficiency of Punz. *See* Final Act. 11. Accordingly, we are constrained by the record and therefore we reverse the Examiner obviousness rejection of independent claim 59, as well as, independent claims 65, 74 and 77, commensurate in scope. We also reverse the Examiner's obviousness rejection of dependent claims 60–64, 66–73, 75, 76 and 78–81. We reverse the obviousness rejection of dependent claim 73 because Vikberg fails to address the deficiency of the Punz/Coiler combination. *See* Final Act. 17.

OVERALL CONCLUSION

We reverse the Examiner's decision to reject claims 59–81.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference	Affirmed	Reversed
59–72, 74–81	103	Punz, Coiler		59–72, 74–81
73	103	Punz, Coiler, Vikberg		73
Overall Outcome				59–81

REVERSED

"necessitat[e] a further search and/or consideration" of the prior art); *see also* Response to [Final] Office Action (Dec. 28, 2018) 12–14.