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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ADVANCED MEDIA NETWORKS, LLC,
Patent Owner and Appellant

Appeal 2018-003150
Reexamination Control 90/013,382
Patent 6,445,777 B1
Technology Center 3900

Before JOHN A. JEFFERY, STEPHEN C. SIU, and CHRISTA P. ZADO,
Administrative Patent Judges.

SIU, *Administrative Patent Judge.*

Opinion Concurring filed by JEFFERY, *Administrative Patent Judge.*

DECISION ON APPEAL

This proceeding arose out of a request for *ex parte* reexamination of U.S. Patent No. 6,445,777 B1 (“the ’777 patent”) to Curtis Clark, entitled *Mobile Tele-Computer Network*, issued September 3, 2002. An oral hearing was conducted on September 4, 2018.

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Patent Owner appeals under 35 U.S.C. § 134 and 306 from the Examiner's rejection of claims 1–48, 50–64, 66–81, 83–90, 92–103, 105–119, and 121–152. App. Br. 3, 6–8.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We Affirm.

The disclosed invention relates generally to mobile communications. *See* Spec 1:12.

Claim 1 reads as follows:

1. A system comprising: a satellite communication subsystem; a wireless local area network (LAN) that includes at least one computer; and a mobile unit configured to transfer broadband information as a single nomadic transmission/reception point between the satellite communication subsystem and the wireless LAN using an ethernet packet switching protocol.

Patent Owner appeals the following rejections:

Claims 1, 10, 13, 22, 28, 110, 123, 131, 139, and 145 under 35 U.S.C. § 102(e) as anticipated by Kubler².

Claims 1, 2, 9, 10, 13, 22, 28, 110, 123, 131, 139 and 145 under 35 U.S.C. § 102(e) as anticipated by Rebec³.

¹ Appeal Brief, filed January 25, 2017 (“App. Br.”).

² US Patent 5,726,984, issued March 10, 1998 (“Kubler”).

³ US Patent 6,175,717 B1, issued January 16, 2001 (“Rebec”).

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Claims 1–28, 30, 31, 33, 37, 38, 43, 46–48, 50, 52, 53, 55, 63, 64, 66, 68, 69, 71, 77, 80, 84, 85, 87, 89, 90, 92, 94, 95, 97, 102, 110–112, 116, 121, 123–125, 131–133, 139, 140, and 145–147 under 35 U.S.C. § 103(a) as unpatentable over Rebec, Dutta⁴, and Normoyle⁵.

Claims 1–28, 30, 31, 33, 37, 38, 40–43, 46–48, 50, 52, 53, 55, 58–60, 63, 64, 66, 68, 69, 71, 72, 74–77, 80, 84, 85, 87, 89, 90, 92, 94, 95, 97, 99–102, 110–116, 121, 123–127, 131–135, 139–142, 145 and 147–149 under 35 U.S.C. § 103 as unpatentable over Dutta and Kubler.

Claims 1–28, 30, 31, 33, 37, 38, 40–43, 46–48, 50, 52, 53, 55, 58–60, 63, 64, 66, 68, 69, 71, 72, 74–77, 80, 84, 85, 87, 89, 90, 92, 94, 95, 97, 99–102, 110, 111, 112–116, 121, 123–127, 131–135, 139–142, 145, 146, 148, and 149 under 35 U.S.C. § 103(a) as unpatentable over Kubler, Jonas⁶, and Katz.⁷

Claims 29, 32, 34, 35, 51, 54, 67, 70, 83, 86, 93, and 96 under 35 U.S.C. § 103(a) as unpatentable over Comer⁸ and any one of the

⁴ US Patent 5,953,319, issued September 14, 1999 (“Dutta”).

⁵ M.B. Normoyle and R.E. Nunan, “A Tactical Deployable Wireless Multimedia LAN,” 1993 (“Normoyle”).

⁶ Karl Jonas, Manfred Kaul, Lothar Klein, and Dirk Steinberg, “Interconnection of ATM Networks Via Satellite Links for Multimedia Teleconferencing,” 1995 (“Jonas”).

⁷ Randy H. Katz, “Improving Communication Through Situation Awareness, Adaptation and Mobility in Wireless Information Systems,” Oct. 1992 (“Katz”).

⁸ Douglas E. Comer, “Internetworking with TCP/IP, Vol. I, Principles,

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combination of Kubler, Jonas, and Katz; the combination of Rebec, Dutta, and Normoyle; or the combination of Dutta and Kubler.

Claims 36, 56, and 72 under 35 U.S.C. § 103(a) as unpatentable over Oikarinen⁹ and any one of the combination of Kubler, Jonas, and Katz; the combination of Rebec, Dutta, and Normoyle; or the combination of Dutta and Kubler.

Claims 39, 57, 73, and 98 under 35 U.S.C. § 103(a) as unpatentable over Robinson-CGI¹⁰ and any one of the combination of Kubler, Jonas, and Katz; the combination of Rebec, Dutta, and Normoyle; or the combination of Dutta and Kubler.

Claims 44, 61, 78, 88, 103, 105–109, 117–119, 122, 128–130, 136–138, 143, 144, and 150–152 under 35 U.S.C. § 103(a) as unpatentable over the Eng Patent¹¹ and any one of the combination of Kubler, Jonas, and Katz; the combination of Rebec, Dutta, and Normoyle; or the combination of Dutta and Kubler.

Claims 45, 62, 79, and 81 under 35 U.S.C. § 103(a) as unpatentable over Wilson¹² and any one of the combination of Kubler, Jonas, and Katz;

Protocols, and Architecture,” 1995 (“Comer”).

⁹ J. Oikarinen and D. Reed, “Internet Relay Chat Protocol,” RFC 1459, May 1993 (“Oikarinen”).

¹⁰ D. Robinson, “The WWW Common Gateway Interface Version 1.1”, January 1996 (“Robinson-CGI”).

¹¹ US Patent 5,623,495, issued April 22, 1997 (“Eng Patent”).

¹² US Patent 4,663,633, issued May 5, 1987 (“Wilson”).

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the combination of Rebec, Dutta, and Normoyle; or the combination of Dutta and Kubler.

Claims 111 and 124 are unpatentable under 35 U.S. C. § 112, second paragraph as indefinite.

ISSUE

Did the Examiner err in rejecting claims 1–48, 50–64, 66–81, 83–90, 92–103, 105–119, and 121–152?

ANALYSIS

35 U.S.C. § 112, sixth paragraph and 35 U.S.C. § 112, second paragraph

Claims 1 and 10 recite a mobile unit configured to transfer broadband information. The Examiner finds that “the phrase ‘mobile unit configured to . . .’ . . . invokes 35 U.S.C. § 112, 6th paragraph,” that the Specification discloses “*examples* as related to a vehicle such as a van or motor home,” and that a “mobile unit” may include “a server and/or hub . . . including a WLAN interface . . . and a satellite interface . . . which *may* be housed in a vehicle or package” or a “vehicle, van or ‘mobile home.’” Final Act. 16–19, 22. The Examiner also indicates that Patent Owner’s expert testifies that one of skill in the art would have understood that the term “mobile unit” may include any of “a class of devices, assemblies or systems with at least one wireless transceiver or equivalent structure or combination of structures and at least one antenna or equivalent structure so that the unit can transfer

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information,” “cellular telephone equipment installed in a vehicle,” or “a mobile radio transceiver that can be a handheld or car mounted transceiver.” Final Act. 16–19 (citing McNally Dec. ¶¶ 8, 10).

We agree with Patent Owner that the claim term “mobile unit” “does not use the word ‘means,’” and that the claim term provides “sufficient recitation of structure,” is “not a generic structural term such as ‘means,’ ‘element,’ or ‘device,’” not “a coined term lacking a clear meaning, such as ‘widget’ or ‘ram-a-fram,’” and has “a well-known meaning to those of skill in the electrical arts connotative of structure.” *Personalized Media Comm., LLC, v. Int’l Trade Comm.*, 161 F.3d 696, 704 (Fed. Cir. 1998). *See also Inventio AG v. TyssenKrupp Elevator Americas Corp.*, 649 F.2d 1350, 1359 (Fed. Cir. 2011) (stating that “the claimed ‘computing unit’ . . . connotes sufficiently definite structure to those of skill in the art”).

Even assuming that the structure of a “mobile unit” would have been unknown to one of ordinary skill in the art, we still cannot agree with the Examiner that the Specification fails to disclose sufficient structure at least in view of Examiner’s indication that the Specification, in fact, discloses that a “mobile unit” may be a “vehicle such as a van or motor home” or may include “a server and/or hub . . . including a WLAN interface . . . and a satellite interface . . . which may be housed in a vehicle or package” or an equivalent.

The Examiner finds that Patent Owner’s and Patent Owner’s expert’s proposed “structure” of the claimed “mobile unit,” as disclosed in the

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Specification, is insufficient because, according to the Examiner, the proposed “structure” “is circular,” is “unclear how the structure . . . can perform the entire function [recited in claim 1],” and “doesn’t address *how* the alleged ‘mobile radio transceiver’ electronically connects with the . . . ‘satellite communication subsystem’ while ‘using an Ethernet packing switching protocol.’” Final Act. 17–19. Based on these observations, the Examiner states that the disclosed “structure” of “the claimed ‘mobile unit’ is not sufficient to inform one of ordinary skill in the art that the term mobile unit is a particular *structure* within the context of the claimed invention.” *Id.* 20. We are not persuaded by the Examiner at least because the Examiner does not explain sufficiently how the alleged lack of disclosure of “how” to perform a *function* indicates a supposed deficiency in disclosure of the *structure* of a claimed “mobile unit.”

In addition, Patent Owner argues that the Specification discloses sufficient “structure” of a “mobile unit.” App. Br. 16. For example, Patent Owner argues that a “mobile unit” may be “in a vehicle,” may include “the server 103A and hub 103B,” may have “an antenna that is used to transmit/receive information,” may have “antennas . . . [that] are coupled to hub 101B and 102B, respectively,” may include a “transmitter and receiver,” or may include “a device, assembly or system that receives a signal from one device and redistributes it to another device on a network.” App. Br. 16–17. Even assuming that Patent Owner’s citation of “structure” in the Specification is somehow “circular,” as the Examiner states, the Examiner

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does not adequately explain how the specific structures disclosed in the Specification indicated by Patent Owner fail to convey sufficient “structure” for purposes of 35 U.S.C. § 112, sixth paragraph.

The Examiner repeats arguments for the claim terms “mobile hub station” and “portable field unit.” *See, e.g.*, Final Act. 25–32. We are not persuaded by the Examiner’s arguments for similar reasons. Therefore, we reverse the Examiner’s rejection of claims 111 and 124 under 35 U.S.C. 112, second paragraph.

Patent Owner argues that “the examiner decided to construe . . . ‘mobile unit,’ ‘mobile hub station,’ and ‘portable field unit’ – as means-plus-function terms under 35 U.S.C. 112, ¶ 6. . . then found that he could ignore the functional limitations in the challenged claims because he found that the prior art disclosed what he believed to be corresponding structures.” App. Br. 8–9, *see also* App. Br. 10–28. However, we note that the Examiner, in fact, did not “ignore the functional limitations in the claims.” These issues will be addressed below.

Rejections over Rebec

The Examiner finds that the combination of Rebec, Dutta, and Normoyle discloses each claim limitation. Final Act. 102–40. For example, the Examiner finds that Rebec discloses “a mobile unit” (Final Act. 103 (citing Rebec Figs 3B, 5)) and transferring broadband information using a protocol, as recited in claim 1. Final Act. 103, 108–10 (citing Rebec 8:19–

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42, 65–67; 9:1–6; 11:35–55; 12:28–40; 13:4–20; Fig. 3B). The Examiner also finds that Dutta discloses a mobile unit or “mobile vehicle” that transfers information using a packet switching protocol (Final Act. 119 (citing Dutta Fig. 1, 3:45–60, 4:20–50, 5:1–5, 26–50)) and that Normoyle also discloses transferring information using an Ethernet packet switching protocol. Final Act. 125 (citing Normoyle Fig. 1, Table 1, p. 503). The Examiner also provides a rationale demonstrating that it would have been obvious to one of ordinary skill in the art to have combined the teachings of Rebec, Dutta, and Normoyle. Final Act. 120–140.

As the Examiner indicates, Rebec discloses communicating with a “communications system” on a “communications vehicle” and a “remote digital suitcase.” Rebec 7:58, 59, 66; 8:5–10, 20–21. The system of Rebec includes a “transmission system” and “digital receiving system,” that includes, for example, a “protocol converter,” and transmitting “high quality broadcast audio/video information” via “communication links” and “satellite links.” Rebec 8:32–35; 9:29, 47; 10:30–31, 51. In other words, Rebec discloses a satellite communications system that transmits information over a transmission path via use of a communications protocol (that may be “converted” as needed).

Like Rebec, Dutta also discloses transmitting information in wide area “mobile communication network” including a mobile unit (e.g., “mobile vehicle equipment”). Dutta 3:46, 50. Dutta also discloses “a wide range of communication path sub-network services” that includes “packet

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switch[ing]” via a “packet switch.” Dutta 3:45, 57–58; 4:38. Hence, Dutta confirms that one of ordinary skill in the art would have understood that communication systems may include transmission of information in a network via the use of a communications protocol (e.g., Rebec or Dutta) and further discloses that one of ordinary skill in the art would have understood that transmission of information may be performed via packet switching and a packet switching protocol, as disclosed by Dutta.

Like Rebec and Dutta, Normoyle discloses transmission of information in a wireless (mobile) communication system that includes the use of “commercial off the shelf (COTS)” components, including devices for transmission of information that are “compatible with IEEE 802.3/Ethernet and TCP/IP routing protocols.” p. 502, col. 1, p. 503, col. 2. In other words, Normoyle, like Rebec and Dutta, discloses that one of ordinary skill in the art would have understood the known practice of transmitting information in a communication system via packet switching and further discloses that one of ordinary skill in the art would have understood the known practice of using an ethernet packet switching protocol in the transmission of information with a wireless LAN (e.g., using known “COTS” components that are compatible with Ethernet and TCP/IP routing protocols). p. 503, col. 1.

Patent Owner argues that “Rebec fails to disclose a mobile unit” and “using an actual ethernet packet switching protocol.” App. Br. 40. We are not persuaded by Patent Owner’s argument for at least the above discussed

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reasons. For example, Patent Owner does not explain a sufficient difference between a “communications vehicle” of Rebec and the claimed “mobile unit.” In both cases, an entity or “unit” is “mobile.” Also, even assuming Patent Owner to be correct that Rebec does not disclose “an actual Ethernet packet switching protocol,” Patent Owner does not assert or demonstrate persuasively that the combination of Rebec, Dutta, and Normoyle also fails to disclose or suggest this feature. For at least the above discussed reasons, we agree with the Examiner that the combination of Rebec, Dutta, and Normoyle at least suggests the disputed feature.

With respect to claims 110 and 145, Patent Owner argues that “Rebec . . . fails to disclose a ‘wireless LAN’.” App. Br. 39. We are not persuaded by Patent Owner’s argument. Even assuming Patent Owner to be correct that Rebec fails to disclose a “wireless LAN,” Patent Owner does not assert or demonstrate sufficiently that the combination of Rebec, Dutta, and Normoyle also fails to disclose or suggest a “wireless LAN.” We note that Rebec discloses a communication network and each of Dutta and Normoyle discloses that one of skill in the art would have understood that communication networks include wireless networks. *See e.g.*, Dutta Fig. 1.

With respect to claims 5, 16, 43, 77, 110, and 145, Patent Owner argues that Rebec fails to disclose “at least one computer” or “at least one personal computer.” App. Br. 39. We are not persuaded by Patent Owner’s argument, given the fact that “a person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550

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U.S. 398, 421 (2007). Even assuming Patent Owner to be correct that Rebec fails to disclose the specific term “computer,” the inclusion of a computer within a network of communication devices would have been within the purview of one of ordinary skill of ordinary creativity – particularly given the fact that one of ordinary skill is not merely an automaton.

Patent Owner argues that Rebec fails to disclose “a ‘secured private intranet’ as required by claims 10, 22, 28, 123, and 139.” App. Br. 39. We are not persuaded by Patent Owner’s argument. Even assuming Rebec, in fact, fails to disclose a network that is “secure” and “private,” as Patent Owner contends, Patent Owner does not assert or demonstrate persuasively that the combination of Rebec, Dutta, and Normoyle, as opposed to Rebec in isolation, also fails to disclose or suggest a “secure” and “private” network. In any event, we also note that, as previously noted, a skilled artisan is not an “automaton” and possesses “ordinary creativity.”

Also, “[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *KSR*, 550 U.S. at 421. Given that a communication network would have been known and used in the art that would have included the transmission of communications, and that such communications would have included private communications, it would have been well within the purview of one of

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ordinary skill in the art to ensure that the network would have managed such private communications. Providing a “secure” and/or “private” network to manage such communications would have entailed no more than common sense by one of ordinary skill in the art to arrive at the anticipated success of providing a communication network in which communications may be transmitted (securely). “Rigid preventative rules that deny factfinders recourse to common sense . . . are neither necessary under our case law nor consistent with it.” *Id.*

Patent Owner argues that there is “exclusivity between satellite communications protocols vs. terrestrial protocols,” and “‘complete collapses of TCP performance’ using TCP/IP over ATM on the satellite portion of the network.” App. Br. 41 (citing Dutta 1:20–32, Jonas 4). Hence, Patent Owner argues that, based on Dutta and Jonas, it would not have been obvious to one of ordinary skill in the art to have combined the teachings of Rebec, Dutta, and Normoyle because bodily incorporating the Ethernet packet switching protocol of Normoyle/Dutta into the communication system of Rebec would have resulted in “complete collapse.” The cited portion of Dutta discloses:

A logical connection merely establishes the routing of packets through a multiplicity of switching nodes within the network, the path being determined by source and destination addresses of the packets. It is not necessary to dedicate to the call a specific physical path for the entire call duration – packets with different source and destination addresses, following different

logical paths, are time multiplexed on the links within the network.

Mobile packet data networks in existence today use exclusively a satellite transmission path or exclusively a terrestrial transmission path.

Dutta 1:20–32.

We do not identify a disclosure within the cited portion of Dutta that would support Patent Owner’s contention that “using TCP/IP over ATM on the satellite portion of the network” would result in negative consequences, much less “complete collapse.” In any event, claim 1 recites “a mobile unit configured to transfer . . . information . . . between the satellite communication subsystem and the wireless LAN using an ethernet packet switching protocol” but does not also recite “using TCP/IP over ATM on the satellite portion of the network.” In fact, claim 1 does not recite using any specific protocol “on the satellite portion of the network” at all.

As noted, Patent Owner also cites to Jonas as support for the alleged “complete collapse” upon use of TCP. However, Jonas discloses that “we wanted to use TCP on top of ATM” and, after making various technical adjustments, such use “worked flawlessly.” Jonas p. 5, col. 1. In direct contrast to Patent Owner’s contention that the use of TCP caused “complete collapse,” Jonas actually discloses the opposite – i.e., the system “worked flawlessly.”

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In any event, with regard to Patent Owner's implied contention that it would not have been obvious to one of ordinary skill in the art to have bodily incorporated the teachings of Dutta and/or Normoyle into that of Rebec, we note that "the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

With respect to claims 4, 14, 15, and 23, Patent Owner argues that "Normoyle only mentions TCP/IP being used on the T1 side of the network." App. Br. 42. Hence, Patent Owner argues that Normoyle fails to disclose using TCP/IP on a "side of the network" other than the "T1 side." Claims 4 and 15 recite the information is transferred using the TCP/IP protocol. Claim 14 recites that the network "operates as a secured private intranet." Claim 23 recites that the network "operates as a private intranet." None of claims 4, 14, 15, or 23 also recites that TCP/IP must be used on any particular "side" of the network, much less a side other than a "T1 side." In fact, none of claims 4, 14, 15, or 23 recites a "T1 side" at all. Therefore, we need not consider whether Normoyle (or Rebec and Dutta) discloses the hypothetical claim limitation.

With respect to claims 5, 16, 43, 77, 87, 102, 116, 125, 133, 140, and 147, Patent Owner argues that the Examiner "provides no explanation with regard to how or why one would use 'web browser software' with a 'signal

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processor.” App. Br. 42. We note that none of the disputed claims recite using “web browser software” with a “signal processor.” To the extent that Patent Owner may be arguing that Rebec fails to disclose a “computer,” this argument was previously addressed above.

With respect to claims 33, 47, 55, 71, and 97, Patent Owner argues that Rebec, Dutta, and Normoyle discloses “the World Wide Web” but fails to disclose user access “through *one or more web-based software applications.*” App. Br. 42. However, we agree with the Examiner that it would have been obvious to one of ordinary skill in the art using “the World Wide Web” to have used applications that are appropriate for the “World Wide Web” – namely, “web-based software applications.” One of skill in the art would have understood that “web-based” applications would be used on the “Web” at least as a matter of common sense. “[T]he common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 413).

Patent Owner does not provide additional arguments in support of the remaining disputed claims or additional arguments with respect to the combination of Rebec, Dutta, and Normoyle with any of Comer, Oikarinen, Robinson-CGI, the Eng Patent, or Wilson. App. Br. 43–45.

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Rejections over Dutta

As noted above, claim 1 recites a satellite communication subsystem, a wireless local area network, and a mobile unit configured to transfer information between the satellite communication subsystem and the wireless LAN using an ethernet packet switching protocol. The Examiner finds that the combination of Dutta and Kubler (and any one of Comer, Oikarinen, Robinson-CGI, Eng, or Wilson) discloses each disputed claim limitation. Final Act. 148–178. For example, the Examiner finds that Dutta discloses a satellite communication subsystem (Final Act. 149 (citing Dutta Fig. 1, 5:25–46)), a local area network (LAN) (Final Act. 149 (citing Dutta Fig. 1)), and “a mobile unit” (Final Act. 149 (citing Dutta Fig. 1)) configured to transfer information using an ethernet packet switching protocol, as recited in claim 1. Final Act. 149 (citing Dutta 3:45–60, 4:50–64, 5:25–50). The Examiner also explains that Kubler discloses a similar system including a “wireless local area network” that uses a “packet switched protocol.” Final Act. 150 (citing Kubler Figs 28B, 28C, 44:65–67, 46:10–30, 9:24–26, 48:54–67, 49:53–67, 82:62–67).

As the Examiner indicates, Dutta discloses a “packet switched multi-mode wide area mobile communication network” or “wireless data transmission network” (Dutta 3:45–46, 4:32–33), including “mobile terrestrial vehicles” (Dutta 4:36) and “[m]obile vehicle data terminal equipment.” Dutta 2:66, 4:36, 41–42. The “mobile terrestrial vehicles” facilitate communication between mobile vehicle data terminal equipment

120 . . . through base station packet switch 130” to “selectively couple” the transmission “to any of the multiple . . . transmission paths” including a “satellite sub-network.” Dutta 1:30; 4:51–57, 5:38, Fig. 1. Hence, as the Examiner finds, Dutta discloses a “satellite communication subsystem” (e.g., a “satellite sub-network”), wireless local area network (e.g., wireless data transmission network), and a mobile unit (e.g., a “mobile terrestrial vehicle”) configured to transfer information between the satellite communication subsystem and the wireless LAN (e.g, between the “satellite sub-network” and the “wireless local area network”) using an Ethernet packet switching protocol (e.g., via the “packet switched multi-mode wide area mobile communication network” of Dutta).

Patent Owner argues that Dutta “is silent with regard to the type of connection between the mobile vehicle equipment 110 and terminal 120, *i.e.*, whether wired or wireless.” App. Br. 46. As noted above, however, Dutta discloses a “wireless data transmission network” (Dutta 3:45–46, 4:32–33).

Patent Owner argues that Kubler “does not teach using an Ethernet packet switching protocol . . . over its wireless networks” (App. Br. 46) but does not assert or demonstrate sufficiently that the combination of Dutta and Kubler also fails to disclose using an Ethernet packet switching protocol. As noted above and by the Examiner, Dutta discloses a “packet-switched” network.

Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined the teachings of Dutta and Kubler

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because, according to Patent Owner, “Kubler does not teach the necessity of connecting wireless portable devices to a wide area network.” App. Br. 46. We note, however, that the standard is whether it would have been *obvious* to combine the teachings of Dutta and Kubler and not whether there would have been a *necessity* to do so. In any event, with respect to Patent Owner’s argument regarding Kubler’s alleged failure to disclose “wireless” devices, as explained above and by the Examiner, Dutta discloses a “wireless” network. One of skill in the art would have understood that a “wireless” network would have included devices that are “wireless.”

Regarding claims 10, 22, 28, 123, and 139, Patent Owner argues that Dutta fails to disclose a “secured private intranet” or that such an “intranet is being used.” App. Br. 47. We are not persuaded by Patent Owner’s argument. As previously discussed, Dutta discloses a “wireless data transmission network.” Also as previously discussed, “[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *KSR*, 550 U.S. at 421. Given that a communication network would have been known and used in the art that would have included the transmission of communications and that such communications would have included private communications, it would have been well within the purview of one of ordinary skill in the art to

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ensure that the network would have managed such private communications. Providing a “secure” and/or “private” network to manage such communications would have entailed no more than common sense by one of ordinary skill in the art to arrive at the anticipated success of providing a communication network in which communications may be transmitted (securely). “Rigid preventative rules that deny factfinders recourse to common sense . . . are neither necessary under our case law nor consistent with [it].” *Id.*

Regarding claim 22, Patent Owner argues that Dutta fails to disclose “a redundant satellite communication system.” As previously discussed Dutta discloses multiple transmission paths (e.g., “first transmission path,” “second transmission path,” “Nth transmission path” – Dutta Fig. 1). Patent Owner does not explain a sufficient difference between the Dutta system with multiple (“redundant”) transmission paths and the “redundant” system as recited in claim 22, for example.

Patent Owner does not provide additional arguments in support of the other disputed claims or additional argument with respect to Dutta and Kubler in combination with any of Comer, Oikarinen, Robinson-CGI, Eng, or Wilson. App. Br. 47–49.

The above discussion addresses all the claims on appeal and are dispositive, rendering it unnecessary to reach the propriety of any remaining contentions. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir.

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1984); *see also Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999); *In re Gleave*, 560 F.3d 1331, 1338 (Fed. Cir. 2009).

CONCLUSION

We affirm the Examiner's rejections of claims 1, 2, 9, 10, 13, 22, 28, 110, 123, 131, 139 and 145 as anticipated by Rebec; claims 1–28, 30, 31, 33, 37, 38, 43, 46–48, 50, 52, 53, 55, 63, 64, 66, 68, 69, 71, 77, 80, 84, 85, 87, 89, 90, 92, 94, 95, 97, 102, 110–112, 116, 121, 123–125, 131–133, 139, 140, and 145–147 as unpatentable over Rebec, Dutta and Normoyle; claims 1–28, 30, 31, 33, 37, 38, 40–43, 46–48, 50, 52, 53, 55, 58–60, 63, 64, 66, 68, 69, 71, 72, 74–77, 80, 84, 85, 87, 89, 90, 92, 94, 95, 97, 99–102, 110–116, 121, 123–127, 131–135, 139–142, 145 and 147–149 as unpatentable over Dutta and Kubler; claims 29, 32, 34, 35, 51, 54, 67, 70, 83, 86, 93, and 96 as unpatentable over Comer and any one of the combination of Rebec, Dutta, and Normoyle or the combination of Dutta and Kubler; claims 36, 56, and 72 as unpatentable over Oikarinen and any one of the combination of Rebec, Dutta, and Normoyle or the combination of Dutta and Kubler; claims 39, 57, 73, and 98 as unpatentable over Robinson-CGI and any one of the combination of Rebec, Dutta, and Normoyle or the combination of Dutta and Kubler; claims 44, 61, 78, 88, 103, 105–109, 117–119, 122, 128–130, 136–138, 143, 144, and 150–152 as unpatentable over the Eng Patent and any one of the combination of Rebec, Dutta, and Normoyle or the combination of Dutta and Kubler; and claims 45, 62, 79, and 81 as unpatentable over Wilson

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and any one of the combination of Rebec, Dutta, and Normoyle or the combination of Dutta and Kubler.

We reverse the Examiner's rejection of claims 111 and 124 under 35 U.S. C. § 112, second paragraph as indefinite.

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ADVANCED MEDIA NETWORKS, LLC

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Technology Center 3900

JEFFERY, *Administrative Patent Judge*, CONCURRING:

I join the majority in its decision, but write separately to emphasize that, based on the evidence on this record, the term “mobile unit” in claim 1 has a concrete *structural* meaning in the art and, therefore, does not invoke means-plus-function treatment under 35 U.S.C. § 112, sixth paragraph despite its apparent non-structural and functional terms. Notably, Appellant cites definitions of “mobile unit” from no less than three dictionaries, and shows similar usage of the term in other technical references, to prove this point. *See* App. Br. 18–19.

At first blush, the term “mobile unit” seems to be merely a nonce term, or non-structural generic placeholder, that is tantamount to the term “means,” particularly when considered in light of our reviewing court’s means-plus-function interpretation of functional limitations that include the

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term “unit.” For example, in *Diebold Nixdorf, Inc. v. International Trade Commission*, 899 F.3d 1291 (Fed. Cir. 2018), our reviewing court held that the term “cheque standby unit” failed to recite sufficiently definite structure, and merely recited a function without sufficient structure for performing that function. *Diebold*, 899 F.3d at 1298. In reaching this conclusion, the court noted that the claims merely described the term “cheque standby unit” solely in relation to its function and location in the apparatus. *Id.* Notably, the court emphasized that despite expert testimony determining that the term “cheque standby unit” is not a means-plus-function term, no other evidence was cited, such as *dictionary definitions*, suggesting that “cheque standby unit” is a term commonly understood by ordinarily skilled artisans to denote a device or class of devices. *Id.* at 1300.

That is not the case here. To the contrary, we have not one—but three—technical dictionary definitions establishing the meaning of “mobile unit” as at least a device or class of devices as the term is understood in the art. And we have other technical references on this record that confirm that understanding.

So although “mobile unit” may *appear* at first blush to be a non-structural nonce term, it is instead understood in the art as connoting concrete structure as shown by the documentary evidence on this record. As acknowledged at the oral hearing, had the term “mobile” been omitted from the limitation at issue, such that claim recited “a *unit* configured to transfer

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broadband information . . . between the satellite communication subsystem and the wireless LAN using an ethernet packet switching protocol,” the generic term “unit” would have invoked means-plus-function treatment. *See* Transcript of Oral Hearing, filed Sept. 26, 2018, at 6.¹³ But that is not the case here, where just one additional word—“mobile”—makes all the difference in this regard.

I, therefore, concur with the majority’s construction of “mobile unit” as not invoking means-plus-function treatment, and join the majority’s opinion in all other respects.

¹³ The relevant dialogue from the hearing transcript’s page 6 is reproduced below with emphasis added:

“JUDGE JEFFERY: Would it make a difference here if, let’s say this [limitation] said instead of mobile unit, just said, *unit* configured to transfer broadband information? Just simply stripping out the word mobile?”

MR. MCKEOWN: I think that’s a different case. . . . [b]ecause unit does not have a dictionary definition that would correspond to a mobile context. It’s just, it’s a generic term.”