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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JEFF FINKELSTEIN

Appeal 2018-009220
Application 13/241,055
Technology Center 2400

Before MICHAEL J. STRAUSS, DANIEL N. FISHMAN, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

STRAUSS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

¹ We refer to the Specification, filed September 22, 2011 (“Spec.”); Final Office Action, mailed August 31, 2017 (“Final Act.”); Appeal Brief, filed March 28, 2018 (“Appeal Br.”); Examiner’s Answer, mailed July 25, 2018 (“Ans.”); and Reply Brief, filed September 25, 2018 (“Reply Br.”).

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42 (2017). Appellant identifies the real party in interest as Cox Communications, Inc. Appeal Br. 1.

We AFFIRM.

PRIOR APPEAL

This Application was subject to a prior appeal 2016-002274, decided on December 5, 2016 (our “prior Decision”), in which this panel of the Board affirmed the Examiner’s rejections of all of the claims then pending before us.³

CLAIMED SUBJECT MATTER

Appellant’s invention is directed to moving a gateway/media converter from inside a customer premises to outside the customer premises. Abstract. Claim 1, reproduced below with altered formatting, is representative of the claimed subject matter:

1. A system comprising:
 - a media converter located outside of customer premises, the media converter configured
 - to receive packets from an access network in a first format,
 - to convert the packets from the first format to second format packets; and
 - to transmit second format packets from a gateway to a plurality of customer premises equipment units (CPEUs) located in a plurality of customer premises; and

³ For purposes of future proceedings before the Board, Appellant and Appellant’s counsel are reminded of their duty to identify prior and pending appeals that “involve an application or patent owned by the appellant or assignee, are known to appellant, the appellant’s legal representative, or assignee, and may be related to, directly affect or be directly affected by or have a bearing on the Board’s decision in the pending appeal, except that such statement is not required if there are no such related cases.” 37 C.F.R. § 41.37(c)(ii).

one or more point of entry filters located outside the customer premises configured to prohibit a user inside a customer premises from receiving communications not intended for that user.

REFERENCES⁴

The prior art relied upon by the Examiner is:

Name	Reference	Date
Biegert et al.	US 2009/0060531 A1	Mar. 5, 2009
Non-Patent Literature		
Chinlon Lin, <i>Broadband Optical Access Networks and Fiber-to-the-Home: Systems Technologies and Deployment Strategies</i> , John Wiley & Sons, 2006.		
Frank Effenberger & Tarek S. El-Bawab, <i>Passive Optical Networks (PONs): Past, Present, and Future</i> , Optical Switching and Networking, vol. 6, no. 3, 2009, pp. 143–150., doi:10.1016/j.osn.2009.02.001		

REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Effenberger, Biegert and Lin. Final Act. 5.

ANALYSIS

Except as noted, we adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken (Final Act. 2–17; Ans. 3–15) and (2) the findings and reasons set forth by the Examiner in the Examiner’s Answer in response to Appellant’s Appeal Brief (Ans. 15–26) and concur with the conclusions reached by the Examiner. We highlight the following for emphasis.

⁴ All citations herein to these references are by reference to the first named inventor/author only.

The Examiner finds Effenberger discloses a media converter outside of customer premises. Final Act. 8–9. The Examiner applies Biegert for disclosing the recited media converter configuration, i.e., configured to receive packets, convert the packets from a first to a second format, and transmit the packets to a plurality of customer premises equipment located in a plurality of customer premises. *Id.* at 9–13. The Examiner relies on Lin for disclosing the point of entry filters of claim 1. *Id.* at 13–16.

Appellant contends the prior art fails to disclose a media converter located outside of customer premises that transmits reformatted packets to a plurality of customer premises equipment units (CPEUs) located in a plurality of customer premises. Appeal Br. 5. Appellant argues both Effenberger and Biegert teach moving functionality in towards, rather than out of and away from, customer premises and into the service provider’s physical plant. *Id.* at 5–6. According to Appellant “[b]y moving the gateway for a group of customer premises into a single gateway in the physical plant of the service provider [as per Appellant’s invention], the customer no longer needs to maintain the gateway.” *Id.* at 6.

The Examiner replies, finding Effenberger’s disclosure of an access network having central office and remote nodes connecting users to the network teaches a media converter outside of customer premises that serves a plurality of customer premises equipment located in a plurality of customer premises. Ans. 17. The Examiner finds Biegert’s media converter teaches capabilities both inside and outside of the customer premise. *Id.* The Examiner provides further details about how the combination of Effenberger and Biegert is applied in teaching or suggesting the disputed limitation at pages 18–23 of the Answer.

Appellant's contention is unpersuasive of reversible Examiner error. We agree with the Examiner in finding the combination of Effenberger and Biegert teaches or suggests the disputed limitation of claim 1.

In interpreting the argued limitation, we note Appellant discloses “[m]edia converter functionality in the gateway plays an important role in today’s multiprotocol, mixed-media local area networks (LANs). For example, LAN administrators can deploy media converters to integrate fiber optic cabling and active equipment into existing copper-based, structured cabling systems while achieving significant cost savings.” Spec. ¶ 21. Thus, consistent with Appellant’s Specification, a media converter transmits signals between different transmission media, such as between fiber optic and copper cabling.

Effenberger discloses the transition between (optical) fiber and (electrical) copper media can occur at various locations including at a node (Fiber to the Node or FTTN), curb (Fiber to the Curb or FTTC), building (FTTB), home (FTTH), and premises (Fiber to the Premises or FTTP). Effenberger p. 144. One skilled in the art at the time of the invention would have understood a building often includes several premises, e.g., an apartment building including multiple dwelling units or residences. Thus, Effenberger teaches or suggests a media converter (i.e., converting from fiber to copper) at locations outside of customer premises (e.g., at a network node, curb, or at some common location at or in a building) to provide copper-based services to a plurality of customer premises (e.g., building residents). Accordingly, Effenberger teaches or suggests the argued limitation requiring a media converter be located outside of customer

premises and transmit packets to a plurality of CPEUs located in a plurality of customer premises.

Addressing Biegert, although we agree with Appellant the reference discloses relocating optical network terminal (ONT) functionality “to a subscriber gateway device that resides within the subscriber premises” (Biegert ¶ 7), such relocation necessarily also discloses configurations wherein the subscriber gateway is not relocated but remains outside the subscriber premises. That is, Appellant’s argument that the prior art teaches moving functionality into the customer premises (Appeal Br. 17) is a tacit acknowledgement that Biegert also teaches the functionality can be provided outside the customer premises. Furthermore, even though located at the customer premise, Biegert’s Figures 5 and 6 explicitly depict an ONT including a media converter 78 located *outside* (i.e., “outdoors”) rather than inside (i.e., “indoors”) the customer premises. Furthermore, Biegert’s ONT, including its media converter, provides services to plural customer premises equipment units (subscriber devices) including telephone 36A, computer 36B, and television 36D as shown in the figures. Still further, Biegert discloses:

Each one of ONTs 28 may serve a single subscriber premises, or operate on a shared basis to deliver information to two or more closely located residential or business subscriber premises, via electrical connections (e.g., copper cables) or additional optical fiber connections. ONTs 28 may deliver the information to the two or more closely located subscriber premises either directly or via a network hub, router or switch.

Biegert ¶ 40 (emphasis added). Thus, Biegert’s ONT and media converter are disclosed as (i) outside of customer premises and (ii) transmitting to a

plurality of customer premises equipment units located in a plurality of customer premises thereby teaching or suggesting the argued limitation.

We are also unpersuaded by Appellant's argument the prior art is deficient because it expresses a preference to moving functionality in towards, rather than out of and away from, customer premises. Appeal Br. 5–6. The fact that a reference discloses an alternative configuration does not negate its disclosure of a less preferred alternative. The disclosure of a reference is not limited to preferred embodiments or examples. *In re Mills*, 470 F.2d 649, 651 (CCPA 1972) (“[A] reference is not limited to the disclosure of specific working examples.”) “[I]n a section 103 inquiry, the fact that a specific [embodiment] is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred embodiments, must be considered.” *Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (internal quote and citation omitted). Non-preferred embodiments of the prior art must be considered in determining obviousness. *In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979); *In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976); *In re Susi*, 440 F.2d 442, 446 n.3 (CCPA 1971). “What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 419 (2007). To be non-obvious, the claimed subject matter must not encompass “the predictable use of prior art elements according to their established functions.” *Id.* at 417.

We note Appellant has presented no objective evidence of record that establishes that locating a media converter outside of customer premises and transmitting format-converted packets to a plurality of CPUs located in a plurality of customer premises produces unexpected results. Design changes

that do not “result in a difference in function or give unexpected results” are “no more than obvious variations consistent with the principles known in th[e] art” of the patent at issue and, therefore, are obvious design choices. *In re Rice*, 341 F.2d 309, 314 (CCPA 1965); *see also In re Chu*, 66 F.3d 292, 298–99 (Fed. Cir. 1995) (determining “design choice” is appropriate where “the applicant failed to set forth any reasons why the differences between the claimed invention and the prior art would result in a different function or give unexpected results”). Thus, consistent with our prior Decision, relocating Appellant’s gateway/media converter from inside to outside a customer premises, allowing for inferences and creative steps that an ordinarily skilled artisan would have employed, would predictably yield no more than one would expect. Decision 7–8.

For the reasons discussed, Appellant’s contention of error in connection with independent claim 1 is unpersuasive of reversible Examiner error. Appellant’s arguments in connection with independent claims 10 and 19 are substantially similar to those presented in connection with independent claim 1 (Appeal Br. 7–12) and are unpersuasive for similar reasons. Dependent claims 2–9, 11–18, and 20 are not argued separately and, therefore, fall with their respective independent claim. Accordingly, we sustain the rejection of claims 1–20 under 35 U.S.C. § 103(a) over Effenberger, Biegert and Lin.

DECISION

We affirm the Examiner’s rejection under 35 U.S.C. § 103.

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	§ 103	Effenberger, Biegert, Lin	1–20	

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED