United States Court of Appeals for the Federal Circuit

EON CORP. IP HOLDINGS LLC,
Plaintiff-Appellee

v.

SILVER SPRING NETWORKS, INC.,
Defendant-Appellant

2015-1237

Appeal from the United States District Court for the Eastern District of Texas in No. 6:11-cv-00317-JDL, Magistrate Judge John D. Love.

Decided: February 29, 2016

DANIEL ROBINSON SCARDINO, Reed & Scardino LLP, Austin, TX, argued for plaintiff-appellee. Also represented by CATHERINE BENTLEY HARRIS, JOHN L. HENDRICKS, RAYMOND WILLIAM MORT, III, JOHN MATTHEW MURRELL.

MARK A. LEMLEY, Durie Tangri LLP, San Francisco, CA, argued for defendant-appellant. Also represented by ELIZABETH OFFEN-BROWN KLEIN, ALEXANDRA HELEN MOSS; BONNIE LAU, Dentons US LLP, San Francisco, CA; CHARLES GIDEON KORRELL, ROBERT KRAMER, Palo Alto, CA; ALAN HODES, Silver Spring Networks, Redwood City, CA.

Before PROST, *Chief Judge,* BRYSON and HUGHES, *Circuit Judges.*

Opinion for the court filed by *Chief Judge* PROST.

Dissenting opinion filed by *Circuit Judge* BRYSON.

PROST, *Chief Judge*.

Eon Corp. IP Holdings LLC ("Eon") filed this suit against Silver Spring Networks, Inc. ("Silver Spring"), a utility services network provider, alleging that Silver Spring infringed three of Eon's patents relating to networks for two-way interactive communications. Following a five-day trial, the jury found the asserted claims valid and infringed, and awarded Eon $18,800,000. On Silver Spring's motion for judgment as a matter of law, the district court reversed the jury verdict as to one of the three patents but upheld it as to the other two. The court also remitted the damages award to $12,990,800.

Silver Spring appeals to us, raising challenges regarding claim construction, infringement, and damages. Because we find that no reasonable jury could have found that Silver Spring's utility meters infringe the two remaining patents, we reverse.

I

Eon asserted three patents in this suit: U.S. Patent No. 5,388,101 ("'101 patent"), U.S. Patent No. 5,481,546 ("'546 patent"), and U.S. Patent No. 5,592,491 ("'491 patent"). All three relate to a two-way interactive communication network system for enabling communications between local subscribers and a base station. The '101 and '546 patents, which share the same specification, describe various problems with the prior art networks: in the presence of heavy subscriber activity, exchanges could get jammed, thereby preventing real-time communica-

tions; and base stations were unable to service low-power subscriber units that transmitted in only the milliwatt power range. The '101 and '546 patents describe overcoming these problems by using synchronously timed communications (to overcome the jamming problems), and by adding local remote receivers throughout a base station area (to overcome the inability of low-power subscriber units to reach the base station). The third asserted patent, the '491 patent, incorporates by reference the '101 patent, and adds onto that network system an additional modem feature, which can be used as an alternate communication path when the subscriber is otherwise unable to communicate into the network.

Eon's patents describe various contexts in which the described networks might be useful. These contexts include broadcast television programs, wireless facsimile services, pay-per-view services, and when the subscriber unit is located poolside, in the basement, or in some other location where it would otherwise lack ability to receive transmissions. *See* '101 patent col. 10 ll. 65–67; '491 patent col. 1 ll. 48–53, col. 5 ll. 57–60. Most touted in the patents is the provision of "interactive video data service[s]" that have "[c]apacity for heavy audience participation without substantial delays during peak loading conditions . . . in a manner compatible with the FCC licensing conditions for interactive video data service." '101 patent col. 3 ll. 12–16. For example, the patents discuss "live video programs viewed nationwide, such as world series baseball games," and how such television broadcasts are "interactive for individual subscriber participation." *Id.* at col. 1 ll. 51–54. In addition to these contexts, the patents also scatter, in a handful of places, references to other contexts in which the invention might be useful: meter reading, inventory control in soft drink dispensing machines, and site alarms for remote monitoring of open doors, fires, failure, temperature, etc. *Id.* at col. 6 ll. 5–17.

In all the claims found to be infringed, the subscriber unit is required to be either "portable" or "mobile."[1] The specification provides guidance about what the "portable" and "mobile" terms mean. For example, the patents describe how "low-cost portable battery-operated milliwatt transmitter subscriber units may be moved throughout the base station geographical area . . . ." *Id.* at col. 4 ll. 6–11. They use the term "hand-off" to describe the movement of portable units "from cell to cell" and "as fringe areas are encountered." *Id.* at col. 8 l. 63–col. 9 l. 3. And they state that "[t]he portability feature made possible by this invention permits such a unit to be moved next door or put into a car or van for movement within or across cell boundaries with good digital synchronous communication contact within the nationwide network of cells." *Id.* at col. 11 ll. 6–11. The stated advantages of the invention include "long life battery operated portable subscriber units . . . which can be moved through the cell territory," and overcoming "interfering signals" and "busy signals" that can be "frustrating to the potential using audience." *Id.* at col. 2 ll. 16–20, col. 6 ll. 1–4, col. 9 ll. 29–30.

In Silver Spring's system, the accused "portable" and "mobile" subscriber units are electric watt-hour utility meters that are attached to the exterior walls of buildings. During claim construction proceedings, Silver Spring proposed that the terms "portable" and "mobile" be construed as "capable of being easily and conveniently moved from one location where the subscriber unit is operable to a second location where the subscriber unit is operable, and designed to operate without a fixed loca-

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[1] The claims at issue are claims 19 and 20 of the '101 patent, and claims 1 and 2 of the '491 patent. The parties agree that the terms "portable" and "mobile" carry the same meaning and can be construed the same.

tion." J.A. 306. In other words, Silver Spring sought a construction for "portable" and "mobile" that "do[es] not cover fixed or stationary products that are only theoretically capable of being moved." J.A. 307. Eon argued that neither term needed construction, and both could simply be given their plain and ordinary meaning.

The district court agreed with Eon. The court explained that the terms "do not require construction because their meanings are clear in the context of the claims and will be readily understandable to the jury." J.A. 308. In the court's view, Silver Spring was "asking for nothing the plain and ordinary meaning of the terms cannot do on their face—distinguish from 'stationary' or 'fixed.'" J.A. 307. In deciding the claims needed no construction beyond plain and ordinary meaning, the district court concluded that it had "resolved the parties' claim scope dispute." J.A. 308.

During trial, the parties' experts disputed the meaning of the "portable" and "mobile" limitations. For example, Silver Spring's expert testified that the terms required that a subscriber unit could be "easily moved from one location to another," J.A. 791, while Eon's expert testified that the terms merely meant that a subscriber unit must be "capable of being easily moved . . . but not that it actually has to move," J.A. 616. Eon's expert essentially opined that the terms would include anything that was movable, including a house, which can be moved "lock, stock, and barrel." J.A. 641. In the expert's view, "that's the kind of the world we're living in . . . everyone is sort of—increasingly there are more and more things that are mobile." *Id.*

Following the five-day trial, the jury found the asserted claims valid and infringed. On Silver Spring's motion for judgment as a matter of law, the court reversed the jury verdict as to the '546 patent (for reasons unrelated to the "portable" and "mobile" limitations), but upheld it as

to the '101 and '491 patents, rejecting Silver Spring's argument that the evidence did not support the jury's finding that Silver Spring's meters meet the "portable" and "mobile" limitations.

Silver Spring appeals a number of issues regarding claim construction, infringement, and damages. We have jurisdiction pursuant to 28 U.S.C. § 1295. The district court's denial of a motion for judgment as a matter of law is reviewed de novo. *Mirror Worlds, LLC v. Apple Inc.*, 692 F.3d 1351, 1356 (Fed. Cir. 2012); *Med. Care Am., Inc. v. Nat'l Union Fire Ins. Co.*, 341 F.3d 415, 420 (5th Cir. 2003). The district court's claim construction is reviewed under the standard set forth in *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The jury's infringement determination is a question of fact reviewed for substantial evidence. *Mirror Worlds*, 692 F.3d at 1356.

II

We begin with Silver Spring's challenge regarding the "portable" and "mobile" limitations, which is two-fold. First, Silver Spring argues that the court's decision not to construe the terms improperly delegated to the jury the task of determining claim scope, in violation of *O2 Micro International, Ltd. v. Beyond Innovation Technology Co.*, 521 F.3d 1351 (Fed. Cir. 2008). Second, Silver Spring argues that no reasonable jury could have found infringement, as the plain and ordinary meaning of the terms cannot encompass Silver Spring's products. Eon responds that the court was correct in not further construing the claim terms, and that the jury's verdict is supported by the evidence.

We agree with Silver Spring on both points. In *O2 Micro*, this court held that "[w]hen the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it." 521 F.3d at 1362. This duty resides with the court because, of course, "the ulti-

mate question of construction [is] a legal question." *Teva*, 135 S. Ct. at 842; *see also O2 Micro*, 521 F.3d at 1360 ("[T]he court, not the jury, must resolve that dispute." (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd* 517 U.S. 370 (1996))). Thus, "[a] determination that a claim term 'needs no construction' or has the 'plain and ordinary meaning' may be inadequate when a term has more than one 'ordinary' meaning or when reliance on a term's 'ordinary' meaning does not resolve the parties' dispute." *O2 Micro*, 521 F.3d at 1361.

Of course, a court need not attempt the impossible task of resolving all questions of meaning with absolute, univocal finality. Such an endeavor could proceed ad infinitum, as every word—whether a claim term itself, or the words a court uses to construe a claim term—is susceptible to further definition, elucidation, and explanation. We have therefore often observed that "a sound claim construction need not always purge every shred of ambiguity." *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007); *see also Vivid Techs., Inc. v. Am. Science & Eng'g, Inc.*, 200 F.3d 795, 803, (Fed. Cir. 1999) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy."); *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) ("[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact."); *Function Media, L.L.C. v. Google, Inc.*, 708 F.3d 1310, 1326 (Fed. Cir. 2013) ("Nearly every patent case will involve some amount of 'word games,' because claims and claim constructions are, after all, just words."). Indeed, we noted in *O2 Micro* that there are limits to the court's duties at the claim construction stage. 521 F.3d at 1362. For example,

courts should not resolve questions that do not go to claim scope, but instead go to infringement, *Lazare Kaplan Int'l, Inc. v. Photoscribe Techs., Inc.*, 628 F.3d 1359, 1376 (Fed. Cir. 2010), or improper attorney argument, *Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325, 1334 (Fed. Cir. 2010).

Thus, a district court's duty at the claim construction stage is, simply, the one that we described in *O2 Micro* and many times before: to resolve a dispute about claim scope that has been raised by the parties. *O2 Micro*, 521 F.3d at 1360 ("When the parties raise an actual dispute regarding the proper scope of [the] claims, the court, not the jury, must resolve that dispute."); *AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1247 (Fed. Cir. 2001) ("It is critical for trial courts to set forth an express construction of the material claim terms in dispute."); *Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1366 (Fed. Cir. 2004) ("[T]he district court must instruct the jury on the meanings to be attributed to all disputed terms used in the claims in suit so that the jury will be able to 'intelligently determine the questions presented.'" (citation omitted)); *see also Every Penny Counts, Inc. v. Am. Express Co.*, 563 F.3d 1378, 1383 (Fed. Cir. 2009) ("[T]he court's obligation is to ensure that questions of the scope of the patent claims are not left to the jury. In order to fulfill this obligation, the court must see to it that disputes concerning the scope of the patent claims are fully resolved." (citation omitted)); *TNS Media Research, LLC v. Tivo Research & Analytics, Inc.*, No. 2014-1668, 2015 WL 5439002, at *22 (Fed. Cir. Sept. 16, 2015) ("[W]hen a determinative claim construction dispute arises, a district court must resolve it.").

Here, the court did not resolve the parties' dispute by instructing the jury that the claims should be given their plain and ordinary meaning. During claim construction, the parties actively disputed the scope of the "portable" and "mobile" terms. The crucial question was whether, as

Silver Spring argued, the terms should not be construed so broadly such that they covered "fixed or stationary products that are only theoretically capable of being moved." J.A. 307. By determining only that the terms should be given their plain and ordinary meaning, the court left this question of claim scope unanswered, leaving it for the jury to decide. This was legal error. *O2 Micro*, 521 F.3d at 1362.[2]

The dissent contends that the court did, in fact, resolve the parties' dispute by rejecting Silver Spring's "special definition" in favor of plain and ordinary meaning. Dissent at 12. But simply rejecting one proposed construction does not mean that a general jury instruction to give terms their plain and ordinary meaning resolves the relevant dispute. The court remained obligated to provide the jury with a clear understanding of the disputed claim scope—and the continuing debate as to the meaning of "portable" and "mobile" during the trial belies the court's boilerplate assertion that it did so. Indeed, the dissent acknowledges that under *O2 Micro*, "an instruction giving a term its 'plain and ordinary meaning' may be inadequate when the term has more than one ordinary meaning or when reliance on the term's ordinary meaning does not resolve the parties' dispute." *Id.* (citing *O2 Micro*, 521 F.3d at 1361). Those are precisely the circumstances of this case.

Having concluded that the court erred by simply instructing the jury to give the terms "portable" and "mo-

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[2] Although the court somewhat acknowledged the importance of context in determining claim scope, *see* J.A. 308 (finding the terms' meanings clear "in the context of the claims" and precluding the parties from interpreting the terms "in a manner inconsistent with this opinion"), the court's error lied in failing to provide the necessary context to the jury.

bile" their plain and ordinary meaning, we next consider whether remand for a new trial is appropriate. Here, it is clear that no remand is necessary because, when the claim terms are properly construed, no reasonable jury could have found that Silver Spring's electric utility meters infringe.[3]

We begin, as *Phillips* instructs, with the principle that claims terms are generally given their ordinary and customary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). The ordinary meaning of a claim term is not "the meaning of the term in the abstract." *Id.* at 1321. Instead, "the 'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Id.*; *see also Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001) ("The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose."); *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1299 (Fed. Cir. 1999) ("Determining the limits of a patent claim requires understanding its terms in the context in which they were used by the inventor, considered by the examiner, and understood in the field of the invention.").

A party is, therefore, "not entitled to a claim construction divorced from the context of the written description and prosecution history." *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1144–45 (Fed. Cir. 2005). Ordinary meaning is not something that is determined "in a vacuum." *Medrad,*

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[3] The dissent contends that, assuming the court erred in failing to construe the claims, "the remedy would be, at most, a new trial." Dissent at 11. But a new trial is not necessary when, as here, the record evidence does not support an infringement verdict under the correct construction of the claims.

Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005). To the contrary, "a word describing patented technology takes its definition from the context in which it was used by the inventor." *Anderson v. Int'l Eng'g & Mfg., Inc.*, 160 F.3d 1345, 1348–49 (Fed. Cir. 1998).

The dissent runs afoul of these proscriptions by concluding that the "portable" and "mobile" terms have a settled "plain and ordinary meaning," writing that "the close parallelism of all the dictionary definitions indicates there is only one plain and ordinary meaning," and relying in part on an example not found in the patents, an ordinary household fuse. Dissent at 12. This approach is problematic for at least two reasons. First, it is evident from the parties' dispute that there is not a single, accepted meaning of the terms—indeed, a significant portion of the trial was devoted to testimony aimed at elucidating the metes and bounds of the "portable" and "mobile" terms. More importantly, however, the question is not whether there is a settled ordinary meaning of the terms in some abstract sense of the words. Rather, as we recently explained, "The only meaning that matters in claim construction is the meaning in the context of the patent." *Trs. of Columbia Univ. v. Symantec Corp.*, No. 2015-1146, 2016 WL 386068, at *3 (Fed. Cir. Feb. 2 2016).

Here, the common disclosure of the '101 and '491 patents provides extensive guidance about the terms "portable" and "mobile." The specification describes the claimed units as "low-cost portable battery operated milliwatt transmitter subscriber units" that "may be moved throughout the base station geographical area." '101 patent col. 4 ll. 6–11; *see also id.* at col. 6 ll. 20–21 (explaining that the portable units may be moved "to different locations in a house, office, or car"). It differentiates the claimed "portable" and "mobile" units from other, non-claimed "fixed" and "stationary" units. *Id.* at col. 1 ll. 16–18 ("[T]he subscriber units comprise low energy, *stationary and mobile,* digital transceivers." (emphasis added)).

And it describes how, during movement across cell boundaries, the portable units maintain "good digital synchronous communication contact within the nationwide network of cells." *Id.* at col. 11 ll. 6–11. In sum, the specification's guidance on the claimed "portable" and "mobile" units is that they are low-power, battery operated units that are easily transported between different locations in a house, office, car, or throughout a cell territory.

This guidance from the specification belies Eon's position at trial that the claim terms "portable" and "mobile" should be broadly interpreted as including, essentially, anything that is theoretically capable of being moved. Before the jury, Eon's experts testified that "portable" simply meant something that was "capable of being easily moved . . . but not that it actually has to move." J.A. 616. Their testimony was that the terms would include anything that was movable, which could include a house, perhaps, but not a mountain. J.A. 641. Eon's position was, essentially, that because Silver Spring's meters *could* be moved, they satisfied the claims' portability feature.

Eon's position is completely untethered to the context of the invention in this case. Although the terms "portable" and "mobile" might theoretically, in the abstract, be given such a broad meaning, they cannot be construed that way in the context of the '101 and '491 patents. *Phillips*, 415 F.3d at 1321. The patents consistently describe the "portability" feature of the invention as the movement of a low-power subscriber unit across cell boundaries, with good digital synchronous communication contact throughout the network. This context must be considered in determining the ordinary meaning, as the "construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction."

Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 2003).

Read in their appropriate context, the terms "portable" and "mobile" cannot be construed as covering the accused meters in this case. The evidence showed that Silver Spring's electric utility meters are affixed to the exterior walls of buildings by being "bolt[ed] . . . down"; that they are connected via a wire containing "240 volts"; and they are secured in place via an additional "locking collar" and "tamper seal." J.A. 559. The meters are "not the owner of the house's property," but instead are the "electric utility's property," who "don't want the meters to be moved . . . [or] in any way tampered with." *Id.* A certified electrician is required to install or remove a meter. J.A. 559, 521. The meters are not intended to be moved from building to building, they are usually left in place for fifteen years, and there was no evidence that a meter was ever detached from one building and reattached to another. J.A. 559, 521, 791. Put simply, the meter is "[b]olted to the house. That's where it's used. It doesn't change." J.A. 592. Under no permissible construction of the terms "portable" and "mobile"—given their ordinary meaning in the context of the '101 and '491 patents—could a reasonable jury have found that Silver Spring's electric utility meters infringe the asserted claims.

Both Eon and the dissent make much of passing references in the specification; Eon relies on references to "meter reading" and the dissent relies on references to "inventory control in soft drink dispensing machines" and "site alarms." These minor mentions in the specification do not warrant a broader construction of the claims' portability requirement. Taking these items in order of relevance, Eon argues that the specification's few references to "meter reading" are an express disclosure that "meters" such as Silver Spring's meet the claims' portability requirement. But the specification does not say what

Eon contends. What the specification actually says is that portable subscriber units "may be moved through the base station geographical area *for reliably performing such functions as meter reading*." '101 patent col. 4 ll. 8–12 (emphasis added). Thus, what the patents describe is that a portable battery-operated subscriber unit may be brought *to the location of the meter* for reading it. The patent therefore indicates that electric utility meters such as Silver Spring's are *not* the portable subscriber units recited in the claims.

Likewise, with respect to the specification's references to "inventory control in soft drink dispensing machines" and "site alarms," the specification's brief discussion of such embodiments—once in the abstract and twice in the body—is so limited that it is impossible to tell what component of such embodiments is the portable feature. *See* '101 patent abstract, col. 6 ll. 5–8, col. 10 ll. 25–28. Certainly, the patents do *not* state, as the dissent seems to assume, that the portable feature of these embodiments are the soft drink dispensing machines and alarm devices *themselves*. Dissent at 7–8. The most that can be gleaned from the specification's limited references to these embodiments is that there may be *some* portable aspect involved in the overall system.

The remainder of the relied-upon portions of the specification are similarly deficient in supporting a broader construction. The dissent states that "the '491 specification refers to the subscriber units as having the capacity 'to collect data from a number of home appliances, etc,'" arguing that "that is exactly the function that is performed by the accused meters in this case." *Id.* at 10 (quoting '491 patent col. 6 ll. 1–2). But the dissent ignores the thrust and context of the cited paragraph, which is directed to specific advantages for things such as "wireless facsimile service" and "pay-per-view services," or in circumstances "when the subscriber unit is located, for example, at a poolside," or when "numerous subscriber

units placed within homes located, for example, along a single street or within the same neighborhood." 491 patent col. 5 ll. 55–67. Those examples do not support the dissent's broad construction of the claims' portability requirement.

Nor are we persuaded by Eon's argument that "a meter 'moves' from one geographic zone to another when it switches communication paths from its primary access point to its secondary access point due to some other obstruction to the communication." Eon's Br. 31–32. There is no support whatsoever in the specification for Eon's assertion. Every reference to movement in the specification is to physical movement throughout a geographic area. Eon's theoretical view that "portable" and "mobile" do not require physical movement strays much too far afield from the claimed invention.

In sum, nothing in the specification supports a conclusion that the claims' portability feature is broad enough to include Silver Spring's accused devices. The crux of the dissenting opinion seems to rest on the small size of the meters and the fact that they can be installed by hand, and on charges that we erroneously require "actual movement" and "battery operation" as part of the claim terms' ordinary meaning. Dissent at 3–7. But we do not import such requirements into the claims. Rather, we simply read the claims in the context of the specification—which describes movement of portable units across cell boundaries to facilitate (for example) mobile viewing of world series baseball games—to conclude that utility meters, which spend their fifteen-year lifespan attached to the side of a single house, do not meet the claim requirements of portability and mobility.

III

We find unpersuasive the remainder of Eon's arguments regarding the portability feature, including those relating to waiver. Because no reasonable jury could have

found that Silver Spring's devices are "portable" and "mobile" in the context of the claimed invention, we reverse the judgment below, and do not reach Silver Spring's additional arguments.

REVERSED

United States Court of Appeals for the Federal Circuit

EON CORP. IP HOLDINGS LLC,
Plaintiff-Appellee

v.

SILVER SPRING NETWORKS, INC.,
Defendant-Appellant

2015-1237

Appeal from the United States District Court for the Eastern District of Texas in No. 6:11-cv-00317-JDL, Magistrate Judge John D. Love.

BRYSON, *Circuit Judge*, dissenting.

The majority holds that "no reasonable jury could have found that Silver Spring's devices are 'portable' and 'mobile' in the context of the claimed invention." I disagree.

There is no room for doubt that the accused meters would qualify as mobile and portable under the ordinary meaning of those terms, and the majority does not suggest otherwise.[1] The central question in this case is whether

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[1] As the majority opinion notes, the parties agree that for the purposes of this case the terms "mobile" and "portable" carry the same meaning and can be construed

the specifications of the '101 and '491 patents demonstrate that the patentee intended to depart from the plain meaning of those terms, *i.e.*, "capable of being easily and conveniently transported," and to adopt the meaning proposed by Silver Spring, *i.e.*, "capable of being easily and conveniently moved . . . and *designed to operate without a fixed location*." The majority essentially adopts Silver Spring's construction, and in particular the final clause requiring that the device be "designed to operate without a fixed location."[2] I do not agree that the specifications of the two patents support that restrictive definition. Instead, I conclude that the district court properly determined that the terms "portable" and "mobile" were used in their ordinary sense in the patent, and that the court properly instructed the jury to give those terms their ordinary meaning. For that reason, I disagree with the majority's decision that the evidence, viewed in light of the proper construction of the claims, was insufficient to support the jury's verdict.

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the same. For simplicity, I will generally use the term "portable" to refer to both terms.

[2] The majority criticizes the district court's claim construction as too broad, but it never explicitly sets forth what it regards as the correct claim construction. The majority insists that its construction does not require "actual movement" or "battery operation" of the claimed devices. Elsewhere, however, the majority states (1) that the specifications' "guidance" is that the portable units "are low-power, battery operated units that are easily transported between different locations," and (2) that the patents "consistently describe the 'portability' feature of the invention as the movement of a low-power subscriber unit across cell boundaries." Without the aid of an explicit construction, it seems fair to interpret the majority's construction as generally equivalent to Silver Spring's.

I

The district court determined that the plain and ordinary meaning of the terms "mobile" and "portable" is captured by two dictionary definitions to which the court referred: "capable of being carried or moved about," *Merriam-Webster's Collegiate Dictionary* 907 (10th ed. 1999); and "capable of being easily and conveniently transported," *McGraw-Hill Dictionary of Scientific and Technical Terms* 1550 (5th ed. 1994). Other courts have reached similar conclusions as to the ordinary meaning of those terms. *See, e.g.*, *Orica Explosives Tech., Pty., Ltd. v. Austin Powder Co.*, No. CV-07-03337, 2008 WL 3914983, at *7 (C.D. Cal. Aug. 21, 2008) ("'[P]ortable' should be given its ordinary meaning of 'capable of being carried.'"); *Rosen's Inc. v. Van Diest Supply Co.*, No. 03-3206, 2004 WL 692253, at *9 (D. Minn. Mar. 30, 2004) (The ordinary meaning of the term 'portable' is 'capable of being carried' or 'easily or conveniently transported.'") (quoting *Webster's Third New International Dictionary* 1768 (1993)); *Google, Inc. v. Network-1 Techs., Inc.*, No. IPR2015-347 (P.T.A.B. June 23, 2015) (slip op. at 8-9) ("For purposes of this decision, we construe 'portable' according to its ordinary meaning as 'capable of being easily and conveniently transported.'"). I agree with the district court that those dictionary definitions capture the plain and ordinary meaning of these terms, and applying those definitions I agree with the district court that the evidence was sufficient to support the jury's verdict.

The jury heard extensive testimony over four days of trial on the question whether the accused Silver Spring meters are mobile or portable. A video of the installation of the type of meters at issue was played for the jury at trial and relied upon by Silver Spring's expert for his description of how the meters are typically installed. That video shows that the accused meters are smaller than a volleyball and can be, and are, easily carried and

installed by hand. One image from the video shows the meter before it is installed:

Defendant's Exhibit #146.

Another image from the same video shows one of the meters installed on an electrical box attached to the outside of a building:

The video, as well as testimony at trial describe the installation process. As shown by the video, a technician installs the meter by plugging it into a socket in an electrical box on the side of the customer's house. The techni-

cian then slips a retaining collar over the meter and bolts the collar to the electrical box to secure the meter.

The meters are plugged into and removed from the socket by hand, with no tools necessary. After the meter is plugged into the socket, a retaining ring is placed over the meter. The retaining ring is then bolted to the electrical box, securing the meter against theft. A590, at 76:11-25.

The majority regards the presence of the retaining ring and bolt as evidence that the meters are not portable. In my view, the fact that the meters need to be secured to the electrical box supports the jury's finding that the meters are portable or mobile. A Silver Spring employee testified that the meters are locked down because the utilities "don't want the meters to be moved" or "tampered with." A559, at 139:4-11. Thus, the meters are locked to the electrical box precisely because they are easy to move and carry off, and they need to be secured in order to reduce the risk of loss.

The record reflects that a technician can easily carry one of the meters to a customer's house, open the locking collar by removing a single bolt, remove the old meter by hand, plug in a new meter by hand, plug the meter into the house's electrical system, and replace the locking

collar by tightening a single bolt, all in a matter of minutes. That evidence provides strong support for the jury's conclusion in this case that the meters are portable or mobile.

II

Although the majority holds that "under no permissible construction" could the meters be mobile or portable, it does not state what it regards as the proper construction, nor does it describe the boundaries of what it would consider a "permissible" construction. The majority faults the district court for failing to resolve the parties' dispute as to whether the mobile or portable limitation requires that the meters be more than "only theoretically capable of being moved." The opinion focuses on the fact that the accused meters are bolted into place with the locking collars and are typically left in place for 15 years. From that discussion, it seems that the majority is suggesting that in order to be "portable," the meter must actually be moved in the course of its typical use.

Actual movement in the course of ordinary use is clearly not part of the plain meaning of the term "portable." Many objects are deemed "portable" even though they are not designed to be moved repeatedly during use. Consider an ordinary household fuse. Such fuses are very small, and they can be replaced within seconds when needed. Typically a fuse is purchased and installed in a fuse box where it remains for its entire useful lifetime, potentially many years. The advantages of the fuse's portability are that it can easily be removed when it malfunctions and that a replacement can be carried by hand to the fuse box and easily installed in place of the old fuse. The fact that fuses are not typically moved from place to place during their useful lives does not make them any less portable. For the same reason, it is improper to suggest that the accused devices in this case are not "portable" simply because they are not moved from

place to place during the ordinary course of their operation.

The majority's main contention is that the specifications of the '101 and '491 patents give the terms "mobile" and "portable" some special, restrictive meaning. The majority draws from the specification the conclusion that mobile or portable units are "low-power battery operated units that are easily transported between different locations in a house, office, car, or throughout a cell territory."

There are several problems with that conclusion. To begin with, there is nothing in either of the patents that requires the subscriber units to be battery operated, and not even Silver Spring argues to the contrary. Moreover, the characterization of the claimed devices as being "easily transported between different locations" does not exclude the accused meters. The evidence shows that the meters can easily be transported from place to place for purposes of installation or removal, even though once they are installed they are not expected to be moved until they are replaced.

In order to exclude the accused meters from the reach of the claims, it is necessary to construe the term "portable" to require that the subscriber units actually be moved from place to place in the course of their operation. While the specifications at various points describe functions that could be performed by a device that was expected to be moved in the course of its operation, there is nothing in the specifications to suggest that such movement during operation is a necessary feature of the claimed subscriber units.

To the contrary, the specifications contain examples of subscriber units that clearly would not be expected to be moved during their ordinary operation. For example, the specification of the '101 patent states that the "portable subscriber units" can perform such services as "inventory control in soft drink dispensing machines." '101 patent,

col. 6, ll. 7-8. Soft drink dispensing machines are typically left in place for long periods of time, so the incorporated subscriber units that keep track of the machine's inventory would not be moved as part of their ordinary operation. The '101 specification also describes the use of subscriber units for "site alarms for remote monitoring of open doors, fires, failures, temperature, etc." *Id.*, col. 6, ll. 14-15. Again, such monitoring devices would typically be installed in the appropriate place for monitoring and would not be expected to be moved during their regular operation. The '101 specification describes one advantage of the portability of such devices as being that they could be moved to different locations in a house or office if the need arose. *Id.*, col. 6, ll. 19-21. While portability is a benefit of the invention because it can make redeployment of such a device simple, that does not mean that the devices are necessarily expected to be moved during their ordinary operation, much less that they would not be deemed "portable" if they were expected to stay in the same location for an extended period of time.[3]

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[3] The majority discounts the references to inventory control devices in soft drink dispensing machines and site alarms for remote monitoring of conditions in a home, on the ground that "it is impossible to tell what component of such embodiments is the portable feature." The specification of the '491 patent, however, states that in a remote monitoring system, the subscriber units are "placed within homes" and are therefore "able to collect data from a number of home appliances, etc." '491 patent, col. 5, line 65, through col. 6, line 2. That explanation makes clear that the "subscriber unit," the component at issue, is installed in the home and monitors appliances. The function of monitoring appliances in a home would not entail frequent movement of the device.

Although the majority contends that the specification "differentiates the claimed 'portable' and 'mobile' units from other, non-claimed 'fixed' and 'stationary' units," the '101 specification does not support that distinction. Figures 9A and 9B of the '101 patent "illustrate portable subscriber units afforded by the invention." '101 patent, col. 10, ll. 3-4. The portion of the '101 specification that describes those figures refers to the use of portable subscriber units to perform "automatic monitoring" functions such as "relaying an alarm or inventory reading at a subscriber's coin operated vending machine." *Id.*, col. 10, ll. 26-28. Again, those "monitoring" functions would not typically entail the subscriber unit being moved during ordinary operation, yet the functions are nonetheless said to be performed by the portable subscriber units depicted in Figures 9A and 9B, and described in columns 10 and 11 of the '101 specification.[4]

The specification of the related '546 patent is instructive as to the role of the subscriber unit in monitoring items such as soft drink dispensing machines. It describes the device as featuring "an automatic monitoring control mode for relaying an alarm or inventory reading at a subscriber's coin operated vending machine." '546 patent, col. 9, ll. 63-65. That description of a device that relays alarms as to theft or other problems with the machine along with information regarding inventory clearly contemplates that the monitoring device will be associated with the dispensing machine for long periods of time, even though it can be redeployed to another machine if the owner choses to move it.

[4] The Brief Description of the Drawings portion of the '101 specification characterizes Figure 9A as depicting a block circuit diagram of a subscriber unit that performs "fixed or mobile communication services," '101 patent, col. 4, ll. 61-63, such as alarm monitoring or inventory report-

The specification of the '491 patent provides further evidence that the terms "portable" and "mobile" should not be construed restrictively. In discussing the functions of a subscriber unit, which is described as being capable of being moved, *see* '491 patent, col. 3, ll. 26-29; col. 4, ll. 30-36, 45-50; col. 5, ll. 61-63, the '491 specification refers to the subscriber units as having the capacity "to collect data from a number of home appliances, etc." *Id.*, col. 6, ll. 1-2. That is exactly the function that is performed by the accused meters in this case, and it is a function that would not ordinarily entail moving the subscriber unit during its operation. That example of a function of a mobile subscriber unit is another indication that the patent terms "portable" and "mobile" were not intended to have the restrictive meaning assigned to them by the majority.

The majority notes that many of the examples discussed in the specifications involve devices that are designed to operate without a fixed location. That is true, but it is beside the point. The ordinary meaning of portable, i.e., something "capable of being easily and conveniently transported," obviously includes devices that are moved in the course of their operation. The question is whether the meaning of the term "portable," as used in the patents, is *limited* to such devices. As to that question, it doesn't matter that many of the examples involve devices that are designed to operate without a fixed location. What matters is that the specifications contain references to devices that are easily transported, but are

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ing. But that simply identifies the communication services provided; it does not mean that "fixed" communication services cannot be performed by "portable" subscriber units. As noted, the specification at columns 10 and 11 indicates that portable subscriber units perform precisely those "fixed" communication functions.

not ordinarily moved in the course of their operation. The specifications' references to such devices belie the majority's restrictive definition of "portable."

In sum, the specification indicates that the patentee did not use the terms "portable" and "mobile" in a more restrictive sense than is suggested by their ordinary meaning. Because that ordinary meaning—something capable of being easily and conveniently transported—would clearly apply to the accused devices in this case, I disagree with the majority's holding that the evidence cannot support the jury's conclusion to that effect.

III

The majority also faults the district court for instructing the jury to interpret the terms "portable" and "mobile" according to their ordinary meanings rather than defining the terms for the jury. Notably, even if the court erred in that respect, the remedy would be, at most, a new trial, not the judgment entered today, which ends the case. Beyond that, however, I do not agree that the district court erred by directing the jury to apply the ordinary meaning of the terms.

If I am correct in finding that the '101 and '491 patents use the terms "portable" and "mobile" in accordance with their ordinary meaning, the question as to the correctness of the district court's instruction comes down to whether, even after the court concluded that the terms were used in their ordinary sense, the court was nonetheless required to provide a separate definition of those terms for the jury. While it is sometimes unclear how far a court must go in a patent case by way of defining claim terms, there is ordinarily no obligation to provide a special definition for terms that have a widely understood ordinary meaning, as long as the court is persuaded that the patent uses the terms in that ordinary sense.

The majority cites *O2 Micro International Ltd v. Beyond Innovation Technology Co.*, 521 F.3d 1351 (Fed. Cir. 2008), for the proposition that it was improper for the court to rely on the plain and ordinary meaning of the two terms at issue. But *O2 Micro* did not state that principle in such unqualified terms. Instead, the court explained that an instruction giving a term its "plain and ordinary meaning" may be inadequate when the term has more than one ordinary meaning or when reliance on the term's ordinary meaning does not resolve the parties' dispute. *Id.* at 1361.

In this case, the close parallelism of all of the dictionary definitions indicates that there is only one plain and ordinary meaning of the terms "mobile" and "portable." Moreover, the district court's instruction that the jury should give those terms their plain and ordinary meaning resolved the parties' dispute, because it was clear that Eon was relying on the plain meaning of the terms and Silver Spring was relying on a special definition of the terms that it claimed to be supported by the language of the patents. Having concluded that use of the plain and ordinary meaning of the terms was sufficient to resolve the parties' dispute as to their meaning, the district court permissibly declined Silver Spring's request to define the terms. *See Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015) ("The district court rejected Samsung's argument that ongoing activity is required—the heart of the parties' disagreement—and declined to further construe the term because it was a 'straightforward term' that required no construction. . . . Because the plain and ordinary meaning of the disputed claim language is clear, the district court did not err by declining to construe the term."); *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1349 (Fed. Cir. 2001) (district court did not err in failing to construe the term "melting" when "the mean-

ing of 'melting' does not appear to have required 'construction,' or to depart from its ordinary meaning").

Beyond that, the district court did not simply leave the parties to define the term "portable" as they saw fit. In its claim construction opinion, the court referenced the dictionary definitions of the term ("capable of being carried or moved about" and "capable of being easily and conveniently transported"), and the court directed that "the parties may not interpret [the terms portable and mobile] in a manner inconsistent with this opinion."

As directed, the parties complied with the court's order and interpreted the term in accordance with the dictionary definitions quoted by the court. Silver Spring's infringement expert testified that "I think in that context, one way of characterizing mobile is to say whether they're easily moved. And I think that's an understanding of—a person of ordinary skill in the art would have had of that term as it was used in 1992." Eon's infringement expert testified similarly, saying, "According to the Court's construction, you do not have to operate the subscriber unit while it's being moved, that's correct. . . . So what the Court was saying—saying is that mobile means capable of being easily moved. So the capability needs to be there, but not that it actually has to move."[5]

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[5] The majority quotes a passage from the cross-examination of Eon's expert in which counsel for Silver Spring questioned the expert about the meaning of the word "movable":

> Q. By your logic, everything is movable, right? You can move the Eiffel Tower, right? You could?
>
> A. Well, I don't—I mean, I think you know, mountains are not moved. Lots of things are not movable. I mean, you know—you know, I mean, there are things that are not movable, right?

There may be questions at the margin as to whether particular objects are "mobile" or "portable," but in this case, the accused meters were plainly portable and mobile in the ordinary sense of those terms, for the reasons explained above. Assuming, again, that the majority is incorrect in assigning those terms a special, restrictive definition based on the language of the patents in suit, it is difficult to believe that instructing the jury with the actual language of the ordinary dictionary definitions identified by the district court could possibly have led to a different outcome in this case. Under these circumstances, I disagree with the majority that the district court committed reversible error by simply telling the jury to interpret those terms according to their ordinary meanings. I respectfully dissent.

> Q. You've seen houses—houses can be moved, right?
>
> A. Well, yeah. I mean houses are—are moved.
>
> Q. Your house is not a mobile device, is it? . . .
>
> A. Well, my house, you know, it can be—you know. . . . [I]f you have an antique home, they lift these things lock, stock, and barrel, and move them, right?

Counsel's questions in that cross-examination were directed to what is "movable," not what is "capable of being easily moved," which both parties' experts testified was the meaning of "portable" in the context of this case. Eon's expert's testimony on cross-examination therefore does not in any way conflict with the definition of "portable" that he gave on direct examination and that the district court directed the parties to adhere to.